



# Historical evidence for the state and exploitation of the marine fish and invertebrate resources in the Hauraki Gulf and along the Otago-Catlins shelf 1769–1950: Supplementary Information

New Zealand Aquatic Environment and Biodiversity Report No. 194

A. B. MacDiarmid  
P. Cleaver  
B. Stirling

ISSN 1179-6480 (online)  
ISBN 978-1-77665-763-6 (online)

**January 2018**



Requests for further copies should be directed to:

Publications Logistics Officer  
Ministry for Primary Industries  
PO Box 2526  
WELLINGTON 6140

Email: [brand@mpi.govt.nz](mailto:brand@mpi.govt.nz)  
Telephone: 0800 00 83 33  
Facsimile: 04-894 0300

This publication is also available on the Ministry for Primary Industries websites at:  
<http://www.mpi.govt.nz/news-and-resources/publications>  
<http://fs.fish.govt.nz> go to Document library/Research reports

**© Crown Copyright - Ministry for Primary Industries**

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>S1: Archival Data/Observations for Hauraki Study Area – 1880s</b>	<b>2</b>
<b>S2: Archival Data/Observations for Hauraki Study Area – 1890s</b>	<b>3</b>
<b>S3: Archival data/observations for Hauraki study area – 1900s</b>	<b>5</b>
<b>S4: Archival Data/Observations for Hauraki Study Area – 1910s</b>	<b>11</b>
<b>S5: Archival Data/Observations for Hauraki Study Area – 1920s</b>	<b>38</b>
<b>S6: Archival Data/Observations for Hauraki Study Area – 1930s</b>	<b>75</b>
<b>S7: Archival Data/Observations for Hauraki Study Area – 1940s</b>	<b>109</b>
<b>S8: Archival Data/Observations for Hauraki Study Area – 1950s</b>	<b>128</b>
<b>S9: Archival Data/Observations for Otago Study Area – pre 1880s</b>	<b>140</b>
<b>S10: Archival Data/Observations for Otago Study Area – 1880s</b>	<b>141</b>
<b>S11: Archival Data/Observations for Otago Study Area – 1890s</b>	<b>142</b>
<b>S12: Archival Data/Observations for Otago Study Area – 1900s</b>	<b>144</b>
<b>S13: Archival Data/Observations for Otago Study Area – 1910s</b>	<b>150</b>
<b>S14: Archival Data/Observations for Otago Study Area – 1920s</b>	<b>169</b>
<b>S15: Archival Data/Observations for Otago Study Area – 1930s</b>	<b>195</b>
<b>S16: Archival Data/Observations for Otago Study Area – 1940s</b>	<b>224</b>
<b>S17: Archival Data/Observations for Otago Study Area – 1950s</b>	<b>232</b>
<b>S18: General Accounts of Fish and Fishing in North-East New Zealand</b>	<b>236</b>
<b>S19: Hauraki: Crayfish</b>	<b>251</b>
<b>S20: Hauraki: Flatfish</b>	<b>258</b>
<b>S21: Hauraki: Groper (hapuku and bass)</b>	<b>270</b>
<b>S22: Hauraki: Mullet</b>	<b>272</b>
<b>S23: Hauraki: Mussels (Green Lipped)</b>	<b>280</b>
<b>S24: Hauraki: Rock Oysters</b>	<b>289</b>
<b>S25: Hauraki: Snapper</b>	<b>305</b>

<b>S26: Hauraki: Tarakihi</b>	<b>343</b>
<b>S27: Otago: General accounts of fish and fishing</b>	<b>346</b>
<b>S28: Otago: Barracouta</b>	<b>370</b>
<b>S29: Otago: Blue Cod</b>	<b>388</b>
<b>S30: Otago: Crayfish</b>	<b>401</b>
<b>S31: Otago: Flatfish</b>	<b>413</b>
<b>S32: Otago: Groper (Hapuku and Bass)</b>	<b>441</b>
<b>S33: Otago: Red Cod</b>	<b>465</b>
<b>S34: Otago: Tarakihi</b>	<b>488</b>
<b>S35: Hauraki landings pre-1931</b>	<b>500</b>
<b>S36: Hauraki Gulf landings of rock oysters</b>	<b>501</b>
<b>S37: Mercury Bay landings pre-1931</b>	<b>502</b>
<b>S38: Whangarei landings pre-1931</b>	<b>503</b>
<b>S39: Auckland landings pre-1931</b>	<b>504</b>
<b>S40: Thames landings pre-1931</b>	<b>506</b>
<b>S41: Coromandel landings pre-1931</b>	<b>507</b>
<b>S42: Otago landings pre-1931</b>	<b>508</b>
<b>S43: Dunedin and Port Chalmers landings pre-1930</b>	<b>508</b>
<b>S44: Moeraki landings pre-1930</b>	<b>509</b>
<b>S45: Oamaru landings pre-1930</b>	<b>510</b>
<b>S46: Fisheries regulations, 1877–1950</b>	<b>511</b>

## EXECUTIVE SUMMARY

**MacDiarmid, A.B.; Cleaver, P.; Stirling, B. (2018). Historical evidence for the state and exploitation of marine fish and invertebrate resources in the Hauraki Gulf and along the Otago-Catlins shelf 1769–1950: Supplementary Information.**

*New Zealand Aquatic Environment and Biodiversity Report No. 194. 520 p.*

The objective of this research was to assess and collate existing historical data on relevant components of New Zealand's marine ecosystem in order to provide a detailed description of change in the shelf marine ecosystem in two areas of contrasting human settlement over the period 1769 to 1950. The two areas chosen were the greater Hauraki Gulf and the Otago-Catlins shelf. The focus for this study was primarily on marine fish and invertebrates as reviews of the historic exploitation of other components of the ecosystem had recently been undertaken.

The study found that marine environments in the Greater Hauraki Gulf and Otago-Catlins areas underwent a profound change over the period 1769–1950. The abundance of fish, invertebrates, and marine mammals was remarkable to the earliest European visitors and explorers. This was despite a high reliance by Māori, in both regions, around the time of early European contact, on marine fish and invertebrates. An increasing range of fish and invertebrates were exploited once commercial fisheries were established in the 1860s to supply a growing European settler population and, later, rapidly developing export markets. Laws and regulations attempting to control fishing practices were introduced as early as 1866 and continued to be modified throughout the period.

For many of the principal exploited species in both study regions, noticeable declines in abundance occurred in the late 19<sup>th</sup> century and early 20<sup>th</sup> century prior to the organised collection of fishery statistics. The historical narratives indicate that the declines were first evident in species such as oysters, grey mullet and flat fishes in sheltered, shallow, easily accessible areas, but later progressed to species with a wider inshore distribution such as snapper and blue cod, or with a deep-water refuge such as groper.

The realisation that exploitation could significantly affect fish stocks was acknowledged at different times for different species by different sectors of the community but action to conserve fisheries was greatly impeded by a lack of consistently collected landings data for most species. Finally, in January 1935, a scheme for obtaining monthly returns of fish landed from every licensed fishing-boat was commenced.

It is clear from the historical records examined in this study that New Zealand has a rich history of marine exploitation in the period before detailed fisheries catch records began, although the information is largely in a form of observations and anecdotes. This study has dealt with only two regions in any detail. Other regions would benefit from an examination of historical source material and collation of the information along the lines undertaken for this study.

In New Zealand, marine species assessment and environmental management it is rare to have information available from before the modern data era (starting in the early 1930s with the nationwide collation of fisheries catch data). Hopefully the historical information contained in this report will start to help remedy the situation.

## **S1: Archival Data/Observations for Hauraki Study Area – 1880s**

**1885**

Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15

*No. 1: J Mackenzie to Julius Vogel, 29 March 1885*

- Provides details of a brief assessment of New Zealand's fish stocks and the potential for commercial exploitation.

- 'I carefully fished the Firth of Thames, round Cape Colville to Port Charles, Kennedy Bay, and Mercury Bay; found plenty of firm, delicate fish, the snapper being the only large fish that could be got in anything like large quantities. Examined the coast northwards as far as Whangarei Bay; found snapper, mullet, kahawai, and bream of fine quality; but as the weather was so bad I did not devote much attention to this locality, further than to satisfy myself that fish of countless millions frequent the neighbourhood of Great and Little Barrier Isles, and the Firth of Thames.' (p 2)

*No. 2: Dr Hector to Julius Vogel, 30 May 1885*

- Comments that knowledge of fishes round New Zealand is imperfect, particularly in respect of deep-sea fish. (pp 5-9)

- Provides details of the 'food fishes of New Zealand', focussing on the following fish, mentioned in the regulations issued under the Conservation of Fisheries Act 1884: hapuku, kahawai, snapper, terakihi, trumpeter, moki, barracouda, horse-mackerel, trevally, kingfish, warehou, mackerel, rock cod (blue cod), gurnard, mullet, butterfish, red-cod, flounder, soles, garfish, herring. [See notes from published sources – Hutton and Hector, *Fishes of New Zealand – Catalogue With Diagnoses of the Species and Notes on the Edible Fishes*, Wellington, NZ, 1872.]

**1885                      Oysters and Fish**

Marine Department annual report, 28 May 1885, AJHR 1885 H-13

- Fisheries Conservation Act 1884 'enabled some urgently-needed regulations to be made for the protection of the local fisheries.' Order in Council issued on 27 March 1885 provides for close seasons for various kinds of oysters, the minimum size of fish and oysters to be taken, the minimum size of nets to be used, etc. (p 4)

**1886                      Oysters**

Marine Department annual report, 1 June 1886, AJHR 1886 H-24

- Oyster beds closed at Whangarei, the Hauraki Gulf, and Harbours between Bream Head and a point just north of the Bay of Islands for a period of three years – owing to the reckless way that the beds have been worked. (p 4)

- Order in Council made to prohibit the export of oysters of rock oysters. (p 5)

- During the year to 31 December 1885, 1,057,760 dozen rock oysters exported.

**1887                      Oysters**

Marine Department annual report, 17 May 1887, AJHR 1887 H-4

- During the year, Orders in Council issued to regulate the apparatus with which rock oysters can be taken and to extend the close season for oysters in the Hauraki Gulf. (p 5)

- Exportation of rock oysters prohibited, but there is a question as to what is included in that definition.

**1888                      Oysters**

Marine Department annual report, 27 July 1888, AJHR 1888 H-19

- Close season for oysters in the Coromandel extended. (p 6)

## **1889 Oysters**

Marine Department annual report, 13 June 1889, AJHR 1889 H-31

- Oyster beds in Coromandel, Hauraki Gulf, and Bay of Islands to remain closed. (p 3)

## **S2: Archival Data/Observations for Hauraki Study Area – 1890s**

### **1890s+**

James Moir to Ayson, Inspector of Fisheries, undated [c. 1915], M 1 2/12/55 part 1 NAW.

- Writing in regard to trawling in Hauraki Gulf when calls were being made for removal of restrictions.
- States that arrived in Auckland in 1890; joined the Auckland Fishing Club, consisting of almost 20 members – chartered a steamer every Saturday afternoon. ‘Results were good from some time, averaging from 106 to 1109 schnapper. By and by the catches dwindled until both our club and the Newmarket Club gave it up as useless, not being able to get any fish. // Gradually the fish got scarcer until almost no fish could be caught inside Tiri. One year I spent six weeks at the Kawau – total catch, 36 schnapper.
- Believes that the decline was the result of trawling, noting that it coincided with the time that the trawler was operating.
- Trawler ‘Minnie Casey’ worked for several years, stopped trawling in 1907. States that she trawled over every part of the Gulf, frequently being quite close in to Waiheke, Motuhihi, Kawau, Rangitoto, etc.

## **1890 Oysters**

Marine Department annual report, 21 May 1890, AJHR 1890 H-18

- Oyster beds at Coromandel and in the Hauraki Gulf opened. Calls for legislation to preserve oysters, particularly the rock oyster. Notes that as soon as closed beds are reopened, they are rushed. (p 4)

## **1891 Oysters**

Marine Department annual report, 1 June 1891, AJHR 1891 H-30

- ‘I must draw the attention of the Government to the desirability of legislating with the view of preventing the entire destruction of oysters, a state of affairs which will, should not the taking of oysters be restricted, not take a very long time to come about.’ (p 3)

## **1892 Oysters**

Marine Department annual report, 2 August 1892, AJHR 1892 H-29

- Oyster exports from ports in the North Island (Auckland, Russell, and Wellington) amounted to 1,077,480 dozen. ‘So large a drain on the oyster beds of the colony will, I am afraid, before long almost deplete them.’ (p 3)

## **1893 Oysters**

Marine Department annual report, 7 August 1893, AJHR 1893 H-31

- Comments that it would be desirable to be able to lease (and have greater control) over existing oyster beds. ‘At present when a bed is opened, if it is at all accessible, it is at one rushed, and oysters almost completely destroyed.’ (p 3)
- Oyster exports from the North Island totalled only 430,610 dozen, believed to be because of exports from Queensland to NSW.

### **1895**

Order in Council prescribing minimum size or weight at which fish may be taken, *New Zealand Gazette*, 1895, no. 32, pp 729-739.

- Order in Council made under the Fisheries Conservation Act 1895 - individuals liable to a penalty not exceeding £20 for taking or possessing undersized fish.
- Schedule:

Description of fish	Weight in ounces or pounds avoirdupois	Length in inches
Hapuku	5 lb	
Kahawai	6 oz	
Schnapper	1 lb	
Tarakihi	4 oz	
Trumpeter	1 lb	
Moki	8 oz	
Barracouta	8 oz	
Horse-mackerel	4 oz	
Trevally	4 oz	
Kingfish	3 lb	
Warehou	4 oz	
Mackeral	8 oz	
Blue-cod	8 oz	
Rock-cod	8 oz	
Gurnard	4 oz	
Mullet	4 oz	
Butterfish	4 oz	
Flounder		9 in
Soles		9 in
Garfish		9 in
Herring		5 in

G.M. Thomson, 'New Zealand Fisheries, and the Desirability of Introducing a New Species of Sea Fish', in Protection of Mullet, AJHR Sess. II. 1897, H-17, pp 21-24.

- Comments on the descriptions used for certain fish identified in the regulation.
- Mullet: In Auckland, this refers to the grey mullet or kanae (*Mugil perusii*). In Dunedin, this is the sea mullet (*Agonostoma*), a completely different fish.
- Blue cod and rock cod: Notes that these names apply to one and the same fish (*Percis colias*), the first being the name given to the fish in the southern part of the colony.
- Herring: 'The so-called Picton herring is affirmed by some to be the sea-mullet (*Agonostoma*), while the fish that is so abundant round the southern and south-eastern coasts of this Island in the early part of the year is the sardine or pilchard (*Clupea sagax*).'

## 1895 Oysters

Marine Department annual report, 30 June 1895, AJHR 1895 H-29

- The beds in the Auckland district were being worked out and have, with the exception of those on Great Barrier Island, been closed (p 3)

## 1895 Fish and Oysters

Fish and Oysters Exported – 1 April 1892 to 31 March 1895, Department of Trade and Customs, 1 August 1895, AJHR 1895 H-21

- from Auckland (including Devonport, Manukau, Waiheke Island, Waipu, Whangarei, Thames, Coromandel, Tairua and Mercury Bay): 4,001 cwt of fish; 1,164,540 dozen oysters.
- from Russell (including Kawakawa, Mongonui, and Whangaroa): 34 cwt of fish; 306,000 dozen oysters.

## 1896 Oysters

Marine Department annual report, 30 May 1896, AJHR 1896 H-15

- Hauraki and Whangarei beds have remained closed as the oysters not yet fit to be taken (p 3)



## **1897 Mullet**

'Protection of Mullet', a report by James Hector, AJHR Sess. II. 1897, H-17

- Concludes that no close season for mullet is required and that all restrictions should be withdrawn.
- Report includes evidence relating to a number of places; focuses particularly on the Kaipara area, but has some details relevant to places within the Hauraki study area.
- Hector records that he visited the Auckland fish market three times in January 1896 and found few mullet for sale. Comments that, as far as he could ascertain, the mullet found in Auckland comes from the Hauraki Gulf, with a small proportion from Helensville.
- On 4 January 1896, Hector interviewed Edward Blake at Whangarei, who has fished mullet for 22 years, the last fifteen in the upper reaches of Whangarei Harbour and River. 'The fish are now harder to get than formerly, but not really scarcer. They are more disturbed. This year they are as plentiful as ever; but years vary very much. . . . Young fish which are supposed to be mullet are first seen coming up the river on fine days in spring time – October and November. They increase rapidly in size when the warm weather comes. Large and small fish run separately; all the fishermen know this, and use different-sized nets. Large fish mostly keep to the deep channels; but on warm days, even in winter, the large fish sometimes come onto the banks. In summer the fish move everywhere, but from March on through the winter either a big haul is taken or none at all, as they are then running in "schools". . . . Shags are the chief enemies of the mullet, as they eat great quantities of the young fish.'
- does not believe any regulation required
- states that owing to the depth of the harbour channels, in which there are strong tidal currents, nets can only be set in the dead-water at high and low tide
- all the nets used are 'sinker nets' (with the sinker a little stronger than the floats)
- mesh varies from 3½ to 4¼ inches, though very few fish are caught with the later
- notes that three weeks ago some large mullet were caught outside the heads with a 4½ inch mesh – the large black-backed kind, rarely seen in the Harbour, but reported to be in great shoals outside
- Hector records that on the afternoon of 4 January 1896 Blake arrived with a take of very fine mullet that had been caught with a 3½ inch mesh net in the reach above the Railway Wharf during the first of the flood tide.
- On 14 January 1896 Hector interviewed John Munro, Inspector of Fisheries for the Whangarei District. Believes there should be a closed season for mullet when in full ripe roe, but is unsure when this is. Should be a closed for mullet in all waters from the 1 December for three months; all canneries should be shut during this season.

## **1897 Oysters**

Marine Department annual report, 31 May 1897, AJHR 1897 H-15

- Hauraki and Whangarei beds have remained closed – not sufficiently recuperated for picking (p 3)

## **1898 Oysters**

Marine Department annual report, 30 April 1898, AJHR 1898 H-15

- beds in the Tauranga fishery have been closed for the present season (p 3)
- the Hauraki Gulf and Great Barrier Island beds, closed for some time, have been opened 'as the rest which they have had has enabled them to become replenished'

## **1899 Oysters**

Marine Department annual report, 8 May 1899, AJHR 1899 H-15

- beds in the Hauraki Gulf are open, 'as their condition is good' (p 2)

## **S3: Archival data/observations for Hauraki study area – 1900s**

## **1900 Oysters**

Marine Department annual report, 2 July 1900, AJHR H-15

- beds in the Hauraki Gulf require a rest and have been closed this year (p 3)

## **1901 Oysters**

Marine Department annual report, 13 September 1901, *AJHR* H-15

- Hauraki Gulf beds closed, requiring further rest before picking (p 2)
- Tauranga fishery declared open
- 'In view of the way in which the beds are depleted in many places soon after they are opened, the question of restricting the quantity of oysters that may be taken by each licensed picker will have to be considered at an early date'.

## **1901**

Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 11 July 1901, *AJHR* 1901 H-15A

- the steam trawler 'Doto' chartered, equipped with trawl nets, one purse seine net, one bottom dredge, and hooks and lines (p 1)
- expedition undertaken from February to May 1901, around the coast of the North Island
- from Tolaga Bay to Hauraki Gulf little work was done (p 2)
- from Tauranga to Cape Colville only one haul was made – the quantity of fish taken at this season was sufficient to warrant its selection as a permanent trawling ground
- in and around Hauraki gulf good hauls of marketable fish were made on every occasion
- hauls were especially good in the Firth of Thames, where fish appear to be particularly plentiful and of good quality
- exhaustive tests were made in all parts of the gulf to Great Barrier Island on one side and along the coast to Whangarei on the other – with suitable bottoms and the hauls sufficiently encouraging except in Motuihi Channel, Whangaparapara Harbour, and the vicinity of Whangarei (though these areas might prove fruitful in different seasons)
- notes that proper evaluation would require the areas to be fished at different seasons
- best results were obtained in from 5 to 15 fathoms
- total hauls of the trawl net were 122
- hauls numbered 21 to 24 were located off the coast between Maketu and the northern entrance of Tauranga Harbour (p 5)
- the following fish were taken from these hauls: common flounder, brill (or turbot), lemon sole, john dory, red gurnard, snapper, and dog fish (pp 10-11)
- haul numbered 25 was located off the coast from Whangapoua on the east coast of the Coromandel Peninsula (p 5)
- the following fish were taken from this haul: crayfish, leather jackets (pp 10-11)
- hauls numbered 26 to 54 were located in the Hauraki Gulf, including the Firth of Thames (pp 5-7)
- the following fish were taken from these hauls: common flounder, sole, lemon sole, blue cod, john dory, red gurnard, snapper, crayfish, electric ray, whip ray, dog fish, cat fish, leather jacket, octopus, mussels, shark, stingray, and trevally (pp 10-11)
- hauls numbered 55 to 58 were located in Bream Bay (p 7)
- the following fish were taken from these hauls: lemon sole, john dory, red gurnard, snapper, dog fish, leather jacket, (pp 10-11)

## **1902 Trawling and Oysters**

Marine Department annual report, 1 July 1902, *AJHR* 1902 H-15

- Chief Inspector of Fisheries went to Auckland to consider the question of whether trawling should be allowed in the Hauraki Gulf and Firth of Thames. Has been decided that for a time trawling should be prohibited in the Firth of Thames and a portion of the Hauraki Gulf. (p 2)
- Decided to keep the Hauraki Oyster beds closed during the present season, as they have not yet recovered from the way in which they were depleted when last open; anticipated that they will be able to be opened for picking next season.
- Tauranga beds open. (p 3)

- It is found that in parts of the Hauraki Gulf rocks that have been denuded of oysters are becoming covered in barnacles and coral. The closing of the beds will not remedy this as the oyster spat will not fix to the coral. Need to clear these rocks before the spatting season – suggest that the only way that this can be done is by leasing the foreshore in sections for oyster culture.

### **1903 Fishing and Oysters**

Marine Department annual report, 28 May 1903, *AJHR* 1903 H-15

- A great scarcity of fish throughout the colony last winter and spring, but since the spring there has been a great improvement of supply, including good catches by the net fishermen in the Firth of Thames. (p 2)  
- Oyster beds in the Hauraki Gulf remain closed – still recovering from the depletion that took place when they were last open. Tauranga beds open.

### **1904 Oysters**

Marine Department annual report, 31 May 1904, *AJHR* 1904, H-15

- Sea-fisheries Amendment Act provides for rock oyster open season to be 1 May to 31 October each year (rather than 1 April to 30 November).  
- Act also provides for leasing of beds to adjacent owner or occupiers, which should help to prevent overpicking.  
- Ayson has inspected Hauraki beds and found they are recovering well from overpicking when they were last opened.  
- Tauranga beds open.

### **1905 Fish nets and Oysters**

Marine Department annual report, 15 May 1905, *AJHR* 1905 H-15

- Order in Council has been issued to provide that the mesh of a net or seine is to not be less than 2 and 1/2 inches, except for flounder (4 inches), gar fish (1 inch), herring (1 and 1/4 inches) and mullet in the North Island (3 and 1/4 inches). (p 4)  
- Not been possible to lease oyster beds in Hauraki Gulf – difficulty with regulations. (p 50)  
- Decided to open beds fit for picking – those from Gull Point (near Auckland) and Bream Tail (southern point of Whangarei Bay).  
- Tauranga beds open.

### **1906**

Marine Department annual report, 30 May 1906, *AJHR* 1906, H-15

- Regulations for fish and oysters to be consolidated. (p 4)  
- Reports received from Inspectors of Fisheries . . .  
- ‘At Auckland schnapper, which is the principal fish caught, has been plentiful and there has been a good supply of flounders at the Thames. During the summer the fishermen on several occasions caught more flounders than there was a demand for, and had to give them away to the Māoris. Mullet, which is one of the principal fishes in the district, has been scarce, and the Inspector is strongly of opinion that there should be a close season for this fish.’ (p 5)

- Oyster beds between Gull Point and Bream Tail, in the Auckland Fishery, furnished sufficient oysters to meet demand. (p 6)

- Ayson, Chief Inspector of Fisheries, has inspected oyster beds:  
- beds now open between Mullet Point (north of Mahurangi) and Wanga Point (on Whangaparaoa Peninsula), and between Cape Colville and Hautapu Point on the Coromandel Peninsula  
- good supply on Rangitoto Island (closed); Great Barrier bed recovering  
- the closing of most beds in the Hauraki Gulf during the last few years has enabled them to recover  
- Inspector Bennet states that the beds on Waiheke, Ponui, Rangitoto, and Pakiho Islands, and on part of Motutapu, are in better condition than they have been during the last 25 years

- Should be considerable further improvement in the near future – Ayson observed an unusually large number of young oysters from this season's spawning.

- Return of fishing boats registered and licensed at each Port, year ending 31 December 1905 (p 35):
- Auckland – 205 registered and 191 licensed
- Thames – 46 registered and 46 licensed
- Tauranga – 3 registered and 3 licensed

### **1907**

Marine Department annual report, 25 May 1907, AJHR 1907 H-15

- Regulations for fish and oysters have been consolidated. (p 5)
- Manufacture of fertilisers from fish is now carried on at three places in the colony, including Matakana – deserves encouraging. 'It also leads to the destruction of large numbers of sharks, dog-fish, & c., which now infest some of the fishing grounds, and which, up to recently, have been allowed to increase unmolested to the great destruction of market fish.'
- Reports received from Inspectors of Fisheries . . .
- 'In the Auckland District the supply of fish has been generally equal to the demand. Schnapper have been plentiful – in fact, they have been so plentiful since October last that dealers have had to limit the quantities taken from fishermen. Flounder were equal to the demand last winter, and have been very abundant during the summer and autumn. Mullet have been very scarce. It would appear that the time has now arrived when there should be a close season for this fish. Kahawai, trevalli, and gurnard have been abundant. There is now a good deal of fishing done in Tauranga, and there is a fish-curing establishment at that place. There are five such establishments at Auckland, and one at Kawau Island.' (p 6)

- Has been decided to open only a portion of the oyster beds in the Auckland fishery. Some beds opened last year have been so denuded of oysters that it will take many years to recover. Seems impossible under the present system to prevent overpicking of beds – only option appears to be for the Dept to takeover the picking. (p 7)

- Return of fishing boats at each port during year ending 31 December 1906 (p 35):
- Auckland – 272 registered and 197 licensed
- Thames – 44 registered and 37 licensed
- Tauranga – 6 registered and 6 licensed

### **1907**

George Allport, Secretary of Marine, to Minister of Marine, 9 March 1918, M 1 2/12/55 part 1 NAW.

- On 24 April 1907, the Governor in Council fixed trawling limits in the Hauraki Gulf. Prohibited area bound on the North by a line extending from the north head of Cabbage Bay to the Southernmost Point of Tiri Tiri Island, and thence to the mouth of the Matakana River.
- NZG 1907, p 1373.
- These limits appear to have reduced existing limits.

### **1907**

Extract from NZG 1907 (dated 27 June 1907), M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.

- No person shall haul or use a trawl net within three mile of a portion of BOP between HWM of northern head of Whangamata River and Koronohina Point.

NZG 1919, no. 112, 11 September 1919, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.

- Revoking BOP trawling restriction. (This was done at the recommendation of Ayson, who noted that the few launches in the Bay of Plenty couldn't work anything like the area within the limits. Noted also that the population of Tauranga was increasing.)

NZG 1919, no 126, 30 October 1919, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.  
- 1907 trawling limits reimposed.

### **1907**

Interim Report on Experimental Trawling, by L.F. Ayson, Chief Inspector of Fisheries, 12 November 1907, AJHR 1907 H-15B.

- report on the fishing and deep-sea trawling cruise of the *Nora Niven*, chartered by the Government from June to September 1907 (p 1)
- object of cruise was to test the ocean-floor off the east coast from Stewart Island to the Bay of Plenty and around the Chatham Islands; ascertain trawling grounds exist outside those already known and worked; ascertain what fish-life exists out to 100 fathoms; to look for offshore banks
- used otter trawl nets; spread of 120 ft (footrope) and 80 ft (head-line)
- owing to time constraints, difficult to thoroughly test each section or to go very far off to test off-shore banks
- 106 hauls made, range from 4 to 120 fathoms (p 2)
- just four of these hauls were carried out in the Hauraki area being examined here; these hauls were made in the western Bay of Plenty in August 1907

*Summarised report on the section of coast from East Cape to Auckland (p 5)*

- two hauls made north-west of Tauranga in from 9 to 21 fathoms, but in this season the catch of snapper was poor compared with the same depth further east
- a few soles, John-dory, and gurnard also taken here
- probable that good results would be had in different season
- two hauls also made to the west of Mayor Island in 33 to 50 fathoms, results poor
- net smelled unpleasant and was slimy when lifted – the nature of the bottom possibly explaining the scarcity of fish

### **1908**

Marine Department annual report, 12 June 1908, AJHR 1908 H-15

- New system underway for rock oysters – the Marine Department is to pick and sell the North Island rock oysters under the authority given by the Sea-fisheries Act Amendment Act 1907. (p 6)
- 'Under the new system the picking will be so carried out that the beds can be worked every season, which will give a regular supply of oysters.'
- All beds in the North Island presently closed, except beds on Waiheke Island and Great Barrier Island, and at Kerikeri and the Bay of Islands.
- 'Spat was very prolific on the beds in the Hauraki Gulf and the Bay of Islands last season, and the rocks are now covered with young oysters.'
- Limits within which trawling prohibited in the Hauraki Gulf have been reduced – now applies only to that area inside a line drawn from the North Head of Cabbage Bay to the southernmost point of Tiri Tiri Island and then to right bank at the mouth of the Matakana River.
- Trawling has been prohibited in the Bay of Plenty for a distance of three miles offshore between the northern head of Whangamata River and Koronohina Point.
- Owing to the scarcity of mullet on the East Coast of the North Island, a close season will be held during the spawning months of December, January, and February in the waters of that coast. The water south of a line between Taruru Point, Thames, and the left bank of the mouth of the Makaka Creek have been excluded from the area to be closed.

- 'At Auckland the fish-supply has been equal to the demand. Schnapper, flounders, kahawai, trevalli, and gurnard have been plentiful, but mullet have been exceptionally scarce.
- 75 fishing boats, employing 160 men, fishing out of Auckland
- 2 fish curing plants in Auckland, 1 at Kawau, 1 at Great Barrier Island
- 'At the Thames . . . Most of the fish are taken in nets, and the principal kinds caught are flounders and schnapper. The supply has generally been equal to demand, and during last summer flounders were taken in such large quantities that the demand was exceeded.'
- 2 fish curing plants in Thames, 1 fish freezing chamber
- Return of fishing boats at each port during year ending 31 December 1907 (p 35):
- Auckland – 265 registered and 265 licensed
- Thames – 53 registered and 53 licensed
- Tauranga – 37 registered and 37 licensed

### **1908 Blue Cod**

Report on weight of blue cod by Charles P. Bennett, Inspector of Sea Fisheries, M 1 2/12/324 part 1, Cod, 1908-1930, NAW.

- interviewed the Auckland fishermen about the weight at which blue cod should be protected – generally in favour of not less than 8 oz
- 'Blue Cod are not taken in any great quantity about any part of the Auckland fisheries; only a few dozens being taken by Schnapper Boats occasionally when fishing on a rocky bottom for Schnapper.'
- Bennett caught some blue cod at Cabbage (Colville) Bay – ranged from 4 to 20 ounces
- 'When fishing around the rocks I have frequently taken Blue Cod only about four ounces on an ordinary schnapper hook.'
- 'Blue Cod are not generally sought after in Auckland.'

John Munro, Inspector of Sea Fisheries, Whangarei, to Secretary, Marine Department, 22 June 1908, M 1 2/12/324 part 1, Cod, 1908-1903, NAW.

- States that local fishermen didn't think weight should be altered, but notes that there are not many blue cod caught by Whangarei fishermen, so change of weight would not make much difference to them.

### **1908**

Report on Experimental Trawling, by the Chief Inspector of Fisheries, 13 July 1908, AJHR 1908 H-15B.

- Details the result of the second charter of the *Nora Niven* for three months from September 1907. (p 1)
- expedition included part of the east coast of the North Island from Hauraki Gulf to the North Cape
- 146 trawls made in total
- 'The greatest quantity and variety of market-fish were taken inside of the 30-fathom line. In this respect the cruise corresponded with the other trawling experiments made round the coast of New Zealand.' (p 2)
- 'For some distance outside the trawling limits in the Hauraki Gulf good bottom was found, and some large hauls of fish made. From outside of Flat Rock to the North Cape the bottom proved unreliable. In places considerable area of sand bottom were found then, unexpectedly, rocky bottom would be encountered. In working this section the nets and gear were frequently damaged. From Tiri Tiri Island to the North Cape fish-life is abundant, and, notwithstanding the uncertain nature of the bottom and damage to the gear, some very good hauls of fish were made.'
- 12 trawls carried out in the Hauraki Gulf (numbers 172-182, and 193) in October 1907.

### **1909**

Marine Department annual report, 12 June 1909, AJHR 1908 H-15

- Oyster were obtained from Waiheke, Ponui, and Sandspit Islands, Great Barrier Island, and the Bay of Islands. (p 6)
- 11,005 sacks were sold.

- 'There is no doubt that the new system conduces to the preservation of the oyster-beds, as oysters of marketable size only are taken off the rocks, and sufficient are left to enable the beds to be picked each year.'
- Some beds have not yet recovered from the depletion caused by previous pickings. Where the old system led to the complete stripping of oysters, advisable that the Department should plant oysters in these places.
- Impossible to give an accurate figure for the number of fish taken owing to the absence of a proper system of collecting statistics. Notes that the Fisheries Act 1908 provides for the owners of licensed fishing boats to keep statistics in accordance with an order by the Governor in Council, but no such order has been made. Recommends that action be taken to pass order.
- 'At Auckland during last summer and up to the end of August schnappers were so abundant that the dealers had to limit each boat to a certain number of dozen per week. They are still plentiful in the Hauraki Gulf, but scarce in Tamaki Strait. Kahawai, rock-cod, and hapuku have been plentiful, but mullet have been very scarce. Flounders have been fairly plentiful.'
- about 100 boats, employing about 80 men
- five fish-curing establishments
- At Thames, 38 boats employing 80 men; flounder and schnapper usually taken – good supplies.
- Return of fishing boats at each port during year ending 31 December 1908 (p 47):
- Auckland – 230 registered and 204 licensed
- Thames – 65 registered and 65 licensed
- Tauranga – 57 registered and 57 licensed

#### **S4: Archival Data/Observations for Hauraki Study Area – 1910s**

##### **1910**

##### Marine Department annual report for 1909-1910, *AJHR* 1910 H-15

- 7,934 sacks of oysters picked by the Department from Hauraki Gulf, Great Barrier Island, and Bay of Islands. (p 6)
- Department made a profit and will be able to replant parts of the beds that were ruined before the Department undertook the picking.
- Beds in the Hauraki Gulf, Bay of Islands, Whangarei Harbour, and Kaipara Harbour to be rested this year – have not properly recovered from depletion under the old system. But there are large numbers of oysters 3 yrs and under – after this year there will be sufficient to enable them to be picked and sold every season.
- 'Nothing has yet been done to make it compulsory on owners of boats and fish-curers to furnish returns of fish caught and cured. I would again recommend that the necessary regulations be made, so as to enable the Department to obtain reliable statistics.'
- Report of local inspector:
- the supply of snapper more than met demand (during the summer months the boats were limited by dealers to less than half time)
- flounders have been plentiful, also rock-cod, kahawai, trevally, and garfish
- mullet appear to be increasing in numbers since the close season, but most are small
- 187 boats, employing 325 men, engaged in the fishing industry in Auckland and Manukau
- Return of fishing boats at each port during year ending 31 December 1909 (p 38):
- Auckland – 226 registered and 218 licensed
- Thames – 45 registered and 45 licensed
- Tauranga – 80 registered and 21 licensed

## 1911

### Marine Department annual report for 1910-1911, AJHR 1911 H-15

- Oyster beds in Hauraki Gulf and the Bay of Islands have been opened – estimated between 4 and 5 thousand sacks will be available. (p 7)
- Last year the Dept planted some oyster beds in the Hauraki Gulf that had been overpicked – advisable to increase the supply.
- Report of inspectors of fishing in Auckland: (p 8)
- fish plentiful and market fully supplied
- supply of mullet reported to be improving each year – inspector believes that in Hauraki Gulf this is due to the close season
- in the Auckland and Thames districts flounders have been plentiful
- Return of fishing boats at each port during year ending 31 December 1910 (p 40):
- Auckland – 255 registered and 244 licensed
- Thames – 83 registered and 41 licensed
- Tauranga – 93 registered and 32 licensed

## 1912

### Marine Department annual report for 1911-1912, AJHR 1912 H-15

- 4,782 sacks picked from the oyster beds worked by the Department – picked between 1 May and 31 July (though legal season extends to 31 October – did not want to overpick). (p 7)
- 2,421 sacks from the Bay of Islands; 2,351 from the Hauraki Gulf beds (p 12)
- Profit from the sale of oysters being used to replant the beds that were destroyed by overpicking. (p 7)
- during last two years replanting on the Coromandel coast at Huieh, Kepuki, Rabbit, Green Islands, Kirita Bay, south shore of Coromandel Harbour, and from Coromandel South Head to Manaia Head
- recommends the continuance of replanting other depleted areas
- [1912 is the first year that a separate report is provided by the Chief Inspector of Fisheries – before this fisheries matters had been included in the Marine Secretary's report to the Minister.]
- In Auckland fish have been fairly plentiful, market well supplied. (p 12)
- complaints have been made about the scarcity of snapper on some of the grounds most easily reached, but all the boats that worked well out are reported to have made large catches.
- Inspector Bennett reports mullet as being very scarce in the Hauraki Gulf
- the supply of flounder in the Thames flounder grounds has been well maintained, but the inspector reports a poor supply from other parts of the Hauraki Gulf – recommends increasing the trawling area in the Hauraki Gulf to allow trawlers to work the off-shore flounder grounds that exist in the Thames Gulf south of Cabbage Bay, which cannot be worked by small boats
- Return of fishing boats at each port during year ending 31 December 1911 (p49)
- Auckland – 249 registered and 249 licensed
- Thames – 40 registered and 33 licensed
- Tauranga – 103 registered and 30 licensed

## 1913

### Marine Department annual report for 1912-1913, AJHR 1913 H-15

- 7,728 sacks picked from 1 May to 31 October in the Hauraki Gulf and Bay of Islands. (p 6)
- Areas replanted on Rabbit and Long Islands, and at Kikowhakariri and Coromandel
- Beds steadily improving beds all over the Gulf. (p 10)
- last year the beds picked were off Kawau Island, Mahurangi, Waiwera Island, and Whangaparaoa - 4,298 sacks taken
- 'As an indication of the great improvement which has taken place in the condition of the oyster-beds in the Hauraki Gulf it may be stated that only about half the available beds were picked last season, and these supplied all the oysters required; the rest of the beds, though ready to pick, were not required, and will yield a very large supply of the oysters of the finest quality this season.'



- 'The replanting done by the Department on the Coromandel coast and islands in the Thames Gulf is already affecting an improvement in the beds in these places.'
- In the Hauraki Gulf and Thames: (p 10)
- snapper – the 'principal market fish' reported by Inspector Bennett to have been fairly plentiful
- flounder also fairly plentiful
- mullet reported to be very scarce
- trevalli plentiful outside a line from Cape Colville to Kawau and up the coast past Whangaruru and the Poor Knights
- 'A system of long-lining for schnappers and other hook-and-line fish has now been adopted by a number of Hauraki Gulf fishermen, and it is a great improvement on the single hand-lines generally used.'
- Return of fishing boats at each port during year ending 31 December 1912 (p 51)
- Auckland – 270 registered and 270 licensed
- Thames – 92 registered and 41 licensed
- Tauranga – 24 registered and 24 licensed

### 1913

Reports on Fisheries of New Zealand, by Chief Inspector of Fisheries, L.F. Ayson, 10 June 1913, AJHR 1913 H-15B

*A report on New Zealand's fisheries – their present condition and future development*

- Fishing vessels: (p 2)
- the introduction of the motor launch has been an immense assistance to fishermen – scarcely a sailing vessel in use anymore
- every year there is an improvement in the class of vessel built
- larger and more powerful boats enable fishermen to go further afield and make more regular and quicker trips to and from the fishing grounds
- high price of benzine is preventing fishermen from prospecting for new grounds
- Systems of fishing:
- principal methods of taking fish up to the present time: hook and hand line, seine and set nets, and trawling
- fishermen are realising the necessity of adopting more up-to-date methods – in the Hauraki Gulf and Cook Strait a number of fishermen have adopted a system of long-lining, which is proving very successful and a great improvement to a single hand-line – little doubt that in a short time long-line fishing will be in general use through out the Dominion
- trawling with oil launches is now quite common on a good many grounds
- Fishing grounds: (p 3)
- 'Up to the present time it may be said that the fishing-grounds which have to be worked are only those within easy reach of the principal markets, and beyond those, there is a vast extent of coast-line which has practically never been fished, and on which is to be found abundant supplies of our best market fishes.'
- The fishing-grounds that have been systematically worked include 'Bay of Islands, Whangarei, from Mokohinou to Mercury Islands, including Great Barrier, Hauraki Gulf, and Thames Gulf; part of the Bay of Plenty, off Tauranga'
- 'Some of the old fishing-grounds within a certain distance of the larger centres are not now producing anything like the quantity of fish which they have done formerly, and in several places fishermen find it necessary to keep moving farther afield in order to get the supplies required. The cause of this decline is, I consider, due to overfishing and the predominance of sharks, dogfish, and other enemies of our market fish. . . . The areas I have mentioned as suffering from overfishing are not very extensive; in fact, they may be considered as a mere bagatelle in comparison to the fishing-grounds round our coasts which have as yet not been exploited. At the same time, their condition proves the possibility of exhausting the inshore fisheries and the necessity for certain conservation measures.'
- discusses the need for suitable system of collecting fisheries statistics (pp 6-7)
- 'Trawling has undoubtedly largely increased the fish-supply, and we hope to see a considerable increase in this system of fishing as new grounds are opened up. (p 7) Trawling is not, however, the only means of

capturing fish on a large scale; there are others which might be employed with advantage in this country, and assist in largely increasing the fish-supply. The methods I refer principally to are purse-seining, long-lining, and trammel and drift netting.'

- long-lining already being successfully practised by a few fishermen in the Hauraki Gulf and Cook Strait
- states that a large proportion of NZ coast rocky and weedy – attention must be given to improving the methods of fishing on these grounds – besides long-lining, recommends the use of the trammel net
- Rock oysters
- 'Thirty years ago the rock-oyster beds extended from the Bay of Plenty to the North Cape on the east coast – i.e., all the sheltered rocky foreshore along this extent of coast-line was covered with oysters; and on the west coast, in all the estuaries from Cape Maria van Diemen to Kawhia.'
- were considered inexhaustible, but this idea false – section after section of the coast had to be closed to allow the beds to recuperate
- in 1908 the Dept took over the picking: 'From the commencement it has proved a great success; there has been a steady improvement in the beds everywhere; section after sections of the foreshore which was depleted under the old system of licensed picking has again become productive, and in a very short time the whole of the one-time oyster-producing foreshore will once more produce oysters in abundance.'
- still great possibilities for extending the oyster beds along the coast from Bay of Plenty of the North Cape, by replanting and better protection

## 1914

Annual report on fishing industry at Auckland for year ending 31 March 1914 by Fisheries Inspector J.P. Bennett, M 1 2/12/35 NAW.

- About 100 boats engaged in fishing at Auckland, employing about 250 men.
- Fish fairly plentiful during the last year, except mullet.
- 'Schnapper has been plentiful since October after which month the school fish arrive in the Hauraki Gulf; but previous to Oct fishing fishermen had to proceed to Great Barrier, Mercury Bay, and north of Little Barrier to obtain a fair catch. // The Hauraki Gulf is becoming more depleted of Schnapper each year and it is my opinion Auckland will have to draw on the west coast for a supply before two years; it is my opinion that the long line system of fishing now extensively practised in the Hauraki Gulf will in that time deplete it to such an extent that a close season for Schnapper will be nesisary [sic].'
- Flounders plentiful in the Thames and Auckland waters.
- Trevally very plentiful, but not sought after much as a food fish.
- 'Kahawai are becoming more scarce each year owing to fishermen catching them continually for bait.'
- Rock Cod not much fished for in the Auckland fisheries, mostly taken when fishing for snapper, etc.
- 'Garfish are very plentiful in some parts of the Auckland fisheries but are not caught in any quantity.'
- 'Mullet are doomed to extinction if something is not done in the near future to conserve them, I would suggest a close season extending over a term of years.'
- Oysters:
  - beds in the Hauraki Gulf are generally doing well – estimate the following number of sacks may be taken: Waiheke (1000), Ponui (800), Southern Sub Division (700), Rangitoto (500), Mahurangi (700), Whangaporau (500).
  - beds around the north side of Coromandel Harbour, north side of Beasons, Waihau Island, from Kikowhakariri to Cabbage Bay, and several other islands on the Coromandel side are looking exceedingly well and in a few years will yield a fair supply for market
  - beds in the Coromandel want more protection than I am able to give them

Annual report on fishing industry at Thames for year ending 31 March 1914 by Fisheries Inspector J.P. Bennett, M 1 2/12/35 NAW.

- About 40 registered boats, employing about 100 men.
- Most of the boats are employed net fishing, 'during this last two or three years the Thames Fishermen have had to contend with enormous quantities of jellyfish which fill the nets to that extent that it is impossible to work them; and oweing [sic?] to the jelly fish the supply has been greatly lessened.'

- But fishermen report that flounder are plentiful when they can be worked.
- Flounder is the principal fish taken at Thames. Flounders in the Hauraki Gulf abound from Cabbage Bay to the mud flats at the head of the tidal waters. Those flounders that are in abundance off Coromandel and the east side of Waiheke cannot be taken by set nets as the water is too deep; only means of taking them is by trawling for them.
- Snapper has been very plentiful at Thames during the last 2 months, very scarce last winter.

## 1914

### Marine Department annual report for 1913-1914, *AJHR* 1914 H-15

- 9,069 sacks of rock oysters taken during open season, beds in healthy condition. (pp 6-7)
- Replanting at Rabbit and Long Islands and the coast between Kikowhakariri Bay and Coromandel Harbour, also at Port Fitzroy, Great Barrier, and in the Hauraki Gulf between Kirita Bay and Tapu and at Manaia and Te Kuma Bays and adjacent Islands.
- At Auckland fish of all kinds have been plentiful, except mullet – recommend a close season extending over a number of years’ (p 7)
- about 100 boats, employing about 250 men
- fish-curing factories at Auckland (4), Kawau (1), Great Barrier (1), and Mahurangi
- mussel curing and canning factories at Tapu and Thames
- At Thames supply of fish has lessened owing to large numbers of jellyfish filling nets, making it difficult to work them.
- flounder very plentiful; snapper scarce during winter, but plentiful in last six months
- Return of fishing boats at each port during year ending 31 December 1913 (p 41):
- Auckland – 341 registered and 341 licensed
- Thames – 99 registered and 41 licensed
- Tauranga – 20 registered and 20 licensed

## 1914

### Preliminary Report on Fisheries of New Zealand, by Professor Prince, *AJHR* 1914 H-15C

- deals with fishing industry in general terms, looking towards future developments

## 1915

### Marine Department annual report for 1914-1915, *AJHR* 1915 H-15

- 8,361 sacks of rock oyster picked from Hauraki Gulf and Bay of Islands (p 7)
- 4,042 sacks taken from Hauraki Gulf and Great Barrier oyster beds – Waiheke Island (2049), Mahurangi (791), Maeritai [Maraetai?] (750), Rangitoto (350), and Tiritiri Island (102) (p 16)
- Beds in ‘first-rate condition’ and are being extended every year by replanting (p 16)
- replanted beds in the Coromandel and islands of the Thames Gulf recovering well
- more replanting work done on several of the islands and valuable work in extending beds also done on Pakihi Island and Port Fitzroy Harbour, Great Barrier
- Auckland: Inspector Bennett states that the market generally well supplied. (p 16)
- ‘Snapper, he says, are decreasing in quantity on the old fishing grounds near Auckland, but on the grounds farther out in the neighbourhood of the Barrier Islands, Mokohinou, and Hen and Chicken s they are found in abundance.’
- mullet becoming scarcer every year, Bennett recommending a close season over a number of years
- flounders taken in fairly large quantities by net fishermen
- trevally, terakihi, john-dory, and hapuku are plentiful on the fishing grounds of the Hauraki Gulf and on the outside grounds
- Thames: Inspector reports that fish have been plentiful on the Thames fishing grounds and that good catches have been made – about 40 launches and 90 men employed in catching fish (p 16)
- Return of fishing boats at each port during year ending 31 December 1914 (p 19):
- Auckland – 389 registered and 389 licensed
- Thames – 57 registered and 57 licensed

- Tauranga – 46 registered and 32 licensed

## 1915

### Annual report of Auckland Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW

- Repeats some of the comments that appear in the annual report.
- ‘Schnapper in the inland waters of the Hauraki Gulf is decreasing in quantity which can only be expected considering the large number of long line fishermen, and the large number of private yachts and launches which continuously fish there.’
- snapper in abundance at the outer end of the Hauraki Gulf – near the Little Barrier, Mokohinau, Hen and Chickens, off Mangawhai
- ‘Mullet are becoming more scarce each year and it is my opinion only a matter of a year or two when this beautiful fish will become extinct in the Hauraki Gulf if not given strict protection by declaring a close season extending over a number of years.’
- Flounder taken in fairly large quantities by the net fishermen at Auckland.
- Trevally is the most plentiful fish in the lower part of Hauraki Gulf and extending north to Cape Brett. Trevally rarely take the hook – enormous quantities could be taken if the right gear used (purse seine). Fish not much in demand as the public has not been offered a supply.
- ‘Kahawai is undoubtedly becoming more scarce each year as the demand is very great for this fish chiefly for bait for other fish also for food.’
- John Dory is another beautiful table fish abundant in the Hauraki Gulf and can only be taken by drift net or trawl net; not generally known or offered to the public.
- Hapuku, gurnard, rock cod, and kingfish plentiful in the Hauraki Gulf.
- Oysters:
  - good work at improving beds at Rabbit and Long Islands off Cabbage Bay, Great Barrier; and at Pahiki Island a fine artificial reef has been made moving rocks from above the oyster line to their present position
- Approx 200 men and 100 boats employed at Auckland at fishing.

### Annual report for Thames by Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW

- supply of fish plentiful
- snapper taken mostly with nets has been plentiful; ‘in some cases enormous catches have been made’
- flounders have been very plentiful; fishermen mostly fishing in from 2 to 15 fathoms of water and by this method obtain the largest flounder, ‘which abound in enormous quantities in the Hauraki Gulf’
- snapper and flounder the principal fish taken at Thames, where 40 boats and 90 men employed

## 1915

### Extract from the N.Z. Herald, 13 October 1915, M 1 2/12/55 part 1 NAW.

- ‘After an interval of 12 years, trawling operations in the Hauraki Gulf have been resumed, and supplies of fresh fish are being delivered in such quantity that the retail prices have been reduced to half those current a few weeks ago. // One steam trawler has been making daily trips to the city, bringing supplies of schnappers and other edible fish that are not measured by bundles, but by tons’.
- Many fishermen and launches rendered idle – cannot compete with a trawl extending 120ft wide and 20ft deep.
- Sanford: states that until a few years ago, trawling was permitted in the Gulf, but the recent alteration of regulations[?] has made it possible to employ modern methods within 20 miles of the city.

## 1915

### Chief Inspector of Fisheries to Secretary, Marine Department, 26 October 1915, M 1 2/12/55 part 1 NAW.

- Thames fishermen have adopted a system of deep set-netting, enabling them to net in a depth of 20 to 30 fathoms. They now work out to Deadmans Point and across the Gulf to the other coast; capable of working all the water inside the trawling limits. Would not be possible for them to work with their nets if trawling was allowed in this area.

## 1915

James Bennett to Collector of Customs, Auckland, 12 August 1915, AG W1711 box 3 2/7/67, Oysters – Waiheke destruction of by depositing soil on beds, 1915-1916, NAW.

- Advises that oyster beds at Putiki Bay, Waiheke Island, being considerably damaged by earth and rock being deposited upon them in the formation of a road; about four chains of bed partly smothered. Stated to be part of the best Waiheke beds.

Collector of Customs, Auckland, to Secretary, Marine Department, 14 January 1916, AG W1711 box 3 2/7/67, Oysters – Waiheke destruction of by depositing soil on beds, 1915-1916, NAW.

- Advises that with the Crown Solicitor he had made satisfactory arrangements with the offenders for the protection of the beds.

## 1916

Marine Department annual report for 1915-1916, AJHR 1916 H-15

- 9,396 sacks of rock oyster picked from Hauraki Gulf and Bay of Islands (p 4)
- 'The beds replanted on the Coromandel coast since 1909 and islands in the Thames Gulf are improving very well.' (p 11)
- Auckland : 216 boats licensed, employing 316 fishermen. (p 9)
- Inspector of Customs gives the approximate weight of fish that passed through the local market as 5,616 tons [this figure includes catch taken from Russell and Hokainga – shown in return of fishing boats, estimated catch, etc (p 12)]
- Inspector of Fisheries reports good catches of all kinds of market fish – snapper have been particularly plentiful, with very large hauls made by the trawlers that have commenced work on the trawling grounds in the Hauraki Gulf during the year (p 12)
- Thames: 42 boats (compared to 60 the previous year – a good many younger fishermen have enlisted)
- catches about average for the fish caught on the local fishing grounds: snapper, flounders, trevally, kahawai, mullet, and gurnard
- 1,126 tons of fish stated to have passed through the fish-freezing works
- Return of fishing boats at each port during year ending 31 December 1915 (p 18):
- Auckland – 388 registered and 216 licensed
- Thames – 60 registered and 60 licensed
- Tauranga – 41 registered and 41 licensed

## 1916

Annual report on fisheries at Auckland by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.

- Snapper:
- supply has been plentiful, the trawlers operating at Auckland 'are bringing in immense quantities'
- in addition to the 4 trawlers, about 70 boats employing approximately 140 men are (except for one boat) taking their catch by means of a long line – 'now the principal method of taking snapper at Auckland'.
- Mullet – supply very limited owing to scarcity; since the open season declared several boats have been catching a few in the rivers and bays around Auckland.
- Flounder – supply limited.
- Hapuku – supply has been large and in good demand.
- 'Red Cod, Tarakihi, and Moki have been more plentiful this year owing [sic?] to the Trawlers operating here.'

Return of Auckland fisheries for the year ended 31 March 1916, Collector of Customs to Secretary, Marine Department, 7 April 1916, M 1 2/12/115 NAW.

- Return prepared by my shipping clerk after making enquiries from all fish dealers throughout the city.
- 216 licenses for fishing boats registered at Auckland this year; does not include Kaipara, Mangonui, Russell, Hokianga, Tauranga and Thames.
- 6 licensed steam trawlers at Auckland; vessel may be used for fishing at Thames (where she might take catch) and Whangarei.
- 361 men engaged in fishing; ascertained from vessels licensed this year; exclusive of Kaipara, Mangonui, Russell, Hokianga, Tauranga, and Thames.
- 60 men employed oystering; exclusive of Russell and Hokianga.
- Various kinds of fish caught on the local grounds, giving as near as possible the total weight:

Kind	Tons
Snapper	4 000
Mullet	500
Flounder	150
Crayfish	100
Gurnard	100
Trevally	100
John Dori	100
Kahawai	100
Tarakihi	100
Hapuku	100
Rock Cod	50
Butterfish	50
Kingfish	20
Barracouta	20
Garfish	40
Horse Mackerel	40
Herrings	40
Total	5 610

- Above figures are estimates ascertained from the various fish merchants in Auckland; include all places in the province exclusive of Kaipara, Mangonui, Russell, Hokianga, Tauranga, and Thames.
- These fish are not all caught on local grounds; meant to show the amount of fish that passes through the local market.
- Impossible to state exactly what amount would be caught on the local grounds only. However, all or 95% of the flounder would be caught at Thames, while most of the crayfish (if not all) would be obtained from Great Barrier. Of the remainder, they would be caught in all parts of the province.
- 9395 oysters taken; includes all oysters from the Auckland Province (including those collected from Hokianga and Russell).

Annual report on fisheries at Thames by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.

- Snapper and flounder the principal fish taken.
- Snapper – taken in fair quantities by lines and nets.
- Flounder – supply good; taken by set nets, mostly in the shallow waters of the Gulf.
- ‘It is well known that the lower waters of the gulf from Tapu to Dead Man’s Point abound with flounder which cannot be taken by the present method of net fishing, but might be taken with the purse seine, and if the local fishermen do not adopt this method . . . very shortly I would suggest the Trawlers be allowed to take them as the supply of Flounders at Auckland is very limited, and flounders are very dear.’

Annual report on fisheries at Thames by Bayldon[?], Customs, Marine, and Harbour Master, for the year ended 31 March 1916, M 1 2/12/115 NAW.

- Fishing industry has not been as successful as in previous years; many younger fishermen have joined the forces and the number of boats is therefore less.
- Only 42 boats licensed, compared to 60 boats last year.
- 84 men employed (about 2 per boat)
- One freezing work's supply augmented by occasional calls by the trawler 'Murial' since November; has made 17 visits, landing as near as I can ascertain about 3 tons of mixed fish each trip; evident that local boats not supplying the quantity as before.
- Varieties of fish caught here: flounder, snapper, trevally, kahawai, gurnard, and occasionally mullet.
- Three freezing establishments (Thames Fisheries, Sanfords, Taylor Bros) – have stated that they handled a total of 1,126 tons.
- Believes that freezing establishments should be required to weigh daily intake so that the quantity could be ascertained more accurately for the annual report. States that has experienced considerable trouble in procuring the details of quantity, 'and then it is no more than an approximation'.

Annual report on fisheries at Whangarei Harbour by M Stuart, Inspector of Fisheries for the year ended 31 March 1916, M 1 2/12/115 NAW.

- 7 licensed fishing boats engaged in fishing; 1 steam trawler engaged in trawling (has only been engaged one month)
- 24 men employed in the fishing industry
- various kind of fish caught in local grounds – snapper, mullet, flounder, and a few hapuku
- about 70 tons of fish caught during the year
- suggests a close season for mullet in December/January

**1917**

Marine Department annual report for 1916-1917, AJHR 1917 H-15

- 4,232 sacks of rock oysters picked from Hauraki Gulf. (p 15)
- On account of poor fixing of sprats, oyster beds everywhere have had to be carefully nursed, with every care that the quantity picked does not exceed the number of young oysters coming on. (p 16).
- Valuable work has been done in the Bay of Islands and Great Barrier by removing 'high-water' rock down to the mid-tide oyster line.
- 'The outstanding feature in connection with the sea-fisheries during the year has been the extension of the steam-trawling industry at Auckland. Five well-equipped vessels are now trawling from that port, and immense quantities, including a splendid variety of the best market fishes, have been brought in almost daily from the prolific trawling-grounds which exist about two hours' steam from Auckland. . . . The Auckland Municipal Council has extended its market, and also increased its catching power by the purchase of an up-to-date trawler. The vessel was specially built for trawling, and it has clearly demonstrated the superiority of a vessel so built for fishing by being able to work farther afield in deep water and stay out in any weather.' (p 12)
- Auckland District (Hauraki Gulf):
- all kinds of market fish plentiful; immense catches by the 5 trawlers now working from Auckland
- line and net fishermen have not been able to compete with the trawlers, and as a result most have had to dispose of their boats and seek other employment
- Thames: fish plentiful, particularly flounder; good catches.
- Tauranga: fishing throughout the year good, supplying only local market.
- Table of boats and persons employed for year ending 31 March 1917 – compiled from returns given in the District Inspectors' reports (p 14)

Port	Steam Trawlers	Oil Engine Trawlers	Line and Net Fishing Vessels	Fishermen Employed
Auckland [separate stats]	5		153	331

provided for Russell, Hokianga, Kaipara]				
Thames	-	-	25	50
Tauranga			15	30

- Table of fish caught for year ending 31 March 1917 – compiled from returns given in the District Inspectors’ reports (p 15)

Port	Kind of Fish Caught	Total Weight Cwt.
Auckland	Snapper, flounder, trevally, tarakihi, moki, gurnard, triggerfish	68 580
Thames	Flounder, snapper	-
Tauranga	Snapper, kahawai, trevally	668

## 1917

Annual report for Whangarei for the year ended 31 March 1917 by Fisheries Inspector M Stuart, M 1 2/12/137 NAW.

- 6 licensed boats engaged in fishing.
- 1 steam trawler.
- 22 men engaged and in fishing and employed in fishing industry.
- Kinds of fish caught on the local grounds: mullet, snapper, flounder, hapuku.
- Total weight about 70 tons.

Annual report for Auckland for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137 NAW.

- States that Auckland market has been well supplied; provides comments on catch in respect of snapper, flounder, trevally, tarakihi, moki, gurnard, trigger fish, and mullet.
- Snapper: ‘Since the advent of the trawlers in the Auckland waters the market has been supplied with enormous quantities of Schnapper’.
- Trevally stated to be taken in fair quantities by the trawlers.
- Tarakihi and Moki both stated to have been scarce before the trawlers started, but now put on the market in fairly large quantities. Some Moki weighing over 20 lbs.
- Gurnard stated to be ‘marketed in fairly large quantities’.
- Trigger Fish or Leather Jacket ‘taken in great quantities by the trawl’. At first was thrown away, but now sold as Cream Fish.
- Mullet fairly plentiful.
- ‘Since the trawlers now numbering five started at Auckland the local fishermen have had to cease work owing to the enormous catches of the trawlers and the reduction in the price of fish’. Most fishermen now working on the trawlers or in the fish sheds.
- Oysters picked last season from the Auckland beds:

Location	Sacks
Waiheke Island	1 057
Ponui Island	793
Cabbage Bay	343
Pahiki Island	108
Wairoa Point	124
Maraetai	107
Rangitoto	343
Mahurangi	471
Wade	277
Port Fitzroy	513



Motutapu	103
Total	4 233

- Auckland oysters have generally 'not spawned to any extent'; care taken not to overpick.
- Beds in the Coromandel District are coming on very well; will be in a fit state for picking on some parts in a year or two.

Annual report for Thames for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137 NAW.

- Supply of fish has been fully met during past year.
- 25 licensed fishing boats, employing about 50 men, mostly employed in net fishing.
- Fish taken is most flounder and snapper.
- Fish are taken from the Hauraki Gulf as far north as Kirita, but seldom past Waikawau Creek as the water to the north is too deep to be worked by hand nets. North of this to the trawling limit lie some 20 by 15 miles of the best possible area for trawling, which has not been fished for the last 16 years and which at the present time is teeming with fish, as proved by the enormous quantity of fish taken in a short time by the trawler Murial (222 baskets) when seized trawling within the restricted zone.
- 3 cool stores: Sanfords, Co-operative Thames Fishermen, Taylor Bros.

Annual report for Tauranga for the year ended 31 March 1917 by Fisheries Inspector A Skinner, M 1 2/12/137 NAW.

- Sanford sent a trawler here as an experiment, apparently entering the three mile restricted limit. Trawls outside the limit did not prove very remunerative; trouble with snags on the bottom.
- 15 licensed fishing boats; no trawlers.
- Catches: about 120 dozen a week (about two-thirds snapper; one-third mixed mostly kahawai, trevally, and occasionally hapuku).
- Line fishing here is considered very good indeed, but low prices and small market means it will be difficult for the industry to expand.

Chief Inspector of Fisheries to the Secretary, Marine Department, 20 March 1917, M 1 2/12/55 part 1 NAW.

- Report on the question of whether the trawling limits in the Hauraki Gulf should be removed. Argues that they should remain.
- ' . . . I do not think this is necessary, for the immense quantities of Schnapper, Tarakehi, John Dory etc. which are brought in from the trawling grounds which are within such easy reach of the Auckland market, and supplemented by the catches from line and net fishermen at Thames and other ports, it would certainly seem that there is no occasion to remove the restrictions on account of supplying the public with these fish in large quantities and at a reasonable price'.
- Flat fish do not about all over the Gulf; principal flat fish grounds are from line from Spit Light to Deadman's Point on the Coromandel to the head of the Thames Gulf.
- Claims that it is well known that snapper outside the prohibited area are of a better size; suggests that the prohibited area is a nursery ground for small fish.
- The large municipal trawler 'Simplon' has lately been working from Cape Colville to Cuvier Island, and to the west of Canoe Rock and Little Barrier, bringing in the largest and best conditioned snapper seen in the Auckland market for some time.

## 1917

J. Donovan to James Bennet, 26 May 1917, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- States that one of the Auckland trawlers has been working in the Bight, from Taurimura to Waipu, within half a mile of shore, for about a fortnight at night time.
- States that the local fishermen cannot put out their long lines 'for fear she will carry them away.'

L.F. Ayson, to Secretary, Marine, 18 July 1917, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Advises that, from enquiries, evident that the small boat fishermen work around Whangarei Bay as far as Waipu. Recommends that trawling be prohibited inside a line from Busby Point to Mackenzie Cove.

Extract *New Zealand Gazette*, No. 136, 30 August 1917, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Order in Council prohibiting trawling in Whangarei Bay, 'within three miles of high-water mark of ordinary spring tides of that portion of the mainland lying between the most southernmost point of Busby Point, near Whangarei Heads, to the north-western point of Mackenzie Cove.'

## 1917

Extract *New Zealand Gazette*, No. 143, 20 September 1917, M 1 2/12/514, Trawling and netting – Great Barrier Island – restrictions, 1917-1936, NAW.

- Regulation under Fisheries Act 1908, prohibiting trawling within Bon Accord Harbour, Kawau Island, and Port Fitzroy and Port Abercrombie, Great Barrier Island.

## 1918

Marine Department annual report for 1917-1918, *AJHR* 1918 H-15

- Chief Inspector of Fisheries, in his report for year ending 31 March 1918, notes that the wartime conditions have seen a number of men give up fishing owing to high fuel prices, and short supply of nets, etc. (pp 6-7)

- 3,569 sacks of rock oysters picked from Hauraki Gulf; 510 from Great Barrier. (p 8)

- 'The replanted beds on the Coromandel coast and the islands in the Thames Gulf are improving very satisfactorily.'

- Auckland: return shows a large increase in the quantity and value of marketable fish in comparison to the previous year (p 7)

- except for mullet and flounder, all other marketable fish were plentiful

- number of hook and line boats fishing during the year has shown a marked increase

- Thames: fish usually caught by the net and hook and line fishermen at Thames plentiful

- Tauranga: practically no fish caught for the Auckland market; fishing being confined to what is required to supply local market

- 'The extensive fishing grounds in the Bay of Plenty are capable of great development, as very large supplies of schnapper, terakihi, trevalli, and hapuku can be taken either by trawling or lining.'

- Table of boats and persons employed for year ending 31 March 1918 – compiled from returns given in the District Inspectors' reports (p 10)

Port	Steam Trawlers	Oil Engine Trawlers	Line and Net Fishing Vessels	Fishermen Employed
Auckland [separate stats provided for Russell, Hokianga, Kaipara]	6		130	247
Thames [no stats supplied]	-	-	-	-
Tauranga			20	20

- Table of fish caught for year ending 31 March 1918 – compiled from returns given in the District Inspectors' reports (p 11)

Port	Kind of Fish Caught	Total Weight Cwt.
Auckland	Snapper, mullet, flounder, crayfish, gurnard, trevalli, john dory, kahawai, tarakihi, hapuku, rock cod [blue cod?],	114 480

	butterfish, kingfish, barracouta, garfish	
Thames	-	-
Tauranga	Snapper, hapuku, mullet, trevalli, kahawai, garfish, flounder	not supplied

## 1918

### Annual report for year ended 31 March 1918 for Whangarei by Fisheries Inspector M Stuart, M 1 2/12/163 NAW.

- 5 boats engaged in fishing; no trawlers.
- 'The greatest number of fish caught in this harbour and outside the Heads are Schnapper, and few mullet, Hapuku, Travalli [sic], Kahwai, and flounder.'
- Weight of fish brought in during the year – about 150 tons.

### Annual report for year ended 31 March 1918 for Thames by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.

- States that has spent a good deal of time during the previous year 'testing the Auckland Fisheries at all parts of the Hauraki Gulf'. Believes that snapper has become more scarce owing to the trawlers operating too close inshore. Thinks it will be necessary to extend trawling limits to the old line from Cape Colville to Point Rodney in order to preserve the breeding grounds and lessen the destruction of undersized snapper; otherwise the supply from the Hauraki Gulf will be exhausted.

### Annual report for year ended 31 March 1918 for Auckland by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.

- States that fish supply not equal to previous year owing to trawlers operating over the same area year to year, and the City Council's large trawler being used for other purposes.
- Comments on different species:
  - Snapper: fairly plentiful, though 'has not been taken in such enormous quantities by the trawlers as previously'.
  - Flounder: very scarce.
  - Trevally: very plentiful.
  - Tarakihi: not so plentiful as last year.
  - Moki: taken in limited quantities.
  - Mullet: scarce.
- Notes that a number of fishing boats have again started fishing as prices for snapper has advanced to 'the old time price'.
- Returns of fishing companies operating in Auckland:
  - Sanford Ltd: trawlers have taken 2800 tons
  - Municipal Council: 1772 tons 7 cwt 3 qrs 6 lbs
  - F Williams: 1004 dozen mullet; 4006 bundles
  - 100 boats approximately, employing 200 men.
  - 5 steam trawlers operating at Auckland.
  - Oysters – supply from the various beds for 1918 will be approximately:

Location	Sacks
Ponui Island	1 700
Waiheke	1 000
Mahurangi	1 000
Pahiki and South Shore	500
Barrier	500
Cabbage Bay and Coromandel (if weather fine)	500
Total	5 200

- The beds in the Hauraki Gulf have not spawned to any extent; a fair spawning at Mahurangi in places.

- Suggests that the trawling limit be changed from present line (from Matakana River to the southernmost point of Tiri) to from Shearers Rock Buoy to the most eastern point of Kawau Island or Port Rodney. States that this will:

- keep trawlers out of the inland water west of Kawau (a nursery for small and undersized fish)
- lessen the work of detecting illegal trawling amongst the numerous islands in the vicinity of Kawau Island
- keep trawlers out of Omaha Bight, also a breeding ground and nursery for young snapper (have received verbal complaints by fishermen at Leigh of trawlers operating right into the Omaha Beach)

Annual fisheries return for year ended 31 March 1918 for the Port of Auckland by Collector of Customs, M 1 2/12/163 NAW.

- 130 licensed fishing boats, though some of these are fishing in country districts.
- 6 steam trawlers (includes 1 presently being used by the government for mine sweeping).
- 202 men fishing on boats; 45 men on trawlers.
- Fish caught on local grounds, weight given as near as possible:

Kind	Tons
Snapper	5 000
Mullet	100
Flounder	100
Crayfish	100
Gurnard	75
Trevally	75
John Dori	75
Kahawai	100
Tarakihi	100
Hapuku	20
Rock Cod	5
Butterfish	5
Kingfish	4
Barracouta	10
Garfish	10
Total	5 724

- Oysters: 3569 sacks from Auckland; 510 sacks from Great Barrier.

Annual fisheries report for the year ended 31 March 1918 for Tauranga by Fisheries Inspector A Skinner, M 1 2/12/163 NAW.

- 20 boats registered; most are private vessels whose owners are not employed in industry, but wish to be able to sell fish after a successful days pleasure fishing.
- About 20 men employed fishing.
- No trawlers.
- Snapper is the principal fish caught here, also hapuku, mullet, trevally, kahawai, piper, flat fish. No means of obtaining an approximate estimate of weight and value.

## 1918

Notes on deputations from Auckland City Council and Sanfords to the Minister of Marine – opposing the restriction of trawling area, M 1 2/12/55 part 2 NAW.

- Mr Carr (Chairman of the City Markets Committee) stated that the Council put on the market about 34 tons of fish a week, of which the trawlers supplied about 5/6ths and the line fishermen about 1/6<sup>th</sup>.
- Mr Nixon (representing Sanfords) stated that his firm had distributed 7567 tons of fish in the Auckland market during the last two years and eleven months and the fish had been obtained by their three trawlers. He stated that the line fishermen produced about 5 tons a week.

Notes on deputations from the Northern Fishermen's Union to the Minister of Marine – supporting the restriction of trawling area, M 1 2/12/55 part 2 NAW.

- Mr Rhodes (MP) said the primary object of the deputation was to request Royal Commission. 'He (the speaker) had lived at the Thames and Coromandel Peninsula for 20 years and he would say that trawling was detrimental to fishermen. Trawling had depleted the fishing beds and it would take years to bring it up to normal again. If trawling was allowed to continue in shallow water, which was in contravention of the recommendations of Professor Prince . . . it would not be long before very little fish could be obtained in the Gulf. . . . I say that the trawlers go into shallow water and sweep the bottom of the Hauraki Gulf. In some parts of the Gulf where the trawlers have been operating the fishermen cannot now get more than from six to eight fish in a catch.' Claimed that settlers could not now go out and catch more than half a dozen fish.

Report of Jas Bennet relative to undersized snapper found at Sanfords, 6 December 1918, M 1 2/12/55 part 2 NAW.

- Visited Sanfords and found considerable quantities of undersized snapper. Measured the trawl net on the 'Murial' and found it to be under regulation size, ie 3¾ inches at the cod end and 4 inches in the wings.

## 1919

Marine Department annual report for 1918-1919, AJHR 1919 H-15.

- 5,065 sacks of rock oysters picked from Hauraki Gulf; 517 from Great Barrier. (p 13)
- Has been a poor fixing of spat on many beds – a large extent of beds will therefore have to be lightly picked. (p 11)
- Demand increasing – the Dept will endeavour to extend the beds by replanting and will protect the beds where oysters exist. (p 12)
- Auckland: (p 10)
- Inspector of the Auckland District reports that there are 5 steam trawlers working from Auckland, and 65 oil-engined launches
- a number of line fisherman take a supply of ice and stay out until they get a good catch, going as far as the north side of the two Barrier Islands, Mokohinou, and Mercury and Alderman Islands in the Bay of Plenty – these boats are under 7 tons and are compelled to go to these far-away grounds on account of the scarcity of the best market fish in the Hauraki Gulf
- The Department is frequently urged to reduce the area within which trawling is prohibited in the Hauraki Gulf, but line fishermen have always opposed, claiming it would interfere with their fishing and fish breeding grounds – inquiry into this and other matters has been held – report will be forthcoming. (p 7)
- Thames: supply of fish was very satisfactory – snapper, flounder, gurnard have been caught in fairly large quantities (p 10)
- 36 launches employed in fishing, employing 108 men – 'industry is developing'
- Tauranga: has been an increase in the number of fishing boats during the past year – 39 registered (against 20 in previous year) and 30 men engaged in fishing.
- Table of boats and persons employed for year ending 31 March 1919 – compiled from returns given in the District Inspectors' reports (p 14)

Port	Steam Trawlers	Oil Engine Trawlers	Line and Net Fishing Vessels	Fishermen Employed
Auckland [separate stats provided for Russell, Hokianga, Kaipara]	5		65	157
Thames	-	-	36	108
Tauranga			39	30

- Table of fish caught for year ending 31 March 1919 – compiled from returns given in the District Inspectors' reports (p 15)

Port	Kind of Fish Caught	Total Weight Cwt.
Auckland	Snapper, mullet, flounder, gurnard, trevally, john dory, kahawai, tarakihi, hapuku, kingfish, barracouta, garfish	74 232
Thames	Snapper, flounder, sole, kahawai, garfish	27 700
Tauranga	Snapper, hapuku, trevally, kahawai, moki, kingfish, flounder	not supplied

## 1919

Annual report for year ended 31 March 1919 for Whangarei by M Power (telegram), M 1 2/12/182 NAW.

- 15 fishing boats.
- Fish caught – snapper, mullet, flounder, hapuku, rock cod, and gurnard (?) during past 12 months.
- Total quantity – about 9880 dozen.

Annual report for year ended 31 March 1919 for Thames by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.

- Supply at Thames has been good – all fish such as snapper, flounder, and gurnard taken in large quantities.
- 36 boats engaged in fishing, employing about 108 men, who supply Thames Fisheries Ltd, Taylor Bros, and Sanford Ltd.
- Fish landing details supplied by each firm:

Company	Tons
Thames Fisheries Ltd	805
Taylor Bros	300
Sanford Ltd	280
Total	1 385

- 'The Thames fishing industry is developing of late and will in very few years become one of Auckland's greatest industries and will necessitate all trawling being prohibited with the Hauraki Gulf and reserve the Gulf solely for line and net fishermen only.'

Annual report for year ended 31 March 1919 for Auckland (incl. Manukau) by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.

- 65 licensed fishing boats; employing about 120 men, mostly line and net fishing.
- 5 steam trawlers employed at Auckland, fishing mostly in the Hauraki Gulf, employing 34 men.
- 'The supply of fish at Auckland is surely becoming less each year. In my opinion the decrease is owing to the continuous working of the five trawlers in the Gulf.'
- 'Most of the fishermen now line fishing at Auckland carry a supply of ice on their boats and stay out until they catch sufficient fish to take to market and they mostly take their catches at the North Side of Great and Little Barrier, Moko Hinau, Mercury Islands, Alderman Islands and the Bay of Plenty. // Those fishing boats are all under seven ton register and are compelled to go to the above fishing grounds owing to the depletion of the waters in the Hauraki Gulf.'
- The quantity and value of fish taken and received by the several trawling companies and dealers are as follows:

Company	Snapper	Mullet	Flounder	Hapuku	Cod	Mixed	Unspecified
Sanford Ltd							2 700 tons
Thomas Clegg							36 tons

F. Williams	670 bundles	1 570 doz	3 221 doz				
Municipal Fish Market	12 891 bundles	2 589 doz (excl. KP)	11 403 lrg 9 568 sml	8 994 lbs	59 doz	1 878 doz	220 doz crayfish
Trawler "Phantom"							168 tons
Trawler "Cowan"							410 tons

Comments on the supply of the various kinds of fish:

- Snapper: those taken by trawlers poor quality; those taken by line men excellent quality; 'Becoming very scarce in Auckland waters.'
- Mullet: taken in fairly good quantities.
- Trevally: not much in demand, but is in unlimited quantities – shd be put on the market as a food supply.
- Flounder: has been in poor supply, probably owing to high cost of nets and gear.
- John Dory: taken in fairly large quantities; good demand.
- Hapuku: more plentiful in former years owing to the fishermen going further afield for their catches of line fish.
- Oysters – the quantity that will be taken this year from the Auckland beds, approximately:

Location	Sacks
Ponui Island	1 500
Waiheke	1 000
Rangitoto	300
Fitzroy	500
Tiri	200
Rakino	500
South Shore	200
Total	3 900

- 'The oyster beds in Auckland Fishery have not recovered after picking under the system adopted by the Marine Department, as they did under the system of picking the beds previous to 1908. If a crop of oysters are to be obtained the bed must be prepared for the young brood.'
- Variable fixing of young oysters. Some beds in better condition than others.

Annual fisheries report for the year ended 31 March 1919 for Tauranga by Fisheries Inspector A Skinner, M 1 2/12/182 NAW.

- 39 boats registered at 31 March 1919; not all professional fishing boats; no trawlers.
- About 30 men employed fishing.
- Snapper is the principal fish caught here, also hapuku, mullet, trevally, kahawai, rock cod, guard fish, herring, crayfish, moki, and flounder
- Have tried to get an estimate of the quantity caught and value, but it is exceedingly hard to get anywhere near the exact amount.

## 1919

AJHR 1919 H-28, 'Fisheries Commission'

- Sat at Auckland, Thames, Helensville.
- Deals with trawling restrictions and other matters.
- Notes that trawling presently prohibited from a line starting at Matakana and extending from there to the southernmost point of Tiritiri, and from that point to Cabbage Bay.
- 'The evidence shows fairly conclusively that fish cannot now be caught in the gulf by the line and net fishermen with the same ease with which they were caught many years ago; but the evidence also shows that this great difficulty in catching the fish was noticeable even before the advent of the trawler, and the

evidence that the trawlers have had any great part in producing the state of affairs is far from conclusive. Undoubtedly, however, the trawlers have had some part in bringing it about, and if in trawling well up into the gulf the greater part of their catches consists of moderate sized fish, it follows that more fish will be destroyed than if the same weight of larger fish were taken. If, as seems quite clear, the shallower waters of the bays and inlets are inhabited by small fish, it is to be expected that trawling waters anywhere in their vicinity will lead to the catches containing a considerable proportion of smaller, even if not undersized, fish.'

- Recommended that the line be fixed from Mahurangi Heads to Shearer Rock, off the north-east point of Tiritiri, and thence to Cabbage Bay. [See NZG of 8 February 1920]

## 1919

Ayson to Chairman and members of the Royal Fisheries Commission, 10 March 1919, M 1 2/12/55 part 3, Fisheries Commission – Examination of Witnesses, 1919, NAW.

- 'Regarding the supply of Schnapper and other market fishes I am convinced that to open the Gulf to trawlers up to a line from the Spit light house to Deadman's Point, would only result in a temporary increased supply for Auckland. . . . I am decidedly of the opinion that it is for the best interests of the fisheries that the Gulf should be reserved for other methods of fishing which is less destructive to young fish life.'

Minutes of Evidence (February – March, 1919), M 1 2/12/55 part 9, Auckland Fish Commission – report and evidence, 1919-1928, NAW.

*Sidney Ensor*

- fisherman, with fish-curing business in Thames

- 'I deal with about 10 to 12 tons of mussels per month. They come from right down the centre of the gulf, from Puru to Tapu. We use a mussel dredge, 2½ feet across the mouth. You could call it a mussel trawler. I do not find that the supply of mussels is decreasing.'

*Roy Huxley*

- fisherman at Thames, owner of "Wandered"

- 'I have been limited in my catch by all these purchasers. By this I mean that I am only entitled to catch 25 dozen schnapper, say, per tide per man. If we catch 30 dozen the odd five dozen will not be taken.'

*Hugh Farcelly*

- fisherman at Thames, owner of "Ila" [?].

- 'Five years ago we could rely on getting quantities of fish at Cabbage Bay. That was before the trawlers began. You could not get a fish there now. The trawling limit is somewhere about Cabbage Bay, or just outside it.'

*Edward Wilson*

- fisherman at Thames, owner of "Vera"

- 'I remember the Minnie Casey trawler. I have seen after she came to the Goods Wharf at Thames small fish floating all round where she had been lying, and also washed up on Tararu beach. . . . I do not think fish are as plentiful in the gulf as they used to be.'

*William Payne*

- fisherman at Thames for the last 40 years; have only fished intermittently for the last 4 or 5 years

- 'Fish are not as plentiful in the gulf as formerly. More nets are now needed than formerly to catch a given amount of fish. The number of nets per boat has increased from two to about sixteen. . . . I was fishing on and off when the Minnie Casey was trawling. I have seen fish floating about the gulf in her time. I believe they came from the trawler, because the line men do not catch such small fish or in such large quantities.'



- 'I cannot say when it was that the supply of fish in the gulf began to decline, but I know that when the trawler came in it was difficult to get 3 or four dozen fish, hooking, per day.'

*Alfred Doddrell*

- line and net fisherman at Thames

- 'Before the trawlers started I was fishing below Tapu. During the last two years I have not fished much in the deep water, mostly in shallow water. There has not been a constant supply of fish in the deeper water. In my second year here the majority of the boats were fishing below Tapu. At that time we could depend upon good takes of fish. Much smaller schools now come in. I have seen all the boats for six or seven miles across the gulf on schools of fish, but the same number or extent of schools are not seen now. I think the schools have been thinned down before coming in here, and that can only be by the trawlers.'

*Andrew McMahon*

- fisherman at Thames; have fished in the Gulf for over 12 years

- 'The fish are not quite as plentiful as at one time, though sometimes we catch more. We have to take out more nets than prior to the advent of the trawlers.'

*William Jones*

- fisherman at Auckland, owner of "Petrol"

- president of the Northern Fishermen's Union; states that there are 36 members in the Auckland branch, owning 20 or more boats; much larger number before the War; 'about 150 boats prior to the advent of the trawler'

- states that has worked on the trawlers

- worked on the "Minnie Casey" for about nine months, using beam trawl – about one-third of the take was small fish, which were shovelled over the side

- worked on Sanford's "The Countess" for three weeks, trawling outside the present limits

- understands that, during best week, caught 1500 baskets – about the month of September 1916

- small fish were caught, but not as many as when using a beam trawl

- trawl lasted on average 2½ hours, averaging about 40 baskets

- on board the "Muriel", a smaller boat – best haul 70 baskets for a 2½ tow

- fished on "The Cowan" for about 3 weeks, bigger than the "Muriel" and with a larger net – averaged about 20 to 40 baskets for 2½ hour tow

- on the "Simplon" from January to August 1913 – the largest boat of all, with more power

- trawled near the Watchman, off Cape Colville, and got catches – first day and night or day and two nights, we got 600 baskets

- the depth of water in that vicinity is from 26 to 30 fathoms

- worked across from the Watchman to the Barrier and had good catches, mostly snapper (better fish than being caught now)

- 'The school fish used to come into the gulf every year until the advent of the trawler. From about the 1<sup>st</sup> November till the end of January you could take great quantities of fish with hand lines, and most of them would be bursting with roe. You cannot catch the fish in such quantities now. I tried out there at the end of last year and the beginning of this year with the long line. I had previously tried with hand lines and caught no fish. We caught these fish usually in about 10 fathoms of water from the top. With the long line we caught on our best catch for a days work, 40 bundles of school fish. When first we used the otter trawl we brought up horse mussels, usually alive. Latterly we have got more dead shells of these mussels than live ones. . . . I do not think we could supply the Auckland market adequately now apart from the trawlers, even if we still had 150 boats, because the supply of fish has been so depleted. I should say the fishermen under present conditions could supply about 50 bundles of fish per boat weekly, 24 lb a bundle. We are getting about 12 tons weekly for 20 boats. When the 150 boats were working they produced so many fish that the market was glutted, and the limit was applied.' [This limit appears to have only been imposed during the school fish season – 1 November to the end of January.]

- About 20 licensed boats fishing from Auckland. 'I believe they average about half a ton of fish a week, judging by my own catches. Before the advent of the trawler there were at least 100 boats fishing. They were, I should average, catching from 50 to 75 tons a week. . . . We were often restricted in our catches. . . . We fished usually six days a week. I never lost much time from weather or anything else. I carried nets with me but depended chiefly on line fishing. [Boat of two men.]
- I went on them [trawlers] to learn trawling. I understood it was the very latest way of catching fish. I find that it is the latest way of destroying them. The trawler destroys an important proportion of small fish. . . . I say the trawlers have seriously destroyed the feed wherever they have trawled. . . . They work anywhere between their limit and the Barriers. They frequently trawled as far as the Hen and Chickens, when I was with them.'
- 'Disturbing the ground provides at the time more food for the large fish, but it destroys the small fish. The weight of the trawl must destroy the small fish sheltering on the bottom. . . . When I was on the Simplon we brought up about ten to 12 baskets of mussels and other sea growths to the haul of the trawl. We got most mussels close to the limit line. It was considered then that the trawl was not working properly. The Simplon trawl always picked up mussels. . . . The ground rope of the trawl is like a steam roller going over a road – it crushes everything. There is the weight of the ground rope, which on the Simplon was of steel ¾ inch thick, and there is also packing outside it, and outside that there is sacking, to cover the wire, and round that a ½-inch rope.'
- 'They [trawlers] catch a great quantity of small fish, so that they have no chance to grow. That is an important element in the depletion.'

#### *Walter Alderton*

- fishermen at Auckland; in the industry for 20 years
- 'The dredging of mussels inside the firth is not likely to do more harm than dredging. The trawlers break up the mussel beds. I cannot say how long it would take a damaged mussel bed to recuperate. The line and net men cannot themselves keep the Auckland market going.'
- 'At one time there must have been 100 odd, all engaged in hand-line fishing only. If they were all to come back into the industry they could not under present conditions supply the Auckland market. There are not the requisite number of fish available.'
- 'It is from my own observation of the quantities that I say they trawlers have depleted the fish in the gulf. Fish should be got anywhere between Tiri and the Kawau, before the day of the trawler. They are not to be got in any quantity there now.'

#### *Major John Whitney*

- settler at Waiwera; interested in fishing industry – experience in British industry, not NZ
- 'As to the supply of fish, ten years ago you could catch 1 cwt of fish any where off Waiwera within two or three miles and I have caught 3 cwt. This year, with a motor boat, the most I have got in a day is 26 fish, most of them under 2 lb, whereas the average used to be from 4 to 5 lb.
- 'The quantity of pilchards in the Gulf has materially diminished in late years. At one time you could not throw a stone over the Waiwera bridge without killing them. Now it is rare to see more than half a dozen at a time. I think they have been very seriously diminished by dynamiters. I cannot suggest that the trawlers have affected them.'

#### *Norman Mc Millan*

- settler at Waikawau; intermittently a fishermen for 20 years
- 'The fish we obtained yesterday were small, compared with what I have caught. Twenty years ago off Waipu we seldom saw less fish than 3 to 4 lbs.' [It appears that the Commission trawled out in the Gulf.]
- States that has fished experimentally outside Whangarei. 'I am certain that north of the Hauraki Gulf there are plenty of fish. The bottom seemed very even. I should say that there is a long smooth flat between Little Barrier and the Hen and Chickens.'
- 'I cannot say all shallow waters in the gulf are fish nurseries. I suggest that commercial fishing operations are reducing the supply of fish and interfering with breeding. The worst way of destroying the

breeding of fish is destroying those that contain full roe. The proper way of conserving flounder is to have a close season when they are spawning.'

- 'I used to dredge for mussels for a factory, and consider I was doing good to the beds. Yesterday I did not see 10 lb of mussel brought up by the trawl.'

- 'I have observed that fish migrate. The school fish are on the coast for about three months of the year, and then leave us. They come from the unknown and return to the unknown. They breed in the gulf. They do not all leave the coast, but as far as I know they are the same species as those caught in winter. Probably some of the school fish remain behind if they find the good food.'

- 'I consider that Cabbage Bay is a nursery for schnapper especially.'

#### *Richard Nixon*

- Auckland fisherman; owner of the steam fishing boat "Whakapara"

- fishing over a period of about 19 years, 7 years actually fishing

- a seamen on one of Sanfords trawlers, later master, left Sanfords in 1918[?]

- 'We trawled between the present line limit, and a line from Cape Colville to Flat Rock. That is an area of about 220 square miles. I should say that 90% of the fish brought to Auckland by the trawlers have been caught within that area. If the trawling fleet were compelled to keep outside the Rodney Point – Colville line it would, I think, effect of stopping trawling. Outside that line there would be no grounds that could be relied on for constant working, in all weathers, because of the lack of shelter.'

- has worked the Whakapara in the 220 sq mile area, with the line, but could not catch enough to make it pay; believes that the fish have plenty of feed and will not take the hook

- fish in better condition than have seen them

- doesn't believe that the fishing destroys the feed, if anything improves it by clearing the bottom; sharks have a big impact

- 'I do not think any importance can be attached to the alleged destruction of mussels by the trawlers. There are hundreds of thousands of tons of mussels in the gulf.'

- 'My experience as a line fishermen was a failure. I do not propose to carry on as a line fisherman with the Whakapara. . . . I still say that when I was last aboard the Baroona the fish were more plentiful than when I was trawling previously. Still I could not catch them on the Whakapara. My argument is that they had enough natural feed and would not take the bait.'

- 'I spoke only of flounders when I spoke of the nets destroying fish. . . . Sometimes small schnapper are caught in flounder nets.'

#### *Herbert Barnsley*

- Secretary of the Northern Fishermen's Union

- 'The trawlers do not at present catch many flounders.'

#### *James Moir*

- City Health Officer, great interest in fishing, recreational fisher

- 'I have no doubt the supply in the gulf has been reduced in the last 20 years. The decrease has been gradual. I have known the old Auckland Fishing Club to catch 800 and 1000 fish off Rangitoto in one day. . . . I attribute the decrease to the trawler. I am sure it is the cause. . . . I am of opinion that the gulf is the spawning and breeding bed for possibly the whole east coast of the North Island. To allow trawlers inside that area is a criminal act against the population of New Zld. . . . [Line fishermen] would not destroy the small fish and the feeding grounds. I have had no practical experience of trawlers. . . . I cannot say why it is that the trawlers in Hauraki Gulf are increasing their catches instead of decreasing.'

#### *James Holt*

- master of the trawler Baroona; have been working in the Hauraki gulf 4 years

- 'I do not think that the trawlers have depleted the supply in the area they have worked. . . . In 1918 the weather was the worst I have experienced. That affected our takes in some months. Apart from the weather conditions the fishing was just the same as in any other years. . . . I have seen no indication that

the trawlers were destroying feed or young fish. The trawl is constructed to skim, not to drag, along the bottom. If it is dragging it is badly set. It stops the way of the vessel and injures the trawl.'

- 'I do not think it is possible in a practical way to avoid catching small fish in the trawl. You cannot help doing so, no matter what mesh there is in the cod end some fish will be jammed up. I do not think there is any great destruction of small fish.'

- 'I find it advisable to avoid the mussel beds in trawling. I agree with the experience recorded in the report on experimental trawling, 1908, page 8.'

- 'In the last few months I have had all large fish north of Cabbage Bay. On my last trip I made a large haul, trawling around and round over about three sq miles near the shore. I got 230 baskets for the trip, of which about 200 were taken in Waihora Bay.'

#### *Francis Barber*

- employee of Sanfords in the receiving shed; fisherman for 21 years, ceased 7 or 8 years ago

- was on the Minnie Casey in 1900, for 18 months

- 'When I started 21 years ago it was with line fishing. Before the trawlers appeared at all it was becoming increasingly difficult to catch fish on the line. Our operations then were right beyond the reach of the Minnie Casey. I do not agree that the Minnie Casey practically cleaned out the gulf. There were other causes for the decrease. For weeks at a time we would be unable to supply the Auckland market. When I went into Sanford's sheds they were still depending on the boats, and had 30 odd boats. I have known times when we did only six hours work in the sheds in the fortnight.'

- 'We get as big a supply of fish at Sanford's as we used to get, when trawling was started.'

- 'It is possible that the schnapper spawn along the whole of the East Coast in depths of 20 to 30 fathoms.'

- 'I suggest that fish under no circumstances can be depleted. . . . because the breeding here is on such a large scale, in these tropical climates – so fast and numerous.'

- 'Seeing that the fish are close to Auckland it would be poor economy to go past them to get to others in deep water. I have read the report of the speech of the Hon. G. M. Thomson in Hansard vol 167, page 567, and I agree with it.'

#### *Adam Nixon*

- superintendent engineer for Sanford Ltd; been at sea/connected with the sea for 42 years; ardent fisherman

- worked on Minnie Casey – used to break down frequently, do not think she did 3 years trawling

- do not place any weight on the suggestion that the Minnie Casey practically depleted the gulf; fished outside the gulf, but had to come inside to get fish; caught flounders between Tapu and Deadman's Point

- 'There was no comparison between the quantity of fish caught by the Casey and that of the present trawlers.'

- 'The trawl of the Minnie Casey was 40 ft by 2 ½ ft. The trawl of the Baroona is 140 ft of ground rope, giving an actual spread of about 65 feet from board to board, and the depth of the net is from 14 to 15 ft. The Casey was very slow, working only about ½ a mile faster than the tide.'

- 'There are fish inside the 3 mile limit that cannot be caught otherwise than in the trawl. One is the moki, which runs from 18 to 28 lb. I have never caught one or seen one caught, with the line. I believe the Māoris have bait that catches them. Others that the trawler alone catches are the frostfish, the barraconga, and the creamfish, & the John Dory. The terakihi will seldom take the line bait. All those varieties are practically immune from capture except by the trawler.'

- 'The supply of fish is as good now as when trawling began. It is particularly good just now. The quantity brought in yesterday would take 40 men 50 days to catch.'

#### *John Gallagher*

- relieving master of the trawlers Cowan (employed by the municipal markets); have been in the fishing industry for 35 years – net fishing, line fishing, trawling.

- 'The average weight of the schnapper I have caught in the gulf would be from 1½ lb to 2 lb. . . . I am sure there is now a scarcity of fish in the Hauraki Gulf. They have been caught by both the trawlers and the line men, the trawlers particularly. This will mean eventually a reduced supply of fish for the market.'

*Albert Sanford*

- 'I am the son of the founder of Sanford Ltd but have no interest at present in the company. . . . I am at present a line fisherman. I started line fishing about 35 years ago. At the time I was fishing about the Tamaki, Motutapu, and Tiri. We did not then require to go further. There were then six or seven line boats in Auckland. On the grounds near the city the fish became scarce in a few years, and the boats started fishing further afield till they got as far as Mercury Island and Whangarei. This was about 30 years ago, before even the smallest trawler came into the gulf. At that time we were hand line fishing. The long line came in about four or five years before the introduction of the present trawlers, about 8 or 9 years ago. With these lines we got much better catches. At present I carry ice on my boat and fish as far out as Mercury Isld and Great Barrier. I started again after a lapse of time in December last [1918]. Since then I have made 8 trips. My take for these trips were:

Date	Catch
18 December 1918	1 914 lb snapper 76 lb cod 251 lb hapuku
21 December 1918	120 lb snapper 445 lb hapuku
7 January 1918	1 687 lb snapper 128 lb cod 208 lb hapuku
10 January 1919	1 028 lb snapper 78 lb hapuku 14 lb king fish
15 January 1919	3 269 lb snapper
20 January 1919	3 559 lb snapper 122 lb cod
23 January 1919	1 176 lb snapper 87 lb cod
4 February 1919	1 596 lb snapper 64 lb kingfish 20 lb cod

Those catches were all taken on broken bottom where a trawler could not work. . . . They do not show any depletion of the fish in the areas. I do not see much difference all the time I have been fishing there. As a hand line fisherman I sometimes caught a boat load of school fish. On other occasions they would not bite for days in succession. School fish generally showed first off Tiri, and worked their way gradually to Cape Colville or the Great Barrier, and then disappeared altogether.'

- 'The terakihi, moki, and hapuku also visit the gulf in larger quantity during the time when the schnapper are schooling. That is the only time of the year we find them between Tiri and Flat Rock. They are mostly full grown fish. I have never heard of immature fish of those kinds being caught inside Colville, either on trawl or line.'

- States that supply much more regular now owing to the trawlers. Notes that trawlers not affected by weather to the same degree, claiming that fish will not bite before storm; also no problems with the supply of bait.

- 'In my experience the fish are as plentiful on the trawling areas as ever.'

- 'I have not fished inside the gulf lately because I have heard fishermen say they cannot catch fish. We used to go to the same outside grounds 30 years ago. I have done a lot of fishing in the gulf, and have caught a lot of schnapper there. The fish used to bite years ago. I do not know why they do not bite now.'

I maintain that the fish are still there, though we cannot catch them on the hand line. I do not think there were ever 100 boats in Auckland – say over 100. There are not nearly so many now. . . . I do not think they knocked off because they could not catch fish, but because they could not sell them.’

- ‘I do not agree that we do not get any quantity of fish in rough bottom. The best catches and best fish are got on rough bottom. The catches I have already mentioned were made on rocky bottom.’

#### *Axel Nilesen*

- Master of the trawler “Countess”; trawling in Hauraki Gulf since September 1915. 20 years experience trawling in NZ.

- ‘I find that the supply of fish in the Hauraki Gulf for the last four years has been very regular. The fish are now in better condition. Recent catches have been very fair. They vary from month to month and vary with the tides. At one state of the tide you will get a large catch, where at a different period you will get little. On our last trip we got 266 baskets in two days, principally in the vicinity of Cabbage Bay – from there to the quarry. Among those there was only a very small percentage of small fish, and the fish were in really good condition. Our best haul was about 30 baskets for three hours. That is very much better than when I first came to Auckland.’

- ‘The boards of a trawl are set at an angle of about 43 to 46 degrees, at the wings of the trawl. When the trawl is shot these boards are lowered about 10 fathoms. Then we go ahead with the engines. Then we pay away the length of wire we require to use. The trawl is sinking to the bottom, and when it is there we get to full speed. The trawl is kept open by the angle of the boards and the resistance of the ground. It merely skims the bottom, does not drag. If the boards dug into the ground we could not shift them. They are 8ft by 4ft on our ship. If we did not lower the trawl to the bottom, but attempted to tow it off the bottom, the boards would come together, and probably look and act like a propeller.’

- ‘We generally trawl for two days. During that time the fish caught are lying in ice. . . . There is no good supply of fish outside the present limits. I have not trawled in 60 fathoms. I have tried in 40 and have not had successful results. I do not know from my own knowledge what quantities can be got between 40 and 60 fathoms.’

- ‘Outside the present line there is only about 400 sq mile or 500 in the Hauraki Gulf up to where I have found foul bottom. I could not say how long it took to work it out. I should say it would take generations. I should say that the reason why the fish will not take the bait on the hook-lines is that we have stirred up the feed with the trawls, and they prefer that. I agree that we stir up the bottom to a considerable extent. Off the Moehau quarries when I first fished the trawls were filled with fungus, and little fish. Now the fish are plentiful, there. An increase in the number of trawlers would improve the fishing in the gulf. We create more food for fish by clearing the ground for them. The continuous trawling over a given area does not in our experience seem to have reduced the food supply for the fish. I have seen as many as half a basket of horse mussels brought up at times when the trawl was not working properly. I have seen as many as three baskets. We now get one occasionally. If we pulled the horse mussels off the bottom we should have the net full of them, but we only skim the bottom. When we used to get them we had the trawl fixed for smooth bottom. Now we have the trawl fairly high, and do not get the mussels.

- ‘Bad weather and the desire of the fish to get away from disturbed water may account for the fish disappearing from places where they have been found in quantity.’

- would like clearer, reduced trawling limits

- mentions a report by the Board of Trade from 1917 re trawling

- States: ‘our trawlers are up to date, according to the population here, and they are powered sufficiently to trawl up to 30 fathoms.’

#### *Gilbert Sanford*

- ‘We consider that man or his methods cannot fish out the sea, nor make any impression on what nature has provided in our vast extent of waters throughout the world.’

- 'We do not want Thames schnapper on account of their quality. The Thames gulf is overstocked, and it would be a good thing to allow the trawlers to thin the fish out. If a number of Thames men say that the quantity of fish is being reduced, and attribute it to the trawlers, I say the Thames men would swear to anything. . . . I do not agree that the fish can be depleted or decreased in numbers. I consider that fish breed too fast, and ought to be caught to keep th number down. I do not think 100 trawlers in this gulf would make any difference. Starvation would keep them down if they were not caught. I do not think the trawlers make food for the fish, but by stirring up the mussels they allow the young mussels to grow. . . . If the trawlers are sent further I think the fish in the inner waters will starve, just as they do in Cabbage Bay, by depletion of the food supply. It has not been proved that trawlers can deplete fish supplies in any other part of the world.'

*John Procland*

- master of the Auckland City Council trawler, "Cowan"
- 'Usually we trawl between Colville and Kawau, and from Tiri to Kawau. We have gone beyond that, and I have been as far away as Whangarei in the Countess, but the results were not satisfactory. . . . The best fish are not found in deep water, but in depths between 20 and 35 fathoms, the best places on the east coast being between the Watchmen and Kennedy Bay.'
- 'We are getting much the same trawls now as when I began trawling here.'

*James Bennett*

- Inspector of Fisheries for the Auckland District; have known the fisheries of the Hauraki Gulf for nearly 50 years; many years ago fished for the market
- carry out experimental fishing with handlines, long lines, and nets. 'I find plenty of small fish in the bays and in shallow water, north of Cabbage Bay, and down to the Green Patch, near the quarry. In the bays of great Barrier I also get small fish. I find the larger fish off-shore. . . . I should say the trawlers would not do much harm to small fish outside five miles from land.'
- believes that present limits should be altered, pushed further out
- 'I was on the Ninomo when she trawled inside the limits in June 1914, when Prof Prince was here. We made the first shot off Manaia, about six miles off land and towed the trawl for 1½ hours. The bag of fish was so heavy that it burst the net in being lifted aboard, and half the fish were lost. The next shot was made about 5 miles west of Goat Island. We towed up towards Deadman's Point, and then circled around towards the islands off Cabbage Bay, towing the trawl for 40 minutes. The result was 2800 odd schnapper, a large quantity of John Dory, three or four dabs, but no flounders or soles. There were very few large schnapper – s small run of fish right through. The recent hauls of the Baroona when the Commission was aboard would have no comparison with these. Fish are very scarce in the whole gulf from the line man's point of view. They may be there but if so they do not bite.
- 'I was quite satisfied by the single day's trawling in the Baroona that there had been a tremendous depletion in the supply of fish.'
- 'On the 22<sup>nd</sup> Jany last I was going to the Great Barrier, and about 5 miles N.E. of Tiri I saw a fishing boat, the Petrel, working. Afterwards one of her crew told me that they got 90 bundles, fishing half way down. From that catch I know the gulf is not depleted off Tiri. But I have fished across towards the Noises, at the Barriers, and Cabbage Bay, and hardly been able to catch a fish. I do not know if there has been the same shortage at Whangaroa. Apart from the trawlers I have found it increasingly hard to get fish as time goes on. They have been decreasing steadily since 1896. I do not say this is due to the trawlers. I refer mostly to schnapper.'
- 'I have found that the Thames fishermen destroy a large quantity of small flounder. In under-running the nets the meshes are drawn together. That means that at the point where the fisherman is under-running, fish that would ordinarily get through the regulation net cannot do so. A fisherman is working several nets at a time. While the tide is making or falling he is working up and down as fast as he can go in his dinghy. The faster and oftener he overhauls the more fish he gets. Generally he works on till the tide is too low for his dinghy – practically until the nets are stranded. . . . The fish are not as a rule bundled up till the tide has gone. Then the boat is taken alongside the launch for the purpose. The small

fish are then thrown overboard. If they are alive they get away. . . . The small fish brought up in a trawler are returned, I should say, much more quickly than those taken in the net. . . . Another cause of destruction of fish in the gulf is the use of dynamite. Previous to trawling being started the line fishermen did a lot dynamiting. The proportion of fish recovered to those destroyed and lost through dynamite in [sic] small. A vast number sink. Before the trawlers came I did not see any quantity of dead fish thrown up on the islands in the gulf. I have not seen then [?] since the trawlers came, either. As to parts of the gulf that I consider well stocked with fish, just now, I cannot point to any that I would so class. I am speaking now of my own experience, but by hearsay I have heard of good catches – one on the 22<sup>nd</sup> January, and there is one of a catch of 1600 fish of Tiri mentioned in the Star one day this week.’

- ‘I do not think the trawlers destroy the food. They only destroy a few horse mussels, but that doesn’t amount much. Ordinary mussels grow very quickly. . . . It is absurd to say that the small weight of the trawl, allowing for the buoyancy of the water acts as a road roller on the bottom. I should say that the trawl floats rather than drags. I do not think there is any destruction of small fish by the trawl crushing them.’

- ‘The takes made in our trip on the Baroona satisfied me that fish are not as plentiful as they used to be. Below Deadman’s Point I cannot get fish by the line the same as I used to. In other points of the gulf I have noticed a decrease as regards line fishing. A day or two before the trip in the Baroona I notice[d] large schools of fish, among which I presume were schnapper, from the Cabbage Bay side of the Quarry to pretty well down to the Cape. It would be less than a fortnight before the Baroona trip. I presume that that is why the Countess made such a large catch in that locality. . . . I cannot explain why the trawlers are getting big catches now on their old fishing grounds, as compared with the small catch of the Baroona in the protected area.’

- ‘On present knowledge it is impossible to say positively that the schnapper spawn in the gulf. That is the theory of the fishermen. I have never heard of anyone seeing them with the ovum sac attached in the harbour.’

- ‘I consider Cabbage Bay and its vicinity a breeding ground as well as a nursery. Mature fish in the state in which they will be found there should never be caught. The catching of fish in that state may be one of the reasons for lessening the supply.’

- ‘I cannot accept the evidence that the trawlers do not destroy the young fish in the Hauraki Gulf. My experience in the gulf tells me we should give the fish the utmost protection. In my opinion the trawlers kill ten times as many immature fish as the line and net men. I base that opinion on my observation of trawlers.’

- ‘There has been a steady decline in the fish in the gulf since 1896. I cannot say what caused that decrease before the trawlers began.’

- ‘I think the line Colville – Flat Rock – Rodney would not be too far out if we had adequate trawlers. If the boats went out towards the Bay of Plenty I think they would get a better class of fish.’

#### *Francis Flinn*

- Inspector of fisheries for the North Auckland district, stationed at the Bay of Islands

- born on Great Barrier Island and lived there, 25 to 30 years experience in the Barrier and the gulf

- ‘I fished for the market, mostly at Great Barrier, about 10 years ago. There were many Auckland boats fishing there at the time, and others licensed from the Barrier. The principal kind of fish we caught were crayfish, schnapper, rock cod, and kingfish. When I fished there fish were plentiful.’

- ‘I think the whole Hauraki Gulf between here and the Barrier is a rearing ground for schnapper. I feel sure that all the shallow bays and sheltered places are homes for small schnapper.’

- ‘I do not say that the trawlers have depleted the fish – they have gone down gradually. If there has been a gradual depletion since 1896 there is no reason to ascribe the depletion wholly to the trawlers, but the depletion has been more rapid in their time.’

#### *L.F. Ayson*

- Chief Inspector of Fisheries



- 'I consider that it is inadvisable that, taking everything into consideration, trawling should be allowed inside the present limits. Outside the present boundaries the trawlers have a very large extent of trawling ground, and from the information given by the owners of trawlers it would seem that the catches on these grounds are at present as large as when trawling commenced in 1916.'
- 'There has been a gradual diminution for many years, but whether it has been greater since the trawlers started I am not in a position to say. If the fish were there I should expect the line men to catch them. I do not think many fish are destroyed by the use of the regulation schnapper net. I was out two nights with these fishermen, flounder fishing two or three years ago, and noticed that a few small fish were lost when the tide went out.'
- 'I have trawled throughout Bay of Plenty and up past Curvier Island. There is a large trawling area there, and also on the line from Great Mercury and Curvier Island to Colville. . . . With adequate up to date trawlers fish could be caught in great quantities in various places round the coast of Auckland.'
- 'The ground that I attach particular importance to is the Firth of Thames, as a protected area for small fish.'
- 'Here, about 80% of the trawlers' catches in the Hauraki Gulf consist of schnapper. They catch practically no flat fish. The other 20% consist of fish not usually caught by line fishermen, such as John Dory, and moki, and terakihi.'
- 'I am convinced that the school schnapper are the spawning schnapper.'
- 'If the trawlers came inside the present limits, I consider that they will destroy the young fish. I had experience in 1901, in the Doto[?], of trawling in the inner waters of the Thames now protected. The run of fish caught there were small.'
- 'The large supplies of fish brought into Auckland at the beginning of the trawling system put a large number of line boats out of action. I consider that the supply of the larger fish has decreased.'
- 'Blue cod are caught occasionally around the Great Barrier and off the Mercuries and Alderman Island.'

Hammond & Cracknell to Chairman and Members of the Fisheries Commission, 4 March 1918, Exhibit 2 produced at the Fisheries Commission, M 1 2/12/55 part 9, Auckland Fish Commission – report and evidence, 1919-1928, NAW.

- 'We have the honour by the instructions of Settlers and others residing on the shores of the Hauraki Gulf between Mahurangi Heads and Takatu Point to bring under your notice the effects of trawling in that part of the Gulf. // Previously to the advent of trawlers in the waters between the Mainland and Kawau, fish abounded and the settlers could rely upon catching whatever they required. The Trawlers have worked here at intervals, even as far as possible into the smaller bays, and now it is impossible to get a reasonable catch. Not only have the fish almost disappeared but what remain are small and the feeding grounds are apparently seriously disturbed.'
- request that trawling be prohibited

Report on Fishing Industry – Auckland District by L.H. Gresham, Exhibit 4 produced at the Fisheries Commission, M 1 2/12/55 part 9, Auckland Fish Commission – report and evidence, 1919-1928, NAW.

- It is unclear which witness provided this exhibit. It is also unclear who L.H. Gresham represented or what expertise he possessed.
- 'The boats at present being used for trawling cannot be called trawlers, they are small tugs, and steamers converted into imitation Trawlers, the consequence is that when the weather is a little bit rough they are unable to do their duty and must run into shelter. // By the Courtesy of the Fish Committee I had a trip out in the Cowan. We left at 8.15 on the Tuesday 17<sup>th</sup> ult. Shooting the trawl as soon as we reached the limit line, after 4 hours trawling the catch amounted to 8 Baskets, the second trawl lasted 1 Hour 20 minutes and the catch was 2 baskets. As the wind got a bit fresh we were compelled to run into Bon Accord Bay arriving at 7.15 pm. . . . During Thursday and Friday the trawl was shot six times, 5 trawls of 4 hours each and the last one 3 hours, the catches were 12, 10½, 16, 16, 19, 8 Baskets, total 91½ Baskets for 3 days work. // When the net is hauled on board the cod-end is untied allowing the fish to drop on deck to be walked over by the men until the net is again over the side, a very simple arrangement could be made to remove the fish out of the way of the men thus giving them clear deck space to work in and at the

same time preventing the fish being bruised and crushed under, in some cases the big sea boots of a 16 stone man. // in nearly every haul large quantities of empty horse mussel shells are found in the net; after the fish have been placed in Baskets, an iron spade being used instead of a wooden one, these shells are thrown overboard only to be hauled up again on other occasions; they should be put into sacks and sold to firms who crush them into shell grit for poultry, it is absurd to keep on bringing them up and throwing them back again only to foul the bottom when every effort should be made to keep the feeding grounds as clean as possible. // When the Trawlers first started on these grounds large catches were the rule, 60, 70, and 80 Baskets being taken. Compare this with the latest results as shown above viz: - 8, 2, 12, 10½, 16, 16, 19, 8. These are counted as one haul. Total 91½, average for 7 hauls, 13 Baskets. Formerly large quantities of mussels were taken in the net, now very few mussels but principally mussel shells. The boards of the Trawl bury themselves deeply when trawling (I measured six inches of mud on the board) and with the heavy foot rope measuring 80 feet in length stretched taut from board to board plow up the bottom to such an extent that the food the fish are looking for is destroyed and has no chance to grow. // The writing is on the wall and is easy to read. If the Trawlers keep on scouring this ground as they have been doing for the past 3 years there will soon be no fish but only empty mussel shells. . . . After mature consideration, I think the Trawlers should not be allowed inside a line drawn from Rodney Island to Cape Colville. The grounds inside this line are fish nurseries where spawning takes place every year from November to January, the fish coming in in shoals full of roe and melt ready to carry on their natural functions of propagation and those three months should be declared a close season for schnapper, the fish being allowed to spawn without interference, this would keep the seas well stocked with fish and all concerned would reap better harvests. // After spawning the fish are in a spent condition and congregated in the vicinity of Cabbage Bay. Why, nobody seems to know but the fact remains, probably careful investigation by the Government Inspector might find out the reason. Whole catches from this place have been condemned and investigation might prove that it would be wise to close this area altogether and allow the fish to recover from their maternity troubles.'

- Dynamiting fish: 'Constant reports are being received that fish are being dynamited. Under the present law it is very difficult to obtain a conviction of any person thus transgressing. A man may bring in a boat full of dynamited fish but nothing could be done to him unless he was caught in the act.'

New Zealand Gazette, 1919, No. 125, extract in M 2/12/55 part 4, Hauraki Gulf – Trawling, 1919-1923, NAW.

- Order in Council signed 20 October 1919 (made under the Fisheries Act 1908).

- 'No person shall haul or use a trawl-net for the purpose of taking fish in that portion of the Hauraki Gulf which is bounded on the north by a line extending from the north head of Cabbage Bay to Shearer Rock off the north-east point of Tiritiri Island, and generally on the north-east by a line extending from Shearer Rock to Mahurangi Heads.'

New Zealand Gazette, 1920, No. 1, extract in M 2/12/55 part 4, Hauraki Gulf – Trawling, 1919-1923, NAW.

- Order in Council signed 23 December 1919 (made under the Fisheries Act 1908).

- 'No person shall haul or use a trawl-net for the purpose of taking fish in that portion of the Hauraki Gulf which is bounded on the north by a line extending from the north head of Cabbage Bay to Tiritiri Lighthouse, and thence generally on the north-east by a line extending to the most southerly point of the North Mahurangi Head.'

## **S5: Archival Data/Observations for Hauraki Study Area – 1920s**

### **1920**

Extract from Bay of Plenty Times, 10 August 1920, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.

- Records evidence presented to inquiry being conducted by Ayson and A. Petersen regarding the trawling limits in the Bay of Plenty.
- Evidence of Alex Leslie: 'Mr Alex Leslie said he had been fishing here nine or ten years ago and followed it up till 1914. He knew the Coast from Town Point to Whangamata as well as anyone. Off Whangamata he had got as many as 60 dozen. The average used to be about 25 to 30 dozen. Since he had been back from the war he had been out a fair number of times trying the old grounds but had had no luck at all. . . . All his big catches used to be between Bowentown and Whangamata. When he was fishing before he noticed that the fish always took off about August. The weather conditions affected the fishing. Since he returned he found a big decrease in the fishing.'

A.G. Nilsson [Master of the municipal trawler, "Simplon"] to Chief Inspector of Fisheries, 30 August 1920, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.

- 12 years experience trawling; first trip to BoP about 12 months ago, been there about 5 or 6 times. Believes that present limits in BoP should be removed, except a small limit off Tauranga.
- States that the best class of fish have been caught close-in, particularly snapper and terakihi. On one occasion, caught 820 baskets in 2 days fishing, equal to about 25 tons. Two-thirds of the catch was big snapper. Best depths for fishing from 25 to 30 fathoms.
- Believes that large quantities of flat fish might also be taken in the present limits were removed.
- Argues that the supply of fish in the Hauraki Gulf does not appear to have been affected by trawling. (States that in three days last year, about November, we took 940 baskets – equal to 28 tons – in 2½ days fishing.)
- States that trawling in deep water in BoP (40 to 100 fathoms), catches were small and fish in poor condition.

Enquiry held by Mr Ayson and Mr Petersen at Auckland, 13 August 1920, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.

*Evidence of Mr Sanford:*

- all five of his trawlers have gone down to Bay of Plenty at intervals
- 'Our boats get exceptionally good catches in the Bay of Plenty, especially in about the 20 fathom mark, and even closer.'
- 'They [snapper] have become scarce outside Tiri, but it is not an unusual thing for fish to become scarce in any particular spot. When I was a boy we used to go further afield than Tiri for fish, at certain times of the year. It is only a matter of the fish clearing out. I suppose the climatic and other conditions – supply of food etc. – affect them.'

Report of L.F. Ayson and A Petersen [Hawkes Bay Inspector] on the question of trawling limits in the Bay of Plenty, no date, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.

- Recommends the existing trawling limits be removed. Comments that trawling is the most up-to-date method of catching fish; that it is always opposed by local line and net fishermen when first introduced to an area; and that it does not appear to have any effect on the quantity of fish.

NZG 1921, no. 23, 3 March 1921, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.  
Order in Council revoking existing restrictions and prohibiting trawling in a portion of Bay of Plenty (around Tauranga).

## **1920**

Annual report for Whangarei for year ending 31 March 1920 by Constable M Power, M 1 2/12/207 NAW.

- 10 licensed fishing boats.
- Following quantities of fish caught:

<b>Kind</b>	<b>Doz</b>
Snapper	15 200
Mullet	7 200
Flounder	2 800
Hapuku	364
Cod	150
Other Varieties	410

- Minute on return (Ayson?) gives rough estimate of weight at about 800 cwt.
- Oyster beds stated to be looking 'very good'.

Annual report for Auckland for year ending 31 March 1920 by J.P Bennett, M 1 2/12/207 NAW.

- 21 boats actually fishing at Auckland; employing 45 men.
- 5 steam trawlers employed at Auckland; employing 39 men.
- Various kinds of fish taken at Auckland: snapper, flounder, mullet, trevally, tarakihi, kahawai, gurnard, blue cod, porori, kingfish, hapuku.
- Total weight taken during the year: 3170 tons.
- 'During the last year fish of all kinds are becoming more scarce in the Auckland District.'
- Suggests, in connection with the very noticeable scarcity of fish in the Hauraki Gulf, that it should be declared an offence under the regulations of the Fisheries Act for nets to be set in bays at high water and allowed to remain in that position til low water, unless 'under run' every hour during the time such nets are set.
- Oysters: has been a very fair spawning in some parts of the Auckland Oyster Fishery, viz. Ponui, Rakino, parts of Waiheke, also at Mahurangi – beds may now be more closely picked of mature oysters where they are replaced by spat.

Annual report for Thames for year ending 31 March 1920 by Inspector of Fisheries J.P. Bennett, M 1 2/12/207 NAW.

- 60 licensed fishing boats at Thames, but owing to the jelly fish pest only 15 boats employing approx 50 men are working.
- 'During the last year most fish have been fairly plentiful.'
- Three fish curing establishments: Thames Fisheries, Taylor Bros, and Sanford Ltd.
- Only Thames Fisheries have provided return; return of Taylor Bros also attached; no Sanford return:

<b>Fish</b>	<b>Thames Fisheries</b>	<b>Taylor Bros</b>
Snapper	526 tons 3 cwt 1 qr 27 lbs	240 000 lbs / 120 000 fish
Flounder	48 tons 10 cwt 3 qr 24 lbs	72 000 lbs / 21 000 fish
Mullet	9 tons 4 cwt 0 qr 14 lbs	8 000 lbs / 2 000 fish
Trevally		2 000 lbs / 500 fish
Gurnard		24 000 lbs / 18 000 fish
John Dory		2 000 lbs / 700 fish
Kahawai		4 000 lbs / 1 200 fish
Mixed Fish	115 tons 15 cwt 3 qr 3 lbs	

Annual report for Tauranga for year ending 31 March 1920 by Inspector of Fisheries A Skinner, M 1 2/12/207 NAW.

- 29 licensed fishing boats at Tauranga, but a number of owners not professional fishermen.
- No steam trawlers registered.
- Approximately 20 men engaged in fishing.
- Trawling limits were lifted some time ago, and the trawler from Auckland made some good hauls, but owing to agitation by local fishermen and their friends the restrictions were once again gazetted.
- Various kinds of fish caught: snapper, hapuku, trevally, kahawai, rock cod, garfish, herring, moki, king fish, flounder, crayfish, and mullet. Snapper the main catch.

- Difficult to get details from fishermen as to catch; exception is Lynman and Cox, engaged at Sanfords Fish Works – there estimate is about 40 cwt of fish caught and sold.
- 2 fish curing plants here; understand that Sanford is to erect a big plant here in the near future and bring down two trawlers from Auckland.

## 1921

### Annual report for Whangarei for year ending 31 March 1921 by Constable M Power, M 1 2/12/224 NAW.

- 12 licensed fishing boats.
- No steam trawlers and motor launches engaged in trawling.
- 17 men engaged in fishing.
- Various kinds of fish caught on the local fishing grounds: snapper, mullet, flounder, hapuku, and trevally.
- Total weight of catch: 4467 cwts.

### Annual report for Thames for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.

- 32 licensed fishing boats at Thames; no trawlers.
- Approx 70 men engaged in fishing.
- Various kinds of fish taken: snapper, mullet, gurnard, john dory, kahawai, trevally, dogfish, and flounder.
- Total weight of catch: 410 tons.
- Oysters: 2200 feet of rock wall built for oyster culture at Te Kouma Harbour near Coromandel; 1700 feet at Port Fitzroy, Great Barrier Island.

### Annual report for Auckland for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.

- 202 boats licensed at Auckland which includes Manukau, Whangarei, Katikati, Whakatane, Mercury Bay, Tauranga and other places in the Bay of Plenty. 46 employed in and about Auckland.
- 134 men engaged in fishing and oystering.
- Various kinds of fish caught: snapper, flounder, mullet, trevally, tarakihi, kahawai, scorpion, gurnard, parori, blue cod, hapuku, kingfish, creamfish, and mango.
- Total weight (as near as possible) of fish brought into Auckland was 3428 tons, including 764 dozen crayfish and 780 lbs of shrimps.

### Supplementary annual report for Auckland for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.

- 165 boats registered at Auckland.
- Fish supply plentiful as several trawlers working the Bay of Plenty and when weather good taking good catches of snapper, tarakihi, and gurnard.
- Smaller trawlers working about the Gulf mostly obtain moderate catches.
- Long and hand line fishermen at Auckland are mostly working outside Great Barrier, Little Barrier, Mokohinou, and Mercury and Alderman Islands in the Bay of Plenty; in good weather get good catches of snapper, hapuku, blue cod, kingfish, and other kelp fish.
- The line men with their small boats have to go further away 'owing to the Trawlers cleaning out the Gulf'; would be a great advantage to them and would save wasting of fish if a cool store built at Mercury Island.
- 'Inside Cape Colville and Little Barrier fish have become so scarce that fishermen cannot make a living within that area.'
- 2971 sacks of oysters taken from the Hauraki Gulf during 1920.

- Oyster beds are in places showing a fair amount of young oysters – Ponui Is, north side of Waiheke and Waiheke passage, Rakino, west side of Motutapu, Rangitoto, and the Coromandel shore.
- Mahurangi fishery (including Matakana, Mahurangi, and several small islands) seem to recover slowly.
- Suggests new method of picking and season opening put forward to June 1<sup>st</sup>.

Annual report for Tauranga by Inspector of Fisheries A Skinner for the year ending 31 March 1921, M 1 2/12/224 NAW.

- 24 licensed fishing boats at Tauranga, but a number of owners not professional fishermen.
- No trawlers registered.
- Approximately 30 men engaged in fishing.
- Total weight of fish caught 'would be 50 tons'.
- Various kinds of fish caught: snapper, hapuku, trevally, kahawai, flounder, herrings, mullet, garfish, gurnard, rock cod, kingfish, and occasionally barracouta.
- Difficult to get details from fishermen as to catch; exception is Lynman and Cox, engaged at Sanfords Fish Works – there estimate is about 40 cwt of fish caught and sold.
- 3 fish curing plants here.
- Fish fairly plentiful this year.
- Question of fixing a boundary for trawlers was agreed upon.

**1922**

Annual report for Whangarei for year ending 31 March 1922 by Constable M Power, M 1 2/12/245 NAW.

- 17 boats engaged in fishing; 30 men employed upon them.
- No steam trawlers and motor launches engaged in trawling.
- Various kinds of fish caught on the local fishing grounds: snapper, mullet, flounder, hapuku, trevally, etc.
- Catch weights:

Kind	Lbs
Snapper	4 300 doz / 154 000
Mullett	2 760 doz / 55 200
Flounder	1 604 doz / 16 040
Hapuku	200 fish / 6 000
Trevally	150 doz / 4 500
Oysters	30 sacks / 2 tons
Mussels	200 sacks / 20 tons

- Oyster beds inspected and found in very good condition; practically no poaching.

Annual report for Auckland for year ending 31 March 1922 by Inspector of Fisheries J.P. Bennett, M 1 2/12/245 NAW.

- 184 boats licensed at Auckland, but only 31 actually fishing at Auckland.
- 8 steam trawlers and motor launches engaged in trawling.
- 121 men engaged in fishing and oystering (64 on fishing boats and 57 on trawlers).
- Various kinds of fish caught: snapper, flounder, mullet, dogfish, trevally, blue cod, kahawai, gurnard, hapuku, kingfish, bream, herrings, garfish, crayfish, shrimps and whitebait.
- Total weight (as near as possible) of fish brought into Auckland was 65,700 cwt.
- 'Fish especially snapper are owing to the steam trawlers operating in the Hauraki Gulf becoming more scarce each year, and if the reduction continues as at present, line fishing in the Gulf will absolutely cease altogether. I therefore consider the Department should extend the trawling limits outside the Hauraki

Gulf, and put the trawlers on the same footing as the small fishing boats who have had to obtain their catches beyond the Hauraki Gulf for the last three years.’

- Oysters – parts of the beds in the Auckland oyster fishery are looking very well; recommends that the Department, when picking a bed, should remove all the oysters to allow new brood to take.

Annual report for Thames for year ending 31 March 1922 by Inspector of Fisheries J.P. Bennett, M 1 2/12/245 NAW.

- 32 licensed fishing boats at Thames; no trawlers.
- Approx 70 men engaged in fishing.
- Various kinds of fish taken: snapper, flounder, gurnard, trevally, kahawai, mullet, eels, dogfish.
- Weight of catch:
  - Thames Co-operative Fisheries – 12,209 cwt 2 qr 11 lbs (value £15,493)
  - Taylor Bros – no record of weight, value £5694
- 3 fish curing and canning establishments (one not working).
- ‘The fishermen at Thames are net fishermen and the whole catch are taken by nets.’ Supply poor during the last year owing to enormous quantities of jellyfish being caught.
- 1640 yards of rock wall built at Te Kouma Harbour for oysters to attach.

Annual report for year ending 31 March 1922 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/245 NAW.

- 30 licensed fishing boats at Tauranga, but a number of owners not professional fishermen.
- No trawlers registered.
- Approximately 30 men engaged in fishing.
- Difficult to get an estimate of the total weight of fish caught, but after talking to fishermen, estimate that about 2 tons a week are caught, about 100 tons per year.
- 2 fish curing plants here.

**1923**

Annual report for Whangarei for year ending 31 March 1923 by Constable M Power, M 1 2/12/269 NAW.

- 10 boats licensed and engaged in fishing; no trawlers.
- 13 men engaged in fishing.
- 4 fish curing sheds.
- Various kinds of fish caught on the local fishing grounds: snapper, mullet, flounder, hapuku, trevally, etc.
- Catch weights:

Kind	Lbs
Snapper	313 539
Mullett	74 300
Flounder	15 628
Hapuku	18 178
Tarakihi	1 200
Piper	1 300
Blue Cod	900
Crayfish	8 960
Oysters	100 sacks

Annual report for Auckland for year ending 31 March 1923 by Inspector of Fisheries J.P. Bennett, M 1 2/12/269 NAW.

- 156 boats licensed at Auckland; 35 engaged in fishing at Auckland.
- 6 steam trawlers; no motor launches engaged in trawling.
- 130 men engaged in fishing and oystering.

- Various kinds of fish caught: snapper, mullet, flounder, trevally, tarakihi, kahawai, barracouta, barracouta, dogfish, gurnard, parori, blue cod, hapuku, kingfish, butterfly, creamfish, dogfish, and mango.
- Total weight (as near as possible) of fish brought into Auckland was 3275 tons (see Bennett to Secretary of Marine Department, 10 May 1923, M 1 2/12/269 NAW).
- 3893 sacks of oysters received at depot.
- 4 fish curing establishments at Auckland.
- 'The supply of fish at Auckland has not been so regular as in previous years owing to the trawlers which fetch in the most regular supply having to go farther away to secure payable catches'. Some of the large trawlers have been operating on the west coast, others in the Bay of Plenty. Some of the trawl masters complain that there is a marked difference in the supply there compared with previous years.
- 'The trawling grounds in the Hauraki Gulf are becoming fast depleted, so much so that several of the Trawl masters suggest a close season for Schnapper in the Hauraki Gulf as Schnapper have become very scarce.'
- As the school snapper is becoming less plentiful in the Auckland fishery each season, suggest a close season. Several trawl masters have suggested this privately owing to the vast destruction of spawning snapper during spawning season. They believe that this is the sole cause of the decrease in the supply from year to year.

Annual report for Thames for year ending 31 March 1923 by Inspector of Fisheries J.P. Bennett, M 1 2/12/269 NAW.

- 28 licensed fishing boats at Thames; actual number of boats fishing at Thames is 47.
- 108 men engaged in fishing.
- Various kinds of fish taken: flounder, snapper, mullet, gurnard, trevally, kahawai, dogfish, and parori.
- Weight of catch, as near as possible:
- 1277 tons
- 3 fish curing and canning establishments (one not working).
- Up until a month ago fish fairly plentiful at the Thames, but with the approach of winter fish head to deeper waters, catches become less owing to the methods of the Thames fishermen (set nets).
- Some 5 or 6 boats are fishing for line fish – rock cod, hapuku, and snapper – from the Thames and are working as far down the East Coast as Mayor Island in the Bay of Plenty.

Annual report for Thames for year ending 31 March 1923 by Inspector of Fisheries S.H. Bishop, M 1 2/12/269 NAW.

- 31 licensed fishing boats at Thames. Notes that 3 boats licensed to Auckland have brought fish to Thames, and that Thames boats have run into Auckland – believes 'one lot about sets off the other'.
- 91 men engaged in fishing. Notes that the number of men varies and the average only is given here.
- Various kinds of fish taken: barracouta, butterfly, cod, conger eel, crayfish, flounder, groper, gurnard, hapuku, horse mackerel, john dory, kahawai, kingfish, mullet, mussel, snapper, trevally, hake. Notes that these are the fish caught 'commercially'.
- Weight of catch, as near as possible:
- 27,957 cwt (notes that this includes 52 crates of crayfish)
- 3 fish curing and canning establishments.

Annual report for year ending 31 March 1923 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/269 NAW.

- 29 fishing boats registered at Tauranga.
- No steam trawlers, though occasionally trawlers from Auckland trawl in this neighbourhood.
- About 20 men engaged in fishing.
- Kinds of fish caught: snapper ('the main crop'), hapuku, trevally, kahawai, flounder, gurnard, rock cod, moki, trumpeter, kingfish, herring, mullet, and garfish.
- Catch weight: 'Hard to say for certain' – estimates 2 tons per week.



- 2 fish curing plants here.
- Fish of all kinds have been fairly plentiful during the past year.
- Deep sea fishing has provided some sport; visitors speak highly of the local grounds.

### 1923

Taylor Bros to Minister of Marine, 27 September 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- ‘We have the honour to bring under your notice the fact that granting permission to Trawlers to use the Seine Net, practically gives the Hauraki Gulf up to Trawling. Seine netting as practiced by the Auckland trawlers is Trawling – not Net fishing, and the result if the practices is allowed to go on will knock the Line Fishermen out of work, and the further result will be the destruction of the Fishery . . . .’

James Daniel to Inspector of Mercantile Marine, Auckland, 1 October 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- Describes observing the “Countess” using the seine net on 28 September 1923.
- We were cordially invited aboard and were given a demonstration of the use of the Seine Net this being the first time this particular class of Net has been used in these waters . . . the whole crew except the Engineers and a (Pilot) Jim Mitchell were Englishmen Fishermen and new arrivals . . .’
- caught only gurnard and flounder; few undersized fish

G.A. Pollack, Chairman of Thames Fishermen Union, to Minister of Marine, 29 October 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- States that, following a meeting of local fishermen, would like to bring Minister’s attention to issues concerning purse seining in the Hauraki Gulf. ‘That Purse-seining, if permitted within the Hauraki Gulf, will eventually destroy the supply of flounder in the Gulf for the following reasons.’ States also that the Gulf is a breeding ground for flounder, and that hauling the bottom has been proved to disturb the bottom, destroy spawn, and cause loss of small fish.

Photograph, received by Marine Department 1 November 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- On the back of the photo, possibly written by Inspector Daniel: ‘These men are just out from Aberdeen & are the only men in the Colony at present that have used the net in English waters.’

Dominion, 3 November 1923, extract in M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- ‘Great catches of flounders have been made by the new seine net carried on by one of the privately-owned trawlers operating in Hauraki Gulf. “We are getting them by the ton”, declared an employee of the trawling company to an “Auckland Star” reporter. The new seine net has revolutionised fishing in these waters. Flounder will soon be cheaper than schnapper.’

J.B. Johnston, Chairman Auckland Yacht and Motor Boat Association, to Minister of Marine, 22 November 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- Wishes to draw to the attention of the Minister ‘the alarming decrease in the catches of fish (particularly schnapper) by private parties during the last few years.’
- ‘It is an indisputable fact that in past years there were numerous fishing grounds in the Gulf which yielded a plentiful catch to line fishers at any state of the tide. To-day there is practically nothing to be caught at even the most favourable state of the tide. // The accumulated evidence of amateur fishermen (of whom there are thousands both within and without yachting circles) establishes conclusively that last season on account of the small catches fishing in the gulf was scarcely worth while and this season so far it is useless. It is unnecessary to emphasise that this is a serious matter.’

New Zealand Herald, 24 November 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- on morning of 23 November, “Countess” demonstrated Danish seine; Minister of Marine on board

- ‘After a two hours’ run, when in the main channel between Howick and Waiheke, the vessel dropped anchor and the seine-net was cast, about two miles from the Waiheke coast. It was blowing stiffly from the north, and there was a roughish sea, and generally speaking it was far from a propitious day for a good catch. // The seine-net does not begin to gather in the fish until it is about 600 fathoms from the ship, and as the steam winch hauls in the net ropes, continues its work until it is about 200 fathoms away, the mouth of the net being then closed up. As the winch draws up the net the two ropes pass to the coiling mechanism, which is operated from the winch by a chain drive, and the ropes are evenly coiled away. // The first haul yielded some ten baskets of fish, mostly schnapper, with a few travillis, John Dories, stingarees, a dog fish, and some mussels. The second cast brought seven baskets of fish, again mostly schnapper but this time a shark about five feet long was hauled in. The shark, like the stingarees, was promptly dumped over the rail. The catch was not a good one, but having regard to the weather was deemed to be as good as could be expected. The net used has a 4in mesh, and it was noted that the fish on deck contained no small specimens.’

New Zealand Gazette, 1924, No. 4, extract in M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.

- Order in Council signed 22 December 1923 under the provisions of the Fisheries Act 1908.
- Prohibits use of seine net within the Firth of Thames (from Deadman’s Point to Ponui Passage Light to Raukura Point).
- Prohibits trawlers from using or carrying a purse-seine.

### **1923 Crayfish**

NZ Times, 27 July 1923, clipping in M 1 2/4/1 part 1

- Minister of Marine reported to tell House of Representatives that there was an unlimited demand for tinned crayfish in England and America. Stated that a Nova Scotia company had asked the government to give it a monopoly of tinning crayfish in NZ, but the government had refused. A successful local company was already in operation in Thames.

### **1923 Crayfish**

L.F. Ayson (Chief Inspector of Fisheries) to Secretary, Marine Department, 6 September 1923, M 1 2/4/1 part 1

- ‘It is well known that there is a large demand in England, France and other countries for canned crayfish. The reason for this is the depletion of the lobster grounds on the Canadian and American coasts . . . . // New Zealand has extensive crayfish grounds away from the centres of population which have practically never been fished, and which will not be required for supplying crayfish to the cities for a great many years . . . .’ Recommends leasing areas of the coastline.

### **1923 Crayfish**

Irvine and Stevensons (Canning Works) to the Minister of Marine, 22 November 1923, M 1 2/4/1 part 1.

- States that has been canning crayfish for many years, but does not find any abundance of fish as talked about. ‘We don’t find people willing to catch the fish, except at a prohibitive cost.’ Have completed a factory at Auckland, but have had no crayfish.

### **1924**

Annual report of fish caught and sold within fishing limits of Whangarei River for year ending 31 March 1924 by Constable M Power, M 1 2/12/298 NAW.

- 12 boats licensed and engaged in fishing.
- 20 men engaged in fishing.
- 3 fish curing sheds.
- Catch weights:

Kind	Cwt
Snapper	2 278

Mullett	300
Flounder	22
Hapuku	92
Mixed	20
Total	2 712

Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1924 by Inspector of Fisheries C Daniel, M 1 2/12/298 NAW.

- 191 boats licensed at Auckland – all engaged in fishing, none oystering. Notes that over a third of the licenses are held by boats that are not continuously fishing.
- Number of vessels trawling etc:
  - 8 steam trawlers
  - 0 oil trawlers
  - 2 steam seiners
  - 3 oil seiners
- 498 men engaged in fishing; 25 oystering.
- Various kinds of fish caught: snapper, tarakihi, trevally, john dori, flounder, hapuku, mullet, moki, gurnard, barracouta, gray fish, kahawai, frost fish, rock cod, king fish, parore, mussels.
- Total weight (as near as possible) of fish brought into Auckland was 126,723 cwts.
- 1200 sacks of mussels from the Coromandel Coast; 254 sacks from Thames.
- 25 smoke houses, no canneries.
- Remarkably good year for fish, snapper particularly. About September, the seine net was introduced into these waters and taken up by 2 or 3 vessels, and onward to February brought in very big hauls of flounder, dabs, and sole, which found a very good market locally. Several trawlers laid up during the schooling season and right through the summer owing to little demand for snapper. Seine net becoming very popular in this area.

Return of fish landed at Thames for year ending 31 March 1924, B.F. Gilman, Coastwaiter, to Captain Atwood, Superintendent, Mercantile Marine, 24 May 1924, M 1 2/12/298 NAW.

- Returns for:
  - Thames Fisheries Ltd – 651 tons 19 cwt 3 qrs 13 lbs
  - Shatland Fish Company – 144 tons 1 cwt 28 lbs
  - Taylor Bros – 200 tons
- See spreadsheet for details.

Annual report for year ending 31 March 1924 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/298 NAW.

- Fishing industry remain much the same as in previous years.
- 28 fishing boats licensed.
- 1 small steam trawler has made spasmodic efforts to fish from this port, but owing to the small size and inexperience of the crew has not met with much success.
- No steam trawlers, though occasionally trawlers from Auckland trawl in this neighbourhood.
- About 30 men engaged in fishing.
- The main catch of fish is snapper, with the others in following order – hapuku, trevally, kahawai, flounder, gurnard, rock cod, moki, king fish, herring, mullet, and garfish.
- 1 fish curing plants here.
- Total weight of catch: ‘no means of arriving at this but after conversing with a number of fishermen and from my own observations I think about 100 tons ‘would not be very far out’.

**1924                      Crayfish**

Letter by ‘Settler’, *New Zealand Herald*, 13 February 1928, M 1 2/4/1 part 1.

- Claims that: 'The supply of crayfish appears to be much less plentiful than it was, say a year or so ago, and this I put down to the unrestricted taking of fish that is proceeding. Notes that on last two occasions when purchasing crayfish, was offered specimens that were obviously spawning. 'It is easily seen that under such conditions the species would become almost extinct.'

#### **1924 Crayfish**

Thomas Dawson, Proprietor of the Shell Fish Depot, to the Minister of Marine, 7 March 1924, M 1 2/4/1 part 1.

- Inquires about regulations, noting that his business is supplied with Crayfish caught at Great Barrier Island.

#### **1924**

V Doddrell, Secretary, Thames Fishermen's Union, Thames, to Minister of Marine, 5 April 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- 'I have been directed to draw your attention to the rapid destruction of the valuable fisheries of the Hauraki Gulf. // In the year 1913 two old trawlers commenced trawling operations in the northern end of the gulf, these vessels were very successful and obtained large quantities of fish. // At the same time there were a large number of line and net boats fishing from Auckland, Thames, and Coromandel, and they, also, were very successful. It was a common sight on spring tides to see as many as two thousand dozen Schnapper landed on the Thames wharf, as the result of one tide's fishing by about thirty netting boats. // The number of trawlers have gradually increased till today there are seven or eight up-to-date trawlers fishing in the Hauraki Gulf, and I think it is safe to say that there combined catches do not exceed those of the two obsolete vessels operating in 1913. // The result of a large number of vessels trawling in the gulf was to exhaust the supply of fish in the area in which they were working, and to break up the schools of fish that were moving up towards the head of the gulf, so that Schnapper have become very scarce, and there is very seldom more than one hundred dozen Schnapper landed in Thames, in any one day from the netting boats. // Most of the line fishermen from Auckland have had to leave their homes, and seek a market for their fish in Thames, and other places. // The trawler owners, finding they could no longer fish successfully outside the trawling limits, equipped their vessels with purse seine nets, and the limit for this class of fishing has been fixed on a line from Deadman's Point to Ponui Point light. (Mr Ayson, "Inspector of Fisheries", advocated that no restrictions of any kind should be placed on the purse seine). // These vessels working right in the breeding grounds of the fish, will surely result in the ultimate destruction of the fishing industry of the Thames.'

V Doddrell, Secretary, Thames Fishermen's Union, Thames, to Minister of Marine, 1 September 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- 'I have been directed to again draw your attention to the rapid destruction of the Hauraki Gulf Fisheries. All that area inside the present purse seine limit, right up to the Thames, has been absolutely cleaned out of the ordinary school schnapper. The purse seine boats are working right in the breeding grounds and destroy the young fish that usually school & move up the Firth of Thames.'

C.J. Parr (Minister of Education) to Minister of Marine, 16 September 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- 'As an old boating man with considerable experience on the waters of the Hauraki Gulf, I desire to associate myself with a protest of the Auckland Yacht and Motor Boat Association and other bodies, against the present species of trawling in the Hauraki Gulf [purse seine fishing]. I am satisfied that this system of fishing is having a most injurious effect upon the fishing grounds of the Gulf. // From personal experience I am able to say that the schnapper no longer exists in the Hauraki Gulf so far as ordinary line fishing is concerned. There can be no doubt that the trawling is having a most destructive effect on the breeding grounds.'

Pamphlet by Ruby E. Watson, no date, enclosed with Watson to Minister of Marine, 16 September 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- Advocates the prohibition of trawlers in the Hauraki Gulf and that purse seine netting be restricted to a three mile limit.
- ‘Between Cabbage Bay and Cape Colville was once a wonderful fishing area; it is now absolutely cleaned out owing to trawling operations. At Onetangi, Waiheke, there used to be great fishing grounds, but ask any of the residents, and they will tell you, whereas, formerly plenty of fish could be caught, now, after the trawler has worked right up to the wharf, and in shallow waters, as it does, not a fish can be caught for weeks afterwards – every fish in the Bay has been cleaned up. // Last year, on the east side of Ponui Island, the line fishermen were getting plenty of fish, month after month, then came along a steam trawler and completely cleaned the place out in a few days. // When the trawlers and seine net bring up, as they do, thousands of undersized fish, they are left on heaps on the deck of the vessel, and the majority are dead before they are thrown back into the sea.’

Anderson, Minister of Marine, to Secretary, Marine Department, 30 September 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- Includes extract from Coromandel County News of 24 September 1924. ‘Two large fishing boats were observed purse-seining in Coromandel Harbour on Sunday. The other week a quantity of dead fish was washed up on the foreshore in the vicinity of the Little Passage. These evidently were a small part of waste fish which are shovelled overboard from the seines or trawlers. It is high time to put a stop to these operations, especially in the harbours and in the bays that abound in the Gulf.’

## **1924                      Mussels**

J. McNeil, Coromandel, to Captain Daniel, Inspector of Fisheries, Auckland, 10 November 1924, M 1 2/12/350 part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Requests exclusive right to take mussels from a bed in Coromandel Harbour for £20 a year.
- ‘It is no better than some places in the Gulf but it is sheltered a little in bad weather. // If we are let go on, dredging where we like, we will ruin this bed in about a few years. // I try to keep to one part for a year, it takes three years to go across the bed. // I am working in the same place this year it is about ½ mile long and I have been taken [sic] about 80 sacks a week off it but have not touched where we dredged last year, but some other boat will come out and only want ten sacks and will dredge the place where we leave to grow, and won’t give the shells time to settle.’

Secretary [Mercantile Marine, Auckland?] to Mr Miller, 28 January 1925, M 1 2/12/350 part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Encloses McNeil’s application, commenting that he observed during a recent trip that ‘there is quite an industry in the Gulf waters in mussels and I gather it is capable of considerable expansion.’

Minister of Marine to J. McNeil, 10 March 1925, M 1 2/12/350 part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Advises that he is unable to grant an exclusive license over the Coromandel mussel bed.

## **1925**

Marine Department annual report for 1925-1926, AJHR 1926, H-15, p 14.

- ‘It has hitherto been the practice to incorporate a long and detailed report by the Chief Inspector of Fisheries. The report is not yet available, but it is doubtful if much of the matter it has usually contained serves any real valuable purpose, in that it is based upon reports and information from outside people who have no responsibility and may often unconsciously mislead. // It is proposed to institute as soon as possible a system of simple returns which will provide data of greater reliability and value as to the quantities of fish caught and their species. The information supplied will be regarded as strictly confidential to the Department, and will in course of time enable the collation of reliable data, and from this and investigation in various localities valuable results may be expected to accrue. There is reason to

believe, from the opinions expressed by fishermen who have been consulted, that the fishermen, in the assurance that their returns will be regarded as confidential, will readily assist.’

## **1925**

### Annual report for Whangarei for year ending 31 March 1925 by Constable M Power, M 1 2/12/330 NAW.

- 12 boats licensed and engaged in fishing; no trawlers.
- 22 men engaged in fishing.
- 3 fish curing sheds.
- Kinds of fish caught: snapper, mullet, flounder, hapuku, trevally.
- Total catch weight: 2299 cwt.
- Fishing industry has not improved during the past year; grounds infested with sharks.

### Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1925 by Inspector of Fisheries C Daniel, M 1 2/12/330 NAW.

- 153 boats licensed at Auckland.
- Number of steam trawlers engaged in the district has varied from 6 to 2, thence to 8. No oil engined trawlers.
- Number of vessels engaged in Danish seining has also varied, but is on increase:
- 20 vessels using this method out of Auckland (though 6 steamers converted back to trawlers)
- 7 out of Thames
- 470 men engaged in fishing; 33 oystering.
- Various kinds of fish caught: snapper, flounder, sole, dabs, gurnard, mullet, trevally, hapuku, tarakihi, john dory, kahawai, crayfish, rock cod, moki, kingfish, frostfish, barracouta, mussels, butterflyfish, parori, horse mackerel, piper, herring, eels.
- Total weight (as near as possible) of fish brought into Auckland was 134,552 cwts. Of this, Thames boats caught 24,592 cwt.
- 1900 sacks of mussels.
- 25 smoke houses, no canneries.
- Fish fairly plentiful in the district, though not as good as last year:
- snapper has been very small, and the average size is getting smaller
- flounder particularly plentiful this year on the Thames flats
- Sanford have sent 2 of their largest trawlers to fish out of Sydney.
- 5 steamers belonging to Sanfords and 1 belonging to Munroe Bros converted back from Danish seiners to trawlers – claims that this is because they believed the area they fished in had been ‘played . . . out’ as far as quantity and size of fish. Emphasises that the size of snapper very small over last 6 months.
- Small seiners now getting reasonable catches, but fish small. ‘These Seine boats are now getting very few flats and dabs, and places where 18 months ago almost hundreds of tons of flats were got, not a scale could be got today.’
- Believes that seining might be scaring the bigger fish out of the Gulf, with the seine boats catching quite a lot of the smaller fish. Claims that this, in time, ‘can only result in one thing’.
- After the school fish broke up, say during February and March, some of the trawlers not bringing in sufficient fish to pay for coal. Later went further into the Bay of Plenty and are now doing much better on the tarakihi grounds there. Gulf deserted of trawlers for this 3 months.
- Something should be done to stop the seiners from sweeping out all the smooth and sheltered places in the Gulf where for years the small snapper have for years fed and grown undisturbed. Now being combed out and the small fish marketed.
- Oyster beds left fit for further picking of a similar amount.
- Walls at Putiki and Browns Bay now have a good fixing of oysters on them. Good fixing also at Te Kouma and generally along the islands on the Coromandel shore.

### Report on fishing industry at Devonport by Inspector of Fisheries A.E. Powell, M 1 2/12/330 NAW.

- Only 2 boats are engaged here in the fishing industry, both used for line fishing only. The owners sell directly to the public. Both boats registered in Auckland.
- 4 men employed in fishing.
- Kinds of fish caught: snapper, mullet, tarakihi, and gurnard.
- Total weight of catch: 240 cwt.
- 'So far as I can ascertain these are the only two boats now engaged in line fishing in or about Auckland, line fishing is apparently a thing of the past here and each year it is becoming more difficult to make a living by this mode. Danish seining is now almost universal in the Gulf and is depleting the waters to such an extent that line fishing is out of the question. // The two boats mentioned have now to go a long distance out to obtain a satisfactory catch.'

Annual report for Coromandel, [?] to Secretary, Marine, received 11 June 1925, M 1 2/12/330 NAW.

- States that has handed in one report to Daniel (presumably incorporated into Auckland report).
- Reinvestigated and arrived at new estimate of 1¼ tons of fish sold in Coromandel.
- States: 'There seems to be no accurate count kept by those who catch and sell fish here in Coromandel.'

Annual report for year ending 31 March 1925 for Thames by Inspector of Fisheries A McDonnell, M 1 2/12/330 NAW.

- 38 fishing boats licensed and engaged in fishing.
- No trawlers.
- 4 launches engaged in Danish seining; no steam vessels.
- About 90 men engaged in fishing.
- Kinds of fish caught: flounder, snapper, mullet, gurnard, john dory, trevally.
- Total weight of fish brought into Thames: 1185 tons.
- 3 fish curing establishments.
- 'The local fishing grounds at Thames is comprised of a portion of the Hauraki Gulf. The principal breeding grounds for fish generally in Thames district are the grounds where the seine fishing is allowed, and as the seining is increasing and in this particular part it is causing the fish to decrease. // It would be in my opinion beneficial to the fishing industry, if the present boundary line for seining was altered to the present trawling limits in this particular part.'

Annual report for year ending 31 March 1925 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/330 NAW.

- Fishing industry remain much the same as last year.
- 39 fishing boats licensed.
- No steam trawlers operating from this port. Steam trawlers from Auckland operate in the Bay of Plenty but take all the fish caught straight to Auckland.
- About 40 men engaged in fishing.
- Kinds of fish caught, about in order taken: snapper, hapuku, trevally, kahawai, flounder, gurnard, rock cod, red cod, moki, trumpeter, kingfish, herring, mullet, garfish.
- 1 fish curing plants here.
- Total weight of catch about 100 tons.
- 'Deep sea fishing for sword fish has become very popular here, and has attracted visitors from all parts of the Dominion.'

## 1925

Notes on a deputation that waited on the Minister of Marine at Coromandel, 12 January 1925, on the subject of trawling and purse-seining, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- 'Mr Migan, Inspector of Fisheries, agreed with the fishermen that fish were now scarcer but could not account for the position. Fishermen say they cannot catch fish by line now, and therefore conclude there must be a shortage. Mr Campbell had admitted to him that he had seen tons of fish being caught by purse-seine boats in a locality where he (Mr Campbell) could not catch any with lines. Certain classes of

fish, such as gurnet, were dumped because there was no sale for them. Once gurnet were caught in the net they would not go down again, and so floated even if thrown overboard immediately after being caught. Schnapper had a similar characteristic, but were not so bad in that respect as gurnet.'

- Deputation of Natives then waited upon the Minister. 'They submitted that under the Treaty of Waitangi they had a right to catch fish, and take oysters, mussels and other shell fish. The trawlers and purse seiners should be prohibited as they killed all kinds of fish. . . . Fish of all kinds was the principal food of the Natives, and instead of being still plentiful they were very scarce owing to the trawlers and purse seine boats.'

Notes on a meeting at Thames between the Minister of Marine and fishermen regarding purse seining in the Hauraki Gulf, 14 January 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- Mr H. Jensen, President of the Fishermen's Union; engaged in fishing in the Gulf for 7 years, previously in the North Sea.

- at present was using a purse seine

- 'Fish in the Gulf was not so plentiful now as in years past. A marked decrease had taken place since purse seine fishing commenced. Where it was possible to catch 100 dozen before, they could hardly get 10 dozen now.'

- Mr W. Raddish; 40 years experience in the Hauraki Gulf.

- 'In the early days they received 9d. A dozen for schnapper, but that was because they were extremely plentiful. At that time schnapper were found as far up as Turua. He used a 5 inch mesh set net and fish were not destroyed with such a large mesh. He had not seen one small fish in the net. About 9 years ago he was compelled to go to the deep waters to fish, but even there the line fishermen were unable to obtain such large hauls as previously. Where they used to catch hundreds of dozens they were only able to get ten dozen, and that was with a mile of gear. In using such a length of gear they placed an anchor between each set net. . . . The shortage of fish had been more noticeable since trawling in the Gulf commenced, and he was satisfied that that was the cause of the scarcity.'

- 'During the War Mr Sandford asked to be allowed to catch 12oz. Schnapper so as to supply the public, and the granting of that request had also caused a shortage in the Gulf. He urged that the industry be protected by increasing the weight to 16 ozs.'

- Mr C.A. Hayward; 20 years experience in fishing industry (8 years at fishing, 20 years as Manager of Sanfords)

- stated that there were 20 seine boats operating from Thames, with 20 men employed

- 'Two thirds of the Gulf, or at least one-half, could not be worked with the hand or side net. At present the fish were being obtained on the Western side where it was impossible to catch fish with a hand net. Hand nets had to be operated on the Thames side of the mud flats. He would recommend that the limits be decreased and that the size of the boats be limited to 7 tons. There was a law to prohibit nets being allowed to go dry. Representations were made to the late Hon. Mr McGowan and the result was that they were allowed to let them go dry. He had in consequence seen hundreds of flounders die in the sun. He believed that if the flats were closed for a few months the flounders would rapidly come back. They were allowed to take Dabs up to 8 inches, the opinion being that they did not grow very large. He had seen Dabs as large as flounders. . . . He had seen just as many fish destroyed under the old as under the new methods of fishing.'

- Mr H. Hayward; fishing in the Gulf for about 25 to 30 years.

- 'At first he was opposed to purse seining, but later on discovered that it did not kill as many small fish as the hand nets. His net had a mesh of 4¾ inches. At first he used a smaller one. Even as long ago as 25 years the nets they used had meshes of from 3¾ to 4½ inches. The bed of the Gulf was dragged just as much with a hand net as with a seine net. There were 5 seine boats besides the two used by himself and his brothers. With a small cod end it was only natural that some undersized fish would be caught. His biggest catch for one haul was just over two tons. He had had as much as four tons in one trip.'

Robert Coxhead to Minister of Fisheries [Marine], 30 January 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.



- 'I have always taken a great interest in the Gulf Fishing for I have a very large family . . . here twenty seven years I have lived on the Miranda Beach where one time pretty near all the fish was caught, nothing to see twenty boats in front of my house, fish was so plentiful then could get them anywhere. Now we can't get a fish to eat [and] we often have been told of dumping the fish overboard, which is a sin, I seen the young fish go over the layers of stone at Whakateawai and the tide leave them. The Natives take as many as they wanted & most of the others would perish. Whakateawai 5 miles abo[u]t from Miranda has always been a great place for fish until this last fine year or so not doubt the big trawlers have done harm'.

- encloses a photo provided by the son of Jenson (who gave evidence at Thames) showing seine net catch

Interview between Gilbert Sanford and Minister of Marine, 20 February 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- '. . . said that his Company had converted all their steamers to trawlers, and there was not one that was operating with seine nets. Experience had shown that the steamers could not compete with the small boats, which could carry on seining with two men as against ten required for steamers using seine nets. . . . In the near future he believed that there would probably be from 20 to 30 oil launches operating in Auckland with seine nets.'

Captain G. Humphreys Davies, "Freshwater", Via Clevedon, to the Prime Minister, received 16 June 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- 'I have the honour to call your attention to the fact that owing to the operations of the trawlers, seine netting, in this neighbourhood, it is impossible to catch fish here now. The Māoris living here ask me to help them as they depend largely on fish for food, and now have to buy meat which is very dear now. I myself have been out repeatedly to try for fish, but on the last seven times have not had a bite. The Māoris have given up trying.'

L.F. Ayson, Chief Inspector of Fisheries, to Secretary, Marine Department, 22 July 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- re: restrictions on Danish seine net fishing in Hauraki Gulf  
- notes that if seine boats shut out of the bays, would have to work in the open Gulf and therefore would only be able to work 2 or 3 days a week  
- boarded Mansfield and Jensen's seining boats, which were working off Waimate Island  
- 'When we boarded Mansfield's boat he had just finished his third haul for the day – his total catch amounted to fully three tons. The size of the fish would average well over one pound in weight. There were very few down to the regulation size of three-quarters of a pound. // Jensen had made two hauls for two tons of fish. The average size of his fish was similar to Mansfield's.'  
- no proof that the seine boats are depleting the supplies of snapper; supply of fish subject to seasonal fluctuation  
- believe that there should be no further restriction with regard to the area closed for Danish seining, but recommend a larger mesh should be enforced – not less than 4½ inches in the wings and cod end, not less than 3 inches in the bosom and throttle

Ayson to Secretary, Marine, 23 October 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- reporting on meetings with Thames set net fishermen and Danish seine men on 13 October 1925  
- set net men objected to Danish seining, saying that was depleting the supply of fish and ruining feeding and breeding grounds  
- 'When asked if they were getting satisfactory catches at the present time, and whether their catches were on a limit, the answer was that their catches were at present equal to what they were two years ago, and for the last three months all the boats were limited to a catch of 25 doz. schnapper per man per trip. The statement made that the seining boats brought in a poorer class of schnapper than the set net boats was not borne out by the inspection which inspector Flinn and myself made at the freezing works next morning, as there was practically no difference in the average size of the fish.'

- Danish seining men had no grievance – satisfied with the present limit on their catches and never had any difficulty in meeting this limit. Stated that their catches were equal to that of the previous year; consider snapper as plentiful now as it was 12 months ago.

Clerk, Great Barrier Island County Council, to Minister for Marine, 11 December 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

- Encloses a petition signed by resident of GBI, objecting to vessels using Seine nets within the Restricted River Limits.

## 1925

Diary notes of A.E. Hefford, Marine Department 'Fisheries Expert', M 1 2/12/339, Tours of Inspection – General File, NAW.

- Details of Hauraki Gulf inspection.

- 18 November 1925: 'About 1 mile N.E. of Tiri saw the motor seiner [?] Cove & measured whole catch of Schnapper from last haul (277 fish). Saw S.T. (steam trawler?) Serfet[?] working on same ground and observed a lot of dead fish floating in her track. . . . Saw Motor Seiner Ruby II make a very good catch off the N. end of Motuora I. Measured about half the catch (368 fish).'

- 19 November 1925: 'In afternoon went out towards Chandlers & attended Motor Seine "Comet" (AK). She made a [?] haul and got no fish.'

- 20 November 1925: 'Sailed at 5 a.m. Attended Motor Seiner "Comet" fishing in passage between Motuketi and Motuora. Measured her haul of schnapper (299 fish). . . . Picked up and measured 27 dumped schnapper on ground which had been traversed by S Trawler.'

- 9 December 1925: 'Left anchorage at 6am. Started along n. coast of Waiheke & through Whangaparoua Passage. No seiners seen, but 4 steam trawlers working off Kawau. Boarded "S.T. Thomas Currell[?]" & S.T. "James Cosgrave" & measured a haul of schnapper on each (203 & 417 fish resp.)'

## 1925

P.A. Nordstrand to unnamed recipient, 18 October 1925, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- 'Will you kindly let me know . . . are fishing boats allowed to use a small trawl of seine net inside of a line from Bream Head to Bream Tail and right up to the shores of the Ruakaka and Waipu Beaches. I have been living here for the last four years and go to the beach fishing with a line for Schnapper on an average twice a week, and it was no trouble to catch five or six in an hour or so. But now the fishing boats have appeared on the scene it is impossible to catch a Schnapper, if you stayed there fishing for a week, one cannot even get a bite. Last summer the fishing boats started here and now they have started again. Their method is this: they come here in the day-time and anchor over three miles out and stop there till about Ten P.M. and then come right in to within a hundred yards or so off the shore and they are gone by daylight and I am perfectly sure that fishing boats using hand line and long line for Schnapper would not thin out the fish like they have done. I can get the name of fifty people who are of the same opinion, trawling and seine netting.'

J.P. Flinn to Superintendent, Mercantile Marine, 29 November 1926, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Have enquired into matters raised in Nordstrand's letter (see above).

- 'I have to inform you that I have just returned from Whangarei and while there interviewed the fish dealers and fishermen from that Port. They informed me that there certainly was a scarcity of fish between Rodney Point and Tutukaka compared with other seasons. // I questioned the fishermen closely who are out almost every day, and they assured me that only once in every few weeks had they seen a trawler working inside that line. Early last winter two Seine boats had worked there for two days but had not returned up to the present time. // I asked the fishermen if they considered the scarcity of schnapper was due to trawling operations carried on outside, and they all agreed that there was not sufficient

trawling or seining done to make so great a difference compared with other years and further there were no School fish coming in this season as in former years.'

## **1925                      Mussels**

Chief Inspector of Fisheries to Secretary, Marine Department, 15 July 1925, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- 'The Mussel beds in the Firth of Thames and Hauraki Gulf are very extensive, and will undoubtedly in time prove a valuable industry. At the present time large quantities are forwarded in the shell to the Auckland market, and also as far north as Whangarei. Considerable quantities are also cured and find a ready market in Auckland & inland towns, and as far south as Gisborne and Napier. Messrs A. McNeil and Company have lately commenced canning at Coromandel, and I understand there is a ready sale for the product.'

## **1926**

Annual report for Whangarei for year ending 31 March 1926 by Constable M Power, M 1 2/12/356 NAW.

- Notes that fishing industry has held its own; quantity of fish caught more than sufficient for local demand. During the last 2 months there has been large quantities of fish caught in the river.
- 15 boats licensed and engaged in fishing; no trawlers; no vessels Danish seining.
- 18 men engaged in fishing.
- Kinds of fish caught: snapper, mullet, flounder, hapuku.
- Total catch weight: 2348 cwt.

Annual return/report for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1926 by Inspector of Fisheries C Daniel, M 1 2/12/356 NAW.

- 223 boats registered at Auckland; 47 at Thames. Number of fishing boats licensed and engaged in fishing increased considerably, owing to prosecutions last year.
- 5 steam vessels engaged in trawling; no motor driven vessels.
- Danish seining: 2 steam vessels, 21 motor launches.
- About 500 men engaged in fishing; about 30 oystering.
- Various kinds of fish caught, in order of quantity: snapper, tarakihi, trevally, flounder, sole, dabs, gurnard, hapuku, pioki, john dory, kingfish, crayfish, frostfish, moki, rock cod, kahawai, butterflyfish, barracouta, mullet, parori, piper, horse mackerel, herring, eels, mussels.
- Total weight (as near as possible) of fish:
- 159,588 cwts brought into Auckland
- 26,638 cwts brought into Thames
- 2220 cases of crayfish.
- 1600 sacks of mussels.
- 25 to 30 smoke houses, no canneries.
- Comment:
- fair supply of fish through the year
- supply of snapper not good from June to November
- school fish first noticed about 15 November; describes movements of school; break up of school around end of January and dispersal universally over the Gulf
- since break-up of school, seine boats able to bring in all they could dispose of, trawling vessels had to go elsewhere (some worked the Bay of Plenty waters, others the north coast, one also believed to be about North Cape and Three Kings Islands)
- 5 trawlers in the district now (2 seiners converted to school fish to work the school fish)
- 29 boats fitted with Danish seining gear; 5 or 6 often laid up, but generally do very well and can bring in as much as disposed of during the summer months – will regularly bring in 3 full loads per week of the

choicest snapper (though during winter often usual to take 4 days to get a load, and then a poorer and smaller fish)

- could say that this seasons spawning would be outstanding judging by the amount of spent snapper
- places mentioned in last years report (the sheltered waters inside Waiheke Island, where hundreds of tons of snapper taken in the first year the seiners operated) have never recovered; nor has Big Bay (outside Waiheke Island), where three years ago as much as much as 7 tons of flounder, dabs, and gurnard taken in 36 hours without lifting the anchor
- notes that the season catch is greater than previous years, though cannot say how much of this is snapper
- believes that snapper is on the decrease and the catches and consumption of inferior fish is on the increase
- at Thames, flounder below normal, mullet apparently on the decrease (now only one regular mulleting boat out of Auckland)
- expresses the opinion that:
  - further sheltered waters should be closed to the Danish seine boats to enable young snapper to feed and grow undisturbed
  - should be a close season for snapper in the area in which they are accustomed to spawn in the Hauraki Gulf from 1 December to 31 January (believes this would 'meet with the approval of every fair-minded practical fishermen in the district')
  - notes slight increase in the fish brought in at Thames, but comments that the figures 'do not count for much as in both years I understand that the boats engaged in the catching could have brought in twice as much fish, if it were not for the limit placed on the quantity each boat may dispose of to the Merchants they deal with'
- 47 licensed boats at Thames:
  - 7 row boats, 7 others fitted with Danish seine (3 laid up, 1 working Auckland), 33 boats working other methods principally set net, sometimes with a spell at long seining or mulleting, also 1 regular stray line boat working Cuvier Island, Mercury and Alderman Island
  - Manukau: very dull as far as fishing goes. About 30 licensed boats, 'more or less playing at fishing'
  - Oyster season: poor fixing, attributed to bad weather, noting that oysters at Auckland are at the southern extent of their limits.
- 'I am of the opinion that very little is known about our fisheries especially about Schnapper.'
- 'In collecting figures for these returns it is very hard to set anything like accurate figures even from Merchants Wholesale Keeping books, and I am afraid that some very wild guessing is done.'

Annual report for year ending 31 March 1926 for Thames by Inspector of Fisheries A McDonnell, M 1 2/12/356 NAW.

- 48 fishing boats licensed and engaged in fishing.
- No trawlers.
- 4 launches engaged in Danish seining; no steam vessels.
- About 120 men engaged in fishing.
- Kinds of fish caught: flounder, snapper, mullet, gurnard, john dory, trevally, hapuku, barracouta, butterfish, mokai.
- Total weight of fish brought into Thames: 1311 tons 18 cwts 3 qrs 17 lbs.
- 3 fish freezing establishments.
- 'The local fishing grounds at Thames is comprised of a portion of the Hauraki Gulf. The principal breeding grounds for fish generally in Thames district are the grounds where the seine fishing is allowed, and as the seining is increasing and in this particular part it is causing the fish to decrease. // It would be in my opinion beneficial to the fishing industry, if the present boundary line for seining was altered to the present trawling limits in this particular part.'

Annual report for year ending 31 March 1926 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/356 NAW.

- 36 fishing boats licensed

- 30 men engaged in fishing.
- Kinds of fish caught: snapper, hapuku, trevally, kahawai, rock cod, garfish, herring, moki, flounder, and crayfish. Snapper main catch, others following in order given above.
- 2 fish curing plants here.
- Total weight of catch about 150 tons, 'as near as I can get after conferring with numerous fishermen and dealers'.

## 1926

A.G. Hefford to Secretary, Marine Department, 23 April 1926, M 1 2/12/55 part 6, Hauraki Gulf – Trawling, 1926-1928, NAW.

- Report on 'Danish Seining in the Hauraki Gulf'

- 'In the absence of any previously acquired scientific information about the fisheries of Hauraki Gulf and in the absence of statistics of fish landings it is not easy to get to a satisfactory decision on this question. // I am however, of opinion that it is desirable to apply restrictions to the methods of power fishing (both steam trawling and Danish seining) at present allowed in the waters of the Gulf. // There is no doubt but that the effects of the steam trawling and Danish seining have greatly reduced the quantities of snapper that was formerly obtainable in the narrow waters of the Gulf. Not only has this made it very difficult for amateur fishermen to catch fish but it is at least possible that a continuance of such intensive fishing may result in such serious depletion of the fishing grounds that the professional fishermen themselves may sooner or later be seriously affected. There are not sufficient data available to assert anything more positive than this. The problem really turns upon the question as to whether, and if so, to what extent the snapper communities inside the Hauraki Gulf are recruited from outside waters. At present there is no evidence to furnish a reply to this question. // . . . Looking at the conditions here in New Zealand from a, so to speak, foreigner's standpoint, one naturally asks the question, "why it is that trawlers (and Danish seiners for fishing purposes would fall into this category) are not kept outside the three mile limit?" // The only cogent reason is that they cannot get sufficient fish near the Coast. This opens up another big question to which we are not in a position to give a satisfactory answer . . . // To return to this local problem. Fishing with a Danish seine abreast of St. Heliers or Cheltenham does not do the professional fisherman a great deal of good . . . it quickly cleans up these narrow waters of fish and ruins the amateur fisherman's recreation, making the professional fisherman a rather unpopular person in the eye of the general public. . . // We may take it for granted that the unrestricted pursuit of trawling and Danish seining in the Gulf is quite capable of denuding these fishing grounds to an extent that would cripple the fishery operations of the future. The present conditions would be much worse than they are if it were not for the fact that the demand is limited – or at least the trade is limited – and therefore both trawlers and seiners have at certain seasons voluntarily restricted their operations. Unfortunately they also limit the quantities brought to market by "dumping" the smaller snapper and other fishes of the less valuable sorts whereby considerable quantities of good food are wasted . . . There is ample evidence of this practice of "dumping" and it is clear that the steam trawlers are the worst offenders. It is very difficult to find a remedy for this evil. The law forbids the landing and selling of undersized fish, but trawlers at any rate cannot help catching a certain quantity of them and therefore they are obliged to throw a certain proportion of their catch overboard. The fishes stand very little chance of surviving. . . "Dumping" is not limited to undersized fish however. A considerable number of fish of marketable size, but not regarded as of sufficient market value, are also thrown overboard as a matter of routine. The actual extent of this wastage and whether it amounts to an appreciable proportion of the total fish taken by the fishing operation are questions upon which precise information is impossible. The point I want to bring out is this. The fishing industry at present applies its own restrictions for its own gain and in its own way which is a wasteful and illegal way. If supplies were unlimited this would not matter, but such is not the case and on the evidence of the depletion which has taken place in recent years there is clearly need for fishery restrictions imposed from a more scientific and a more interested standpoint. // Starting from the premise of the present danger of a too rapid diminution in the stocks of snapper in Hauraki Gulf we have to frame our regulations so as to save the greatest number of fish with the minimum of loss and disturbance to the fishermen. One naturally turns first to the question of the protection of the undersized and immature

snapper, and here one is embarrassed by the lack of definitive information as to the distribution of this species at its various stages. I am informed, and the general trend of my own observations points to the probability of this information being correct, that the principal nurseries for small snapper are the shallow inshore waters from Colville (Cabbage) Bay southward on the Coromandel side of the Gulf. I should prefer to have more material facts and first hand observations to go upon, but I think that if any further grounds are to be close to Danish seining is should be these. // The difficulty is that big snapper as well, as small ones frequent these inshore grounds and provide profitable fishing for the seiners who can work these places when the weather is too rough for fishing in the open Gulf. It may be that further investigation will point to the desirability of closing the inshore waters from Colville Bay to Manaia Bay but for the present I think that undersized fish can be adequately protected by a mesh regulation for Danish seines. // **I recommend the prohibition of the use of a Danish seine with a mesh smaller than 4½ inches in the last 6 yards of the bag or cod end.** // It is not sufficient to conserve the young snapper if they are to be decimated as soon as they reach maturity for the first time. This, I think, is where the critical phase lies in connection with the Hauraki Gulf snapper fisheries. On account of their habit of assembling together in schools for the purpose of spawning they are very easily captured in large numbers at such times by such methods as trawling and seining. I believe that if a reduction could be made in the numbers taken in the spawning season it would result in better fishing during the other months of the year when the fish are spread out over their feeding grounds. // **I therefore recommend the enforcement of a close season in which period both trawling and seining, or any other method of netting, should be absolutely prohibited on the so-called “schooling” grounds of the Hauraki Gulf.** . . . I think the following would meet the case: - The prohibition of fishing with a trawl, seine or any other net to the westward of a line from Tawharanui Point on the Takatau Peninsula (mainland) to Kauri Point at the N.E. corner of Waiheke Island **in the months of December and January.** This would leave open the first part of the spawning season (November) but at this time there are many good fish and practically no spent fish. The closure for the two later months of the “schooling” season, besides protecting the majority of the spawners, would ensure the saving of many spent fish which are very inferior for edible purposes but which would soon recover their condition after a period of feeding.’ **[Emphasis added]**

L.F. Reeves to Minister of Marine, 19 May 1926, M 1 2/12/55 part 6, Hauraki Gulf – Trawling, 1926-1928, NAW.

- ‘Can’t you get your man to look into the matter of these Trawlers working around these Islands. // Only last Sunday a trawler was working right in the mouth of South Harbour on this Island & this afternoon one is here in Bon accord Harbour trawling not far from my wharf. They catch very little but do a terrible amount of harm to the fishing grounds around here which are a great convenience to us & also to the many Tourists who come here for the fishing.’

Notes of a deputation from the Auckland Yacht and Motor Boat Association, which waited upon the Minister of Marine at Auckland on 10 May 1926, M 1 2/12/55 part 6, Hauraki Gulf – Trawling, 1926-1928, NAW.

- subject – limiting the areas within which seining should be permitted in Auckland Harbour  
 - ‘Mr J.B. Johnston said they were receiving everlasting complaints that fish could not be caught in and around Waiheke owing to the operations of the seine boats. At one time fish could be caught in those waters in adundance. The mesh of the seine nets was not particularly large with the result that very small fish were taken. There was undoubted evidence too that the feeding grounds were being destroyed as a result of seining.’

Herald, 21 June 1926, M 1 2/12/55 part 2a, Hauraki Gulf – Trawling Prosecutions, 1916-1926, NAW.

- Details the conviction of the Master of the Sanfords trawler “The Countess” for trawling inside the prohibited area of the Hauraki Gulf.  
 - An example of such convictions – appear to have been several from 1916-1926.

## 1927

A.E. Hefford, 26 July 1927, Marine Department annual report for 1926-1927, AJHR 1927, H-15.

- 'Our records in the past have given only annual totals of quantity of fish landed . . . without reference to separate kinds of fish or the time employed and the number of kind of vessels actually engaged in the fishing. Such records can throw little or no light upon the condition of the fisheries or the progress of the industry.' With regard to the Hauraki Gulf fisheries – skippers of all classes of fishing vessels at Auckland and Thames have been provided with log books in which to enter details of kind and quantities of fish caught.
- Reports that the task of obtaining measurements of snapper caught by fishing vessels has continued – catches measured make up a total of over 25,000 fish. 'It is believed that the data so obtained will yield a reliable representation of the size composition of the snapper stocks in the waters fished. Their significance would be better shown if similar measurement data were available from former years, when the fisheries were nearer their virginal condition.' Proposed to obtain similar data from other grounds as soon as resources available.
- 'For the past two years the conditions of the Hauraki Gulf fisheries has been a subject of considerable controversy between parties practicing different methods of fishing. By far the greater proportion of fish landed of late years has been caught either by the trawl or the Danish seine, and these fishermen, and more particularly amateur fishermen, who now find that it is very difficult to catch fish in places where formerly it was present in abundance. It is suggested that depletion is due to "power" fishing – i.e., to the operations of the aforesaid trawlers and Danish-seiners. In the absence of definite statistics it was difficult to judge the true position or to say precisely how the fishing conditions in 1926 compared with those in, say, 1923; but on gathering evidence from whatever sources were available there was no avoiding the conclusion that considerable depletion had taken place.'
- 'As a measure to diminish the danger of overfishing, special regulations were brought in during the spring of 1926 . . . '
- net fishing by trawl, Danish seine, or any other method prohibited in that part of the Gulf that includes the chief spawning grounds of snapper from 15 November to end of January (spawning season)
- area where Danish seining completely prohibited extended to include the whole of Coromandel Harbour and Tamaki Strait
- mesh at the cod end of the Danish seine enlarged to 4½ inches to reduce capture of small fish
- 'The effect of this closure of the schooling-grounds to power fishing-vessels was to induce the trawlers to go farther afield for their catches. Some of the Danish-seine boats stopped working entirely and their crews devoted themselves to the old method of line fishing for snapper, and in most cases made fairly good catches on the schooling-grounds. Others continued to fish outside the restricted area. The result of the restriction was to save very considerable quantities of fish which would otherwise have been destroyed before they had time to shed their spawn . . . '
- Present conditions of the snapper-fishery in the gulf are such that I have no hesitation in recommending an extension of the closure from 15 November to 15 February and that the closed area be extended to a line from Cape Rodney to Cape Colville. Further recommends that:
  - the area in which trawling is entirely prohibited be extended to include the greater part of the Hauraki Gulf
  - the waters of the Tamaki Straits, Whangarei Harbour, Whangaroa Harbour, and Kaipara Harbour be closed to Danish-seining (states that Danish-seining not so destructive to undersized fish as trawling, but that it is too intensive for narrow waters)
  - Also recommends that the Department should undertake Danish-seining investigations in all parts of the Hauraki Gulf to determine the degree of productivity of the fishing grounds and the exact nature of the catches made by this method of fishing.

## 1927

Annual report for Whangarei for year ending 31 March 1927 by Fisheries Inspector W.M. Fraser, M 1 2/12/388 NAW.

- 8 boats fishing regularly with Whangarei as their home port; Auckland boats frequently come into Whangarei to dispose of their fish
- No trawlers with head quarters at Whangarei, but occasionally such vessels from Auckland engage in trawling off the coast of Whangarei District.
- No Whangarei owned boats engage in Danish seining, but occasionally an Auckland motor launce works a Danish seine net inside Whangarei Harbour and carries the catch to Auckland.
- 18 men engaged in fishing; 3 oystering during the season.
- 4 fish curing establishments.
- Kinds of fish caught: snapper, flounder, hapuku, mullet, tarakihi, gurnard, moki, kahawai, trevally, blue cod, herring, etc.
- Total catch weight: 2600 cwt.
- Approximately 800 sacks of mussels gathered by local fishermen
- noted that these are taken from Mair Bank at the Harbour entrance
- mussels seen only 5 years ago on this bank; originally covered an area of 1 sq mile
- have been taken away in such large quantities that the bed is now rapidly depleted
- Recommends restrictions on taking and selling of mussels and prohibition of seine or other power nets in Whangarei Harbour and Whangaruru Harbour.

F.P. Flinn, Senior Inspector of Fisheries, Auckland to A.E. Hefford, Chief Inspector of Fisheries, Wellington, 22 June 1927, M 1 2/12/388 NAW.

- Enclosing annual reports for Auckland and Bay of Islands.
- Comments on size of mesh in cod nets – I consider it very important that the mesh should be 4½ inches in both trawls and Danish Seine Nets.
- Comments on declining snapper catch: ‘It is quite obvious that fish are becoming less plentiful in the Gulf each year. October 1915 I was transferred to Russell and was stationed there ten years, and it is alarming to note the scarcity of all kinds of fish in the Gulf now as compared with the years 1912, 1913, and 1914, before I left here. In my opinion the operating of trawl and Danish seine nets have been mainly the cause of this, also catching huge quantities of Schnapper during the months they school to spawn. // At Bay of Islands and northwards where very little trawling or Danish Seine netting has been done the fish are almost if not quite as plentiful as in former years.’
- Oysters: 6771 sacks picked from the different beds; all beds left in good condition. During summer, cultivation work done on the following beds: Waiheke, Ponui, Coromandel, Great Barrier, Whangarei, Rangitoto, Mahurangi, Wairoa Point, Kawau and Bay of Islands.

Annual return/report for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1927 by Inspector of Fisheries C Daniel, M 1 2/12/388 NAW. [Photocopy 19]

- 200 boats licensed and engaged in fishing at Auckland; 47 at Thames.
- 5 steam vessels engaged in trawling; no motor driven vessels.
- Danish seining: 1 steam vessel, 25 oil driven vessels.
- About 525 men engaged in fishing and oystering.
- Various kinds of fish caught, in order of quantity: snapper, tarakihi, flounder/dabs/sole, mullet, gurnard, hapuku, pioki (dogfish), john dory, kingfish, trevally, rock cod, moki, frostfish, crayfish, kahawai, barracouta, butterfish, parori, piper, horse mackerel, herring, eels, mussels.
- Total weight (as near as possible) of fish:
- 120,138 cwts brought into Auckland
- 2000 cases (50 tons) of crayfish.
- 1000 sacks of mussels taken from Coromandel.
- 25 to 30 smoke houses, no canneries.
- Comment (see copy for further details):
- the supply of fish has been irregular and patchy owing principally to three reasons: 1) the weather, 2) the shortage of fish, and 3) the closing of the schooling season



- notes that the waters close around Auckland are becoming poorer for snapper, the Tamaki Straits, both sides of Paheki Island, and around Waiheke generally – all ‘thoroughly thrashed’ by the Danish seine boats since the introduction of that method of fishing at Auckland; these boats today taking their catch from much further afield, running as far north as Whangaruru, south to Opotiki (one boat last year taking several loads of 30 to 50 baskets of mixed flats – mostly sole – from the Bay of Plenty)
- comments on outer part of the Gulf and movements of the trawlers; believes it is hard to show a great falling off in catches of snapper, though fluctuations
- notes that the close season for school fish was from 15 November to 31 January; states that the regulation was well observed and that there was no discontent amongst the fishermen ‘everyone of them taking for granted that the right thing was being done’
- large quantities of snapper brought in by the trawlers and seiners after the restriction lifted
- trawlers have not done well this year, apart from closed schooling season; only catches these fish get that are worth mentioning is the tarakihi, brought in from the Bay of Plenty grounds – slowly but surely taking the place of snapper in the Auckland markets
- expresses opinion that fish generally, snapper in particular, is becoming less plentiful each year and harder to catch; comments that new methods of fishing take a heavier toll with each development – describes each of the methods (see copy for details)
- states that restriction came to late; much more required, for years, before anything like the stock of fish of 10 years ago returns to the Hauraki Gulf
- recommends that the mesh of cod-ends of trawl nets be extended to 4½ inches from the present 4 inches – claims that trawlers account for a tremendous amount of undersized fish, particularly with new French method (stated to cover twice the ground that the trawl does); notes that Danish seines are compelled to have 4 inch cod-ends and claims that small undersized fish in the seine nets now almost non-existent
- recommends that restrictions again be places on the schooling fish, suggesting from 15 November to 15 February, over a larger area
- at Thames, fishermen have severed their connection with the old firms (who limited the supply that they would take from boats) and have set up their own business at Shortland
- Oysters: oysters in the southern part of the district suffered a severe set back through lack of nourishment resulting from weather conditions over last three summers; should be back to normal by next season.

Annual report for year ending 31 March 1927 for Thames by Inspector of Fisheries A McDonnell, M 1 2/12/388 NAW.

- 46 fishing boats licensed and engaged in fishing.
- No trawlers.
- 6 launches engaged in Danish seining; no steam vessels.
- About 30 men engaged in fishing.
- Kinds of fish caught: flounder, snapper, mullet, gurnard, john dory, trevally.
- Total weight of fish brought into Thames: 1213 tons 7 cwts 3 qrs 16 lbs.
- 4 fish freezing establishments.

Collector of Customs, Thames, to Secretary, Marine Department, 17 June 1927, M 1 2/12/388 NAW.

- Attaches returns of fish received at the port of Thames:
- Thames Fisheries Ltd – 611 tons 19 cwt 2 qrs 14 lbs (see spreadsheet for species details)
- Shortland Fish Co – 375 tons 3 cwt 2 qrs 26 lbs
- Taylor Bros – 226 tons 4 cwt 2 qrs 4 lbs

Annual report on Coromandel District for the year ending 31 March 1927 by Assistant Inspector of Fisheries M 1 2/12/388 NAW.

- Reports on fisheries in the Coromandel District.
- Oyster beds better now than they have been for many years.
- Mussels now in good order after having lost the disease that was in them last year.

- Since the seine boats have been put out of the Coromandel Harbour there has been a marked improvement in the quantity of fish coming into the Town. I would like to suggest that the seine boats be put still further out so as give the small man a better chance to make a living.
- 5 boats engaged in fishing; no trawlers or vessels engaged in Danish seining.
- 7 men employed fishing and oystering.
- Various kinds of fish caught on the local grounds: snapper, kahawai, trevally, rock cod, kingfish, mullet, flounder.
- Catch weight as near as possible: 2 tons.
- 1000 sacks of mussels canned and exported.
- 1 fish curing and canning establishment.

Annual report for year ending 31 March 1927 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/388 NAW.

- 39 fishing boats licensed; no trawlers or vessels engaged in Danish seining.
- 30 men engaged in fishing.
- Kinds of fish caught in order of quantities taken: snapper, hapuku, trevally, kahawai, flounder, gurnard, rock cod, red cod, moki, trumpeter, kingfish, herring, mullet, and garfish.
- 3 fish curing plants here.
- Total weight of catch approximately 5400 cwt.
- Fishing much the same as previous years – ‘not taken seriously either by the people or the fishermen’; mostly for local consumption.

## 1927

Secretary, Whangarei Harbour Board, to Secretary, Marine Department, 31 January 1927, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Requests that the use of power drawn nets be prohibited in the Harbours of Whangarei, Tutukaka, and Whangaruru.
- Complaints have been made from Whangaruru Harbour as a result of trawling or seine netting – Natives unable to catch a fish; same can be said for Whangarei Harbour.
- Believes the practice of dragging nets accounts for the disturbance of breeding grounds and consequent destruction of small fish.

Secretary, Marine, to Minister of Marine, 17 February 1927, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- States that trawling is prohibited in the Whangarei Harbour (1917), but not in the other two Harbours; seine netting not prohibited in any of the three Harbours. Recommends regulations.

Minister of Marine, 19 February 1927, minute on M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Approves proposed regulations.

Extract from *New Zealand Gazette*, no. 68, 3 November 1932, p 2186, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Order in Council prohibiting the use of a Danish seine net in Whangarei Harbour inside a right line drawn from Marsden Point to Busby Head.

## 1928

A.E. Hefford, 29 June 1928, Marine Department annual report for 1927-1928, AJHR 1928, H-15.

- ‘A proper fisheries report . . . must be sound as regards its statistical matter. The present report, though I trust to a less degree than previous ones, is admittedly defective in this respect, and much uphill work lies ahead . . .’ Data obtained from different ports are not at present of a uniform standard.

- This year the form of tabular statements have been somewhat modified to distinguish between men and vessels operating part-time. 'But we still lack the data to indicate with some degree of approximation the quantities of fish caught in a definite period and with reference of the character and number of fishing instruments employed.'
- Last year log-books issued to skippers of vessels in the Auckland District – hope to extend this to other ports and obtain more frequent returns, which should give an indication of seasonal variation. Might require legislation; further staff.
- Quantity of fish landed: 1927-28 the most productive year on record. Very decided increase in Auckland landings: 134,045 cwt (exclusive of Thames) compared with 120,128 cwt (inclusive of Thames) during the previous year. 'The greater portion is due to the increased efficiency of the Auckland steam trawlers, assisted, doubtless, by the fact that the continued fine weather facilitated the exploitation of the relatively virgin grounds of the west coast by a steam trawler operating from Manukau Harbour. The adoption of a new form of trawl (the Vigneron-Dahl pattern), which under certain conditions possesses greater catching-power than the ordinary otter trawl, has also apparently enabled the Auckland steam trawlers to land increase supplies of fish.'
- Motor launches operating Danish seine also had better fish owing to an increased quantity of snapper on the grounds they exploit. These grounds of relatively limited extent, until more light shed on immigration of fish, it is advisable to pursue a policy of protection of the more confined grounds. 'Danish seining, under the present regulations as to mesh of the net, cannot result in undue destruction of the fish, but it is a method so efficient in its catching power that its concentration beyond a certain limit on relatively confined areas must inevitably result in the rapid depletion of the resident stock of fish.' Continuance of the policy of limiting Danish seiners is therefore favourable, but not in favour of banishing them from the Gulf as that would mean the extinction of the Auckland Danish seining fleet.
- 'It may be recalled that the Danish seining method of fishing was begun on the Auckland fishing grounds late in 1923. Until 1926-27 . . . it was confined to the fisheries of the Hauraki Gulf, though some of the launches occasionally voyaged beyond the Hauraki Gulf to the north and round the land to the Bay of Plenty. Such ventures were especially stimulated by the unsatisfactory fishing on the Hauraki Gulf grounds in the year 1926-27.'
- 'Danish seining is an excellent method of fishing, and by its use a small launch with a crew of two or three men can, under favourable weather conditions, make catches which compare favourably with those made by a trawling-vessel of much greater tonnage and carrying twice or thrice the crew. Moreover, it is not so destructive of undersized fish as the trawl. Though many small fish were no doubt taken in the small meshed seines which were formerly in use . . . The very efficiency of the Danish seine, however, makes its use highly undesirable in such restricted waters as harbours, sounds, and small bays, and it was for this reason that further regulations prohibiting this method of fishing in such areas have been recommended and made.'
- Snapper investigations in Hauraki Gulf:
- Inquiry into snapper fishery commenced in the Hauraki Gulf at the end of 1925, when measurements and other observations made of the catches of commercial vessels. Along with a special study on spawning snapper and the pelagic eggs, this shed light on the problems involved.
- During the past year have carried out the inquiry by undertaking fishing trips in a vessel over which we had control – launch "Viola", sixteen weeks commencing 23 November 1927. 117 hauls of the Danish seine made in various parts of the Gulf. Special attention given to snapper, but all caught were measured and examined.
- A total of 11,303 fish caught: 9169 snapper, 657 gurnard, 609 dabs, 352 john-dory, 275 dog fish, 66 trevally, 61 lemon soles, 32 rays and skates (stingrays), 26 flounders, 10 sharks, 10 kahawai, 8 kingfish, 8 parore, 8 horse mackerel, 5 porcupine or globe fish, 4 warehou, 3 common soles, 3 wrasse, 2 mackerel, 2 moki.
- 517 and 475 snapper were examined as to sexual condition, the period of observation covering the spawning season.
- Contents of alimentary canal examined for 821 fishes, of which 785 were snapper. Snapper food consisted mainly of crustaceans (mostly small crabs) and molluscs.

- 'The investigation has provided information of value to the administration of the fishery, both from the practical aspect, with regard to the productivity of the grounds and the catching-power of the Danish seine, and from the biological aspect, in relation to the stock of fish which inhabits the fishing-grounds of the Hauraki Gulf. But further information needed on the life-history and occurrence of snapper – would be useful to have data from other months and to undertake tagging to assess migration.

## 1928

### Annual report for Whangarei for year ending 31 March 1928 by Fisheries Inspector W.M. Fraser, M 1 2/12/413 NAW.

- boats: motor vessels engaged in set net and line fishing – 8 full-time, 11 part-time
  - row boats engaged in fishing – 1 part-time
  - vessels engaged in mussel dredging – 2 full-time
- men engaged in fishing: 16 full-time, 23 part-time
- kinds of fish landed: snapper, hapuku, flounder, mullet, tarakihi, blue cod
- best time of year for fishing: winter
- least productive time of the year: summer
- reason: little demand during hot weather

### Annual return for Port of Auckland for year ending 31 March 1928 by Inspector of Fisheries C Daniel, M 1 2/12/413 NAW.

- boats: steam trawlers – 4 full-time
  - steamers engaged in Danish seining – 1 full-time
  - motor vessels engaged in Danish seining – 21 full-time
  - motor vessels engaged in set net and line fishing – 169 full-time
  - sailing boats engaged in fishing – 4 full-time
  - row boats engaged in fishing – 112 full-time
  - vessels engaged in mussel dredging – 2 full-time
  - vessels engaged in crayfishing – about 30
- men engaged in fishing: 490
- kinds of fish landed: snapper, tarakihi, flounder, dabs and sole, hapuku, gurnard, mullet, trevally, dogs, dori, king, cod, moki, crays, butterfly, frostfish, barracouta, kahawai, piper, mackerel, herring, maumau, trumpeter, hake, ling, piori, eels, mussels, cockles, scallops
- total weight: 134,043 lbs
- fishing slightly above average
- best time of year for fishing: November to February
- least productive time of the year: March to May
- figures apply to all vessels marked AK and AK boat landings only.

### Annual report for Auckland District (including Coromandel, Mercury Bay and Manakau) for year ending 31 March 1928 by Inspector of Fisheries C Daniel, M 1 2/12/413 NAW.

- 312 vessels engaged in fishing marked AK.
- 4 steam trawlers working all year, occasionally 5.
- 1 steam boat seining; 21 oil driven vessels.
- About 490 men employed in fishing.
- Kinds of fish caught, in order of quantity taken: snapper, tarakihi, flounder/sole/dabs, hapuku, gurnard, mullet, trevally, pioke, dori, kingfish, cod, moki, crayfish, butterfly, frost-fish, barracouta, kahawai, piper, mackerel, herring, maumau, trumpeter, hake, ling, piori, eels, mussels, cockles, scallops, oysters.
- Comment: copied owing to length. States that supply of snapper has improved and attributes this to continued restriction on taking of schooling fish from 15 November. Regarding landing statistics for Auckland and Thames, notes that 'although they are not absolutely accurate they are as near as can be got, and are all based on the same method of calculation and deduction'.

Annual report for year ending 31 March 1928 for Thames by Inspector of Fisheries Daniel, M 1 2/12/413 NAW.

- boats: motor vessels engaged in Danish seining – 7 part-time  
motor vessels engaged in set net and line fishing – 39 full-time  
row boats engaged in fishing – 5 part-time  
vessels engaged in mussel dredging – 2 part-time
- men engaged in fishing: 110 full-time
- kinds of fish landed in order of importance: snapper, flats, hapuku, gurnard, trevally, dori, butterfish, cod, kingfish, mullet, moki, tarakihi, maumau, skate, eels, piper, hake, ling
- total quantity of fish landed: 968 tons 9 cwt 2 qrs 10 lbs
- mussels: 240 sacks
- see spreadsheet for details of fish taken by each company
- fishing on general below average, dabs very much below
- reason: trouble between fishermen and merchants over prices
- comments: ‘Boats change the method of fishing as the fish get scarce, & if a boat gets good catches on (long line) most of the boats will work with long line. If some do well with (deep sea nets) they will change gear again, the same applies to (stray lining) (splashing) or (setting the flats) according to the seasons of the year. The best catches are taken during or shortly after hard northerly blows.’

Survey of Thames Fishing Fleet, 31 March 1928

- Details name, owner, length, year of last license.
- 51 boats; 7 without current licence.
- 25 with log books.

Annual report for year ending 31 March 1928 for Thames by Inspector of Fisheries A McDonnell, M 1 2/12/413 NAW. (Noted that Daniel’s returns entered as McDonnell’s ‘not so complete’)

- boats: motor vessels engaged in Danish seining – 5 full-time  
motor vessels engaged in set net and line fishing – 54 full-time  
row boats engaged in fishing – 3 full-time  
vessels engaged in mussel dredging – 2 full-time
- men engaged in fishing: 164 full-time
- kinds of fish landed: blue cod, groper, flounder
- total quantity of fish landed: 17704 cwt

Kind	Cwt.
Flounder	3 623
Snapper	11 871
Hapuku	326
Mullet	39
Cod	91
Kingfish	29
Moki	7
Mixed	1 718
Total	17 704

- fishing on general below average from previous years
- best time of year for fishing: January to March
- least productive time of the year: June to August
- reason: weather conditions

Annual report on Mercury Bay for the year ending 31 March 1928 by Inspector of Fisheries Daniel M 1 2/12/413 NAW.

- Some 18 boats engaged in fishing, ranging from a 36 ft launch to a 14 ft dinghy.

- Several boats fish only for crays, others seldom go further than the river of the centre island, while about 8 boats are regular outside boats and work as a rule from Cuvier Island, Mercury Island, Alderman and Mayor Island, and the coast generally.
- Method of fishing mostly stray-lining, but long-lining sometimes used, and netting on the kelp for butterfish is carried out sometimes. One or two of the boats have bait net that are hauled by hand and are really hand seine nets. Sometimes quite a lot of snapper taken with these nets; mesh not smaller than 4½ inches.
- States that have got log books to bigger boats and expects a good book from each of them by next March. (This would be first year that log books issued to boats.)
- About 150 tons taken at Mercury Bay since Taylor Bros and Thames Fisheries started in June 1927 through to 31 March 1928. Catch shown in the Thames returns.

#### Survey of Mercury Bay Fishing Fleet, 31 March 1928

- Details name, owner, length, year of last license.
- 18 boats; 3 without current licence.
- 7 with log books.

#### Annual return for year ending 31 March 1928 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/413 NAW.

- boats: motor vessels engaged in Danish seining – 1 full-time  
                   motor vessels engaged in set-net and line fishing – 12 full-time; 27 part-time  
                   sailing boats engaged in fishing – 2 full-time; 3 part-time  
                   row boats engaged in fishing – 5 part-time
- men engaged in fishing: 30 full-time 91 part-time
- kinds of fish landed in order of importance: hapuku, kahawai, snapper, moki, tarakihi, flounder, mullet, blue cod, rock cod, red cod, gurnard, garfish, barracouta, trevally, kingfish
- total quantity of fish landed: 2000 cwt
- fishing on general below average
- best time of year for fishing: November to March
- least productive time of the year: midwinter
- reason: natural scarcity of fish and weather conditions

#### **1928**

#### Chief Inspector of Fisheries, Ayson, to Secretary, Marine Department, 25 June 1928, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934.

- Comment on petition from Tauranga residents.
- Notes that steam trawlers from Auckland are visiting the Bay of Plenty with increase frequency, fishing close to land where they make the best catches. On occasions motor launches from Auckland equipped with the Danish seine have visited the Bay of Plenty, but not likely to become frequent to be an important factor.
- Acknowledges that trawlers and Danish seine boats ‘are such efficient fishing instruments that when they have been operating on a patch of ground for a short time it becomes for the time being pretty well “cleaned up”. But on an open coast such as the Bay of Plenty this “clean up” is only temporary and sooner or later the grounds are once more recruited by immigration.’

#### **1928**

#### A.E. Hefford, ‘Report on the fisheries of the Hauraki Gulf with special reference to the Snapper fishery and to the effects of “power-fishing” (trawling and Danish seining)’, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- This contains much valuable information and has been copied (53 pages). Brief notes:
- In 1916 there were 5 steam trawlers and 153 net and line boats employing 361 fishermen in Auckland and 25 net and line boats employing 50 fishermen at Thames. They landed 68580 cwt of fish for a value

of 17842 pounds in Auckland for 1916-1917 and 22520 cwt for a value of 19076 pounds in Thames for 1915-1916.

- Beam trawling first occurred in the Hauraki Gulf in 1899 by a boat called the Minnie Casey. There was vast opposition and a no trawl boundary was placed in 1902 and the Minnie Casey ceased operation in 1904 and no further trawling took place till 1915 except for experimental trawling by the government hired Doto in 1901. At this time hand lines and set nets from small sail boats of less than 7 tons.

- In 1906-07 supply is equal to demand and dealers are even having to limit the number of snapper taken from fishermen in 1906 through to 1910. Reports by the fishery inspector in 1908-09 and 1911-12 state that snapper are scarce in areas close to Auckland (such as Tamaki Strait) but there are plenty of fish further out. These are the first indications of localised depletion. In the inspectors report in 1912-13 he states that longline fishing has been adopted and it is a great improvement on the single handlines generally used. This is the first instance of a more efficient method being required due to a lower abundance of fish. In 1914-15 the inspector notes that the Auckland market is well supplied, but there is a decrease in of snapper on old fishing-grounds. In 1915-16 trawling is introduced to the Hauraki Gulf and the inspector notes that very large hauls of snapper are made. Since the Minnie Casey ceased trawling, the trawl line was changed and large coastal areas on either side of the gulf were opened to trawling.

- These steam trawlers were 10 to 80 tons, some of them owned by the Auckland City Council to supply the municipal fish market (closed in 1923).

- 1916-17 fish was plentiful and low priced, forcing many line and net fishermen out of employment. By 1917-18 there was a large increase in landing of fish, with 6 trawlers working. Hook and line boats had returned to the fleet however, possibly because demand for fish had increased and prices had also risen. 1918-19 there was a scarcity of best sized market fish and small boat fishermen were driven to grounds outside the gulf. 1919-20, reported that all kinds of fish were scarce and Fisheries Commission held an inquiry to the condition of the Auckland fishery. 1920-21 report states that there were moderate catches made by small trawlers in the gulf, large trawlers were going to the Bay of Plenty and liners were fishing outside the gulf. 1922-23 report states that fishing grounds are being depleted, trawlers are having to travel further and are fishing the West Coast and the Bay of Plenty. At this time many larger trawlers capable of travelling further from port were acquired. Despite the depletion of the Hauraki Gulf demand for fish in Auckland had increased and these new boats were needed to fulfill that. A new more efficient type of trawl is also adopted at this time. Danish seining was introduced in 1923 (small steam trawlers and oil engine launches were capable of employing this method) and were very successful on the now unprofitable grounds of the Hauraki Gulf. Especially in the schooling season, which resulted in more fish being caught than the market could take. In 1924 the Firth of Thames was closed to Danish seining. by 1924-25 and 1925-26 there were ~23 oil engine launches making very good catches of mostly smaller fish in the gulf and landings in Auckland had increased appreciably. Line fishing for professional and amateur fishermen was poor and conferences were held. As a result in 1926 all netting was banned during summer from areas where snapper are known to school (+ Tamaki Strait). Cod end net mesh also increased to 4 1/2 inches.

- 1927-28 there were increased supplies of snapper caught possibly due to the netting ban.

- Because of a lack of records it is not possible to precisely show that the snapper fishery is in decline (at the time of writing), but it is known to be more and more difficult to catch snapper. Middle aged people can remember when a catch of snapper could be made with a handline in proximity to any beach in Auckland. Similar depletions experienced for blue cod and hapuku, which are not caught by trawl. It is the amount of fish that are extracted, not the method of fishing, which is the important factor.

- Much of the opposition to power fishing is because the method is thought to destroy snapper spawn on the bottom, disperse plankton, scare off fish, damage fish food and catch large numbers of juvenile snapper (which are true except for the snapper spawn argument). Here the damaged spawn, plankton dispersal and scarring off fish arguments are dispelled, but food damage is also dispelled and the author even indicates that trawling an area improves the quality of fish in that area.

- Trawlers operating off Cape Collville and seiners at the mouth of the Firth are leieved to have diminished the stock of snapper in the Firth. Firth snapper are believed to leave for spawning (Kawau to Waiheke and Collville Harbour) and return to over winter in the Firth.
- Hefford suggests that the stock of snapper in the Hauraki Gulf is probably on the brink of or already in a large decline where extractions are higher than production and stock size is decreasing as a result. Opponents of fishery restrictions have said snapper need to be caught to save themselves from cannibalism and that snapper while proponents of restrictions said that snapper keep down the numbers of young sharks.
- Over 70% of fish supplied to Auckland is from trawlers (avg. monthly returns for snapper are 3.5 times that of seiners and 27 times that of net and line fishermen).
- Replenishment of the gulf cannot be achieved if boats of such catching power are allowed to fish in the mouth of the gulf and intercept the inward migrants for the purpose of spawning. The various recommendations extending bans on net fishing and requiring better fishery data from log books.

Abridged report (see above)

- also copied (6 pages)

**1928**

Extract from Parliamentary Debates 1928, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- Mr Parry, responding to tabling of Marine Department annual report: ‘. . . it is obvious to any one that fish is no cheaper, notwithstanding that it is scooped by the latest methods; and at the same time, in my opinion, these methods are playing havoc with our fishing-grounds. I sincerely believe that, and I think I can claim to take more than a passing interest in the fishing in summer-time. I know that six years ago it was possible to throw a line out from the Oterangi Beach and catch fifteen, twenty, or anything up to thirty fish in two or three hours. To-day it is a very rare thing for a person fishing with a line from the beach to catch a fish, and even for those who go out on boats to do so. I can give my personal testimony as to a period of six or seven years during which I have been watching the matter, and can say that there has been a very serious depletion of the fish in the Gulf in that time. There are regulations prescribing the places within which trawlers may operate, but I can state from personal observation that the fishermen do not stick to their limits. As a matter of fact they come right into the bays. When the weather is at all rough on the outside, and they cannot profitably go outside, they come into the bays and scoop up the few fish that are there. I have repeatedly seen it done and it is not at all a fair thing.’

**1928**

H Gordon, representing all boats fishing from Mercury Bay, to Minister of Marine (telegram), 14 May 1928, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- ‘On visit of Minister of Public Works to this district March 31<sup>st</sup> the commercial fishermen of this bay brought before Minister question of establishing trawling limits as in Hauraki Gulf this has doubtless been referred to you . . . we undersigned fishermen resident at and working from Mercury Bay hereby respectfully petition you to have included in limits asked for prohibition on power seine netting which is simply trawling on smaller scale and very destructive young fish some of our men fish inner bay from dinghies this being only means livelihood an Auckland launch now dragging inner bay with power seine nets . . . middle island to Fly Bay and in two weeks has taken 8 tons of fish seriously depleting supply dingy fishermen also disturbing what we know is breeding grounds schnapper if this practise allowed continue will result same condition as now obtains at Thames where industry has for small fishermen such as ourselves been practically ruined we should be grateful if you will take immediate steps have trawling limited asked for gazetted and power seine nets.

Extract NZ Gazette, no. 45, 31 May 1928, p 1748, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.



- Order in Council prohibiting use of purse seine for fishing in Mercury Bay within a straight line drawn from the southern end of Karanga Island to the north-easternmost point of Te Tui (Mahurangi) Island, thence by a straight line to Heriheri-tauru.

Order in Council, signed 22 May 1928, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- prohibiting trawling in Mercury Bay, within same area as for purse seining (see above)

## 1929

A.E. Hefford, 18 July 1929, Marine Department annual report for 1928-1929, AJHR 1929, H-15.

- Again comments on the quality of statistics, noting that ‘information . . . is lacking in those particulars which are essential to a proper statistical record of fishing operations, and the figures obtained from the different parts vary in their degree of accuracy.’
- Diminished landings for Auckland, deficit in the landings from steam trawlers, terakihi being noticeably less abundant on the market. Also: “James Cosgrove” in Wellington for nine months; “Thomas Bryan” wrecked and not replaced for six months.
- Notes that Thames landings decreased, affecting fishermen more than suppliers, who now obtain a considerable proportion of their supplies from Mercury Bay.
- New regulations made on 9 April 1929 in connection with trawling and Danish seining in the Hauraki Gulf – further areas added. ‘The object was to prevent overfishing of the nearer and more confined grounds, leaving the stocks thereon to be fished for by the older and less intensive methods. The new regulations have not entirely had the effect of settling the controversy which had been stirred up over this question. They go too far for some and not far enough for others. Their aim was to put a check on the overfishing of the local grounds without unduly penalising the numerous fishermen engaged in these methods of fishing or interfering too much with the steady supply of fish to the markets.’
- New development in the Hauraki Gulf – a syndicate formed to exploit the sardines that occur in these waters. Method of fishing: sardines attracted by a bright light, then netted. Fish of this species appear to be present in the Gulf during the greater part of the year. Remains to be seen whether there are sufficient supplies to provide for a stable industry. Sardines seen around New Zealand waters for many years, but their appearance in inshore waters appears to be irregular.
- Snapper investigations: further examination of the content of snapper stomachs by Inspector Daniel.

## 1929

Annual return for Whangarei for year ending 31 March 1929 by Inspector of Fisheries, W Fraser, M 1 2/12/452 NAW.

- boats: motor vessels engaged in set net and line fishing – 6 full-time, 18 part-time  
row boats engaged in fishing – 2 part-time  
boats engaged in mussel dredging – 1 part-time
- 12 men engaged in fishing full-time, 36 part-time
- kinds of fish landed in order of importance: snapper, mullet, flounder, hapuku,
- fishing below average of previous years
- best time of year: November to January
- least productive time of the year: late summer, autumn
- reason: demand falls off
- total quantity of fish landed:

Kind	Cwt.
Snapper	3 000
Mullet	400
Flounder	300
Hapuku	300
Total	4 000

- notes that the above quantities are approximate in the absence of proper records

Inspector of Fisheries C Daniel to Superintendent, Mercantile Marine, Auckland, Reports on 1929 flats season by, M 1 2/12/452, NAW.

- Notes dates, movements of boats, catch, etc. Copied.

Annual return for Auckland for year ending 31 March 1929 by Inspector of Fisheries, Charles Daniel, M 1 2/12/452 NAW.

- boats: steam trawlers – 2 whole time, 3 part time
  - steamers engaged in Danish seining – 1 part time
  - motor vessels engaged in Danish seining – 22 whole time
  - motor vessels engaged in set net and line fishing – 100 whole time, 9 part time
  - sailing boats engaged in fishing – 1 whole time, 5 part time
  - row boats engaged in fishing – 30 whole time, 40 part time
  - boats engaged in mussel dredging – 1 part time
  - boats engaged in cray fishing – 30 part time
- 300 men engaged in fishing full-time, 100 part-time
- kinds of fish landed in order of importance: snapper, flounder, tarakihi, hapuku, gurnard, cod, pioke, trevally, mullet, king, moki, cray, butterfly, frostfish, barracouta, kahawai, piper, mackerel, herrings, maumau, trumpeter, haki (hake?), ling, parori, eels, mussels, scallops, cockles, oysters.
- fishing on the whole below average for previous years
- best time of year: August, September, and October
- least productive time of the year: April, May, and June
- reason: seasons
- total quantity of fish landed: 'All' 81,163 cwt – this figure includes fish from Mercury Bay, Russell, etc; a figure of 66,303 cwt is noted in pencil for 'Primary landings at AK' (including 1000 cwt from Onehunga boats, presumably fishing in the Manukau)
- noted on return that Daniel's separate report for AK and TS should be referred to – no copy of this in the file

Report on work carried out in connection with the oyster fisheries by F.P. Flinn, 20 May 1929, M 1 2/12/452, NAW.

- Picking started on 27 June 1928, finished on 19 October 1928.
- A total of 5544 sacks taken – Russell (2143), Whangarei (244), Kaipara (968), Gulf (1435), Coromandel (231), and Great Barrier (523).
- All beds lightly picked – will yield an increase of 400 or 500 sacks this year.
- Marked improvement of all beds, except Ponui and Coromandel, where very few young oysters appear to fix. Have unsuccessfully tried putting down clean rock and transporting brood oysters.
- Notes good results from work destroying borer.

Annual report for year ending 31 March 1929 for Thames by Inspector of Fisheries, A.E. Powell, M 1 2/12/452 NAW.

- Year has not been up to the average of previous years; many conflicting opinions regarding cause . . . 'the most general opinion is that the large Steam Trawlers operating have the most to do with it inasmuch that they are dragging the Sea bottom and are destroying the natural fish foods. To them is also attributable the scarcity of fish through the enormous quantity they obtain in the areas they work, then there is the natural scarcity through the continual fishing by large numbers of fishermen in the Hauraki Gulf for years past, and the Gulf has passed its maximum of supply.'
- Notes that satisfaction has been expressed at the recent regulations pushing the steam trawlers further out of the Gulf; hoped that they will be pushed out further.

- 'I think it would be a good thing if this was done, and so leave the whole of the Hauraki Gulf to Line & set net fishing.'

Annual return for year ending 31 March 1929 for Thames by Inspector of Fisheries, A.E. Powell, M 1 2/12/452 NAW.

- boats: motor vessels engaged in Danish seining – 4 full-time, 1 part-time
  - motor vessels engaged in set net and line fishing – 31 full-time
  - row boats engaged in fishing – 2 part-time
  - vessels engaged in mussel dredging – 2 part-time
- 95 men engaged in fishing full-time; 4 part-time
- kinds of fish landed in order of importance: snapper, flounder, gurnard, john dory, mullet, kahawai, kingfish, mussels
- fishing below the average of previous years
- best time of year: January to March
- least productive time of the year: July to September
- reason: natural scarcity
- total quantity of fish landed:

Kind	Cwt.
Snapper	8 687
Flounder	4 202
Gurnard	633
John Dory	102
Mullet	149
Kahawai	43
Kingfish	3
Mixed	837
Total	14 658
Mussels	877 sacks

Annual return for year ending 31 March 1929 for Coromandel by Inspector of Fisheries, C.A. Gibbs, M 1 2/12/452 NAW.

- boats: motor vessels engaged in set net and line fishing – 1 full time
  - sailing boats engaged in fishing – 2 part time
  - row boats engaged in fishing – 2 whole time, 1 part time
  - vessels engaged in mussel dredging – 1 whole time
- 4 men engaged in fishing whole time; 5 part time
- kinds of fish landed in order of importance: snapper, flounder, mullet, rockcod, kingfish, herring, dabs
- compared to previous years, mullet more plentiful, snapper less plentiful, other fish about the same
- best time of year: April to September
- least productive time of the year: October to March
- reason: natural scarcity of fish
- total quantity of fish landed:

Kind	Cwt.
'Mixed fish'	80
Mussels	2-500 sacks (2 500 sacks?)

Annual report for year ending 31 March 1929 for Mercury Bay by Inspector of Fisheries, Cannon, M 1 2/12/452 NAW.

- Fishing industry at Whitianga stated to be 'flourishing, and the number of men and boats employed have increased very considerably within the past two years'.
- The fish receiving depots – Thames Fisheries and Taylor Bros – each have about 12 launches supplying the fish caught.
- Fish caught: snapper, hapuku, cod, and flounder. Snapper and hapuku being by the far the largest types of fish caught.

Annual report for year ending 31 March 1929 for Tauranga by Inspector of Fisheries, Constable A Skinner, M 1 2/12/452 NAW.

- Notes that difficult to get exact account of fish caught and sold as a lot of fishermen keep no record.
- Fishing industry is increasing here; Sanfords have commenced operations – seem to get a lot of fish but it all goes to Auckland.
- States that books and records are being kept by Sanfords, so will be able to give a more full report.

Annual return for Tauranga for year ending 31 March 1929 by Inspector of Fisheries, Constable A Skinner, M 1 2/12/452 NAW.

- boats: motor vessels engaged in Danish seining – 5 full-time  
motor vessels engaged in set net and line fishing – 25 full-time
- 30 men engaged in fishing full-time
- kinds of fish landed in order of importance: snapper, hapuku, trevally, kahawai, flounder, rock cod, moki, other fish in small quantities
- fishing about the same as previous years
- best time of year: January to March
- least productive time of the year: winter
- reason: cold weather
- total quantity of fish landed:

Kind	Cwt.
Snapper	3 600
Hapuku	1 600
Trevally, Kahawai, Flounder, Gurnard, Rock Cod	400
Total	5 600 ('about 280 tons')

## 1929

George Lee (Consulting Engineer) to Secretary, Marine Department, 2 February 1929, M 1 2/12/448 part 1, Firth of Thames – siltation data – as to the effect on the fisheries therein, 1929, NAW.

- Provides details of increase in siltation between 1879 and 1919. 'A comparison of the surveys over a 40 year period previous to 1919 show that the Waihou River and estuary has shoaled considerably. Following the line of deepest water from Kopu seawards the mean decrease amounts to 6½ft shoaling being greatest over the 2 mile stretch between Kopu and Opane Point representing 3,500,000 cu yds. between low water contours. From Opane Point for about 2 miles to the low water turn of the bank, the deposits amount to 3,250,000 cu. Yds. From this point the shoaling continues but in a less marked degree until at a depth of 30 feet the difference is very slight.'

Secretary, Marine, to Hefford, undated, M 1 2/12/448 part 1, Firth of Thames – siltation data – as to the effect on the fisheries therein, 1929, NAW.

- Encloses Lees letter. 'You may recall that some time ago, I suggested the possibility that fish food supply in the Firth of Thames, Particularly mussels, might be adversely affected by the increased amount of silt coming into the Firth due to improvements in the Waihou and Hinemoa [Ohinemuri] rivers which,

instead of flowing over the land as in former years, now flow at a greater speed, carrying increased quantities of silt to the sea.’

Hefford to Secretary, Marine, minute on above letter, 25 February 1929, M 1 2/12/448 part 1, Firth of Thames – siltation data – as to the effect on the fisheries therein, 1929, NAW.

- ‘The relation to fishing conditions cannot be understood, however, in the absence of biological data. I hope that some day these will be procurable, & then the silting observations will be very helpful. // I rather think that quality rather than an increase in quantity of such deposits would have most to do with affecting the bottom fauna.’

## 1929

Ruby Watson, St Heliers Bay, to Mr. Donald, M.P., M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- ‘A week or two ago the date arrived for trawlers and seines to come as close inshore as they liked. We had several – four or five seine boats working Oterangi Bay, and they continued to work for a week until they had thoroughly cleaned it up. The big trawlers working only two miles from land. Our shore was strewn with bunches of mussels dragged up and broken by these powerful engines. For every pound of mussels cast ashore, you may estimate tons at sea.’

- details that a commercial fishermen claimed that 50 tons of immature fish were dumped overboard between 1 and 14 February.

Extract NZG 11 April 1929, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- new regulations for trawling and Danish seining

A.E. Hefford to Secretary, Marine Department, 8 May 1929, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- re Hauraki Gulf fishery regulations

- ‘Until I myself was here and in a position to give some special attention to the problem of the Hauraki Gulf fisheries these fisheries had been left to be exploited by a private enterprise in the absence of any but the most superficial and inadequate surveillance. There was plenty of agitation and controversy about them by various interested parties but the State, which was the most interested party of all, never made any practical attempt to throw light on the conditions. At odd times conferences were held which gathered nothing but a crop of conflicting opinion according to the interests or bias of the parties giving “evidence”. // A special and rather expensive commission was set up in 1919 which threw no light whatever on the material fishery conditions involved. Its only effect was to encourage this method of fishing which more than anything else has caused the general depletion in the Hauraki Gulf. The serious omission throughout has been the failure to provide the Department with means of obtaining proper statistical and scientific information about the fisheries. Until this omission is made good we shall never be in a position to regulate fisheries satisfactorily.’

Fred Porter, owners and master of the launch “Summit”, to Hefford, 10 August 1929, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- contests suggestion that fish (snapper, particularly) are scarce in the Hauraki Gulf, though acknowledges ‘that recently fish have been scarce in the Tamaki Strait’

- states that there have been some large hauls and provides details from the log book of the launch Summit; claims that the catch (by Danish seine) is ‘far in excess of any former July in my experience’

Left Auckland	Delivered fish	Weight (lbs)
1 July	3 July	3 213
3 July	5 July	2 996
6 July	9 July	6 041
9 July	12 July	3 736

15 July	19 July	4 013
20 July	23 July	4 564
23 July	25 July	455
27 July	31 July	2 120
	<b>Total</b>	27 138

- NB: 'On Trip 23<sup>rd</sup> to 25<sup>th</sup> –We made only two pulls of net having carburettor trouble and rather heavy weather on the next trip which seemed to disperse the fish temporarily. During July we fished near Rakino Island and between Motutapu, Rakino and Tiri, and three trips to Kawau and adjacent Islands.'

## 1929

A.M. Samuel to Minister of Marine, 23 March 1929, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- following large meeting of fishermen at Mercury Bay on 19 March, requests extension of area within which trawling and Danish seining prohibited  
- 'It was pointed out that there are at present 24 [local] launches actively engaged fishing these waters . . . It is feared that if these waters are not protected they will be subjected to the same depletion as the Hauraki Gulf ground with the disastrous effects to the industry.'

A.E. Hefford, Chief Inspector of Fisheries, to Secretary, Marine Department, 9 April 1929, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Comments on request of Mercury Bay fishermen re extending the prohibited area for trawling and Danish seining:  
- 'The question . . . is more than a local problem. If we can prohibit established methods of fishing for the benefit or safeguarding of the local fishermen on one part of the Coast there is no reason why the policy should not be extended generally to all parts of the Dominion. This would mean practically the annihilation of the trawling and Danish seining industries. These methods were introduced and have been carried on for some years with the approval and encouragement of the Government. It would now appear that the Government showed some lack of caution and a degree of over-optimism arising out of the assumption that the Dominion possessed more extensive fishing resources than was actually the case; but to this day we possess no proper information as to the extent and productivity of the fishing grounds. We merely know in general that the bulk of fish landed, whether taken by trawl, seine, set-net or line fishing, is caught at no great distance from land.'

Minister of Marine to A.M. Samuel, 27 April 1929, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- advises that request for extension of limits will not be granted

## 1929

Chris Kay, Waipu, to Fred Murdoch, M.P., 18 July 1929, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- 'Would it be possible to get anything done this session to prevent the further destruction of our fish supply by heavy power drawn nets in our Bay, the fish are . . . becoming so scarce about the coast that I have seen long lines with well baited hooks about (300) set in the evening and lifted in the morning with the baits untouched, a year or two ago anything like that could not happen. Trawlers and pocket seine fishers hang around during the day apparently pick their ground for operations at night which they carry on without lights to avoid being seen.'

William Scally to Superintendent, Mercantile Marine, 19 July 1929, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- States that there are two launches dragging fish in the Whangarei Harbour. Doubts whether this is legal, but states that he would like to operate catch this way too 'because it is absolutely finishing as far as long

lining is concerned. We can catch no fish because what is not caught is being frightened and driven away by the launches and drag net’.

## **1929                      Mussels**

Secretary, Marine Department, to Minister of Marine, 26 April 1929, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Proposes that seven areas at Coromandel (between Rabbit Island in the north and Dead Man’s Point in the south) be laid off for leasing as exclusive mussel (dredge) fishing areas. States that the person holding the license is more likely to farm in a methodical way, and in a way that will preserve the asset, rather than ‘cleaning it out, and then going elsewhere.’ Notes that present system allows anybody with a fishing-boat license to fish commercially for mussels anywhere.
- Notes that it will be a condition of any sole right that the lessee must permit Māori to take what mussels and pipi they require for food purposes.
- Proposal approved by Minister on 29 April 1929.

Extract from *New Zealand Gazette*, no. 4, 23 January 1930, p 155, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Order in Council declaring that mussels shall be subject to the provisions of the Fisheries Act 1908, relating to artificial oyster beds. This allowed areas to be leased for exclusive mussel fishing.

Hefford, Chief Inspector of Fisheries, to Secretary, Marine Department, 6 June 1930, minute on Secretary to Chief Inspector of Fisheries, 5 February 1930, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Recommends that before going ahead with the leases, commercial mussel fishers should be required to take out a license and make returns of quantities landed. This would provide a better understanding of the industry and the people actively interested in it. Notes that there is ‘a considerable trade’ in fresh mussels in the Auckland District, and that more mussels are taken for that purpose than for canning. Notes that leases aimed at canning industry, and that infringement might be a problem.

## **S6: Archival Data/Observations for Hauraki Study Area – 1930s**

### **1930**

A.E. Hefford, 8 August 1930, Marine Department annual report for 1929-1930, *AJHR* 1930, H-15.

- ‘That a uniform system of collecting and collating fishery statistics is an urgent need will be appreciated fully if one endeavours to learn anything from the figures published as statistics in the Annual Reports of the Marine Department for the last fifteen years.’
- ‘The landings for Auckland (for which port our data may be taken as very closely approximating to accuracy) show an appreciable rise compared with the previous year which, in view of the increased restrictions placed upon trawling and Danish seining, is a matter for satisfaction. There is still, however, a decline as compared with the production of 1927-28.’
- Fewer snapper caught during the schooling season, partly owing to the weather.
- Danish seining vessels with best range and ability to work in bad weather made the most consistently good catches.
- Steam trawlers, less affected by adverse weather, most regular in their supplies; divided operations between the outer Gulf, Bay of Plenty, and west coast. At no time were unusually big catches made by the trawlers.
- ‘It seems clear . . . that restrictions on this method of fishing have gone as far as is consistent with operating on a profitable scale under existing methods.’
- Snapper supplies generally satisfactory except when weather prevented boats from getting to the grounds.

- Good flat fish season experienced by the Danish seiners in spring months working the 'Dab Patch' (between Ponui and Deadman Point. 'This fishery is prosecuted at the expense of spawning aggregations of flounders and dabs, and therefore requires careful watching both from the economic and the biological aspect.'

- Landings at Thames have improved from previous year. Largely the result of a change of attitude towards Danish seine: 'Men who had opposed this method of fishing from its inception have now recognized that the old-established method of fishing with set-nets is less satisfactory for providing a fairly continuous supply of fish and they have changed over to Danish seining and making longer voyages. By this means, and by a greater attention to long lining on the outer grounds when the seasonal conditions call for it, the fish supplies to Thames have been made to show a much desired improvement.'

### 1930

WM Fraser, Inspector of Fisheries, Whangarei, to Secretary, Marine Department, 12 May 1930, M 1 2/12/477, NAW.

- Discusses difficulty of collecting statistics for Whangarei as not a port of registry for fishing boats; retailers not obliged to keep records; understands Whangarei to be made a port of registry, suggests that fishermen be provided with small books to keep catch details.

Return of fishing information and statistics for the port of Whangarei for the year ended 31 March 1930 by Whangarei inspector WM Fraser, M 1 2/12/477, NAW. (This return filled out twice with different information.)

- boats: no details – Whangarei not a port of registry
- men engaged in fishing: 6
- kinds of fish landed: snapper, hapuku, , mullet, flounder
- fishing similar to previous years; summer months best
- quantity of fish landed:

Kind	Cwt.
Snapper	8 587
Whapuku	6 112
Mullet	629
Flounder	156
Other fish	130
Total	4 400[?]

- source of information: fishermen and retailers

Superintendent, Mercantile Marine, Auckland, to Secretary for Marine, 6 May 1930, M 1 2/12/477, NAW.

- Encloses report of Auckland Fisheries Inspector for the year ended 31 March 1930, which he considers 'most comprehensive'.

Return of fishing information and statistics for the port of Auckland for the year ended 31 March 1930 by Auckland inspector C Daniel, M 1 2/12/477, NAW.

- boats: 4 steam trawlers
  - motor vessels engaged in Danish seining – 19 full-time; 7 part time
  - motor vessels engaged in set-net and line fishing – 60 full-time; 40 part-time
  - sailing boats engaged in fishing – 3 full-time; 2 part-time
  - row boats engaged in fishing – 45 full-time; 30 part-time
  - mussel dredging – 1 boat full-time; 1 boat part-time
  - crayfishing – 40 boats part-time
  - men engaged in fishing – 300 full-time; 100 part-time



- kinds of fish landed: snapper, tarakihi, flounder, dabs, sole, hapuku, gurnard, mullet, trevally, dori, dogfish, kingfish, moki, barracouta, frostfish, crayfish, cod, sardines, etc
- fishing slightly above average from previous years
- best time of year: August-October
- least productive time of year: May (owing to weather conditions); January-March (owing to warm weather creating difficulties with storage, and high temperatures bringing snapper off the bottom – making Danish seines, trawls, long-lines, and set-nets lose their efficiency)
- total quantity of fish landed:  

various
95,760 cwt
- source of information: fish merchants and ‘personal observations’

Fisheries report for Auckland (including Coromandel, Mercury Bay, and Manukau) for year ended 31 March 1930 by Auckland inspector C Daniel, M 1 2/12/477, NAW. [Photocopy 25]

- Type of fish caught, in order of importance: snapper, flounder/sole/dabs, tarakihi, hapuku, gurnard, pioke, dori, mullet, cray-fish, cod, kingfish, moki, trevally, butterfish, frostfish, barracouta, kahawai, mackerel, piper, herrings, trumpeter, huke, sardines, ling, parori, eels, maumau.
- Shellfish: oysters, mussels, cockles, scallops.
- Total landings from ‘Auckland waters properly’ – 4,719 tons, 94,380 cwt.
- Total landings at Auckland including Manukau, Coromandel, and odd Kaipara catch – 4,788 tons (or 95,760 cwt).
- Crayfish – 2908 cases.
- Mussels – 5706 sacks.
- Toheroa – 6532 sacks. [taken from?]
- Detailed month-by-month report – recording weather, catch success, fishing grounds:
- notes that the flat season this year ‘has been the biggest ever known to the oldest fishermen here’
- notes that there was a restriction in force to protect schooling snapper, which came into force on 15 November
- notes that, at one time (November), a trawler was operating in the Bay of Plenty
- Provides details of fish landings at Auckland (excludes Manukau and Kaipara) by the following companies: Sanfords, John Gabriel & Sons, and Auckland Fishermens Co-op – (see spreadsheet).
- Also includes catch figures for:
- three boats operated by Newmarket Fisheries, which landed 12 tons, mostly flounder
- some 14 ‘odd boats’ – total catch of approximately 35 tons, principally flounder and mullet
- Coromandel: 3 row boats and 1 launch working during the year:
- catch estimate is 2 tons mullet, flounder, snapper
- greater amount of mussel landings come from these waters
- Crayfish: 2908 cases landed for various operators, Auckland and Thames.
- Mussels: 5706 sacks landed for various operators, Thames and Coromandel.
- Toheroa: 6532 cases landed for 2 operators, location unknown.
- Table of total flatfish landings, listing the quantity caught by 13 operators from Auckland, Thames, Mercury Bay, and Kaipara:
- total of 455 tons 3 cwts 3 qrs. 15 lbs
- includes 28553 lbs caught by Kaipara operator and 8375 lbs caught by Mercury Bay operator

*Thames*

- 8 Danish seine vessels working out of Thames, more than ever before – landings of these boats cannot be said to have been caught in the Firth of Thames, very often from the vicinity of the Cape, Tiri, and the Barrier.
- The actual landings as Thames from the boats that work the old method of set net, and long line, inside of Deadmans Point, sand-spit line is decreasing. These boats are being replaced by more up-to-date boats – seining principally.

- Actual Thames landings of 921 tons, shows an increase on last year of 184 tons. ('Actual' appears to refer to landings at Thames only.)
- Collective figures of 1275 tons from all sources an increase of 149 tons. ('Collective' appears to also include landings at Mercury Bay and Tauranga.)
- Provides details of fish landings at Thames, Mercury Bay and Tauranga (see spreadsheet).

#### *Mercury Bay*

- Good season at Mercury Bay.
- 24 licensed boats, several part-time on crayfishing, some working half and half all the time.
- Total amount of fish landed: 352 tons 17 cwt 2 qrs. (This figure does not include crayfish.)

#### *Tuaranga*

- Poor season – no demand from Auckland, the only outlet Rotorua and local.
- 2 of the 4 Danish Seine boats were hauled up, the remaining 2 working part-time on limited catches; many of the line and part-time boats did not renew licenses.
- Local fishermen report snapper to be very plentiful.

#### JFH Macnamara, Inspector of Fisheries for Thames, to Chief Inspector of Fisheries, Wellington, 13 April 1930, M 1 2/12/477, NAW

- Encloses annual return.
- Year has been well up to, if not above average – large quantities of all fish caught in the summer months.
- Not much opportunity for line fishermen to make a living – most of the fish are caught by the Danish Seine netters.
- 'It is the general opinion of the fishermen that the Gulf itself does not carry the number of fish as it used to do this they account for by the presence of the sein [sic] nets.'

#### Return of fishing information and statistics for the port of Thames for the year ended 31 March 1930 by Thames inspector JFH Macnamara, M 1 2/12/477, NAW. (This return also filled out by Auckland inspector Daniel (see below) – with different information.)

- boats: motor vessels engaged in Danish seining – 4 full-time; 1 part time  
                   motor vessels engaged in set-net and line fishing – 33 full-time  
                   row boats engaged in fishing – 4 part-time  
                   mussel dredging – 2 boat part-time  
                   men engaged in fishing – 118 full-time
- kinds of fish landed: snapper, flatfish, gurnard, mullet, John Dory, kahawai, kingfish, mussels
- on whole, fishing above average
- quantity of fish landed (pencil note at side: 'Fisheries combined'):

<b>Kind</b>	<b>Cwt.</b>
Snapper	8 587
Flatfish	6 112
Gurnard	629
Mullet	156
John Dory	130
Kahawai	14
Kingfish	7
'Mixed'	326
Mussells	1 536 bags

- source of information: merchants and fishermen

Return of fishing information and statistics for the port of Thames for the year ended 31 March 1930 by Auckland inspector C Daniels, M 1 2/12/477, NAW.

- boats: motor vessels engaged in Danish seining – 8 full-time
  - motor vessels engaged in set-net and line fishing – 20 full-time; 4 part-time
  - row boats engaged in fishing – 1 full-time; 2 part-time
  - mussel dredging – 1 boat full-time, 1 boat part-time
  - men engaged in fishing – 73 full-time; 10 part-time
- kinds of fish landed: snapper, flatfish (flounder, dabs, etc.), mullet, gurnard, John Dory, dogfish, trevally, kahawai, eels, herring, mussels
- snapper and flats about average from previous years
- best time of year: July-October
- least productive time of year: December-March
- total quantity of fish landed:

Thames	18,423 cwt
Mercury Bay	7058 cwt
Tauranga	44 cwt
- source of information: fish merchants and ‘personal observations’

Return of fishing information and statistics for the port of Tauranga for the year ended 31 March 1930 by Tauranga inspector A Skinner[?], M 1 2/12/477, NAW.

- boats: motor vessels engaged in Danish seining – 4 full-time
  - motor vessels engaged in set-net and line fishing – 20 full-time; 4 part-time
  - row boats engaged in fishing – 5 full-time; 2 part-time
  - sailing boats engaged in fishing – 2 full-time
  - crayfishing – 1 boat part-time
  - men engaged in fishing – 20 full-time; 7 part-time
- kinds of fish landed: snapper, hapuku, mullet, cod, trevally, gurnard, dogfish, John Dory, flounder
- fishing below average from previous years
- best time of year: May-August
- least productive time of year: December-February (owing to natural scarcity)
- total quantity of fish landed:

Kind	Tons.
Snapper	276
Hapuku	30
Mullet	6
Flounder	1
Total	313

- [Noted that Daniel, the Auckland Inspector, had estimated only 172 tons (3440 cwt) – see above]
- source of information: fish merchants and ‘own estimates’

### 1931

A.E. Hefford, 28 July 1931, Marine Department annual report for 1930-1931, AJHR 1931, H-15.

- Order in Council gazetted 19 February 1931 requires owners of fishing boats to make monthly returns of the quantities of fish landed; operation of the Order deferred owing to a lack of staff.
- Total landings at Auckland 104,098 cwt, increase of approximately 8.7 percent, though do not approach the peak figures for the year 1927-28 (134,040 cwt).
- Steam trawlers divided operations between the lower Hauraki Gulf, off Great Barrier, the Bay of Plenty and the west coast.
- Fishing in the Hauraki Gulf ‘fairly consistently good’; some of the Danish seine catches approaching quantities seen in earlier times. During the snapper schooling season several of the Danish seiners took to

long-line fishing with good results, though the fish caught were of a bigger size than is in most demand in Auckland.

- Dab and flounder fishing in the 'Dab Patch' good, though not as productive as last season.
- Thames fishermen had a fairly successful year – an increased number of vessels worked at all classes of fishing, especially Danish seining and long-lining, and more fish came into the depots, both from Thames and overland from Mercury Bay. Limit placed on quantities of fish caught September, October, November, presumably owing to the failure of the usual Australian market.
- Sharks of all sorts unusually abundant in the Auckland District, especially the Firth of Thames.

### 1931

Annual report on rock oyster beds for the year ended 31 March 1931 by JP Harris, senior inspector of fisheries, M 1 2/12/500, NAW.

- Commenced picking on 11 June, finished on 17 September; 45 men employed.
- Total sacks picked: 5,215.
- Gulf and Coromandel beds very lightly picked owing to the scarcity of spat and young oysters – do not get sufficient spat to replace the mature one each season. Temperature changes in the Gulf during summer is doubtless the cause of the problem.
- Mahurangi, Kawau, Whangarei, Russell and Kaipara are all well stocked with different aged oysters and a satisfactory fixing of spat takes place each summer.
- No heavy fixing at Motutapu, Rakino, Waiheke, Ponui and Coromandel; slightly better at Great Barrier.
- Rangitoto is easily the best stocked – good showing of different aged oysters from 1 to 6 years.
- Cultivation:
  - most work confined to borer destruction on sections that required most urgent attention
  - put down 725 yards of new rock, built 148 yards of new walls, cleaned off 560 yards of old shell; recommends moving down further rock from high-tide mark to oyster growing area

Return of fishing information and statistics for the port of Whangarei for the year ended 31 March 1931 by Whangarei inspector WM Fraser, M 1 2/12/500, NAW.

- boats: motor vessels engaged in Danish seining – 2 full-time
  - motor vessels engaged in set-net and line fishing – 8 full-time
  - row boats engaged in fishing – 1 full-time
  - men engaged in fishing – 20 approx full-time
- kinds of fish landed: snapper, flounder, hapuku, mullet, 'other mixed fish'
- fishing below average from previous years
- best time of year: autumn
- least productive time of year: early spring (owing to natural scarcity of fish)
- total quantity of fish landed:

Kind	Cwt.
Snapper	2 920
Flounder	310
Hapuku	290
Mullet	270
'mixed fish'	110
Total	3 900

- source of information: fishermen and retailers

Return of fishing information and statistics for the port of Auckland for the year ended 31 March 1931 by Auckland inspector C Daniels, M 1 2/12/500, NAW.

- boats: steam trawlers – 4 full-time; 1 part-time
  - motor vessels engaged in Danish seining – 20 full-time; 6 part-time

motor vessels engaged in set-net and line fishing – 63 full-time; 50 part-time  
 sailing boats engaged in fishing – 1 part-time  
 row boats engaged in fishing – 50 full-time; 40 part-time  
 total boats fishing: 277 (138 full-time; 139 part-time)  
 men engaged in fishing – 312 full-time; 135 part-time

- kinds of fish landed: snapper, flounder, tarakihi, hapuku, gurnard, dogfish, dory, mullet, crayfish, cod, kingfish, trevally, frost fish, barracouta, piper, herrings, oysters, mussels, sardines, etc
- fishing on the whole above average from previous years, but slightly below for snapper
- best time of year: Jan to March for trawling; July to September for other methods
- least productive time of year: June to August for trawling; January to March for other methods
- total quantity of fish landed:

Kind	Cwt.
Various (see report)	104 098

- source of information: merchants and 'own estimates'

Fisheries report for Auckland for year ended 31 March 1931 by Auckland inspector C Daniel, M 1 2/12/500, NAW. [Photocopy 26]

- Gives details of the number of boats – same as those given in the return. States: 'The number of vessels fishing with A.K. markings would total about 277 and these vessels are distributed to Whangarei, Whakatane, Mercury Bay, Coromandel, Manukau, Raglan, Kawhia, and Auckland.
- Type of fish caught, in order of importance: snapper, flounder/sole/dabs, tarakihi, hapuku, gurnard, pioke, dori, mullet, cray-fish, cod, kingfish, moki, trevally, butterfish, frostfish, barracouta, kahawai, mackerel, piper, herrings, trumpeter, hake, sardines, ling, parori, eels, maumau.
- Shellfish: oysters, mussels, cockles, scallops.
- Total landings at Auckland, including Manukau and the Coromandel:
- fish – 5,204 tons 18 cwt 0 qrs 27 lbs
- crayfish – 3638 cases
- mussels – 5704 sacks; 500 cases canned
- toheroa – 1536 cases; 800 cases soup
- shell-fish powder – 10 cwt
- Detailed month-by-month report – recording weather, catch success, fishing grounds.
- Details of fish landings at Auckland by the following companies: Sanfords, John Gabriel & Sons, and Auckland Fishermens Co-op – see spreadsheet.
- Also includes catch figures of some 21 'odd boats' – total catch of approximately 65½ tons, principally flounder and mullet
- Coromandel:
- 5 small licensed fishing vessels at this port, erratic landings – estimated at 3½ to 4 tons, mostly snapper, flounder, mullet
- practically the whole of mussels landed from these waters – 1 local boat, 1 Tapu boat, 1 Thames boat, dredging for the past year in the vicinity of Rangapuke Island
- Mussels: 5704 sacks; 500 cases canned.
- Crayfish: 3638 cases landed for various operators, Auckland and Thames.
- Toheroa: 2336 cases landed for 2 operators, location unknown.

Fisheries report for Thames for year ended 31 March 1931 by Auckland inspector C Daniel, M 1 2/12/500, NAW.

- Of the 47 boats licensed at Thames, all except 3 work local waters (1 each at Clevedon, Mercury Bay, Tairua).

- Season fairly good – mainly due to the fact that all the ‘Big Noises’ have either taken to the Danish Seine or have gone long-lining properly.
- Landings: 976 tons for Thames ‘proper’ (an increase of 55 tons on last year); 373 tons for Mercury Bay (an increase of 22 tons on last year); collective landing 1349 tons, an increase of 18 tons over any year since 1924 when began keeping landing figures.
- Details of fish landings at Thames by the following companies: Shortland Fish Co., Thames Fisheries (Thames and Mercury Bay landings), Fishermen’s Co-operation Ltd, Taylor Bros (Thames and Mercury Bay landings), and Devcich Hamilton – see spreadsheet.
- Details of fish landings at Mercury Bay by the following companies: Thames Fisheries and Taylor Bros – see spreadsheet.

*Mercury Bay:*

- 21 licensed boats; all boats stray lining at about 4 fathoms.

*Tauranga:*

- 3 Danish seine boats working all year, another about half time; about 17 line boats. Though 36 licensed boats in the register in March, a lot of them are only half time – others away at Waihi Beach, Katikati, Maketu, and Mercury Bay.
- Tauranga not working Danish seines long.
- Reportedly a very good year for hapuku, and the best year for mullet for many years.

Flounder and Dab Season, 1930-1931 by Auckland inspector C Daniel, M 1 2/12/500, NAW.

- Early in May 1930, the usual school of dabs came up on the Thames Flats (about a month late). They were very thick and the Thames boats landed large loads right through to the end of August.
- Regulation: minimum length 9 inches for dabs and flounder all year round.
- Set netting on the Thames Flats is an annual occurrence – fish landed are 95% dabs and 99% female.
- The season for flounder and dabs at the dab patch – Big Bay and Western Shore – was good, but not so noticeably as last year; fish not so thick and the pulls did not come up to the standard of last year – about one basket per pull.
- The Western Shore grounds – both inside and outside of Whangaparoa – very much better than last year.

JFH Macnamara, Inspector of Fisheries for Thames, to Chief Inspector of Fisheries, Wellington, 12 May 1931, M 1 2/12/500, NAW

- Encloses annual return.
- Year has been below average, though quantities at times patchy. Flounder has been plentiful.
- ‘Boats fitted with Danish seine nets have been fairly successful but the set net and long line fishermen have been complaining on the whole of the scarcity of fish.’

Return of fishing information and statistics for the port of Thames for the year ended 31 March 1931 by Thames inspector JFH Macnamara, M 1 2/12/500, NAW. (See also return for Thames by Auckland inspector Daniel, below)

- boats: motor vessels engaged in Danish seining – 5 full-time  
                   motor vessels engaged in set-net and line fishing – 36 full-time  
                   row boats engaged in fishing – 4 part-time  
                   mussel dredging – 2 boat part-time  
                   men engaged in fishing – 98 full-time; 4 part-time
- kinds of fish landed: snapper, flounder, gurnard, cod, hapuku, mullet, kingfish, moki, tarakihi, trevally, barracouta, hake, skate, herrings, mackerel
- snapper not nearly as plentiful as in former years and numbers landed was considerably down
- best time of year: August-October
- least productive time of year: November to May
- total quantity of fish landed:

<b>Kind</b>	<b>Cwt.</b>
Snapper	4 434½
Flatfish	6 624¼
Gurnard	761¼
Mullet	26
John Dory	52
Kahawai	13½
Kingfish	6½
Mixed	382½
Mussels	4 359 sacks

NB: Table has been crossed out and words 'See Daniels figures' written alongside

- source of information: merchants and personal observation

Return of fishing information and statistics for the port of Thames for the year ended 31 March 1931 by Auckland inspector C Daniel, M 1 2/12/500, NAW.

- boats: motor vessels engaged in Danish seining – 8 full-time; 5 part time (also set-net and line fishing)  
motor vessels engaged in set-net and line fishing – 27 full-time; 5 part-time (also Danish seining)
- row boats engaged in fishing – 2 full-time; 3 part-time
- mussel dredging – 2 boat full-time
- men engaged in fishing – 98 approx full-time; 4 approx part-time
- kinds of fish landed: snapper, flounder, dabs, mullet, gurnard, dogfish, dori, eels, herrings and mixed
- fishing slightly above average from previous years
- best time of year: August-October
- least productive time of year: November to May
- total quantity of fish landed:

<b>Kind</b>	<b>Cwt.</b>
<i>Thames</i>	
Snapper	10 811½
Flatfish	6 889¼
Gurnard	769¼
Mullet	30¾
Dori	53¼
Total	19 531¼
<i>Mercury Bay</i>	
Undefined	7 460
Combined total	26 991
Mussels taken at Coromandel, landed at Thames	2 704 sacks

- source of information: fish merchants, fishing boat log books, mussellers

## 1931

Extract from NZG 1931, p 2810, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- Amending the regulations (defines 'Danish seine net' and 'trawling')

## 1931

### Report on restrictions of trawling areas in Hauraki Gulf, no date, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.

- report appears to have been prepared by Sanfords
- comments on impact of April 1929 regulations
- ‘As a result of the above restrictions our trawlers were then forced out to areas where fishing operations are quite unproductive. So unsuccessful were they in securing payable catches that we were compelled to try out more distant fishing grounds. The West Coast had been tried repeatedly, but on account of the uncertainty of the weather conditions there, and the difficulties pertaining to a Bar Harbour such as Onehunga, we have found operations were unprofitable. The only other Fishing Ground left us is the Bay of Plenty, yielding chiefly Terakihi, and even this area has proved unremunerative for some time back. // Most of our trawlers now work the Bay of Plenty grounds, proceeding right round East Cape as far South as Tokomaru Bay.’

### A.E. Hefford to Secretary, Marine Department, Report on Meetings at Auckland, 13 and 14 May 1931, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- Meetings held with whole of fishing industry; arose out of suggestion from Sanfords (following the suggestion that certain inshore BoP waters should be closed to trawling) that further restrictions should be placed on Danish seiners in the Gulf, restricting them to the same area as trawlers.
- Thames men put up a new proposition – that the area between a line from Cabbage (Colville) Bay to Hook’s (Kauri Point, N.E. corner of Waiheke) and the Sandspit – Deadman’s Point line (the present limit for Danish seiners, at the opening of the Thames Firth) should be kept as a sanctuary for fish and that no nets (except mullet nets) should be allowed to operate in this area. ‘The objection to the closure of this area is that it includes the best flounder-fishing grounds in the whole Gulf and is much frequented by the smaller Danish-seining launches from Auckland principally for the sake of the flatfish, but their catches also include a proportion of “mixed” fish such as gurnards and pioke. It was confidently asserted by several Danish seiners that the stock of flounders on these grounds has considerably increased in the last three years. The seiners maintain that this increase is due to the destruction, by their operations, of considerable quantities of the natural enemies of flounders, especially dory, dog-fish (pioke) and gurnards. This would doubtless operate to some extent, but how far the present abundance of flatfish in the catches is due to this, or to some more obscure variation in natural increase, it is impossible to say. In the past four years our attention has been concentrated more on the snapper supplies and we have not collected the same amount of statistical data with regard to the flounder fishery, mainly because of our limited staff, but it is a matter which we ought to keep a careful eye upon.’
- ‘With regard to the meeting with the Yachtsmen . . . all that was said amounts to this, that the snapper fishing along all the coasts of the Hauraki Gulf frequented by fishermen has greatly deteriorated. The index of this deterioration is the catch of snapper by line fishing in recent years, and especially in the last year, compared with many years ago. . . . There is no doubt, I think, as to the correctness of their facts – the increased difficulty of catching fish on the line in inshore waters. I do not however endorse their conclusions as to the causes of the deteriorated fishing. I conclude that it is a matter of sheer abstraction of fish from the area so that there are considerably fewer snapper roaming about these areas and what there are are better fed fish and therefore for that reason not so easily caught by a baited hook. // There is ample evidence that in former years a certain proportion, varying from year to year, of the snapper caught in the Hauraki Gulf consisted of undernourished fish which were rejected by the dealers as “spents”, while in the last year or two the snapper have been invariably of excellent condition – well fed. That this has something to do with the failure of line fishing is borne out by the fact that in places where long lines have been laid and taken practically nothing, a haul of the Danish seine taken immediately after has produced a respectable catch. This greater efficiency of the seine as a fish-catching instrument is at once an advantage to the fishermen and a menace to the conservation of stocks unless it is subject to restrictions.’



- 'The fact that the Danish seiners are going further afield for their catches is a matter which causes concern to me and my colleagues. It suggests a shrinkage of the general snapper population of the Gulf and is quite as ominous a sign as the diminution of the amateur fishermen's catches. I say the signs are ominous but I cannot form the definite conclusion that a continuance of the present conditions with no increased restrictions will inevitably lead to the gradual and ultimately permanent deterioration of the Hauraki Gulf snapper fisheries in the sense that more fish will be taken each year than can be replenished by natural propagation [sic] and growth.'
- 'So far as our statistics of snapper landing show there has been no appreciable diminution in the catch of snapper by Danish seiners in the four years 1927-1928, to 1930-1931.'

Year	Average number of vessels whose landings the figures are derived	Total quantity of snapper landed (lbs)	Average catch per month per vessel (lbs)
1927-1928	4.25	420 734	8 250
1928-1929	10.9	1 437 496	11 058
1929-1930	10.0	1 061 825	8 923
1930-1931	11.7	1 416 167	10 115

- Figures for line fishing boats – this fishing has for the most part been intermittent and it is not possible to get satisfactory data. The averages quoted below have been worked out from only one boat.

Year	Total snapper landed (lbs)	Average catch per month (lbs)
1927-28	54 059	4 505
1928-29	insufficient data	-
1929-30	140 740	12 795
1930-31	188 065	15 672
1931-32	147 517	12 293

- Notes that the returns show no appreciable diminution during the last two years and indeed show that an intensively worked line boat can land as much snapper as a seiner, and indeed more than the average of all the seiners.
- Details of steam trawler landings. Noted that 'it is a very incomplete picture of the whole business.'

Year	Average number of trawlers landing each month	Total quantity of snapper landed (lbs)	Average catch per month per vessel (lbs)
1927-1928	2.83	2 468 500	72 603
1928-1929	1.6	2 290 880	114 544
1929-1930	3.58	3 846 080	89 433
1930-1931	3.75	3 455 040	76 779
1931-1932	2.25	1 416 480	52 268

- 'The following are the conclusions I arrive at from a present day contemplation of the whole position:
  - 1) That the stock of snapper in the Gulf apparently shows no certain signs of improvement but rather a diminution so far as the inshore grounds are concerned.
  - 2) It cannot be said that the evidence available definitely indicates depletion in the sense that the sum total of snapper available in the region of the Hauraki Gulf is being abstracted from, by fishing operations, at a greater rate than it can be replenished by natural propagation of the species.
 It is highly desirable that no time should be lost in obtaining proper evidence on this point by definite scientific investigations.'
- States that 'it would appear to be expedient to add to restrictions on Danish seining in small bays and coastal areas both for the protection of the smaller fish which usually frequent these parts and also to give

the local dinghy fishermen some further protection from the wholesale scooping up of inshore fish by the power-boats.'

Charles Daniel, Auckland Inspector of Fisheries, to Chief Inspector of Fisheries, Wellington, 15 July 1932, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- commenting on proposal to introduce new regulations  
- 'My own idea of the position as regards snapper is that they are not so plentiful in the Gulf and the inner waters thereof as they were say 5 years ago. Though as far as it is possible to ascertain there is no noticeable shortage in any year or period of a year, excepting that of March and April each year after the schoolers disperse, which is usual. // The landings for several years show that there are not so many snapper taken, but no stock can be taken of this for several reasons. Firstly, that the landings for all fish for the past three years have been wholly controlled by the demand, and as the demand has decreased, so has the landings. Secondly, since the depression has been noticeable, there has been a much larger demand for inferior fishes, which meet the requirements and the reduced purses better, and consequently pioke and gurnard, both fresh and smoked, have increased in the markets. Thirdly, for fully three years flounder and dabs have been so plentiful that the price for them is almost down to half what it was five years ago, and this to a big extent has lessened the demand for snapper. . . . // Anyhow, I am satisfied that the snapper fishing as a whole to-day is no more intensive than it was five years ago, while I should judge that the intensity of the flounder fishing had doubled itself in the same period. Furthermore, we have not had in the last five years a shortage of snapper at any time, excepting through bad weather and the period before mentioned, after the schooling snapper have dispersed. // It is a fact that many places in the Hauraki Gulf that were fished very profitably for snapper, 6, 7, and 8 years ago, are not worth shooting over with the Seine or the long, or hand lines to-day. But the majority of these places are what could be termed inshore or partially enclosed waters. Regarding these places, this is quite understandable as far as the hook fishing is concerned, because in former years when these places were good, a large percentage of the snapper were poor and under-nourished and would take the bait readily; but regarding the shortage of Seined fish in these places, I can suggest three possible reasons that may be the cause of the absence of fish now. One is that the continual disturbance with the Seine Nets has caused them to seek undisturbed and wider waters to avoid being caught. Two, that the continual and intensive fishing has fished the whole generation out, young and all, and new generations of young fry have not come to these waters excepting by accident as their forebears knew nothing of them, and instinctively, the fry return to the haunts of the parent. Three, perhaps the food in these areas has given out for some unknown reason. I think myself that the second suggestion is the correct thing. . . . // I think Mr Hefford, all our troubles about the Hauraki Gulf and snapper were made long before you and I knew anything about it, and the mistake was made in allowing either trawling or seining in, unrestricted, when they should have been kept out first and let in by degrees, as circumstances warranted it later. Our hands would not be tied then as they are now. Anyhow I don't think there is much to worry about.'

Extract from *Dominion*, 4 August 1932, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- 'Thames fishermen working the launch Hairini at the head of the Hauraki Gulf, made a record haul of schnapper one day recently. Immediately the net was set and the pull started, the fishermen were surprised to see the ropes come to the top. When the net was drawn to the boat the bag was completely filled with schnapper, and when taken on board the launch they filled 80 baskets, each containing 100lb of fish. This is considered a record pull, the fishermen engaged in the industry never having heard of such a quantity in a single pull.'

Extract, *NZG* 17 November 1932, p 2288.

- revoking earlier regulation and extending area in which Danish seining prohibited.  
- accompanying plan showing restricted area

## 1932

A.E. Hefford, 'Report on fisheries for the year ended 31 March 1932', 27 August 1932, Marine Department annual report, AJHR 1932-1933, H-15.

- Notes that reduced catch the result of the purchasing power of the public, which restricted market requirements. Increased numbers of people have taken up fishing in a casual semi-professional way. These catches generally not taken into account in the returns, but would not alter statistics markedly.
- Auckland showed a 19.5% decline in quantity of landings. Operation of trawlers reduced considerably. In 1930-31 year, four trawlers were operating continuously and one part-time. During year under review, 3 trawlers engaged for first five months, reduced to 2 in September, and for January and February all laid up except one. Their fishing operations mainly carried out in the outer Gulf and Bay of Plenty, being restricted from working the nearer grounds of the Gulf.
- Danish seiners made up for the reduced operations of the trawlers, so far as snapper and flounder concerned. The flounder and dab fishing prosecuted by Danish-seiners off the entrance to the Thames Firth, off the north coast of Waiheke, and off the western shore, was particularly good – would appear that flatfish supplies have recently increased. 'Snapper supplies, though usually more than sufficient to meet the market demand, do not appear in such promising light since for the best catches it was necessary to exploit grounds further afield.'
- Thames fleet had a fairly successful year, largely due to increased supplies of flounders and dabs. Danish seiners working on the 'Dab Patch' grounds were responsible for the greater part of the catches. 'This class of fishing, carried on by the larger vessels capable of working at greater distance from port, has now definitely taken precedence of the older method of set-net fishing which was formerly used by all the Thames fishermen. A large proportion of line-caught fish, principally snapper, is still brought by road to Thames distributors from Mercury Bay.'
- Scientific investigations: details continuing observation of snapper, dabs and flounders, particularly spawning habits.

## 1932

Extract from *New Zealand Gazette*, no. 68, 3 November 1932, p 2186, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Order in Council prohibiting the use of a Danish seine net in Whangarei Harbour inside a right line drawn from Marsden Point to Busby Head.

## 1933

A.E. Hefford, Report on fisheries for the year ended 31 March 1933, Marine Department annual report, AJHR 1933, H-15.

- 'The fish landings in the Auckland District show a further decline not for want of fish to catch, but for want of buyers.' More launches and small boats took part in fishing – crews looking for an occupation. Established fishermen limited operations in the face of diminished requirements. Steam trawlers even less active than the previous year – 15½ trawler months, compared to 27 trawler months the previous year. The reduction in the price of fish made it cheaper to purchase supplies from the motor-launches.
- Danish seiners had a successful year, but fished with less than maximum intensity. 'One of these vessels made the biggest catch of snapper yet recorded for one haul of the Danish seine – 174 baskets, or about 13,900 lb. weight of fish. This was made in the month of June not far from the Ruakaka Bar. (The average catch of a Danish seiner during the year would probably not exceed three baskets per haul.)
- 'At the beginning of the year vigorous representations were made by yachtsmen and amateur fishermen concerning the impoverished condition of the snapper line-fishing grounds as compared with the abundance of former years. There was a good deal of truth in their contentions. It must be admitted that in the past there was within easy reach of Auckland what may perhaps be described as a local superfluity of snapper, when an extraordinary number of these fish could be caught in a short time by any one who could put a bait on a hook. But whether the present-day conditions, when snapper fishing in the neighbourhood of Auckland is much more of a game of chance, as well as of skill, than it used to be, represent a state of snapper depletion in the strict economic sense – whether human exploitation is taking

away faster than nature can reproduce – is not a question that can be answered in the affirmative on the basis of the evidence available. However, after discussing the question at a conference of representatives of all classes of professional fishermen and fish-traders at Auckland on the 13<sup>th</sup> May, 1932, followed by a conference with experienced amateur fishermen on the following day, it was decided to close more of the inshore waters of the Hauraki Gulf to Danish seining, with the object mainly of protecting known nursery grounds – though big snapper are also to be caught in these inshore waters – and also of conserving the stock of snapper on the small-boat fishermen's grounds. Regulations giving effect to this decision were made on the 14<sup>th</sup> November 1932.'

- Hapuku catches by line-boats showed a falling off in Hauraki Gulf, Mercury Bay, and Bay of Plenty.
- 'The flounder and dab supplies (both kind being generally marketed under the common name of "flounder") have shown a marked increase on the Auckland market during the last three years, this fishing being specialised in by some of the Danish seiners. The best catches are made in winter and spring. In summer when the flounder leave the Danish seining grounds they afford a harvest for the set-net fishers in the Firth of Thames. Favourable weather and a (comparatively) better market combined to intensify the exploitation of this fishery during the last year.'
- 79 cwt of sardines landed by an Auckland boat during the year; caught at night using a bright light.
- Inspector Daniel continued his observation of reproduction of snapper, flounder and dabs.

### 1933

Charles Daniel to Superintendent, Mercantile Marine, 1 February 1933, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Commenting on a letter regarding the impact of trawling and Danish seining off the coast in the vicinity of Te Arai, situated in the middle of what is known as Pakiri Beach on the open coast between Rodney Point and Bream Tail.
- 'This locality is at seasons of the year a very favourite place for Danish seiners and sometimes trawlers. . . . There is only a small order drawn from this area, of about 5 cwt. Per week taken by a Mangawai fishermen for shipment to Dargaville in winter months only, the remainder comes to the Auckland markets for distribution throughout the district.'

### 1933 Crayfish

'Crayfish Tails', Star [Auckland], 5 September 1933, M 1 2/4/1 part 2 NAW.

- Last week 2000 cases of tails were consigned to London through an Auckland firm; further shipment to be made shortly. 'The waters of Coromandel Peninsula abound in crayfish and Mercury Bay fishermen are already reaping the benefit of the export trade.'

### 1933 Crayfish

'Crayfish Tails – Market Collapses', Star [Thames], 2 October 1933, M 1 2/4/1 part 2 NAW.

- Owing to the collapse of the London market, one Auckland packing firm has notified fishermen that it will discontinue packing – will have a serious effect on the Mercury Bay fishermen.

### 1933 Crayfish

'Crayfish Industry – New Zealand Firm's Orders', Dominion, 10 October 1933, M 1 2/4/1 part 2 NAW.

- Zealandia Company states that it is still taking supplies from fishermen. 'There are nine tons of Mercury Bay crayfish going to our Whangaroa factory to-day, and the industry is being organised all along the East coast from Whitianga northwards, including the Barrier. Larger supplies are required to meet the company's orders.'

### 1933 Crayfish

Acting Secretary of Marine to Managing Director, Redtail Canning, Perth, 29 December 1933, M 1 2/4/1 part 2 NAW.

- For 11 months ended November 1933 – 2146 cwt of frozen crayfish exported; 168,920 cwt of tinned crayfish exported.

## 1934

A.E. Hefford, Report on fisheries for the year ended 31 March 1934, Marine Department annual report, AJHR 1934-1935, H-15.

- Total quantity of fish landed at Auckland showed an increase – 91,512 cwt. Snapper and terakihi landings increased appreciably. Increased yield of snapper to some extent connected with the greater range of the Danish seining vessels and the exploitation of new grounds, aided by generally favourable weather. Three steam trawlers operated in Auckland, working a total of only 12 trawler-months; operations divided fairly equally between the outer part of the Hauraki Gulf and the East Coast Grounds (Bay of Plenty to East Cape).
- Flounder fisheries produced a much smaller yield. The following table shows flounders and dabs landed at Auckland in the last four years.

	1930–31 cwt	1931–32 cwt	1932–33 cwt	1933–34 cwt
<b>Auckland</b>	2 549	4 201	10 452	6 607
<b>Thames</b>	6 889	7 228	6 516	4 869

- Notes that these figures would be more useful if the returns were capable of being analysed so as to show the average catches per day's fishing of representative boats. Also notes that the flounder fisheries have been pursued on the same grounds and with the same intensity as during 1931-32 and 1932-33. In regard to 1933-34, states that: 'The fact is that the fish on the grounds were fewer and catches were less. A significant and perhaps ominous feature of the fishing is that the best catches were made in the month of August, which is the height of the spawning-season for dabs and flounders.'
- Sadines: 31 cwt landed at Auckland, fishing with a light at night; 50 cwt landed at Thames; fishing with a drift-net in daylight.
- Quantities of fish landed at Thames have not fallen somewhat over the last three years: 1931-32 (21,291 cwt.), 1932-33 (18,078 cwt.), and 1933-34 (17,412 cwt.). The fishing fleet at Thames has been reduced. Poor demand for fish at Thames caused a reduction in the number of line fishing boats operating at Mercury Bay, where, however, 18 boats worked at crayfishing to supply the demand brought about by increased requirements for canning and for export.
- Comments on the effect of the Depression. Notes the presence of dinghy and shore fishermen, previously employed doing other work, are hawking fish.
- Notes further decline in the operation of vessels of the highest class. Steam-trawlers operating out of Auckland described as the 'North Sea type', contrasting with those operating in other ports, including Port Chalmers, described as 'small converted vessels originally built for other work and not to be classed as deep-sea trawlers according to the standards of the Northern Hemisphere.'
- 'Visits of both steam-trawlers and Danish seiners to inshore grounds fished by local line fishermen have given rise to complaints and protests from various districts. The difficulty is that practically all the best fishing-grounds are comparatively close to the land and must be exploited by the more intensive methods if supplies of fish to the larger ports are to be maintained. There is, moreover, the additional problem of keeping a proper surveillance over "prohibited areas" for which our fisheries protection organisation is already inadequate and indeed in most districts non-existent. // While steam trawling has declined, Danish seining has increased and developed. In the early days small motor-launches of about 35 ft. in length were generally employed for this fishing. In the last year or two several bigger and more seaworthy vessels have been specially built, with a wide field of operation and the ability to work in weather which was formerly regarded as impossible. Moreover the installation of Diesel engines in place of the benzene or petrol consumers of a few years ago has affected marked economy in propulsion and has also extended their range. Some trawling and line-fishing vessels have also added to their efficiency and economy by the same change. // Generally speaking, the Danish-seiners are decidedly the most efficient and productive of all fishing-vessels in the Dominion. In the Auckland vicinity considerable

restrictions have been imposed on their operations by closing certain areas to this method of fishing, and there is at least ground for believing that it may be advisable to limit their operations in inshore waters off other parts of the open coast. Owing to the limited market there has been a considerable amount of voluntary restriction of fishing intensity in the last two years. At the same time, however, the low price of fish or increased scarcity has induced more or the most enterprising to take up this method of fishing. Unfortunately, a comprehensive appreciation of the situation has been prevented by the lack of statistical information to which reference has already been made. Snapper and flounder on the Auckland fishing-grounds and flounders and other flatfish on the Nelson and Canterbury fishing-grounds are the kinds most sought after and most affected by this method of fishing.

#### 1934

##### Return of fishing information and statistics for the port of Whangarei for the year ended 31 March 1934 by Whangarei inspector WM Fraser, M 1 2/12/533, NAW.

- boats: motor vessels engaged in set-net and line fishing – 17 full-time; 4 part-time
  - row boats engaged in fishing – 3 part-time
  - 1 boat engaged full-time in crayfishing (for the Whangaroa Fish Canning Co.)
  - men engaged in fishing – 36 approx full-time; 11 part-time
- kinds of fish landed: snapper, flounder, hapuku, mullet, blue cod, 'mixed fish'
- fishing below average from previous years because Auckland trawlers operating in Bream Bay forced local fishermen out to the islands and other rocky localities, where the bottom does not permit of trawling
- best time of year: autumn
- least productive time of year: late spring and summer owing to lack of demand
- total quantity of fish landed:

Kind	Cwt.
Snapper	3 245
hapuku	385
Mullet	290
Blue cod	286
Flounder	280
'Mixed fish'	445
Total	4 931

- source of information: fishermen and wholesale buyers

##### Return of fishing information and statistics for the port of Auckland for the year ended 31 March 1934 by Auckland Inspector of Fisheries, C. Daniel, M 1 2/12/533, NAW.

- boats: steam trawlers – 1 full-time; 2 part-time
  - motor vessels engaged in Danish seining – 31 full-time; 7 part-time
  - motor vessels engaged in set-net and line fishing – 82 full-time; 53 part-time
  - sailing boats engaged in fishing – 1 full-time; 10 part-time
  - row boats engaged in fishing – 45 full-time; 45 part-time
  - mussel dredging – 1 boat full-time; 1 boat part-time
  - crayfishing – 30 boats part-time
  - men engaged in fishing – about 320
- kinds of fish landed: snapper, flats, trevally, hapuku, gurnard, dogfish, dory, mullet, crayfish, cod, trevally, kingfish, frost fish, barracouta
- fishing as a whole slightly above average
- quantity of fish landed:

Kind	Cwt.
Various wet fish	91 512
Crayfish	1 587
Mussels	3 500 sacks

- source of information: fishermen's returns and from own estimates after personal investigations

Report on Auckland fisheries for the year ended 31 March 1934, by Auckland Inspector of Fisheries, C Daniels, M 1 2/12/533, NAW.

- Notes that the vessels working with Auckland markings (and recorded in return as Auckland vessels) are distributed over the whole of the Auckland Province, principal ports being Whangarei (18), Whakatane (10), Mercury Bay (12), Hokianga (12), Coromandel (7), Raglan (8), Kawhia (8), Manukau (40), 'and odd twos and threes all along the coast between, with the remaining boats out of Auckland and the seaside suburbs,'

- Landings for the year (including Manukau):

- Wet fish – 4575ton 12cwt 1qr 19lbs

- Mussels – 3500 sacks

- Crayfish – 79ton 7cwt 3qrs 7lbs

- Sardines – 1ton 11cwt 0qrs 8lbs

- Scallops – 13 sacks

- Toheroas – 1433 cases

- Shell Fish Powder – 10ton 0cwt 3qrs 6lbs

- Shrimps – 13cwt

- Snapper schooling season 1933:

- Reproductive season for snapper in the Hauraki Gulf 'as good as ever, in spite of what the fishermen may say to the contrary'.

- Flat fish spawning season 1933:

- From the end of August, the Bay of Plenty was frequently worked for flats 'and at times very satisfactory trips and landings were recorded'.

- These Bay of Plenty flats large, 'but were never to be compared with dab patch stuff for condition'.

- Landings of Auckland fish companies – Sanfords, etc (see Excel spreadsheet). Figures include some fish caught in the Manukau, some of which went through the 'recognised sheds in Auckland'. Lists 26 boats fishing the Manukau, with a total catch of 94 tons (60 tons snapper, 30 tons flounder, 4 tons mullet), but also states that there would be another 15 boats 'whose annual landings nobody could estimate'.

- Comments that the sardine industry could be developed.

*Thames*

- Notes that there has been a fall off in total landings at Thames by Thames boats:

- 1932 – 1064 tons 11 cwt 2 qrs 19 lbs

- 1933 – 903 tons 18 cwt 0 qrs 15 lbs

- 1934 – 870 tons 12 cwt 1 qrs 15 lbs

- Believes that drop-off is due to transfer of Danish Seine landings from Thames to Auckland, consequent to lack of sales or demand for fish through the Thames sheds.

- Fishing at Thames has been steady throughout the year, both for snapper and flounder.

- Landings of Thames fish companies (see Excel spreadsheet).

*Mercury Bay*

- 16 licensed boats, but only 4 or 5 working – there being a poor demand at Thames for wet fish.

- A great deal of cray-fishing in these waters during the year.

- Wet fish reported to be plentiful in these waters all year, also inshore fishing this summer very good.

### *Tauranga*

- Industry on the whole quiet owing to lack of demand.
- 36 licensed boats on the register with Tauranga markings, quite a few of which are at Katikati and Waihi Beach, and quite a few laid up.
- 2 Danish Seiners working part-time; about 8 full-time hand and long-line boats working; remainder part-time vessels and dingies.
- Have been told that there used to be a fair supply of flounder locally, but now very few to be had at all in Tauranga Harbour, owing it is thought to settlers and motorists who use all sorts of nets in the numerous arms and estuaries of the harbour.
- Two boats here uses hand Seines on the flats and shallow waters of the harbour – only profitable in the harbour in the heat of the summer. ‘However, when, as they often do, make landings of two and three tons on snapper in a short trip, there is a good deal of ill-feeling and jealousy around the town.’
- Believes that the Harbour snapper are sterile fish and should be captured. Notes that they are in the Harbour from early November to late March.

### Return of fishing information and statistics for the port of Coromandel for the year ended 31 March 1934 by fishery officer, E.W. Gillives, M 1 2/12/533, NAW.

- boats: motor vessels engaged in set-net and line fishing – 1 full-time; 2 part-time  
row boats engaged in fishing – 2 part-time  
mussel dredging – 1 boat full-time  
men engaged in fishing – 4 full-time; 3 part-time
- kinds of fish landed: snapper, flounder (and dabs), mullet, gurnard, cod
- fishing as a whole better than previous years
- quantity of fish landed:

Kind	Cwt.
Snapper	85
Flounder & Dabs	26
Mullet	7.5
Gurnard	40 dozen
Rock Cod	1

- source of information: fishermen, observations throughout year, and tally book

### Annual report on fish landings at Coromandel for the year ended 31 March 1934 by fishery officer, E.W. Gilliver, M 1 2/12/533, NAW.

- Notes that in October, November, December, two Thames boats did well netting mixed flats in Coromandel Harbour – fairly accurate estimate is that they took an average of 27 cwts of mixed flats for four consecutive trips.
- 3500 sacks of mussels taken (included in the Auckland landings).
- 300 sacks of oysters picked.
- No new-comers to fishing as a livelihood; crews of two boats abandoned fishing for shore jobs.

### Return of fishing information and statistics for the port of Thames for the year ended 31 March 1934 by fishery officer J Macnamara, M 1 2/12/533, NAW.

- boats: motor vessels engaged in Danish Seining – 4 full-time  
motor vessels engaged in set-net and line fishing – 26 full-time  
row boats engaged in fishing – 3 full-time  
mussel dredging – 2 boats full-time  
men engaged in fishing – 87 full-time; 3 part-time
- kinds of fish landed: snapper, flounder, gurnard, cod, hapuku, etc.



- fishing as a whole about average
- quantity of fish landed:

Kind	Quantity
Wet fish	870 tons 12 cwt 1 qtr 15 lbs
Mussels	1 388 sacks
Salted Sardines	140 kegs

- source of information: merchants

Return of fishing information and statistics for the port of Mercury Bay for the year ended 31 March 1934 by fishery inspector T Cannon, M 1 2/12/533, NAW.

- boats: motor vessels engaged in set-net and line fishing – 6 full-time, 13 part-time  
sailing boats engaged in fishing – 1 part-time  
crayfishing – 18 boats part-time  
men engaged in fishing – 13 full-time; 18 part-time
- kinds of fish landed: crayfish, snapper, tarakihi, hapuku, cod
- fishing as a whole about average
- quantity of fish landed:

Kind	Quantity
Wet Fish	83 tons 3 cwt
Shell Fish	117 tons 8 cwt

- source of information: packing company re crayfish; fish merchants receiving all wet fish

Return of fishing information and statistics for the port of Waihi for the year ended 31 March 1934 by fishery officer C Harley, M 1 2/12/533, NAW.

- boats: motor vessels engaged in set-net and line fishing – 2 full-time  
sailing boats engaged in fishing – 2 full-time  
row boats engaged in fishing – 10 full-time  
cray fishing – 1 boat full-time  
men engaged in fishing – 34 full-time
- kinds of fish landed: hapuku, snapper, tarakihi, trevally
- fishing as a whole about average
- quantity of fish landed:

Kind	Cwt.
Hapuku	600
Snapper	2 000
Tarakihi	500
Trevally	1 000
Crayfish	60

Return of fishing information and statistics for the port of Tauranga (excludes Waihi) for the year ended 31 March 1934 by fishery inspector A Skinner, M 1 2/12/533, NAW.

- boats: motor vessels engaged in Danish Seining – 1 full-time; 2 part-time  
motor vessels engaged in set-net and line fishing – 10 full-time; 10 part-time  
men engaged in fishing – 25 full-time; 3 part-time
- kinds of fish landed: snapper, hapuku, trevally, mullet, kahawai, rock cod, guard fish, herring, moki, kingfish, flounder
- fishing as a whole ‘not considered quite as good as last year’
- quantity of fish landed:

Kind	Cwt.
Snapper	3 857
Hapuku	760
Tarakihi	860
Mullet	700
Trevally	600
Kingfish	500
Blue Cod	400
Total	7 677

- source of information: local fishermen

### 1934

Extract *New Zealand Gazette*, No. 94, 20 September 1934 p 4341, M 1 2/12/514, Trawling and netting – Great Barrier Island – restrictions, 1917-1936, NAW.

- Regulation under Fisheries Act 1908, prohibiting use of Danish seine net within Bon Accord Harbour, Kawau Island, and Port Fitzroy and Port Abercrombie, Great Barrier Island.

### 1934 Crayfish (and other species)

'Export of Crayfish', *Dominion*, 24 July 1934, M 1 2/4/1 part 2 NAW.

- Export trade in crayfish has languished. (Re-exported to France from London – met taxes and quotas.)  
- Hefford: 'When waters are overfished stocks gradually disappear. Of recent years there has been a very decided increase in the export of fish from New Zealand to Australia, principally snapper and blue cod. The exports of flounder fell off somewhat last year, owing to the fact that fewer flounder than usual were available.'

### 1934 Flounders

Chief Inspector of Fisheries to Secretary, Marine Department, 26 July 1934, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- annual report for 1933-34 drew attention to the increased exploitation of flounder fisheries by the Danish seining vessels – gave the following figures in respect of the annual quantities landed in the last 4 years:

	1930–31 (cwt)	1931–32 (cwt)	1932–33 (cwt)	1933–34 (cwt)
Auckland	2 549	4 201	10 452	6 607
Thames	6 889	7 228	6 516	4 869

- totals obtained by adding together the quantities of flounders and dabs purchased from the fishermen by the principal merchants in the two ports; pretty comprehensive – omissions (small amounts sold outside the firms) may be considered negligible

- practically all the Auckland figures relate to Danish seiner catches; large proportion of the Thames flounders are caught in set nets

- marked decline evident since 'big' season of 1932-33

- 'The intensity of the fishing has increased – more vessels, bigger and better equipped. The total catch has diminished and the catch per boat has declined still more than the total catch.'

- have discussed with Daniel – believe that there is an immediate necessity for some restriction on this fishery with a view to protecting the shoals of fish that are spawning or about to spawn

- 'These fish – both dabs and flounders – congregate on a well defined area – known to the fishermen as "The Dab Patch" – every winter. Both the fishing operations and the spawning activities have been kept under observation during the last few years. Spawning begins about the end of July and finishes in September, the maximum occurring in August. There seems no doubt but that the intensive catching of dabs and flounders at this time is a very considerable factor in their depletion.'

- recommends that Danish seining be prohibited from this area from 15 August till 14 September of this year; south of line from summit of the hill on Rotaro Island to Cow Island (Tuahua Islet)

Extract NZG 9 August 1934, p 2447, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- regulation re probation of Danish seining from the Dab patch between 15 August and 14 September  
- accompanying plan showing restricted area

Chas Daniel, Senior Inspector of Fisheries, to Chief Inspector of Fisheries, 17 July 1934, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- concerned at the targeting of snapper; exported to Australia – ‘Auckland waters are being thrashed for snapper’  
- notes that the fleet is increasing rapidly – ‘all the new vessels are large, high-powered semi diesel engine boats, costing up to £3,000.00 complete and equipped’  
- notes many of the ‘former largest vessels are now equipped with crude oil engines of various makes and power’  
- states that there is no need to close any further areas against Danish seiners proper – notes that the only place open to them in bad weather is Kawau Bay  
- notes that only one ‘V.D. trawler’ has operated out of Auckland in the last two years, and very rarely seen working in the Gulf  
- ‘The fleet of vessels that have sprung into existence and replaced the V.D. trawlers now rusting in Rotton Row, and also have outclassed and out-fished the smaller benzene engine Danish Seiners and under-sold both, is a very efficient and economical fishing unit, and the fleet is increasing almost every month lately, and I am afraid that there is immediate need to put an effective restriction on these vessels before they grow into a menace. They are all fitted with the Danish Seine method, but they are all powered and arranged so that they very seldom use the anchor in fishing. They all shoot their gear and heave against the power of the main engines while underway; thereby according to the definition of trawling in the Regulations . . . But according to common report, these vessels operate their gear in the method above-described almost anywhere, inside the trawling area lines, right up to the Danish seine line, posing of course, as Danish seiners, while according to the regulations they are trawling, and consequently poaching.’ Notes that no Inspector has been able to secure a conviction.  
- there are two Danish seiners over 50 feet in length that work outside the trawling line  
- there are 20 vessels that can and probably do trawl with the Danish seine inside the trawling line, even up on the dab patch, which are under the 50 feet restriction  
- ‘This class of vessel is on the increase, and will, before another year is up, be landing almost the whole of the 4,000 odd tons of fish usually landed at Auckland, and with such a fleet it will be necessary in bad weather, that they take [a] heavy toll on the Gulf supplies, and I daresay in time will be nearly as detrimental to the Gulf, as they Trawlers they are replacing.’  
- need to think of a way to restrict their operation  
- expecting to hear that that these efficient modern seiners have invaded the dab patch; the quantities bought in will be so great that export to Australia will automatically follow

## **1934**

Charles Daniel, Senior Inspector of Fisheries, to Superintendent, Mercantile Marine, 19 March 1934, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- reporting on visit of inspection to Whangamata  
- records discussion with a Mr Stavely, Officer in Charge of Forestry: ‘Mr Stavely gave me all the information of Whangamata relating to Fisheries (i.e. the shortage of fish now, compared with years ago) due they say to the activities of Danish Seine Boats, which they all call trawlers, working too close to their favourite fishing grounds, and the case of Whangamata, to the local fishermen using explosives to procure bait.’

Extract New Zealand Gazette, no. 30, 3 May 1934, p 1228, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Order in Council prohibiting trawling and Danish seining within tidal waters of Whangamata Harbour (inside a straight line from Tarakihi Point to the Fourth, Sugar Loaf, then to Neapito Rock, on the south side of the harbour entrance.)

### 1934

Four petitions to the Chief Inspector of Fisheries – Mataora, Tairoa, Whangamata, and Waihi Beach, undated, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Petitions all worded the same: draw attention to the ‘very serious depletion of schnapper, which is being caused by the unrestricted operations of seine-boats which are fishing close inshore in this area.’ All fishing carried out from rowing boats, using hand lines; boats have to go a long distance out. Fishing necessary for local people to augment incomes and food supplies. Requests that large boats be forced to operate a fair distance from the shore, leaving inshore grounds to the line fishermen.

A.E. Hefford, Chief Inspector of Fisheries, to Secretary, Marine, 27 April 1934, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Comments on four petitions (see above): ‘It is the old story of objections being raised by the small inshore fishermen, amateur fishermen for most part, against the incursions of commercial fishing vessels of high efficiency. . . . There is certainly need for action in this district as in many others in order that we may obtain some real information as to the condition of the fish stocks, the incidence of fishing operations of different kinds and the results of such operations. . . . It will be necessary to visit the district and make enquiries, but as I have so frequently pointed out before, it is not in this way that we can ever hope to provide a rational administration of fisheries. We need a much more comprehensive understanding of the factors involved than can ever be obtained from representations of this kind or from casual visits for discussion and so-called inspection. Until we are able to keep in much better touch with the condition of the fisheries and with the productive (or destructive) effects of fishery operations by means of a proper system of fishery statistics we cannot clear up the obscurity of such problems as these and if the study of the problem points to the necessity of prescribing restrictions on the fishing we should still fail in our purpose unless we have the means of enforcing such restrictions.’

### 1935

A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, AJHR 1935, H-15.

- Increase of fish-landings at Auckland. Table shows landings and details of the two principal commercial fish:

	1930–31	1931–32	1932–33	1933–34	1934–35
Total quantity	104 098	83 753	82 758	91 512	102 313
Snapper	59 223	43 102	49 657	60 540	68 540
Flounder (including dabs)	2 549	4 201	10 452	6 607	6 550

- Notes falling away of flounder.

- Comments on increase of number and size and power of the fleet of Danish seining vessels. ‘The more distant grounds, especially those in the outer part of the Hauraki Gulf, between Cape Colville and Great Barrier Island, and in the Bay of Plenty, have been increasingly exploited. These distant grounds have been the source from which the extra supplies of snapper have been derived. The nearer grounds in the Hauraki Gulf have yielded but moderate catches on the average. The seiners which specialize in flounder fishing have operated for the most part in the vicinity of the “Dab Patch” (about half-way between Ponui and Coromandel). It is clear from the diminished average catch per haul that the stocks on these grounds have not maintained their former abundance, and the question of their due conservation has become a matter of some concern to the Department as well as fishermen.’ Notes the closure of the portion of the Gulf at the entrance to Thames Firth, containing the principal spawning grounds, from 15 August to 16 September.

- Two trawlers operated – equivalent to one trawler working for 13 months. The trawling grounds most visited were those of Bay of Plenty and those off East Cape. Landings consisted of fewer snapper and rather more terakihi than in the preceding year.
- One landing of sardines made during the year – 550 lb. of fish. Development of this industry still uncertain – problems as to treatment and distribution rather than fishing possibilities.
- Thames maintained its position regarding quantities landed.

### 1935

Extract *New Zealand Gazette*, No. 15, 14 March 1935 p 671, M 1 2/12/514, Trawling and netting – Great Barrier Island – restrictions, 1917-1936, NAW.

- Regulation under Fisheries Act 1908, prohibiting use of Danish seine net within Tryphena Harbour, Great Barrier Island.

### 1935

Chas Daniel, Senior Inspector of Fisheries, report on ‘The Invasion of the Auckland Fisheries by Dalmacians’, 15 May 1935, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- ‘In the last four years, the Dalmacians have come into fishing, out of Auckland, in such numbers that today they are decidedly in the majority and they are principally responsible for the present state of the fisheries in the Hauraki Gulf, and surrounding waters. There are now (nearly all having started in the last two years) sixteen Danish seine boats owned and manned by the Dalmacians, the best and most up-to-date boats in the fleet today. They never cease, and rip and rake the bottom night and day. No matter how hard it is blowing they keep going even for one basket pulls, and when they glutted the markets and cut prices, they still carried on, consequently putting many smaller inferior boats out of action.’

### 1935

Daniel to Chief Inspector of Fisheries, 17 May 1935, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- ‘Time goes on, and though fishing is usually pretty hard from early in February till about April, we have just passed through probably the hardest, or poorest summer I can remember for a long time. Danish seining in the Hauraki Gulf, also the coast North, and down to the Bay of Plenty was extremely poor, compared with former years. The landings do not appear to be very poor, but when the fishing power expended is considered, they are very poor indeed.’
- suggests a number of changes, including excluding trawlers and large Danish seiners (who tow net) from the Gulf

Extract *NZG* no. 57, 8 August 1935, p 2164 M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- regulations re Danish Seining: 1) increasing the net size, 2) extending the closed season for dab patch (where fish congregate for spawning) from 1 August to 30 September, and 3) commencing the closed season on the snapper spawning area on 16 October (instead of 16 November)

Ruby E. Watson to J.G. Cobbe, 9 August 1935, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- claims of illegal poaching by residents of Waiheke Island

### 1935

Charles Daniel, Senior Inspector of Fisheries, to Chief Inspector of Fisheries, Auckland, 2 April 1935, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.

- Responds to question regarding fishing and the vessels that frequent Bay of Plenty waters from Auckland.
- Defines the Bay: ‘Striking a straight line across the depth from Te Kaha Point to Tauranga Harbour gives an area inside of over 600 square miles of fishable waters, of an average approximate depth of 30

fathoms. Right in the middle of this area, and situated less than 5 miles from the Signal Station at Whakatane entrance, is the only shelter or anchorage in the whole area with winds from N.E to N.W Whale Island.’

- Points out that while a large proportion of boats shelter at Whale Island (and are seen from Whakatane), it is not the case that all boats working this area do fish close to Whakatane. ‘This is not so at all, as off Torere below Opotiki is by far the most popular area with the Auckland Boats.’

- Provides figures for quantity of fish landed in Auckland per annum from BoP: snapper – 420 tons; terakihi – 220 tons; flats (mostly dabs) – 50 tons.

### 1935

71 Residents of Mercury Bay to Marine Department, 14 May 1935, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Protesting against the activities of seine boats operating in local waters: ‘We the undersigned residents & settlers of Kennedy’s Bay and district beg most impatiently to protest against a grave outrage being perpetuated here, inasmuch as six seine net fishing boats have been operating in our bay, and its immediate environs for several successive nights, pursuing their nefarious work right inshore.’

- Will effect local source of food supply and most certainly cause hardship, particularly to Māori.

Extract, New Zealand Gazette, no. 61, 22 August 1935, p 2278, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Order in Council prohibiting trawling and Danish seining in Kennedy Bay.

### 1935

Fred Fanich, Mangawhai, letter in Northern Advocate, 10 October 1935, extract in M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- ‘The difficulty of catching trawlers and other boats engaged in illegal fishing was stressed by the Hon. J.G. Cobbe, Minister of Marine, in Parliament last week. Now, from Bream Head to Rodney Point, the usual fishing area, which includes valuable feeding grounds is practically ruined owing to the operations of fishing boats using seine nets. The seaweed which is the natural protection for the shellfish is being swept loose by the seine nets, and the grounds are being left bare. This results in the destruction of the shellfish on which the schnapper feed. I have been fishing here for over thirty years, but there is no living for a line fisherman here now. My estimate is that, it [sic] the seine netting is allowed to continue, less than two years will be the limit of their operations also.’

### 1936

A.E. Hefford, Report on fisheries for the year ended 31 March 1936, Marine Department annual report, AJHR 1936, H-15.

- Marked increase of fish-landings at Auckland. Table shows landings and details of the two principal commercial fish:

	1930–31	1931–32	1932–33	1933–34	1934–35	1935–36
Total quantity	104 098	83 753	82 758	91 512	102 313	129 209
Snapper	59 223	43 102	49 657	60 540	68 540	88 374
Flounder (including dabs)	2 549	4 201	10 452	6 607	6 550	7 560

- Second highest landings on record, exceeded only by the total for 1927-28, which was 134,040 cwt. Four steam trawlers were working in that year. In 1935-36, there were three steam trawlers engaged: 2 during 10 months and 1 during 7 months. Outer grounds of the Hauraki Gulf were worked in every month except June, Bay of Plenty visited every month except November; West Coast grounds visited by an Auckland trawler during five months of the year.

- There has also been a further increase in Danish seining operations – eight new boats of greater tonnage and superior to older boats of this type, having entered the industry. ‘These vessels now operate beyond

the confines of the Hauraki Gulf to an increasing extent. The old type of benzene-engine fishing launch working with lines and set nets is a very small factor in contributing to Auckland's fish supplies at the present time.'

- Returns for Thames:

	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36
Total quantity	26 991	21 291	18 078	17 412	17 614	19 134
Snapper	10 811	10 257	9 750	10 429	11 163	14 053
Flounder (including dabs)	6 899	7 228	6 516	4 869	4 769	3 305

- General trend downwards, particularly with regard to flounders. States that there has been 'a deterioration of the flounder fisheries which have always been of primary importance to this port.' While bad weather and jellyfish at certain times hinder Thames fishery, 'it is considered locally, and apparently with a good deal of justification, that the decline of the Thames fishing industry is due mainly to the development of the Danish-seine method of fishing, which has caused a general diminution in the flounder stocks of the area. Though the Thames Firth (south of the line from Deadman Point to Ponui Passage Light) has been closed to Danish seining since the year 1924, these vessels operate on the lower grounds to which both flounders and dabs migrate, and the result of intensive Danish-seining operations during the last ten years, and especially during the last three years, has been a considerable reduction in the general stock of flatfish in the whole area.'

- In 1934, area closed to Danish seiners was extended for one month, and in 1935 extended for two months (August and September) – to prevent operation on the grounds frequented by flounders and dabs when spawning. Consistent with observations made by E.W. Gilliver, Inspector of Fisheries, Coromandel.

- In January 1936, regulation came into force, by which the minimum size of the mesh in the cod end of Danish-seines was increased to 5 inches.

- 'The restricted areas available for Danish-seine fishing in the Hauraki Gulf and the increased numbers and power of the vessels using this method of fishing have led to an augmented exploitation of the fishing-grounds in the Bay of Plenty, from where substantial catches have been brought to the Auckland markets. In consequence of this there have been many protests from residents along the coast of the Bay of Plenty who complain that the inshore fishing-grounds have been impoverished. The coastal grounds between Takatu Point and Bream Head to the north have been the field of similar actions and reactions. To what extent these complaints would justify measures of restriction that would increase the difficulties with which the Auckland fishermen pursue their calling is a question which cannot be decided with any confidence on the basis of the evidence at present available. The problem is not merely that of preserving for the row-boat fishermen the good and easy fishing that he enjoyed in former years . . . but rather that of conserving the stock of fish to be available without diminishing returns for commercial purposes in the future.' In any assessment, the Department requires better information about the fish and the impact of fishing methods. Except for snapper and flounder fisheries of the Hauraki Gulf, about which a certain practical knowledge has been gained, and to a lesser extent the flounder fishery of Tasman Bay, 'the exploitation of our sea fisheries has been going on without any real surveillance on the part of the Department that is responsible for their conservation.'

- Statistics: 'For several years efforts have been made to obtain records of the catches of different types of fishing-boats as a basis for statistical study, but this has only been possible to a limited extent. A scheme for obtaining monthly returns of fish landed from every licensed fishing-boat in the Dominion was commenced in January 1936.'

## 1936

Minister of Marine to Ruby E. Watson, 3 February 1936, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- 'With reference to your letter . . . stating that you had been working lonehanded to protect the fisheries in the Hauraki Gulf, Thames Gulf and Whangaroa, I beg to inform you that it appears to me that the administration of the fisheries in the places mentioned by you has been affected to a very large extent by

the shortage of the necessary funds and the lack of adequate staff. However, I shall do my best to keep in touch with the fishery operations in those places. I am also aware of the increasing tendency of Danish seiners to operate in those areas with the consequent depletion of fisheries. // . . . No doubt illegal methods of fishing have contributed largely to the depletion that has taken place, but I regret that the staff of the Department is insufficient that I would like to see given to these matters.'

## 1936

Petition signed by Whangarei Fishermen (R Baker and 24 others) to Minister of Marine, 1 May 1936, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- state that previous to 1933, they caught snapper and other fish year-round in Bream Bay with long lines; no difficulty in supplying the local markets
- a scarcity of fish noticed about two years ago in Bream Bay and adjacent grounds; during the past 6 to 9 months attempts at fishing have gone unrewarded – most boats laid up
- attribute the scarcity 'entirely and without question to the operations of the Danish Seine net boats and trawlers from Auckland, which for the past two years or so have been systematically dragging the bottom of every square foot of Bream Bay, and , under the cover of darkness, even Whangarei Harbour has not escaped the visitations of these invaders.'
- state that have destroyed habitat of the fish; proof that fish have moved on evident in the fact the power-net boats are now concentrating on the waters north of Bay of Islands
- request prohibition of use of trawl or seine nets within a line from Bream Head to Bream Tail

Photos attached to Daniel to Chief Inspector of Fisheries, 6 May 1936, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

- 1: photo of several men gutting fish
- 2: photo of Fisheries Co-op Building (est 1927) – Thames?
- 3: photo of Oceanic Fresh Fish Markets cart – Labour Day 1912

## 1937

A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, AJHR 1937-1938, H-15.

- Notes an important development in collection of statistics. 'For the first time in the history of the Department we have obtained data that may properly be called statistical. . . . The statistical tables that it has been customary to present with this report are for this year based on monthly returns of the landings on individual fishing-vessels and not, as hitherto, on an estimate made for a whole year by local Inspectors who sometimes had limited opportunities for obtaining comprehensive data for such an estimate.'
- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location, though does have a one-off breakdown for South Island ports in main body of report.
- Statistics for year ending 31 March not strictly comparable with data from the previous year because collected on a different basis. Notes that: 'the bulk of figures had been obtained from information supplied by merchants at the larger centres, some of whose fish may have been derived from small outside fishing-ports. In the past there has thus always existed a possibility of the same fish figuring in two totals. However, the area involved was small, because such uncertainty applied to a very small portion of the whole, and it was also counter-balanced by the omission of sundry small catches that were disposed of by hawking, frequently by the catchers themselves.'
- Total catch landed for the year under review very similar to that of previous year.
- Auckland:

	1931–32	1932–33	1933–34	1934–35	1935–36	1936–37
Total quantity	83 753	82 758	91 512	102 313	129 209	159 371
Snapper	43 102	49 657	60 540	68 540	88 374	112 656
Flounder (including dabs)	4 201	10 452	6 607	6 550	7 560	3 743



- Total landings for snapper the highest recorded for any one year. The flounder total, with which is included the category returned as “mixed flat-fish”, is the lowest for six years. This is partly due to a scarcity of fish, and partly due to increased restrictions on fishing (spawning grounds closed to Danish seiners for two months during spawning).
- Two steam trawlers were in full-time operation and one part-time – made 117 landings, an increase of 22 on previous year. Trawler voyages divided between the outer grounds of Hauraki Gulf and the Bay of Plenty in the proportion of about 3 to 2, with seven landings from the West Coast.
- Trawl-caught fish represented 34 percent of the total landings at Auckland, Danish-seined fish 61 percent, line-fishing 2.4 percent, and net-fishing 2.2 percent.
- 32 vessels in the Danish-seiner fleet.\
- ‘What may possibly be the preliminary effort of a new line of fishing enterprise for Auckland may here be recorded. In February, 1937, the “Maude E”, an oil-engined fishing-vessel normally employed for Danish seining, was sent by Messrs Sanford, Ltd., on an exploratory voyage for tuna. Starting from Auckland on 11<sup>th</sup> February she cruised as far north as Whangaruru and arrived back in Auckland on the 24<sup>th</sup>, trolling spinners of various patterns for practically the whole of the run in the open sea. The weather conditions were, on the whole, decidedly unfavourable, and this, together with the general inclemency of the 1936-37 summer, may be accountable for the few fish caught. Altogether 21 fish of the tuna family were taken, consisting of four long-fin albacore (*Germo germo*) and seventeen bonito (*Katsuwonus pelamis*). Evidence of the presence of yellow-fin tuna (*Neothynnus itosibi*) was also obtained. It may be mentioned that all three species have been taken on odd occasions by amateur fishermen when trolling for pelagic game-fish. At the present time there is apparently an unsatisfied demand for these fish for canning purposes in the United States.’
- Remains to be seen whether they are of sufficient abundance to allow for profitable commercial exploitation. ‘The development of a new line of commercial fishing in New Zealand for kinds hitherto unexploited would be welcome if only to relieve the pressure of stocks which show evidence of having been over-fished.’
- Thames:

	1931–32	1932–33	1933–34	1934–35	1935–36	1936–37
Total quantity	21 291	18 078	17 412	17 614	19 134	15 447
Snapper	10 257	9 750	10 429	11 163	14 053	11 356
Flounder (including dabs)	7 228	6 516	4 869	4 769	3 305	2 165

- Thames received supplies from two Danish-seiners this year; 19 launches operated with set-nets only; 9 used both nets and lines; 1 engaged in line fishing only.
- Suggests that difference in landings from previous year might be exaggerated by the new system of collecting data.
- ‘For the time being, at any rate, Thames has fallen from the relatively more important position it held as a fishing-port in former years. Among the probable causes of this decline may be mentioned the deterioration of the flounder fishing and the disadvantage at which Thames is placed compared with Auckland from the better position of the larger port as an exporting centre and its possession of a large fleet of Danish-seiners, most of which are recently-built vessels.’
- Thames fishing grounds ‘maintaining a satisfactory degree of productivity.’ Snapper fishery showing benefit of protection from fishing during spawning season; anticipated that flatfish stocks will improve as a result of recently introduced regulations limiting fishing operations on the dab patch during spawning season.

## 1937

‘Report of the Sea Fisheries Investigation Committee’, *AJHR*, 1937-1938, H-44A. - Committee comprised of James Young (M.P.), M.W. Young (Assistant Chief Inspector of Fisheries), and E. Sheed

(Investigating Accountant, Department of Industries and Commerce) (p 10). Appointed on 25 February 1937; delegated with powers of a judicial inquiry. Order of reference to inquire into:

(1) the condition and prospect of the sea-fishing industry, including any matter relating to exploitation and conservation of fisheries; the catching, landing, distribution, etc of sea fish, shell, and other marine products; and the

(2) the scientific evaluation, control, and administration of the sea fisheries.

- Committee commenced its duties in Bluff on 15 March 1937, ended on 8 September 1937. Visited 38 ports and centres; heard evidence continuously.

- 'Extending over a period of years and up to the time of the Committee's appointment, Dominion wide representations had been made to the Government as the difficulties under which the sea-fisheries industry generally was operating, and as to the lack of any real co-operation amongst the various units engaged in production and marketing. So varied and conflicting in their nature were the complaints received, that it was the obvious that before any remedial measures could be formulated complete information concerning the conditions prevailing should be in the hands of the Government. As any effective investigation would necessarily have to cover the fully the ramifications of the industry, the order of reference gave the Committee sufficient power to inquire into all the problems associated with its main objective as they were confronted.'

- Methods of Fishing – trawling – Auckland (p 10)

- the only trawling out of Auckland done by the steam trawlers owned by Sanfords

- Sanfords claimed that the trawlers could bring more regular supplies than the seine boats

- notable that 2 full-time trawlers and 1 part-time trawler landed 34% of the total fish landings in Auckland

- 39 full and 4 part-time Danish seine boats landed 61% of the catch (p 11)

- no objections to the Bay of Plenty trawling restrictions proposed previously by the Marine Department

- trawlers manned under an award that limits their time at sea

- recommended that minimum mesh of trawl nets be raised to 5 inches (same as Danish seine nets) – existing mesh size 4 inches

- Methods of fishing – Danish seining – Bay of Plenty (p 14)

- depletion at Tauranga (and other ports in BoP) as a result of Auckland Danish seine boats commencing operations

- depletion had reached the stage where the small local seine boats have had to lay up because they can no longer make catches of sufficient value

- notes also 'the severe reduction of the catches by the local line fishing boats'

- notes that 2 of the 3 Danish seiners that had fished out of Tauranga in the year ended 31 March 1937 had been withdrawn and laid up (p 15)

- landings in Tauranga dropped progressively from 8818 cwt in 1932 to 3988 cwt in 1937, though the fleet materially the same (acknowledges a certain weakness in statistics in the earlier years, but doesn't believe this can wholly explain decline)

- believes Auckland boats should be restricted – states that they are 'all large, highly powered vessels capable of towing their gear, thereby changing their status from Danish-seiners to trawlers, a practice which they adopt on every possible occasion'

- recommends, for the conservation of the inshore fishery and protection of local fishing grounds, that Danish seiners should be subject to the same restriction as trawlers, though the small local Danish seining fleet should be able to continue operating

- Methods of fishing – Danish seining – Mercury Bay and Whangamata (p 15)

- fishermen stated that the seine boats should be kept at least one mile off-shore all along the coast; allege that the seiners have depleted their fishing grounds and interfered with crayfish operations

- fishermen claimed that the number of boats operating out of Mercury Bay had declined from 26 to 7, but no statistics to support this

- claimed that 3 months after seine boats commenced operations the Kennedy Bay 'bank' had gone back alarmingly as a hand-line ground

- alleged that the Auckland seine boats make regular trips to Mercury Bay at 6 weekly intervals and do not respect even the small present restrictions in the Bay
- Methods of fishing – Danish seining – Thames (p 15)
- ‘At Thames, where the main supply is drawn from the set-net boats operating on the flats at the head of the Firth, there is naturally strong objection to the operation of the Danish-seiners, especially in the lower reaches of the Firth. The fishermen traced the decline of the inshore Danish-seining to overfishing and to the growth of the modern fleet now operating in the outer Gulf and in the Bay of Plenty. Only the smaller units unfit to work outside are working the inshore grounds now left open.’
- stated that the closure of the ‘Dab Patch’ during the spawning season and the Auckland fishermen’s strike in October 1936 let large quantities of fish, particularly snapper, up onto the Thames flats. ‘Had this not been so, the Thames fishermen would have experienced a poor year, as the flounder fishery prior to closure had seriously felt the effect of the seining operations.’
- revealing statistics from one witness:

#### 1) Flounder production at Thames

Year ended 31 March	Number of men	Flounder produced (lb)
1933	38	419 950
1934	44	203 343
1935	41	267 801
1936	36	143 538

#### 2) Set-net boat returns

Year ended 31 March	Trips	Av. weight per trip (lbs)
1929	177	93.3
1936	137	34.8

#### 3) Seine-net boat returns

Year ended 31 March	Av. weight per trip (lbs)
1930	71 217
1934	29 174
1934	28 432

- ‘All the fishermen examined agreed that the flounder landings had been declining over a period of years, and all asserted that this decline was coincident with the introduction of and increase in fishing by means of the Danish seine.’
- fishermen requested restrictions on Danish seining and complete closure of the ‘Dab Patch’ to this method of fishing (p 16)
- men who had been seining stated that ‘pulls’ were poorer
- was admitted by one seiner that if one seiner got onto a patch, others came around and they all worked till no more fish left
- statement of one fishermen seen to be particularly apt: ‘The whole trouble with regard to the seine boats is that we are very restricted as to the water that is suitable for them to work in. They have to hang round the shallow water and round the coast, and it is a very effective method of catching fish, but I think that it is too destructive to the reproducing power of the fish.’
- Methods of fishing – Danish seining – Auckland (p 17)
- ‘Danish seining was first introduced into the Hauraki Gulf in 1923, and rapidly found favour with the fishermen as an efficient method of obtaining large supplies of fish from grounds already showing signs of depletion. By 1926 the need of restricting the operations of these vessels on the schooling snapper of Hauraki Gulf was evident, and regulations had to be introduced for this purpose.’

- Notes that a complete history of power net fishing is given by A.E. Hefford, Chief Inspector of Fisheries, as an Appendix to the reprint of the Annual Report on Fisheries, for the year ending 31 March 1929.
- table showing growth of seine fleet – copied
- notes proportion of catch from Danish seiners for year ending 31 March 1937 – 61% from D-s, 34% from trawlers, 5% from line and net-fishing vessels
- states that are 32 full-time D-s boats, 12 part-time
- details that of these 44 vessels, 12 are large and modern of high power and capable of fishing a wide range of coast (mainly work in BoP and other distant grounds)
- of the remaining vessels, 9 are modern boats, a little smaller, but capable of a wide range if required
- approximately half the seine boats are modern vessels that are in no way comparable to the small, under-powered boat in use about 10 years ago
- notes that 10 years ago nearly all the boats were on limits restricting the amount of volume of fish they were allowed to land
- ‘Various references in the annual reports of the Marine Department show the catches which were taken by the other boats on the inshore grounds, and the gradual increase in the efficiency of the Danish-seiners and the extension of their operations to fishing grounds very far distant from their base.’
- ‘From the forgoing extracts the history of the Danish-seining movement may be followed from its introduction, when its efficiency led to its rapid adoption by a large fleet, to the stage where, when the depletion of the inshore grounds had reached an alarming point, the imposition of restrictions and the scarcity of fish (which resulted in lower catches) caused the movement to the more distant and practically virgin grounds which in the past had only to support the fleets of the smaller ports in the vicinity. // The addition of larger and more powerful craft to the fleet to allow of the exploitation of still more distant grounds, and the fact that intensive fishing on these distant coastal grounds inevitable lead to the depletion of the inshore fisheries, have evoked bitter, sustained, and justified complaint from the fishermen and settlers in these localities. At practically every port or district within reach of the Auckland fleet . . . these complaints were voiced . . . Further the available statistics bear out the statements that the fisheries in these outports have declined to such an extent as make it almost impossible for the local fishermen to obtain a livelihood.’ (p 18)
- ‘Another witness, one of the pioneers of this method of fishing in Auckland, stated that he realized that if unrestricted seining were allowed the fish stocks would soon be exhausted.’ (p 19)
- Another witness stated that snapper stocks were definitely going down, the fish now being plentiful for only four months a year
- recommend further restrictions in the Hauraki Gulf and provisions regarding the licensing of new and replacement vessels
- Methods of fishing – Danish seining – Whangarei (p 20)
- protests against the operation of the Auckland Danish seining fleet
- evidence affirmed that Danish seining had so depleted the fishing grounds as to make it impossible for local fishermen to earn a living
- local fleet has declined progressively; value of catch has also declined
- ‘Fish is now so scarce that the line boats can no longer make a living.’
- Similar evidence tendered from Waipu.
- Methods of fishing – set-netting – Thames (p 24)
- most common method of fishing used by the Thames fishermen
- recommend that mesh size be increased to 5 inches
- Methods of fishing – line-fishing (set-lines and long lines) – Mercury Bay and Tauranga (p 29)
- long-line fishing is carried on at Mercury Bay and Waihi Beach
- see copy for details of line, hooks, etc
- re Mercury Bay notes that the principal fish is snapper, but that there has been a considerable decline in landings in the last seven years
- Methods of fishing – line-fishing (set-lines and long lines) – Auckland (p 29)

- very few vessels use long lines – depletion of the inshore grounds and the large quantities of fish caught by the Danish-seine boats has made it unprofitable to operate long-line boats
- Methods of fishing – hand-lining – Whakatane, Tauranga, Cape Colville (p 31)
- ‘Hand-lines are only used in the summer period in the Whakatane and Tauranga districts, but the grounds are now so depleted that their operation yields a meagre return for the labours of the men employed.’
- Crayfishing – Mercury Bay (p 35)
- ‘The fishermen from Mercury Bay and Waihi Beach . . . reported that crayfishing was carried on at various points between Whangamata and Cape Colville, the centre of the greatest supply being at Mercury Bay (Whitianga). There are two seasons for the taking of crayfish from these waters, one from July to September with a short break in October, and another from November till after Christmas. Supplies are not being diminished by the present fishing, and indeed, stood up fairly well to the heavy abstractions of up to 25 tons per week during the short time the export trade flourished, but in the opinion of one of the more experienced men such a rate of extraction could not have been continued for long, there being unmistakable signs that the supplies were commencing to decline. “Berried” females are not paid for, and the small fish are not marketed in the district. These small fish are the cause of the break between Christmas and July, as they constitute the major portion of the catch – at least 75 per cent, during this period. The pots used are left down continuously, but are lifted each day and the fish removed. The crayfish-men follow the crayfish out when they leave the inshore rocks and migrate to the sand and kelp bottom.’
- Crayfishing – Auckland (p 35)
- Supply from vicinity of Cape Colville and Mercury Island, some from Kawau. Only 7 vessels engaged full-time in this fishery, total landings from all sources in Auckland, Mercury Bay, and other places being no more than 2,500 sacks for the year ending 31 March 1937. Complaints were received as to the practice of taking undersized and egg-bearing crayfish. In the interests of conservation it is desirable that this practice should stop.
- Crayfishing – recommendations (p 36)
- that the legal size of crayfish be fixed at 9 in. in length
- that it be made illegal to take any female crayfish carrying external ova or to remove the ova (berries) prior to sale
- that investigations be made into the crayfish stocks at various centres, and that a study be made of the habits, size, sex groups, and migrations of the crayfish, the results being the basis for future legislation
- Rock Oysters – Auckland District (p 39)
- Committee of the opinion that settlers in districts where the oyster-beds are never worked, the government should have the right to lease the foreshore abutting their land for the purpose of cultivating oysters.

## 1937

Chief Inspector of Fisheries, Hefford, to Secretary of the Marine Department, 12 March 1937, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.

- Comments on Danish seining in BoP – notes that no restrictions except in harbours such as Tauranga, Kennedy Bay, and Whangamata [27/4/1934].
- ‘There is no doubt but that the Bay of Plenty is suffering from the same intensification of Danish seining operations that we had to deal with in the Hauraki Gulf 10 years ago.’ Notes difficulty of assessing impact the fishing.
- Recommends that both trawling and Danish seining should be prohibited inside a distance of two miles from the coast in the Bay of Plenty, between Whangamata and Cape Runaway.

Bay of Plenty Times, 30 April 1937, extract in M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.

- Notes that regulations have been proposed, as suggested by Hefford.

Chairman of the Sea Fisheries Investigation Committee to the Secretary, Marine Department, 1 November 1937, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.

- States that Committee is in favour of restriction and notes that the bulk of evidence heard at Tauranga and Whakatane was of a similar mind.
- Gives grounds for the restriction, including the statement that the 'Depletion of fish supplies has been steady since the Auckland Danish seiners commenced operations in the Bay of Plenty.' Also: 'The food supply of the natives, both coastal and inland, is seriously affected by the depletion.'
- Point to recent statistics for Tauranga in the annual reports for evidence of depletion.

Order in Council, signed 23 February 1938, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.

- Imposing new regulations, prohibiting trawling and seining in BoP.

Order in Council, signed 5 April 1939, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.

- BoP regulations amended slightly.

Superintendent H. Wheelock to Secretary, Marine Department, 6 March 1939, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.

- Claims that Auckland trawlers coming in close, especially at night (breaking regulations).

## 1938

A.E. Hefford, Report on fisheries for the year ended 31 March 1938, Marine Department annual report, AJHR 1938, H-15.

- Comments on report of the Sea Fisheries Investigation Committee: 'So when one studies the report . . . one should remember that history and experience have taught that State control in regard to the conservation and rational utilization of natural resources cannot begin too soon. If its restraints are not brought into effect early enough too prevent undesirable and detrimental developments it only means that at a later date much more onerous measures of control and restriction will have to be applied to attempt to remedy evils or restore losses that should never have been allowed to come about. The evidence presented by the Committee show that New Zealand Governments have been too complacently allowing individualism to compete with individualism in the exploitation of its fisheries and have been unmindful or unaware of the tasks imposed by the responsibility of conserving such resources for the general good and for the benefit of posterity. // The fundamental requirement for the exercise of a wise and just control of fishery exploitation is an adequate acquaintance with and a proper practical understanding of the conditions with reference to the fishery resources themselves and to the agencies concerned in getting and disposing of their products. It is, unfortunately, a fact that a substantial amount of State intervention for the regulation of the operations of the fishery industry has been called for before that adequate acquaintance with and proper understanding of the conditions have been acquired; and this Department is called upon to make special efforts in order to catch up in the race in which exploitation has so far out-paced and out-distanced conservation.'
- Auckland landings declined from previous year. Constitute 39 percent of the total landings of the Dominion.

	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38
Total quantity	82 758	91 512	102 313	129 209	159 371	140 234
Snapper	49 657	60 540	68 540	88 374	112 656	97 296
Flounder (including dabs)	10 452	6 607	6 550	7 560	3 743	4 447
Tarakihi	11 933	10 766	14 293	18 100	24 966	24 240

- Three steam trawlers operated. Decline in the number of trawler landings (or voyages) from 117 to 68.
- Thames supplies increased from previous years. Flounder landings improved, but only half of production for 1932-33.

	1932–33	1933–34	1934–35	1935–36	1936–37	1937–38
Total quantity	18 078	17 412	17 614	19 134	15 447	18 692
Snapper	9 750	10 429	11 163	14 053	11 356	13 400
Flounder (including dabs)	6 516	4 869	4 769	3 305	2 165	3 044

- Details of methods of catch:

Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method
Auckland	Danish-seine	72.4	Snapper, tarakihi, flounder
	Trawls	22.8	Tarakihi, flounder
	Lines	2.4	Snapper, groper
	Set-nets	2.4	Mullet, flounder, snapper
Thames	Set-nets	72.8	Groper, blue cod, ling
	Lines	15.8	Moki, butterfish
	Danish-seine	11.4	Snapper, flounder, gurnard

### 1938

Salt-Water Fisheries Amendment Regulations 1938, Serial 1938/33, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Includes regulation prohibiting boats 40 feet and over in length operating Danish seine nets in vicinity of Whangamata Harbour – ‘within a distance of two nautical miles from low-water mark of the shore that extends from a point three miles north to a point three miles south of the northern entrance point of the Whangamata River, and including the waters of the said river’.

### 1938

Secretary, Whangarei Cruising Club, to Minister of Marine, 5 April 1938, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- ‘The above Club desire me to write and inform you of the extensive night trawling going on in the different Bays around Whangarei by the Seine Net Boats. Some nights they work without lights and at other times two boats abreast will tow the trawl. These boats operate within a mile of the shore. My Club Sir would like to know if the Government could not put on a Patrol boat to patrol the Coast . . .’

A.E. Hefford to Secretary, Marine, 12 April 1938, minute on Secretary, Whangarei Cruising Club, to Minister of Marine, 5 April 1938, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- ‘My view . . . is that an Inspector of Fisheries, with launch, is an urgent necessity for this district. I advise that the question of this appointment should be dealt with at once.’

### 1938

Chief Inspector of Fisheries to Secretary, Marine Department, 18 May 1938, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Report written in response to correspondence concerning trawling and Danish seining in Whangarei area.

- ‘When the question was previously raised by Mr Aitkin, advice was received from the Senior Inspector of Fisheries, Auckland, to the effect that there was no case for the closure of the inshore grounds along this coast to the operation of the Danish seiners from Auckland. It was pointed out that the fish population was migratory and returned to the same grounds year after year and that the local stocks were not, therefore, likely to be depleted by the occasional operations of one or two Danish seiners from Auckland. However, the position has changed considerably in the last three years. The fact now is that there appears to be too much Danish seining everywhere and especially in all inshore waters that are

workable by this method of fishing. The Sea Fisheries Investigation Committee has recommended that, in the Whangarei area, that portion of the sea coast marked by a line one mile off shore from Bream Tail to Ruakaka and from there by a straight line to Bream Head be closed against Danish seining. (There is already a three mile limit against trawling proper in Whangarei Bay.)

C.G. Macindoe to Minister of Marine, 8 July 1938, M 1 2/12/328, part 1, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Owner of canning factory in Coromandel processing deep sea mussels.
- 'I might mention . . . that these deep sea mussels are very popular in Auckland, and are sold during the greater part of the year in the fish shops here, but at the rate they are being consumed, mussel beds, in my opinion, will be totally depleted within the next 10 years, and I seriously commend to your consideration the advisability of controlling the operations of those interested in the gathering and the sale of mussels in Auckland, by limiting the period in which they may be gathered. . . . I think that they should be conserved for all time, and this could be accomplished if a season, say June, July, August and September in each year, was insisted upon by the Government.'

Hefford, Chief Inspector of Fisheries, to Secretary, Marine Department, 13 July 1938, M 1 2/12/328, part 1, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Comments on Macindoe's letter, noting that his letter provides no evidence of depletion.
- Statistical returns of the average catch per landing at Auckland in 1936-7 (56.14 sacks) and 1937-38 (59.96) do not indicate a trend towards depletion. Notes that these figures are not necessarily significant, perhaps reflecting only market demand.

Charles Daniel, Senior Inspector of Fisheries, to Superintendent, Mercantile Marine, 20 July 1938, M 1 2/12/328, part 1, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.

- Comments on Macindoe's letter. Rejects claims of depletion as groundless.
- States that Hauraki Gulf beds would benefit from increase in consumption. States that many beds cannot be worked because they are matted and congested, and their condition so poor, through lack of food, that they cannot be marketed.
- Notes that mussels, like oysters, are subject to fluctuation of their condition – owing to seasonal conditions and weather cycles – that can last for several years.

## **1939**

A.E. Hefford, Report on fisheries for the year ended 31 March 1939, Marine Department annual report, AJHR 1939, H-15.

- 'The annual report on fisheries submitted this year is based on a better supply of statistical data than has previously been possible. . . . Endeavours are being made to improve the collection of data and the form in which they are being published . . . . It is not sufficient, for instance, to show, as was the case up to a few years ago, that approximately a certain weight of snapper was landed at a certain port in a certain year. It is also necessary to show what quantities were caught by the various methods of fishing employed, and it is further very desirable to indicate what amount of fishing-power and what amount of fishing-time were spent in the catching thereof. There are still gaps and imperfections in our collected data that one would like to see remedied. One can only claim that each year sees some progress towards the perfection that is our objective.'
- Notes that there was a 7.5 percent increase in the fish landed at Auckland. Three steam trawlers operated from Auckland (one full-time, two part-time), 85 landings (increase of 17 from previous year.) Trawl fish represented 27.4% of fish landed; Danish-seine 69.9%, line-fish 1.7%, net-fish 1%.
- Thames landings decreased 8% in quantity – flatfish landings greater, snapper declined by 17%.
- Tauranga and district landings increased 63.7% to 6006 cwt (, largely due to the operations of a new Danish-seiner from the port. Danish-seine fish represent 57.1% of catch; line fish 32.9%. Fish caught: snapper, terakihi, groper, mullet, blue cod, kingfish, trevally, pioke.



## 1939

Investigating Officer to The Chairman, Ship Requisitioning Committee, 8 December 1939, IC 1 11/11, Fish – trawlers, undated, NAW.

- Average quantity of fish dealt with by Sanford's for the last three years ended 31 August 1939: 6,337,979 lbs (of which 3,718,944 lbs were caught by the trawlers and the balance purchased either from seine boats contracting for Sanford's or from other Auckland fish markets.

- Quantities dealt with last year:

- Trawlers

Snapper	1,056,120
Tarakihi	2,069,535
Other	<u>496,037</u>
Subtotal	3,621,692
- Purchased	<u>2,686,626</u>
Annual total	6,308,318

## 1939

A.E. Hefford to Secretary, Marine, 5 July 1939, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Advises of proposed regulation prohibiting trawling and Danish seining 'within a distance of one nautical mile from the low water-mark of the shore that extends from the mouth of the Mangawai River to Rodney Point between the first day of November in any year to the 30<sup>th</sup> day of April in the year following.'

## S7: Archival Data/Observations for Hauraki Study Area – 1940s

### 1940

A.E. Hefford, Report on fisheries for the year ended 31 March 1940, Marine Department annual report, AJHR 1940, H-15.

- Auckland: 3 steam trawlers operated during the first 6 months, making 44 landings in comparison with 85 during the previous year. Trawler voyages divided between the Hauraki Gulf grounds, Bay of Plenty, and East Coast – ratio of 1:2:7. Trawl-caught fish represented 13.8%, Danish-seine 82.4%, line-fishing 2.7%, net-fishing 1.1%.

	1934–35	1935–36	1936–37	1937–38	1938–39	1939–40
Total quantity	102 313	129 209	159 371	140 234	150 730	140 588
Snapper	68 540	88 374	112 656	97 296	107 252	101 006
Flounder (including dabs)	6 550	7 560	3 743	4 447	7 082	8 680
Tarakihi	14 293	18 100	24 966	24 240	22 530	20 981

- Notes increase in flounder catch, 88.1% landed by Danish-seiners. Tarakihi catch the lowest since 1935-36, 60.3% taken by steam trawlers.

- Thames:

	1934–35	1935–36	1936–37	1937–38	1938–39	1939–40
Total quantity	17 614	19 134	15 447	18 692	17 199	19 399
Snapper	11 163	14 053	11 356	13 400	11 123	14 153
Flounder (including dabs and mixed flat fish)	4 769	3 305	2 165	3 044	5 157	4 331

- Tauranga: decline in catch of 76 cwt. Danish-seine landings have risen to 65.1%, line-caught 25.4%.

Order in Council signed 3 July 1940, AG W1711 box 2714 2/12/55 part 9, Hauraki Gulf restriction, 1940-1951, NAW.

- preventing any Danish seine vessel built after 5 July 1940 from fishing within the area restricted to vessels under 50 feet

#### **1940 Crayfish**

Secretary, Marine, to Superintendent of Mercantile Marine, Dunedin, 31 July 1940, M 1 2/4/1 part 2, Crayfish, NAW.

- Advises that restrictions on crayfish are to be removed in the interests of the national economy. Fuel and wastage of undersized crayfish.

#### **1941**

A.E. Hefford, Report on fisheries for the year ended 31 March 1941, Marine Department annual report, AJHR 1941, H-15.

- Auckland: no steam trawlers operated. Danish-seine vessels caught 93.8% of the catch. Line boats brought in increased catches, especially in respect of kingfish, the catch of which increased 533.2%. Statistics include Manukau and Coromandel.

	<b>1935-36</b>	<b>1936-37</b>	<b>1937-38</b>	<b>1938-39</b>	<b>1939-40</b>	<b>1940-41</b>
Total quantity	129 209	159 371	140 234	150 730	140 588	127 826
Snapper	88 374	112 656	97 296	107 252	101 006	91 715
Flounder (including dabs)	7 560	3 743	4 447	7 082	8 680	13 379
Tarakihi	18 100	24 966	24 240	22 530	20 981	13 185

- Notes decline in snapper and tarakihi landings, increase in flounder catch.

- Thames:

	<b>1935-36</b>	<b>1936-37</b>	<b>1937-38</b>	<b>1938-39</b>	<b>1939-40</b>	<b>1940-41</b>
Total quantity	19 134	15 447	18 692	17 199	19 399	17 614
Snapper	14 053	11 356	13 400	11 123	14 153	11 163
Flounder (including dabs and mixed flat fish)	3 305	2 165	3 044	5 157	4 331	4 769

- Notes decline in snapper catch.

- Little change at Tauranga.

#### **1942**

A.E. Hefford, Report on fisheries for the year ended 31 March 1942, Marine Department annual report, AJHR 1942, H-15.

- Auckland: fall in supplies attributable to a decline in Danish-seiner catches. At this port, snapper landings have declined steadily from the 1938-39 total of 107,252 cwt to 87,251 for the 1941-42 year. The relatively greater decline of tarakihi landings over the same period from 22,530 cwt to 12,882 cwt is attributed to the absence of steam trawler landings. (Presumably the trawlers were requisitioned for war service.)

- Thames: landings show a decline in snapper supplies – 11,123 cwt in 1938-39 to 6,941 in 1941-42. This is compensated for by increased supplies of flounder – 6,247 for 1941-42, the highest since 1932-33.

#### **1942**

Petition 16/1942 – J.Dunlop and 161 others, M 1 2/12/116 part 3, Trawling – Bay of Plenty, NAW.

- concerns impact of trawling along the BoP coast

A.H. Hefford to Secretary, Marine, 29 November 1942, report on petition 16/1942, M 1 2/12/116 part 3, Trawling – Bay of Plenty, NAW.

- 'The real issue resides in the statement that formerly excellent fishing could be obtained in the waters along the coast of the Bay of Plenty, but for years the number of fish has been steadily declining. The important question, which is an easy one to answer, is what has brought about this decline. It is not the destruction of spawning beds but is the operation of the very efficient fishing vessels from Auckland which have been exploiting these waters to an increasing extent. The snappers that the Bay of Plenty residents formerly found it so easy to catch in large quantities have found their way in much larger quantities to the fish markets of Auckland. If the "trawlers" were compelled to keep to a limit of not less than 5 miles from the coast which is advocated by the petitioners, I have no doubt that the fishing on the coast would sooner or later show a very marked improvement. . . . But is this in the national interest? The reply to this question is certainly in the negative. **The statistical data are unfortunately not available in such a form that we can sort out from the fish landed in Auckland what proportion has been derived from the Bay of Plenty. Taking snapper alone, the total quantity of this fish brought to the Auckland markets in the last five years amounted to 23,000 tons. We shall not be far out if we conclude at least one third of this was caught in the Bay of Plenty: that is, over 7,600 tons or an average of 1,500 tons or more yearly, or about 125 tons monthly.** It is also safe to conclude that most of this fish was taken in waters within five miles of the coast (because that is where the best fishing-grounds are). // . . . There can be no doubt that it is the commercial fishery that serves the greater public interest. // Although one can say that the case of the petitioners is thus disposed of, it is not to be understood that the problem of the Bay of Plenty fisheries is disposed of. . . . National interest in the conservation of supplies is jeopardised when the abstractions from the stock are in excess of the quantity of fish that can be replaced by natural reproduction and growth. At this point the future of the commercial fisheries themselves is jeopardised. It is the aim of fishery regulation, by the imposition if necessary of restrictions on the fishing to see that this stage is not reached. **Certain restrictions are already in force in the Bay of Plenty partly for this purpose and partly to preserve inshore fishing for the local people. An area of about 100 square miles is closed to trawling and Danish seining in the neighbourhood of Tauranga for a distance of over 35 miles along the coast from west of Matata to east of Opotiki for a distance of 2 miles seaward there is a similar sanctuary.** The proper patrolling or surveillance of these prohibited areas is a difficulty – in fact at present an impossibility. **Some assistance to conservation is afforded by the fact that some of the more efficient vessels of the Auckland fleet have been taken for naval service, and other war-time conditions have placed handicaps on fishing operations so that the case for additional restrictive regulations cannot be considered as of present urgency.** It is hoped however that the end of the war will enable the Department to make the direct investigation of the fish stocks of the Bay of Plenty that is desirable and which was only prevented by the outbreak of war.' [Emphasis added.]

**1943**

A.E. Hefford, Report on fisheries for the year ended 31 March 1943, Marine Department annual report, AJHR 1943, H-15.

- No relevant details.

**1943**

Senior Inspector of Fisheries to Superintendent, Mercantile Marine, 11 October 1943, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Describes fishing operations of two boats in Whangarei Harbour. 'A man is placed ashore with the end of a line, and the vessel then steams out. A net is put over, the vessel continues steaming, and then comes to anchor: All hands then proceed ashore and haul on the lines attached to the net inshore, until it comes in close. They then bring their dinghies in to the net, and take their fish aboard the launch.' Detail of net size.

A.E. Hefford to Secretary, Marine, 20 October 1943, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Comments of the Whangarei netting methods, admitting that they cannot be classed as trawling or Danish seining because the net is pulled by hand. However, states that as the net is over 120 yards, with from 720 to 1680 yards of rope on each wing, it 'will take the fish out of Whangarei Harbour a good deal faster than Nature is likely to be able to put them back.'
- States that would normally advise against the continuation of such a practice, but notes that the most of the catch is fish that was not seen on the market a few years ago (kahawai, parore, and shark) or was marketed to a limited extent (trevally).
- States that permanent depletion of Whangarei Harbour unlikely, believing the species mentioned are visitors from outside.
- Advises against any action to stop the netting operation at present time, though states that a careful record should be kept of their daily catch.

Sea-Fisheries Regulations 1939, Amendment No. 10 (Order in Council 28 February 1945), M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Includes limitation on size of seine or drag nets.

#### **1944**

A.E. Hefford, Report on fisheries for the year ended 31 March 1944, Marine Department annual report, AJHR 1944, H-15.

- Auckland landings have declined by 1.6%; Thames increase 66.8%.
- 'The very interesting question as to why landings have increased or decreased, as the case may be, is one that cannot be answered simply or briefly; the results are usually due to various factors. In the case of Thames the number of vessels and fishermen engaged has declined, but the quantities of fish caught have been appreciably augmented. The marked increase has been in landings of snapper – from 5,125 cwt to 9,911 cwt. In some cases losses of fishing-time through the difficulty of making replacements and repairs under wartime conditions have had a substantial effect in reducing supplies. The most significant light is thrown on the figures representing fish catches when they can be correlated with the time spent in actual fishing. So far as possible, data on this factor have been collected, but the task of working them up cannot be undertaken at present.'

#### **1944**

Petition of N. Jones and others, undated (forwarded by Clerk of the Public Petitions Committee to Secretary of Marine on 6 September 1944), M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Petition to the Speaker and members of the House of represented. Signed by 2,511 inhabitants of the Whangarei District, including the Mayor, President of the Trades and Labour Council, Chairman of the Harbour Board, etc.
- 'Humbly sheweth:
  1. That the inhabitants of the said District, numbering approximately 20,000, are alarmed concerning the effect on their local fisheries of the operation of the Auckland-owned fishing boats using Seine or heavy drag nets.
  2. That formerly the shallow waters of the harbours, tidal rivers and creeks of the district abounded with mullet, herring, flounders and parore, which were regularly taken and depended upon as a food by settlers, Māoris and others.
  3. That in the outer bays the sea bed, producing and covered with a great diversity of mollusca and sea weed, afforded food and shelter for vast numbers and various species of fish, including schnapper, terakihi and blue cod, while the surface waters of these bays fed shoals of school fish, principally trevalla and kahawai, and with which were associated the king fish etc. and flocks of sea birds.
  4. That previous to the coming North of the Seine net boats, the local long-line fishermen operating in the coastal bays could depend on securing a boat load of fish on the one tide, and the people

- had a regular supply of fish, cheap and fresh, while the fishermen, with two men on a boat and two trips a week, made a good living.
5. That the scarifying of the bed of the bays and harbours by the repeated dragging thereover of heavily leaded nets has dislodged the mollusc and torn the vegetation out by the roots, and proof of this may be seen by the extra-ordinary quantities of immature seaweed and shell fish cast up on the beaches during easterly seas, and that these Areas, which hitherto supported a wealth of marine life are now, through the destruction wrought by the drag nets, being reduced to lifeless wastes.
  6. That the damage taking place to the harbour and coastal fisheries by the drag nets is widely recognised, and to quote one example of the many and constant complaints made, the following is submitted from the pen of Mr. J.I. Thomason, a well-known and responsible resident of the district: "There was in this harbour some two months ago a fishing boat with a net near half a mile long, with a pocket in it; it was hauled from one side of the harbour to the other, heavily leaded so as to stick to the bottom and it took eight men to haul it in. When it was hauled up on the beach they had over three tons of fish that were marketable but the number of small snapper tangled up among the kelp and weeds was tens of thousands, killed and smashed to pieces, thousands of them not one inch long."
  7. That since the introduction of the heavy drag nets in our Northern waters, operated by both engine and man power, the fish of our inner shallow waters and outer bays, as described above, have practically disappeared, with the exception of the surface school fish mentioned, and that these are now falling victim to the encircling power nets and, it is believed, will soon be cleaned right up, perhaps not to return in our lifetime.
  8. That Whangarei shops are receiving fish from Auckland, Kaipara and Bay of Islands, where drag netting is prohibited, and that the supply is, in consequence, irregular and inadequate . . .
  9. That after careful and impartial investigation, a plan of the affected fisheries was prepared and a request made that use of drag nets in such fisheries be prohibited, that such plan was signed, under resolution, by the following named Whangarei District organisations: Borough Council; County Council; Harbour Board; Town Boards of Onerahi; Kamo and Hikurangi; Māori Council; Chamber of Commerce; Farmers' Union; Acclimatisation Society and Cruising Club.
  10. That the document signed as stated above was forwarded to the Marine Department on 27 January 1944, and that no action on the part of the Department has apparently been taken.
  11. That in consideration of the foregoing statement of facts, and of the fact that the spawning season is close at hand, your petitioners seek protection from your Honourable House and respectfully and strongly urge that the taking of fish for sale by means of a net of any description which is drawn over the sea-bottom or through the sea be prohibited within the area described as follows: - Inside a line drawn straight from Bream Tail to Bream Head: thence straight to Three Gables, Tutukaka: thence straight to the outer point of Wide Berth Islands and thence straight to Home Point Whangaruru.
  12. That such area is equal, approximately, to one-twentieth part of the Hauraki Gulf.

A.E. Hefford, Chief Inspector of Fisheries to Secretary, Marine Department, undated, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Comments on petition by N. Jones and others (see above), responding to each point:

1. Claims that the alarm is based on self-interest and that the prime movers are owners of big launches who had become accustomed to making big catches of fish.
2. States that: 'No doubt this is correct. The same thing could be said of every other harbour and estuary in early times.
3. 'There is no evidence for this notion.'
4. Provides table of landings from annual reports. Claims that local fish supplies have never been adequate in Whangarei and have depended partly on supplies from elsewhere
5. 'This . . . is a notion that is certainly not based on properly observed facts . . . vain charges against the nets which they wish to see prohibited.'

6. 'I can only conclude that this statement is a very exaggerated one. It certainly refers to an exceptionally heavy catch . . . . It seems unlikely that kelp would be taken in the net, for kelp needs a bottom of stones or rock – an impossible sort of bottom on which to work a seine net. However, among hundreds of hauls made with heavy trawl nets which are much rougher in their effect on the fishes than these seines could be I have never seen any fish in the catch that was 'smashed to pieces'. I cannot regard this statement as credible'
7. 'This paragraph is . . . the only argument that need have been put forward. It is of course an exaggeration to say that the fish have practically disappeared, for commercial boats have been getting fair quantities in the last few months. I am myself concerned about the question as to whether the increased exploitation of the fisheries of late years has not abstracted more from the fish stocks than is safe. The question is, as I have pointed out before, entirely one of abstraction or subtraction; and this has to be balanced against natural increase or else a state of depletion must be brought about. The state of abundance of fish that existed all around our coasts in earlier times is now admittedly a memory of the past . . . // The whole problem is one of sorting out, and as far as possible measuring, the quantitative effects of all the factors that are responsible the additions to and the subtractions from the fish populations around the coasts. It is quite obvious, though for a long time this view was stoutly contradicted by people who were regarded as experts, that the biggest factor responsible for the reduction of the fish population is the operation of the commercial fisheries. . . . Taking large quantities of fish out of the sea is like taking large sums out of a banking account. . . .// With reference to the Whangarei petition, this much may be said about the snapper, the species which probably holds the first place in their interest. If the "virgin" state of their harbour and coastal waters had been maintained by a rigorous limitation of commercial fisheries the local settlers and week-enders would certainly have benefitted by being able to catch more snapper with less expenditure of time and trouble. From the point of view of this Department, and the Government, however, it is a question of national economy, not of local interests. In the first place the snapper of Whangarei Harbour are certainly not bred in those waters, though young stages occur which have been carried in by tidal currents from the open sea. . . . It is also pretty certain that mature snapper and other fish make seasonal migrations into Whangarei Harbour. . . .// The present point is that the snapper occurring in Whangarei Harbour, whether they drifted in passively in their larval or embryo stages or whether they entered by active migration at an older age, must be regarded as part of the general stock of that area. The all-important desideratum[?] for conservation is that the quota of fish caught from the whole stock should not exceed what can be replaced by natural reproduction. If an abundant stock of fish is preserved from commercial fishing merely to provide good fishing for amateurs, it is not making the best of our resource. A certain amount of killing off and utilisation is true economy in fish husbandry as in stock-farming. How, when and where to put restrictions on exploitation is the problem and it is not an easy one. In fact, with our present limited knowledge we cannot deal with it with the confidence and promptitude that is desirable. // The prescription of "sanctuary" areas appears to me to be a sound one. We have applied it to a considerable portion of the Hauraki Gulf and to all harbours which are likely to be exploitable by Danish Seine vessels or trawlers. But it is not much use having prohibited areas without the means of detecting and apprehending poachers. Much complaint has been made about poaching inside Whangarei Harbour but Whangarei Inspector never managed to do anything about it. // The recently developed method of working large seines (drag-nets) . . . hauled on to a beach by man-power, represents an attempt at big-scale commercial fishing within the law as it stands at present. It has already been recommended that no drag net or seine exceeding a length of 90 yards should be allowed to be used in any waters. No further restriction is recommended at present for the following reasons – (1) owing to wartime conditions there is a general shortage of fish supplies to the general public, (2) a very large proportion of the fish taken by the large drag-nets in Whangarei Harbour consists of kinds such as trevally, kahawai, dogfish, and sharks which are not usually fished for to any extent . . . .

8. I can say nothing about the sources of supply or the prices in the Whangarei fish shops except that this Department is in no way responsible for them and that Whangarei appears to be in no worse position than other places and better than some. The statement that drag-netting is prohibited on the fishing grounds from which supplies for Auckland, the Kaipara and Bay of Islands are obtained is quite incorrect.
- States that, if the requested restriction was imposed, the following consequence would result:
    - a) commercial fishing would be deprived of valuable fishing ground because the best fishing is near the coast
    - b) market supplies would be reduced
    - c) with all net-fishing prohibited, the professional line fishermen might revert to the formerly common practice of using explosives to obtain bait
    - d) the large sanctuary area would provide improved fishing for amateur fishermen
    - e) 'if the commercial fishing operations continued to take as many fish from the outside of the proposed boundary line as they normally take under present conditions there would be no appreciable advantage to conservation which depends essentially upon the survival factor of the whole population'
    - f) there would be practical difficulties in providing the patrol boat that would be necessary to prevent poaching within the proposed closed area
  - Also notes that the area inside the proposed line has a rocky bottom and is therefore naturally protected against trawl or Danish seine fishing.

Report on Petition of W. Jones and others, 7 December 1944, A.S. Richards, Chairman, Public Petitions A to L Committee, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Referred to the Government for favourable consideration. Requests immediate investigation as to whether:
  - a) some limitation might be imposed on the export of fish to increase supply to people of New Zealand
  - b) some restriction might be introduced to limit the quantity of fish taken during spawning season
  - c) further regulations are necessary with regard to the methods of taking fish and the areas in which they might be taken, so as to prevent wastage of immature fish and damage to feeding and spawning grounds
- [The Sea-Fisheries Regulations 1939, Amendment No. 16 (1945), imposed a 90 ft limit on the length of drag nets (see below). Limited restrictions on Danish seining and trawling in the Whangarei area appear to have been imposed in 1947 (see below).]

Minister of Marine to Minister of Justice, 10 March 1947, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- 'With reference to your Memorandum . . . concerning the petition of W. Jones and others, I have to advise that the officers of my Department are in close touch with the situation. // Statistical records show that the marked increase in activity which became apparent in 1942 reached a maximum in 1944 when the total catch of fish landed at Whangarei totalled 4,104 cwt. // Drastic limitation was placed on the length of drag nets with the result that the catch dropped sharply to 1,766 cwt in 1945. The figures for 1946 have not yet been compiled. Experience of the effects of the drastic limitation placed on the length of commercial drag nets has shown that this regulation is unnecessarily restrictive and the late Chief Inspector of Fisheries, Mr. A.E. Hefford, recommended as early as December 1945, that the length should be increased to 180 yards. It must be remembered that prior to the limitation to 90 yards in February 1945 there was no restriction whatever on the length of drag nets. // The Marine Department, through its Inspectors and patrol boats, is keeping a close watch on the area and the development of this method of fishing. It is felt that a different approach to the control by limiting the length of warp as well as the net may come closer to achieving the conservation aimed at, and the necessity of these further restrictions will come under review from time to time.'

- [The Fisheries (General) Regulations, 1950, permitted drag nets of 180 yards for commercial fishermen and 44 yards for amateur fishermen.]

#### **1944**

James Thorn, M.P. to Minister of Marine, 1 June 1944, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Forwarding two communications from Mercury Bay – one from fishermen and the other from the Secretary of the Whitianga Progressive Association – concerning the use of seine nets operated by hand at the mouth of the river at Whitianga. Fishermen wish to hand seine; opposed by WPA.

- 'If you are interested in history, the use of a hand seine in N.Z. waters was first referred to in English by Captain Cook, who arrived in Mercury Bay on November 5<sup>th</sup>, 1769, and fished with a hand seine the following day, as stated in his Journals.'

#### **1944                      Mussels**

Minister of Marine to Secretary, Marine, 18 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Advises that was interviewed the previous day by Mr C.G. Macindoe, Principal of the Hauraki Packing Company, engaged in canning mussels, with factory in Coromandel. Macindoe states that the Company faces the depletion of mussels located at 30 to 40 fathoms, believes that there are two causes:

- 1) The method of securing the mussels, using a steel trawl designed like a net, which was dragged behind a boat and then raised by means of a winch. Speed of the boats excessive, causing the destruction of a quantity of mussels. Once the shell breaks, the fish dies. Macindoe estimates that for every ton of mussels taken, possibly two were destroyed.

- 2) Mussels taken during the spawning season, approximately 1 November to 1 May, though not actually fit for consumption at this time. Hauraki Packing Company observed a close season – considered that this should be enforced.

Superintendent, Mercantile Marine, to Secretary, Marine Department, 22 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Commenting on an application for a licence to dredge mussels. States that: 'There are two firms operating in the dredging of mussels in the Gulf, one from Auckland and one from Thames, and the District inspector is of opinion that ample demand exists for more boats to be so employed.'

E.W. Gilliver, Inspector of Fisheries, to Superintendent, Mercantile Marine, 22 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Comments on points raised by Mcindoe (see above). Rejects that excessive dredging speed was an issue of concern; all trawls at half a knot. Also rejects the idea of a closed spawning season, asserting that small mussels would be 'wiped out' on first day of dredging.

- Notes that Coromandel Harbour mussels are heavily dredged, and asserts that dredging effects the muddy bottom 'home' of the mussel. 'That the beds are being depleted gradually cannot be denied: That something will have to be done about it soon cannot be denied either. Prospect dredging will have to be done on a wider scale'.

- Also comments on disappearance of mussel beds as trawling grounds from Tapu to Deadman's. 'I would advance a theory on the disappearance of the mussel beds as trawling grounds from Tapu to Deadman's. I am told that a few dredging over once prolific beds now yield only dead shells and poor conditioned mussels. It has been suggested that as a result of bush felling inland, in recent years, more soil has found its way down to the sea and deposited on these beds, and has no food value for the mussels – in fact it helped to wipe the beds out. They certainly have no commercial value today.'

G. Migan, District Inspector of Fisheries, to Superintendent, Mercantile Marine, 29 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.



- Commenting on Macindoe letter: 'To my mind, several of the smaller [Coromandel] beds have been depleted, but more extensive grounds have been formed and worked accordingly. There is no doubt that the steel trawl destroys a certain number of mussels, but not any way near the way Mr Macindoe explains. . . . There are many extensive beds in the Thames Gulf that have never been worked out, and are very much in need of thinning out . . .'

Chief Inspector of Fisheries to Mr Miller, Secretary, Marine, 18 September 1944, minute on Secretary to Chief Inspector of Fisheries, 12 September 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Notes that there is agreement 'that the mussels in and adjacent to Coromandel Harbour have been considerably reduced from their former state of abundance by intensive dredging operations. The general opinion appears to be that there are plentiful supplies in other parts of the Gulf.'

- Suggests it might be time to close for a while the Coromandel area which appears to have been over-exploited.

- Provides statistics of annual mussel landings for previous ten years:

Year ended 31 <sup>st</sup> March	Auckland sacks	Thames sacks	Combined totals
1944	11 781	4 939	16 720
1943	12 446	7 280	19 726
1942	14 162	6 287	20 449
1941	12 706	5 382	18 088
1940	10 602	6 029	16 631
1939	8 072	4 797	12 869
1938	6 776	635	7 411
1937	7 019	3 396	10 415
1936	6 378	3 714	10 092
1935	3 542	3 628	7 152
1934	3 500	1 388	4 888

C.J. Macindoe to Minister of Marine, 20 December 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Notes that a license issued to W.S. Burns for the purpose of commercial mussel fishing.

- Comments: 'I have very clearly pointed out these mussel beds in the Hauraki Gulf are being rapidly depleted on account of the ravages made of them by vessels trawling. As you are aware, I have suggested that certain areas should be closed and others probably exploited, but the situation is so serious that I feel it is due to the Minister of Marine to act very quickly and get the various interests together, for at the rate we are going these beds . . . will be totally destroyed.'

## 1945

A.E. Hefford, Report on fisheries for the year ended 31 March 1945, Marine Department annual report, AJHR 1945, H-15.

- Notes that wholesale and retail prices have increased.

- 'If there is one comprehensive explanation that will entirely or almost entirely account for the general rise in wholesale and retail prices, it is this: that the *costs of production* (expenditure on fishing operations have steadily increased over the last ten years, quite apart from any special wartime factors. (I have taken only ten years, because our earlier figures are not so reliable as later ones.) Why should this be so . . . it can be said without hesitation that it costs more to land fish because fish are now harder to catch. Bigger boats, more highly powered engines, greater fuel consumption, longer voyages, modernized fishing-gear of increased catching-power – these are the factors that have been increasingly involved in the reaping of our fish harvests, especially over the past twelve years. . . . The explanation that holds good in general is that as time went on it became necessary to use more power, more time, and more efficient . . . fishing-gear to keep up supplies to about the same level as was formerly maintained with appreciably less trouble

and expenditure. The serious aspect about this is that such a remedy is likely to aggravate the disease. Fishing must inevitably kill fish and diminish the fish population on the grounds that are worked. If after a period of fishery exploitation the stock has reached a certain degree of depletion, there are two courses open to the fishermen to enable them to maintain their supplies for the market and keep up their earnings. One is to “farther afield”. That is what has been happening with the Auckland fleet of Danish-seiners. Their “home grounds”, exploited in the earlier years of Danish-seining after this new and highly efficient method of fishing had been introduced in 1923, were the comparatively near and very productive areas of the Hauraki Gulf. It was mainly the prohibition of Danish-seining by successive regulations, on practically all the grounds except those in the outer and offshore waters of the Gulf which induced a steadily increasing number of Auckland Danish-seiners to extend their operations to the Bay of Plenty and, to a lesser extent – because of the patchy nature of the available fishing grounds – to the northerly coastal waters. . . . in this extension of their field of operations the Danish-seiners have followed the same lines that were taken by the Auckland steam-trawlers before them. Only by the acquisition of larger, more seaworthy, and more powerfully engined vessels could these longer voyages be made.’

- Notes that Whangarei Harbour and certain other harbours and bays have been closed to Danish seining for many years.

- States that stocks of fish in the inshore waters of the open coast have become depleted as a result of continued exploitation. ‘The continued exploitation of the stocks of fish inhabiting these limited grounds has manifestly led to their deterioration. The destruction of spawning-grounds and feeding-grounds, which has been so frequently alleged by people who urge further restrictions and closures on inshore areas to this method of fishing, is, in my opinion, an entirely imaginary objection. Taking fish in large quantities out of the sea, like drawing large sums out of a banking account, leaves so much less for future use and also so much less to reproduce more, in the case of money by interest and in the case of fish by natural propagation. The problem of the conservation of fisheries is mainly that of ensuring that no more fish are taken out than can be replaced by the surviving brood stock by natural reproduction and growth.

- Notes that when fishing grounds near a home port are closed by regulation or become less productive, the boats that can do so travel further afield to fish, ‘mainly the inshore waters because there are no extensive and productive grounds away out to sea off these oceanic islands of New Zealand. It is these facts that constitute the most difficult major problem for fishery administration in New Zealand at the present time and for the immediate future. // In making this statement I am not referring particularly to the complaints, agitations, and petitions with which from time to time the Department has been called upon to deal, emanating from individual coastal settlers, local bodies . . . protesting against the operations of “trawlers” on their local inshore fishing-grounds and calling to the closure of these areas to the operations of the visiting commercial fishing-vessels. Such representations tend to fill up much space in departmental files and occupy a good deal of departmental time, but, generally speaking, they provide no information about facts of which we are not already aware. Almost invariably they demand the protection of “breeding grounds” that are unknown to the Department and equally unknown to the fishes themselves.’ Comments that if ‘power fishing’ vessels were banned from local waters as requested, amateur fishermen would have improved catches, but that there would be less fish in shops.

- ‘Another somewhat similar cause of complaint has arisen from the development during the war years of special fisheries for supplying fish to the recently established canneries.’ Notes kahawai and trevally form the bulk of the cannery fish, which enter harbours and are captured in large drag-nets hauled by long lengths of rope – used in Whangarei Harbour.

- Again emphasises the need obtain more information about the fish and the effects of fishing methods (those employed now and those that might be employed in the future).

- ‘It was sixteen years ago that I concluded a report on the Hauraki Gulf fisheries by pointing out that it was “cheaper to investigate our resources in advance than to investigate their depletion after it has taken place.” Since that date the powers of exploitation have developed apace, but the machinery for conservation has not kept abreast of those developments.’

- Acknowledges that:

- there is now greater departmental capacity for the collection and examination of fishery statistics, but states that the system 'is considerably short of the ideal, mainly because it provides insufficient data for correlating the quantities of fish caught with the power and time expended in the catching;
- eight years ago three District Inspectors of Fisheries were appointed, enabling greater contact with those engaged in fishing;
- 1939 the Department became possessed of a 65 ft vessel to enable patrol of the Danish seiners, 'whose disregard for fishery regulations had for too long been practised with impunity.' Same vessel would have allowed direct trials to be made of various methods of fishing, but has been taken over for naval service.
- Auckland: after being without steam-trawler supplies during recent years, the fishing fleet has been augmented by the return of one of the larger steam-trawlers, which have made five landings during the last two months of the year, bringing in 1,929 cwt of fish (about 50% snapper, 25% terakihi). 94.9% of landings at Auckland by Danish seiners (about 74% snapper, 16% terakihi). Catches by line fishermen have decreased.

	1940-41	1941-42	1942-43	1943-44	1944-45
Total quantity	127 826	119 583	105 106	103 882	111 078
Snapper	91 715	87 028	73 604	75 153	79 844
Tarakihi	13 379	12 882	16 470	12 128	18 289
Flounder (including dabs)	13 185	8 151	3 904	5 489	1 857

Thames: increase of 1,389 cwt from previous year. There has been a steady increase of trevally, gurnard, and pioke (dogfish) during the last few years, 'probably on account of the increased demand for these cheaper but perfectly nutritious kinds of fish. Set-net fishing provided 93.3% of the fish landed (18,361 cwt), compared with 84.9% of the previous year (15,545 cwt). One or two Danish-seine vessels laid-up for some months. This method of fishing caught 6.5% of total catch (1,273 cwt), compared with 12.2% for the previous year (2,229 cwt).

- Tauranga:

	1941-42	1942-43	1943-44	1944-45
Total quantity cwt	4 368	7 926	9 546	10 485
Snapper	3 400	4 154	4 032	4 152
Tarakihi	102	290	29	1 057
Trevally	110	1 113	1 826	2 509
Kahawai	1	294	649	732

- The demand for trevally and kahawai for canning purposes accounts for the increase in the catch of these fish. Set-net catches amounted to 5,987 cwt (57.1% of the total), of which 2,491 cwt was trevally and 1,471 cwt was snapper. Danish-seine catch from one vessel was 2,907 cwt (27.7% of the total), of which 1,838 cwt was snapper and 998 cwt was terakihi. The total for line fishing was 1,591 cwt, of which 53% was snapper. A new vessel operating a purse seine for pelagic fish is still at the experimental stage.

## 1945                      Mussels

Hefford, Chief Inspector of Fisheries and Director of Fisheries Research, to Acting Secretary, 7 March 1945, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Reports on mussel dredging in the Hauraki Gulf.

- Notes that spoke to Coromandel Inspector Gilliver while in Auckland and saw the owner of the "Wee Pat" and the shed hands who handle the mussels. 'I was informed that poor-conditioned mussels have been more in evidence this summer than usual. Skipper G. Gundlock said that when he first began to dredge and handle mussels there was no such thing as a poor mussel. Other evidence points to the conclusion that the conditions in the Hauraki Gulf, and more especially in the Thames Firth waters, have become much less favourable for mussels than was the case in former years. For instance, plenty of

mussels of good quality could then be obtained from the beds of Tapu, but nowadays these mussels are no good, presumably because they are undernourished. As to the possible cause of this, the most plausible seems to be that it is connected with the enormous accumulation of silt brought down by the rivers. It was also suggested that cyanide brought down by the creeks from gold-mine workings might have caused some injury to mussels. Light on these questions could only be obtained by making special investigations.'

- Explains that 'poor mussels' were clearly individuals that had spawned but had not had time to 'feed up'.
- States that in respect of dredging there was no confirmation of McIndoe's opinion about excessive speed. The only smashed mussels are caused by bumping on the deck.
- Recommends the closure for three years of certain areas in the vicinity of Coromandel for three years, where it is clear that mussels have been overfished and are in need of 'a spell'. Map provided. Notes that if the closure takes place the industry will have to depend on the beds on the western side of the Gulf; understands these beds to be well stocked, though the mussels are not in such prime quality as those on the Coromandel side.

Serial Number 1945/45, Sea-Fisheries Regulations 1939, Amendment 17, M 1 2/12/328, part 2, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Prohibiting the dredging of mussels from 1 April 1945 to 31 March 1948 in certain Coromandel waters. Two areas described.

E. Gilliver, Inspector of Fisheries, Coromandel, to Superintendent, Mercantile Marine, 9 August 1945, M 1 2/12/328, part 2, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Comments on an application by a Dr Chapman to take mussels for the purpose of manufacturing fowl food and fertiliser: 'With regard to Dr Chapman's letter to which he remarks that certain beds have not been worked for 20 years I beg to differ as since I have been stationed here in Coromandel the beds from Tapu down to Coromandel were being worked I should say 12 years to be nearer the mark though I must admit these beds were getting very poor in quality then and mussel boats were steadily working down to Deadman's Point, in fact they were being forced to come further down on account of the quality of the mussels. These mussel beds have at times been prospected but with the same result, such poor condition as to be unfit for human consumption. // The dredging of these deteriorated mussel beds may have a beneficial effect so far as thinning out these beds, but as to whether it would improve the quality of the mussel would to my mind be a matter of doubt. It is my belief that these mussels have deteriorated in quality as a result of the silt from up the Hauraki Plains as a result of floods – probably due to excessive bush-felling – being deposited on these beds. . . . The mussel beds out of the line of the Thames Firth – Coromandel Harbour Te Kume[?] environs and the beds to the Southeast of Ponui Island have in my opinion escaped this silting, being in a much better condition to the detriment really as it has meant heavy dredging in these areas mentioned. This also applies to the area eastwards of Waiwati[?] Is Huieh[?] (Goat) Island.'

Secretary, Marine, to Dr Chapman, 4 September 1945, M 1 2/12/328, part 2, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Advises approval of request to undertake exploratory work in regard to the dredging of mussels in the waters south of a line from the north bank of the Tapu River to a point on the coast near Kaiaua.

## **1945**

Catch statistics for Mercury Bay, January – April 1945, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- These statistics appear to have been collected by Charles Daniel, Chief Inspector of Fisheries, in connection with questions raised about the impact of net fishing at Whitianga.

<i>Line Fishing</i>	<b>January</b> (3 boats, 17 landings)	<b>February</b> (3 boats, 15 landings)	<b>March</b> (4 boats, 18 landings)	<b>April</b> (3 boats, 12 landings)
Blue Cod	1 685	798	1 265	1 457
Snapper	10 209	10 950	18 173	15 824
Groper	1 901	519	34	125
Kingfish	6	94		159
Kahawai				51
Mixed Rounds	504	18		44
<b>Total (lbs)</b>	<b>14 305</b>	<b>12 679</b>	<b>19 472</b>	<b>17 660</b>

<i>Net Fishing</i>	<b>January</b> (1 boat, 2 landings)	<b>February</b> (1 boat, 7 landings)	<b>March</b> (1 boat, 8 landings)	<b>April</b> (1 boat, 4 landings)
Flounder	11			
Snapper	149	1 417	3 897	522
Mullet	66	120		26
Trevally			928	239
Gurnard		162	193	187
Tarakihi		89		
Moki			75	
Rounds		159	1 385	36
<b>Total (lbs)</b>	<b>226</b>	<b>1 947</b>	<b>6 478</b>	<b>1 010</b>

## 1945

Sea-Fisheries Regulations 1939, Amendment No. 16, Serial Number 1945/14, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.

- Includes the following amendment of the principal regulations: ‘No person shall in any waters use a seine-net or drag-net having a length exceeding 90 yards or use in taking fish otherwise than for purposes of sale a seine-net or drag-net having a length exceeding 44 yards.’

## 1945

Supplementary Order Paper – House of Representatives, Questions and Replies, 26 September 1945, AG W1711 box 2714 2/12/55 part 9, Hauraki Gulf restriction, 1940-1951, NAW.

- Morton (Waitemata) – asks whether he will take necessary steps to stop infringement of the law relating to seine-net fishing

- O’Brien (Marine) – ‘The likely depletion of fish supplies caused by the illegal tactics of certain Danish-seine vessels operating out of the Port of Auckland is receiving the consideration of the Marine Department. The difficulty has been that the Department’s patrol vessels are now too slow for patrolling the fishing grounds, but the “Ikateri”, which was taken for use by the Navy, is now returned and should be in use shortly; also steps will be taken at the earliest possible moment to equip our fishery patrols with faster vessels. At Tauranga the position is being met by the appointment of an Inspector there with a fast sea-going launch. There was a recommendation of the Sea Fisheries Investigation Committee in 1938, and was found impracticable during the war period.’

## 1946

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1946, Marine Department annual report, AJHR 1946, H-15.

- Auckland: total of 122,789 cwt of wet fish landed at Auckland

- 97,608 cwt landed by Danish-seine boats, including snapper (72,179 cwt) and tarakihi (15,515 cwt)

- 19,553 cwt landed by steam-trawlers, including snapper (8,063 cwt), tarakihi (8,103 cwt), and trevally (1,035 cwt)

- motor line-fishing boats landed 2,493 cwt, compared to 1,409 for the previous year

- netting boats landed 3,092 cwt, compared to 2,303 cwt for previous year

- Substantial increase in the total amount landed mainly due to the operation of the steam-trawlers, absent after some years of naval service.

	1941-42	1942-43	1943-44	1944-45	1945-46
Total quantity	119 583	105 106	103 882	111 078	122 789
Snapper	87 028	73 604	75 153	79 844	81 706
Tarakihi	12 882	16 470	12 128	18 289	23 965
Flounder (including dabs)	8 151	3 904	5 489	1 857	2 047
Gurnard	1 375	1 447	1 361	3 206	5 570

- Tauranga:  
 - set-net catches amounted to 3,861 cwt (51.76%), including snapper (1,565 cwt) and trevally (1,155 cwt)  
 - 1 vessel previously purse seining began trawling, landing 1,783 cwt of fish, of which 54.68% was tarakihi and 29.44% was snapper  
 - Danish-seine catch dropped to 418 cwt (from 2,907 cwt), due to the fact that one vessel engaged in this method of fishing was wrecked.

	1941-42	1942-43	1943-44	1944-45	1945-46
Total quantity cwt	4 368	7 926	9 546	10 485	7 459
Snapper	3 400	4 154	4 032	4 152	2 513
Tarakihi	102	290	29	1 057	1 289
Trevally	110	1 113	1 826	2 509	1 219
Kahawai	1	294	649	732	1 070

## 1946

Notes on a meeting held in office of Mr J Thorn (M.P.) on 14 August 1946, attended by Auckland M.P.s to hear Mr S. Ensor of Thames Co-operative Fisheries on fisheries problems in the Hauraki Gulf, AG W1711 box 2714 2/12/55 part 9, Hauraki Gulf restriction, 1940-1951, NAW.

- 'Mr Ensor thanked Mr Thorn . . . . He had started in the fishing business when he left school 40 years ago and had seen the rise and fall of the industry on previous occasions but had never felt that the position was so black or hopeless for fishermen as a whole as it was at the present time. About 70 fishermen were at present operating in Thames. He had been authorised to speak on behalf of Thames Fisheries Ltd. and Taylor Bros., two Thames firms, in addition to his own, the Thames Co-operative Fisheries, who were very concerned about the position. . . . //They had now reached the stage when they found that boats were being sold away from Thames because it had become uneconomic for them to operate. . . . They could not catch sufficient fish to pay them for their efforts.'

- provided supporting papers that gave statistics showing decline:

Table showing decline in production at Thames Co-operative Fisheries (NZ) Ltd

April to July inclusive

	1944	1945	1946
<b>Snapper</b>	207 085	147 689	106 996
<b>Flounder</b>	67 708	57 397	45 696
<b>Gurnard</b>	37 169	31 342	10 843
<b>Trevalli</b>	18 728	9 6895	10 584
<b>Total</b>	330 690	245 913	174 119

Table showing return of flounder produced by Auckland and Thames over six years

Year	Auckland (cwt)	Thames (cwt)
1940/41	13 379	5 335
1941/42	10 490	6 247
1942/43	5 943	5 788

1943/44	5 808	5 604
1944/45	1 857	4 902
1945	2 110	4 296

- 'Mr Reddish endorsed what Mr. Ensor had said. He would like to say he was the fishermen's representative at the deputation. He had had 33 years' experience as an active fisherman, and could definitely state that he had never seen fish so scarce in all that period as they were today. It was very true, as Mr Ensor had said, that some men had already left the industry, others were ready to follow when employment was offering. Before seine fishing was introduced the net and line fishermen could adequately fill the market, with the one or two trawlers then operating. They did this without destroying beds or taking any immature fish that would tend to lessen the stocks in the future. The position today was that men were going out on numerous occasions with 16 nets, representing roughly a mile of net, and bringing in on many occasions only four or five fish. This was now the middle of their snapper season but he found there was nothing there to catch. The latest figures they had were very small indeed. They found that when snapper and flounder became scarce there was a ready market for "rough" fish, but they found, too, that these had been skinned out. When seining first commenced in Thames they had from 10 to 12 seine boats. These were recently reduced to two, and the men were just existing by adopting the old method of line fishing till the season came on. They believed that seine boats had had their heyday. As Mr Ensor had said, two or three years ago the writing was on the wall.'

- Reddish also spoke of the problem of poaching in the restricted Thames waters.

Minister of Marine to Ensor, undated, AG W1711 box 2714 2/12/55 part 9, Hauraki Gulf restriction, 1940-1951, NAW.

- states that has approved recommendations made by the Acting Chief Inspector of Fisheries, including closure of the dab patch for five years
- states that the proposals will be incorporated into a consolidation of Fishery Regulations being prepared and will be in force by October

#### **1946 Crayfish**

Secretary, NZ Wholesale Fish Merchants Association, to Minister of Marine, 21 November 1946, M 1 2/4/1 part 2, Crayfish, NAW.

- States that total crayfish landed for the year 31 December 1945 was 1,800,000 – survey carried out by the Association. Requests that earlier regulations regarding size and taking of females be re-enacted, otherwise 'the waters of the Dominion will, within a nominal period be depleted of this type of fish'.

#### **1947**

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1947, Marine Department annual report, AJHR 1947, H-15.

- Auckland: total of 141,406 cwt of wet fish landed at Auckland, substantial increase largely due to the full-time fishing of an additional trawler:
- 36,964 cwt landed by steam-trawlers, including snapper (20,440 cwt), tarakihi (10,688 cwt), and gurnard (1,529 cwt)
- 96,990 cwt landed by Danish-seine boats, including snapper (70,964 cwt) and tarakihi (17,014 cwt)
- motor line-fishing boats landed 3,097 cwt
- netting boats landed 4,125 cwt

	<b>1942-43</b>	<b>1943-44</b>	<b>1944</b>	<b>1945</b>	<b>1946</b>
Total quantity	105 106	103 882	111 078	122 789	141 406
Snapper	73 604	75 153	79 844	81 706	93 792
Tarakihi	16 470	12 128	18 289	23 965	27 788
Flounder (including dabs)	3 904	5 489	1 857	2 047	1 457
Gurnard	1 447	1 361	3 206	5 570	7 370

- Thames: total landings at Thames of 10,824 cwt:
- notes a significant drop in landings at Thames from 17,245 cwt the previous year; states that a small proportion of the decrease can be accounted for by the fact that no Danish-seine operated from the port during 1946
- 9,437 cwt caught by nets, including snapper (3,777 cwt) and flounder (3,591 cwt)

Method of fishing	1942-43	1943-44	1944	1945	1946
Danish seine	1 864	2 229	1 273	582	
Set-nets and lines	9 833	15 545	18 361	16 483	9 437
Other methods	944	528	57	180	1 387
Total	12 641	18 302	19 691	17 245	10 824

- Tauranga: total landings of 6,416 cwt, decrease of 1,043 cwt from previous year
- trawl caught fish increased to 2,579 cwt from 1,783 the previous year (due to one trawlers operating for nine months in 1946 instead of six months in 1945)
- catch landed by the motor line and net vessels has gone down
- a Danish-seine equipped boat commenced fishing in September and landed 364 cwt of fish in the last four months

Method of fishing	1942-43	1943-44	1944	1945	1946
Danish seine	3 035	2 518	2 907	418	364
Set-nets and lines	4 664	7 008	7 578	5 228	3 415
Other methods	227	20	-	1 813	2 637
Total	7 926	9 546	10 485	7 459	6 416

	1942-43	1943-44	1944	1945	1946
Total quantity cwt	7 926	9 546	10 485	7 459	6 416
Snapper	4 154	4 032	4 152	2 513	1 459
Tarakihi	290	29	1 057	1 289	1 917
Trevally	1 113	1 826	2 509	1 219	1 091
Kahawai	294	649	732	1 070	1 029

## 1947                      Mussels

G.R. Migan, District Inspector of Fisheries, to Secretary, Marine Department, 19 November 1947, M 1 2/12/328, part 2, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Comments on a request (by Naturfood Limited) for a license to dredge for mussels in the Firth of Thames for the production of fertiliser. Believes that this would be acceptable if the license was only for the purpose of taking mussels inside (south) of a line from Tapu to Waimunga Point – would be no possibility of any edible mussels being used for fertiliser. ‘The class of mussel above the . . . line which is fit for market in only about 1%’.
- Notes that north of this line two licenses have been operated for some considerable time, ‘and although the heavy landings have not shown any depletion of the beds, I think it would be unwise to grant another license.’

W.C. Smith, Secretary, to Marine Engineer, Public Works Department, 1 October 1948, M 1 2/12/328, part 2, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Advises that two companies are to dredge for dead mussels, mud, etc, in the Firth of Thames – (1) south of a line from Haurahi Stream to Tapu (Naturfood Limited), and (2) the area from Haurahi Stream to Orere Point, to be outside 1 mile from the shore and extending a further 2 miles seaward (F.J. McLean).



## 1947

Secretary, Marine Department, to Secretary, Whangarei, 11 November 1948, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Acknowledges petition from some Whangarei fishermen requesting an extension of the present seining and trawling limits.

- Notes the following, existing limits:

- Danish seining – not allowed inside a straight line drawn from Marsden Point to Busby Head.

Regulation 65(8) Fisheries Regulation 1947.

- Trawling – not allowed within three nautical miles of high water mark between Busby Head and McKenzie Cover. Regulation 75(8) Fisheries Regulations, 1947.

- Notes that an extension of limits to include the area inside a line from Bream Head to Bream Tail is impossible as the territorial limit is only three miles.

## 1948

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1948, Marine Department annual report, *AJHR* 1948, H-15.

- Auckland: total of 142,304 cwt of wet fish landed at Auckland:

- 37 Danish-seine boats accounted for almost two-thirds of the total, landing a catch of 90,824 cwt, including snapper (67,757 cwt)

- two steam trawlers operated the whole year, third commenced in September, landing a total of 45,309 cwt

- motor line-fishing boats landed 2,998 cwt

- netting boats landed 3,050 cwt

	1943–44	1944	1945	1946	1947
Total quantity	103 882	111 078	122 789	141 406	142 304
Snapper	75 153	79 844	81 706	93 792	101 470
Tarakihi	12 128	18 289	23 965	27 788	22 285
Flounder (including dabs)	5 489	1 857	2 047	1 457	3 036
Gurnard	1 361	3 206	5 570	7 370	6 199

- Thames: total landings at Thames of 13,035 cwt:

- notes a recovery from previous year

- 12,152 cwt caught by nets, including snapper (5,030 cwt) and flounder (4,307 cwt)

Method of fishing	1943–44	1944	1945	1946	1947
Danish seine	2 229	1 273	582	-	-
Set-nets and lines	15 545	18 361	16 483	9 437	12 152
Other methods	528	57	180	1 387	883
Total	18 302	19 691	17 245	10 824	13 035

- Tauranga: total landings of 7,086 cwt

- trawl caught fish decreased to 1,817 cwt

- one Danish-seine vessel fished for nine months, landing 1,526 cwt

Method of fishing	1943–44	1944	1945	1946	1947
Danish seine	2 518	2 907	418	364	1 526
Motor-trawl			1 783	2 579	1 817
Set-nets and lines	7 008	7 578	5 258	3 473	3 743
Total	9 546	10 485	7 459	6 416	7 086

[NB: details of landings from set nets and lines differ from those presented in previous years reports.]

	1943-44	1944	1945	1946	1947
Total quantity cwt	9 546	10 485	7 459	6 416	7 086
Snapper	4 032	4 152	2 513	1 459	2 021
Tarakihi	29	1 057	1 289	1 917	1 998
Trevally	1 826	2 509	1 219	1 091	777
Kahawai	649	732	1 070	1 029	681

### 1948                      Mussels

Newspaper extract, 31 March 1948, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- ‘That rocks along the Coast were being denuded of mussels which were being taken for commercial purposes, was reported to the annual meeting of the Thames Coast Progressive Association. // As such action was thought likely to have an adverse effect on fishing, it was decided to bring the matter to the notice of the proper authorities.’

### 1948                      Crayfish

James Smith, Port Charles, to Minister of Marine, 19 July 1948, M 1 2/4/1 part 2, Crayfish, NAW.

- States that he has been a crayfishermen for 17 years, relying on this solely for his living.  
- Requests that no further licences be issued.  
- ‘Cray-fish operations have been carried on at Port Charles for the last 40 years or more with the consequence that these grounds are being depleted to such an extent that there is only a living for two full-time cray-fisherman [sic], and if any more than that are issued for operations at Port Charles then there will not be a living for anyone. . . . 15 years ago a man could get a living from a dozen cray-pots whereas now at Port Charles one needs to have 40 pots or more and often get less fish.’

### 1949

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1949, Marine Department annual report, AJHR 1949, H-15.

- ‘While the [national] total weight of wet fish, 446,265 cwt, is the highest recorded total, the small increase over last year’s total indicates that the factors which have in successive years since the war given such substantial increase in total annual catch are now almost spent. The effect of the return of the large catching units after war service, and the re-engining and replacement of many vessels after the war, upon fisheries that had enjoyed a comparative rest period during the ear years is now very much reduced. These changes that have taken place in the post-war years have, in effect, greatly increased the potential of the fishing effort and have to date consumed their engines upon rested fisheries. It now remains to be seen whether this greatly increased potential can maintain the correspondingly increased level of production. Already in a number of ports there are indications that the upper level of production has been reached. The cost of maintaining this increased fishing potential in the light of seasonal fluctuations of supply is now in the process of sorting itself out as the industry goes through its final stage of settling down again.’

- Auckland: total of 142,766 cwt of wet fish landed at Auckland – a slight increase:  
- 5 of the 37 Danish-seine boats changed to trawling during the year, decrease of landings by this method to 86,191 cwt, included snapper (69,548 cwt)  
- three steam trawlers operated (part-time: ten months, nine months, eight months), landing 41,892 cwt  
- motor line-fishing boats landed 4,287 cwt  
- netting boats landed 1,580 cwt

Method of fishing	1944	1945	1946	1947	1948
Danish seine	105 376	97 608	96 990	90 824	86 191
Steam-trawl	1 929	19 553	36 964	45 309	41 982

Motor-trawl			172	39	8 637
Line-fishing	1 409	2 493	3 097	2 998	4 287
Net-fishing	2 303	3 092	4 125	3 050	1 580

	<b>1944</b>	<b>1945</b>	<b>1946</b>	<b>1947</b>	<b>1948</b>
Total quantity	111 078	122 789	141 406	142 304	142 766
Snapper	79 844	81 706	93 792	101 470	110 911
Tarakihi	18 289	23 965	27 788	22 285	17 031
Flounder (including dabs)	1 857	2 047	1 457	3 036	396
Gurnard	3 206	5 570	7 370	6 199	5 139

- Thames: total landings at Thames of 17,105 cwt:
- netting boats landed 14,960 cwt caught by nets, including snapper (6,763 cwt) and flounder (4,849 cwt)

Method of fishing	<b>1944</b>	<b>1945</b>	<b>1946</b>	<b>1947</b>	<b>1948</b>
Danish seine	1 273	582	-	-	-
Set-nets and lines	18 361	16 483	9 437	12 152	14 960
Other methods	57	180	1 387	883	2 145
Total	19 691	17 245	10 824	13 035	17 105

- Tauranga: total landings of 13,763 cwt, almost double previous year
- one Danish-seine vessel fished for eleven months, landing 2,496 cwt
- one motor trawler fished for 11 months, landing 5,394 cwt

Method of fishing	<b>1944</b>	<b>1945</b>	<b>1946</b>	<b>1947</b>	<b>1948</b>
Danish seine	2 907	418	364	1 526	2 496
Motor-trawl	-	1 783	2 579	1 817	5 394
Set-nets and lines	7 578	5 258	3 473	3 743	5 873
Total	10 485	7 459	6 416	7 086	13 763

[NB: details of landings from set nets and lines differ from those presented in previous years reports.]

	1944	1945	1946	1947	1948
Total quantity cwt	10 485	7 459	6 416	7 086	13 763
Snapper	4 152	2 513	1 459	2 021	4 426
Tarakihi	1 057	1 289	1 917	1 998	5 226
Trevally	2 509	1 219	1 091	777	2 479
Kahawai	732	1 070	1 029	681	491

- Annual report includes maps showing the approximate distribution of commercial catch of snapper, tarakihi, blue cod, groper.

### 1949

Minister of Marine to W. Sullivan, M.P., Whakatane, 8 April 1949, M 1 2/12/116 part 3, Trawling – Bay of Plenty, NAW.

- 'The closures [to trawling and Danish seining] at present in force in Bay of Plenty run from Te Ho Point at the entrance to Katikati Harbour to Haurere Point, a total distance of between 90-100 miles, in addition there are smaller local closures at Kennedy Bay, Mercury Bay and from Oreti Point to Cape Runaway.'

## S8: Archival Data/Observations for Hauraki Study Area – 1950s

### 1950s

R.B. Doogue and J.M. Moreland, *New Zealand Sea Anglers Guide*, Wellington, 1960.

- In the 1950's most amateur fishermen modelled their gear on that of the commercial fishermen and were fishing solely for the pot with handlines, set lines and nets producing adequate results (with the exception of freshwater anglers and big game fishermen). In ten years this changed, with saltwater angling becoming a leading outdoor pastime. Initially using a rod was laughed at by the majority using handliners, but now they are the exception. Throwing a handline into the surf also gave way to rod and reel. Some shops selling massive amounts of cane rods.

### 1950

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1950, Marine Department annual report, AJHR 1950, H-15.

- Whangarei: a motor-trawler began operating during 1948, principal cause of the increase in total quantity in 1948 and 1949. During 1949, quantities taken by the various methods: trawl 2,656 cwt, lines 960 cwt, and nets 1,631 cwt. (1948: trawl 932 cwt, lines 1,112 cwt, and nets 2,119 cwt.)

	1945	1946	1947	1948	1949
Total quantity (cwt)	1 766	2 325	1 930	4 165	5 247
Snapper	859	586	930	3 058	4 246
Shark	90	262	64	141	294
Trevally	387	876	732	601	189
Hapuku	160	205	47	129	158

- Auckland:

- three steam trawlers operated (part-time: ten months, nine months, eight months)
- total number of boats Danish-seining 35, but only 32 did sufficient fishing to be regarded as full time
- 4 Danish-seine boats changed to trawling during the year and one transferred to Tauranga
- 12 boats now motor-trawling, compared to 7 at the end of last year

Method of fishing	1945	1946	1947	1948	1949
Danish seine	97 608	96 990	90 824	86 191	65 198
Steam-trawl	19 553	36 964	45 309	41 982	35 710
Motor-trawl		172	39	8 637	24 756
Line-fishing (motor)	2 493	3 097	2 998	4 287	5 354
Net-fishing (motor)	3 092	4 125	3 050	1 580	2 028

	1945	1946	1947	1948	1949
Total quantity	122 789	141 406	142 304	142 766	133 169
Snapper	81 706	93 792	101 470	110 911	92 262
Tarakihi	23 965	27 788	22 285	17 031	22 604
Gurnard	5 570	7 370	6 199	5 139	5 949
Trevally	3 297	2 015	2 293	4 631	5 397
Hapuku	1 330	1 814	575	737	1 965

- Thames:

- 13,073 cwt caught in nets; 4,529 cwt caught by lines

	1945	1946	1947	1948	1949
Total quantity	17 245	10 824	13 035	17 105	17 602
Snapper	10 413	4 754	5 796	8 730	11 511
Flounder	4 246	3 706	4 307	4 849	4 432
Gurnard	1 171	657	882	2 057	1 022

Coromandel:

	1945	1946	1947	1948	1949
Total quantity	168	156	43	358	930
Snapper	161	142	34	113	129
Herring				241	798

- Mercury Bay (now including Whanagamata and Waihi):

- fish caught by lines totalled 1,667 cwt (1,445 cwt previous year); nets 28 cwt (29 cwt previous year)

	1945	1946	1947	1948	1949
Total quantity	1 357	1 476	1 222	1 474	1 695
Snapper	881	920	678	1 066	1 131
Hapuku	184	158	135	83	296
Tarakihi	137	137	239	140	110
Shark	-	23	39	11	45

- Tauranga

- one Danish-seine vessel fished for one month only, landing 93 cwt  
- number of motor-trawlers increased to 3  
- trawlers landed 10,686 cwt, lines 1,130 cwt, nets 1,039 cwt (previous year – Danish seine landed 277 cwt, lines 697 cwt, and nets 268 cwt)

	1945	1946	1947	1948	1949
Total quantity cwt	7 459	6 416	7 086	13 763	12 948
Snapper	2 513	1 459	2 021	4 426	1 633
Tarakihi	1 289	1 917	1 998	5 226	10 354

Trevally	1 219	1 091	777	2 479	254
Hapuku	151	126	244	333	362

## 1950

Secretary, Marine Department, to R.E. Hunter, 24 October 1950, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- The Fisheries (General) Regulations, 1950, permitted drag nets of 180 yards for commercial fishermen and 44 yards for amateur fishermen.

## 1951 Crayfish

Petition: Roland Smith and four others to Superintendent, Marine Department, 9 March 1951, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.

‘We . . . feel that local crayfishermen who have held licences for a number of years should have greater protection from the Marine Department than is afforded by the law as it now stands. // We would suggest that areas now being worked by us, should be protected from intrusion, by the holders of licences recently granted, who have not got an area of coastline on which to put their pots, or alternatively to exclude crayfishing from their licences. // We would also point out that the grounds are becoming more depleted each year, consequently we work these grounds only from July to October to spell them for the rest of the year to conserve the crayfish.’

Secretary, Marine Department, to R Smith, 20 March 1951, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.

- States that the claim that the grounds are depleted is not borne out by the statistics in the annual reports for the last three years for crayfish caught at Mercury Bay: 809 cwt in 1948, 1522 cwt in 1949, 2219 cwt in 1950.

- ‘The present control and conditions of licensing provide all the protection that is practical for a fishery since any zoning of the sea for individual boats could not be worked.’

## 1951

Christchurch Press, 26 October 1951, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.

- Notes that export of frozen tails to the US has produced a phenomenal increase in the crayfish catch off the New Zealand: 15,924 cwt in 1945, 52,482 cwt last year. Exports of frozen crayfish last year totalled 11,814 cwt, compared with 3731 cwt in 1948. ‘The annual report of the Marine Department says that while the catch has increased some grounds are already showing a reduced return for the year worked compared with the peak pre-war catch of 12,212cwt.’

Secretary, Marine Department, to Messrs Rosser Bros Ltd, 5 August 1952, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.

- Notes that crayfish exports were mostly as ‘tails’ and nearly all to the USA. States that to convert ‘tails’ to ‘green’ weight’, need to multiply by 3.

## 1951 (approx) Crayfish and other

‘The Crayfish Industry’, author unknown, no date [seems to be a Marine Department report]

- Notes recent growth in crayfish catch. ‘Such a rapid increase in the catch of a single species is from past experience a danger signal. Experience has shown that a rapid increase in the catch of a species is followed by a rapid drop when the stocks are unable to withstand the impact of increased fishing intensity. Already in a number of places the catch is beginning to drop.’

- Notes that the catching industry has responded to the crayfish incentive in the following ways:

- vessels normally engaged in fishing for ‘wet’ fish have changed to crayfishing in season;
- vessels normally engaged in fishing for ‘wet’ fish are making trips to distant, sometimes little worked or virgin grounds to catch crayfish;
- additional vessels are being used to develop new fishing areas; and
- the methods of fishing for crayfish have changed. Trawlers now more actively hunt the crayfish.

## 1952

Minister of Marine to N.Z. Wholesale Fish Merchants' Association Limited, Auckland, despatched 11 July 1952, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- 'While it must be admitted that there has not been any spectacular increase in the fish landings at Thames since the "Dab" Patch was closed in May, 1947, the decline of the fishery has been arrested. Once a fishing ground has been depleted short term closures do not always provide complete restoration. // These grounds are being tested from time to time, but there is no indication that the time has yet come when there would be justification for removing the present restriction.'

Photos in *The Weekly News*, 5 November 1952, extract in AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- 4 photos: 1) boats inside the western viaduct, 2) man holding crayfish, 3) unloading of baskets of terakihi, and 4) men fixing trawlers ropes

## 1952

*Hauraki Plains Gazette*, 28 November 1952, extract in AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW

- 'The popular idea that Waihi beach is not a good fishing beach is being disproved by several amateur fishermen who get boats out. During the last two or three months quite big catches have been made. // As an instance of this a newcomer to the beach, using a set line, caught 18 big schnapper on Saturday and on Sunday caught 24. These were all excellent fish, the heaviest weighing 12lb. // The fish were caught at practically no distance from the main part of the beach and within two hours. // Other fishermen have been getting good catches, not only of schnapper and terakihi but also of crayfish. // A professional fisherman on Sunday, November 23, who ventured three miles out, to Petley's reef, caught eight dozen schnapper and hapuku within a period of four hours.'

## 1952                      Cockles

Extract from *Hauraki Plains Gazette*, 10 September 1952, M 1 2/12/664, Coromandel Cockle Beds, NAW.

- 'Concern is being felt over the denuding of a large cockle-bed at Pipitiwai or Heard's bay on Te Kouma road, some few miles out of Coromandel. // For about two years many lorries from as far afield as Huntly and Ngaruawahia have been paying visits and taking sack loads of cockles with the result that the bed is being rapidly depleted.' Locals petitioning the Minister of Marine protesting against the practice.

Petition by W.H. Preece and others, 26 September 1952, M 1 2/12/664, Coromandel Cockle Beds, NAW.

- Protesting against the large-scale removal of cockles from Heards Bay or Pipitiwai.

W. Tidey, Inspector of Fisheries, to District Inspector of Fisheries, 5 October 1952, M 1 2/12/664, Coromandel Cockle Beds, NAW.

- Re petition regarding cockle beds at Te Kouma (Pipitiwai) and also other beds in and around Coromandel.

- 'Over the last year, cockles have become very popular with campers and also the travelling public that visit this area, and they have definitely decreased in the beds. At Long Bay itself, at present is[sic] is hard to really get enough for a meal. // At Te Kouma Bay (Pipitiwai) there has been a number of trucks visiting the area, and have no doubt cleaned up a part of this bed to a considerable extent, although this bed is [a] fairly extensive one. // If this is allowed to carry on, there will be a depletion of cockles to such an extent, that [it] may take them a long while to recover from the effects of overpicking. At Kikowhakarere, there has been a marked decrease, especially the larger size ones. // . . . All the trucks concerned with the large removals of cockles are Māori people, who say that they take them for a Tangi, and also it is part of their native food.'

- Suggests limit on amount of cockles taken by any individual.

District Inspector of Fisheries to Secretary, Marine, 8 October 1952, M 1 2/12/664, Coromandel Cockle Beds, NAW.

- Re petition regarding cockle beds at Te Kouma (Pipitiwai) and also other beds in and around Coromandel.
- 'I know the area concerned well, having been stationed at Coromandel for 14 years, from 1932 onwards. // Part of the trouble is that more people can get access to this and other pipi grounds by car than many years ago, and many people camp on the area adjacent to the pipi beds.'

W. Tidey, Inspector of Fisheries, to Secretary, Marine, 15 October 1952, M 1 2/12/664, Coromandel Cockle Beds, NAW.

- Forwards a map of the cockle beds in the Coromandel area.
- Details that: 'The Pipitiwai bed is an extensive one and is well stocked at present; its main bed is at low water at average tides, further along the bay there is also a good bed but they are considerably smaller than the ones that are mainly sought by the public. // There are also a number of Pipi here, but [they] are seldom touched. // The Kikowhakariri bed, is quite well stocked at present; its main bed is at about 5 hrs ebb, there is again a good bed of smaller ones at ½ ebb, this not being touched. // There is also a bed of Pipi but not of any extent; the removals being practically nil. // At Cabbage Bay there is only a moderate size bed of cockles, of a size much larger than any others around the coast. There is also a good bed of Pipi these are not touched to my knowledge. // The extent of removal by the local people, both Māori and Pakeha, is quite considerable over the course of a year, the Pakeha in this case would be the biggest consumer.

W. Tidey, Inspector of Fisheries, to Secretary, Marine, 6 March 1953, M 1 2/12/664, Coromandel Cockle Beds, NAW.

- Provides details of a monitoring inspection undertaken in Kikowhakarere Bay. Placed two sticks 180 feet apart diagonally across the bed (N & S) and, commencing from the northern end, dug out a square foot of sand every fifteen feet. Results:

Kikowhakarere Bay		Pipitiwai (Heards Bay)	
Cockles	Pipis	Cockles	
8	0	33	
4	2	9	
11	2	7	
11	1	18	
10	17	20	
25	47	16	
17	3	23	
12	18	28	
8	10	19	
9	0	4	
0	1	7	
17	0	15	

W. Tidey, Inspector of Fisheries, to Secretary, Marine, 7 March 1954, M 1 2/12/664, Coromandel Cockle Beds, NAW.

- Provides details of a monitoring inspection undertaken in Kikowhakarere Bay. Placed two sticks 180 feet apart diagonally across the bed (N & S) and, commencing from the northern end, dug out a square foot of sand every fifteen feet. Results:

Kikowhakarere Bay		Pipitiwai (Heards Bay)	
Cockles	Pipis	Cockles	
0	0	3	



6	1	0	
4	0	1	
3	3	3	
4	48	6	
3	42	5	
7	12	10	
0	33	4	
4	0	10	
3	0	2	
0	0	4	
13	0	5	

### 1953

Hauraki Plains Gazette, 6 February 1953, extract in AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW

- Details Bay of Plenty fishing restrictions, including that a Danish seine net [or trawler?] may not be used for taking fish in the waters of Whangamata Harbour and Whangamata River and the part of the sea adjacent thereto lying within a radius of three nautical miles from the southern most extremity of the northern head at the mouth of the Whangamata river. And in water two miles from Te Ho Point (at the entrance of Katikati Harbour) to Haurere Point (approximately eight miles from Opotiki Harbour).

Newspaper extract (newspaper unknown), no date (likely August 1953), AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW

- Large hauls of snapper off Waihi Beach. One local resident on 21 June caught 100 snapper off Waihi Beach, from boat, using long line. Another on 27 June caught 'no less than' 192 snapper. People buy direct from the boats in the weekends.  
- 'The local fishing industry is developing, and now several fishermen operate from the beach from 14-footers and outboards.'

Newspaper extract (newspaper unknown), 20 August 1953, AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW

- 'The activities of trawlers off Waihi Beach were causing concern to local fishermen, it was stated at the meeting of the Waihi Chamber of Commerce . . . // Mr R. Brewer, who raised the subject, said there was at present quite a thriving fishing industry at the beach, with about six or eight fishermen there. Every two or three weeks the trawlers came to the beach and set their seine nets in action, covering a sweep of two miles. They swept every inch of sea and it was found for two or three weeks after that there was not a single fish to be caught within two or three miles of the beach.'

### 1953 Pipi

George Walsh, M.P., to Secretary, Marine Department, 6 December 1953, AG W1711 box 2721 2/12/588, Taking of shellfish general file, 1940-1967, NAW.

- 'While in Whangamata yesterday . . . I was once again approached by local residents who complained bitterly about the continuing raiding of the pipi beds, by commercial interests. Mr L.C. Shaw – a ranger – stated that he witnessed the removal of 12 sacks last weekend, and thinks they are sold on a door to door basis, and/or are cooked at disposed of at racecourses and other public gatherings.' Asks whether legislation to prevent this could be passed.

Secretary, Marine Department, to George Walsh, M.P., 10 December 1953, AG W1711 box 2721 2/12/588, Taking of shellfish general file, 1940-1967, NAW.

- Advises that regulations are being prepared to control the taking of shellfish.

## 1954

E.G. Gilliver, District Inspector of Fisheries to Secretary, Marine Department, 17 September 1954, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- states that for several years commercial fishing vessels – both Danish seiners and trawlers – have been dumping a growing proportion of their catch at sea because it is small (though not necessarily undersized); proportion of dumped fish ‘grown to a percentage which causes concern’

- ‘This influx of an age group of snapper in to the fishing grounds over the past 3 to 5 years, more so than in previous years, can be accounted for in one of three ways:-

(1) The fishing is so intense that the fish has no chance of growing.

(2) No chance of escapement from the nets.

(3) This state of affairs offers definite proof that the total closure of certain parts of the Hauraki Gulf has been to the advantage of fish stocks in that they suffer much less molestation.

// It is accepted by the fishermen, (and they should know,) that outside the lines of prohibition the fish catch is a smaller fish, I refer to snapper, than that taken inside the line of prohibition. This has also been proven to be reasonably accurate by “Ikateres” work in water prohibited to trawling. Line snapper from inside the Danish seining line in general is a bigger class of fish than that taken by the Danish seine perhaps only 2-3 miles further out in the Gulf.’

- suggests that mesh of trawl and seine nets be increased; notes that this will have an impact on the escapement of Tarakihi

- ‘Those skippers of Auckland trawlers working on Tarakihi from Bay of Plenty to Gable End Foreland are quite ready to admit that the tarakihi fishing is now not what it used to be in the waters they fished so successfully in previous years.’

- notes that in the past undersized fish caught in Danish seine nets had a good chance of survival

- ‘. . . but with the present conditions the changing of many Danish seiners to trawling, the escapement of undersized fish and those not wanted by the trade, is nil as at least 90% of the catch when lifted aboard is already dead, when caught by the trawl method. // The amounts of small fish (undersized) vary from time to time. Often 20% of the catch is rejected, not because it is undersized but because of the lack of demand for fish between 10-11- to 12 inches. The trade does not want it because of the handling of it, cleaning and gutting etc.’

## 1954

L.F. Goodwin, Secretary, Thames Progressive Association, to A.S. Sutherland, M.P. 6 March 1954, AG W1711 box 2721 2/12/588, Taking of shellfish general file, 1940-1967, NAW.

- Request that two residents of Tapu be appointed rangers to assist the Marine Department ‘protect shellfish generally’.

Secretary, Marine Department, to A.S. Sutherland, M.P., 23 March 1954, AG W1711 box 2721 2/12/588, Taking of shellfish general file, 1940-1967, NAW.

- Advises that the Department is looking into having the two Tapu residents appointed Honorary Fishery Officers to assist in the protection of shell-fish generally.

## 1957

### Paua

District Inspector of Fisheries to Licensing Authority, Marine Department, 2 October 1957, M 1 2/12/425 part 3, Paua, 1950-1961, NAW.

- ‘I have to advise that in the granting of the additional methods Paua and/or Sea eggs to any license I have always questioned the source of the supply and as far as possible checked the quantities. . . . Those licenses on which Paua and Sea eggs are included, the shellfish is taken round Auckland, Rakino, N.E. Motutapu, Noises, Tiri and East side Waiheke. // The supplies are not large even by the admissions of the present license holders, and are seasonal (paua and sea eggs are at their best when the Kowhai is in bloom.) // Paua and Sea eggs are also taken in the summer months in fair quantities, possibly because of that period of full operation by the aqualunger, both amateur and commercial. In any case it is general that Paua and Sea eggs are found on that part of the coast clear of discoloured water (river mouths, sewers

etc.) the more remote the area from civilisation the more chance of finding paua and sea eggs. // Māori people . . . when tide and transport permit, go for sea egg and the few paua available either at Owhanaki point (N.W. part Waiheke Is.) or Motutapu Island as being the nearest places likely to produce some results for their endeavours. // Sea eggs are plentiful in many parts of the Hauraki gulf, but paua is not plentiful and difficulties of getting enough paua to result in over extraction are many.’

- Attaches following table of Auckland vessels – presumably those whose owners licensed to catch paua, etc:

Vessel	Landing Port	Crays, Aqualung	Mussels	Paua	Sea Eggs
Roa	Thames		X		
Wee Pat	Auckland		X		
Kon-Tiki	Kaiaua		100 lbs weekly		
Princess Pat	Kaiaua		30 sacks monthly		
Lady Olice	Kaiaua		20 sacks weekly		
Makonui	Kaiaua		20 sacks monthly		
Kawerau	Piha	X			
Naiad	Kaiaua		20 sacks monthly		
Betta Bee	Thames		X		
Brett II	Auckland	X		56 lbs monthly	2 cwt to 4 cwt weekly
Tai Awa	Auckland		X		
Dana	Whangaruru/Whangarei		200 lbs monthly	100 lbs monthly	200 lbs monthly
Kate	Huia	X		200 lbs weekly	
BJD	Martins Branch, Auckland	X			

## 1957

Extract from *Auckland Star*, 14 November 1957, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- seven photos of 4-day fishing trip of seine boat St George in the Hauraki Gulf **1958**

Minister of Marine to Town Clerk, Northcote Borough Council, 5 March 1958, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- refer to letter regarding commercial fishermen spoiling inshore and harbour fishing

- ‘The present position, in regard to commercial fishing in the whole of Hauraki Gulf, is that the trawlers are prohibited by regulation from fishing inside a line drawn from Rodney Point to Cape Colville from 1<sup>st</sup> October to 1<sup>st</sup> March following, and inside a line from Kawau Point to Happy Jack and the Moehau Peninsula for the balance of the twelve months. So also are all but the smallest Danish Seiners, but even these are not permitted to fish near the area during the snapper spawning season, i.e. from 1<sup>st</sup> October to 31<sup>st</sup> December, inclusive. // There is a very limited number of small local line and net boats operating in Hauraki Gulf.’

Acting Secretary for Marine to the Minister of Marine, 28 May 1958, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- refers to a letter from Waitemata County Council, calling for a prohibition on commercial fishing in certain inshore waters

- refers to existing restrictions and attached plans - recommends that this be refused; points out that the Fisheries Act only provides for regulation to ensure conservation, not to favour a certain community

- refers to following statistics from 1957:
  - of 174 boats licensed for Auckland proper (Cape Rodney to Orere Point), 64 caught 97.12% of the catch
  - there are 43 powered net boats:
    - 2 Danish seine 44 B.H.P. or under
    - 8 Danish seine over 44 B.H.P. up to and including 66 B.H.P.
    - 4 Danish seine over 66 B.H.P.
    - 49 Motor trawlers
  - 43 powered net vessels caught 88.25% of the total Auckland catch; smaller line and net vessels caught only 11.75% of the total catch
  - 'Although records in this direction are of necessity incomplete, since no constant returns or references are available, it would appear that amateur or pleasure fishermen are able to catch plenty of fish.' Mentions article in *NZ Herald* on 24 March, reporting that an amateur fishing party caught some 3,000 snapper, an average catch of 70 per person exclusive of other species such as trevally, kahawai, and kingfish.

## **1958 Paua**

Minister of Marine to P.G. Connolly, M.P., undated (recommended for signing on 3 February 1958), M 1 2/12/425 part 3, Paua, 1950-1961, NAW.

- relates to request for information relating to taking and exporting of paua by Dunedin individual
- advises that only a limited number of licences had been granted around the country (some for vessels operating in West Coast Sounds), and only small token parcels approved for export.
- notes an increasing demand for paua flesh by Māori and Europeans; flesh also used by crayfishermen as bait; shell is used for manufacture in the jewellery trade
- manufacture of shell jewellery and other articles largely carried out by ex-servicemen; for this reason there is a total prohibition on the export of shell except in manufactured state
- any expansion of taking of paua would result in temporary over-supply of shell, followed by scarcity because of slow growth rate because of known slow recovery rate
- in light of these reasons, advises against any attempt to develop export trade; also notes that 'Māori people hold the paua in special regard' and any attempt at commercial exploitation would be opposed by the tribal committees

## **1959**

Secretary of Marine to Manager, Kia Ora Fish Market, 18 June 1959, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- re the closure of the Dab Patch
- 'This ground was closed in an attempt to arrest the decline in flounder stocks in Hauraki Gulf when Danish seining was the principal method of fishing. The research vessel "Ikateri" has worked the ground experimentally to check any recovery of flounder stocks but as yet no significant recovery is apparent.'
- encloses record of recent trials and results obtained – five data sheets (see following pages)

*Dab Patch – Catch Record #1*

Date (1957)	Shot No	Fishing Time	Snapper		Gurnard		Trevally		Dabs		Flounder		Lemon Sole		Other Flats		Legal Flats to total main catch	Legal Flats per fishing hour
			Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small		
16/12	59/57	1h	54	114	22	2	47			1							0.0	0.0
17/12	60/57	1h30	21	23	66	4	1		1	6						1	0.8	0.8
17/12	61/57	2h10	21	336	99	11	55		3	2							0.4	1.4
17/12	62/57	2h50															0.0	0.0
17/12	63/57	1h05	13	7	168	16			3	4							1.4	2.8
18/12	64/57	2h15	99	149	161	33	3		9	20							1.9	4.0
18/12	65/57	0h55	34	77	99	9	2		3	4							1.3	3.3
18/12	66/57	1h05	98	68	97	1	24	1	19	13							5.9	17.6
19/12	67/57	1h05	74	57	92	24	7		14	13							5.0	13.0
19/12	68/57	1h05	77	32	176	25	3		14	19							4.0	6.7
Totals		13h45	691	863	980	125	142	1	66	82						1	2.2	4.8

*Dab Patch – Catch Record #2*

Date (1958)	Shot No	Fishing Time	Snapper		Gurnard		Trevally		Dabs		Flounder		Lemon Sole		Other Flats		Legal Flats to total main catch	Legal Flats per fishing hour
			Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small		
11/2	26/58	2h	629	256	114	1				1							0.0	0.0
11/2	27/58	0h40	149	134	134	2	5			1			1				0.2	1.5
11/2	28/58	2h	291	208	384	29	7		4	7							0.4	2.0
12/2	29/58	2h	213	143	274	27	25		5	1			1				0.9	3.0
12/2	30/58	2h05	259	164	256	15	25		4	3							0.6	1.9
12/2	31/58	2h	477	200	281	14	4		3	4			1				0.4	2.0
Totals		10h45	2018	1105	1443	88	66	1	16	17			3				0.4	1.8

*Dab Patch – Catch Record #3*

Date (1958)	Shot No	Fishing Time	Snapper		Gurnard		Trevally		Dabs		Flounder		Lemon Sole		Other Flats		Legal Flats to total main catch	Legal Flats per fishing hour
			Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small		
10/3	32/58	1h15	114	538	65	143	47				(36)		(1)		(1)		4.0	21.7
25/3	33/58	2h	1251	699	3	3	178										0.0	0.0
25/3	34/58	3h	1141	433	3	15	269										0.0	0.0
27/3	35/58	11h45	447	95	108		37										0.0	0.0
27/3	36/58	2h16	627	177	84	11	133		2								0.2	0.9
27/3	37/58	1h50	509	94	155	22	69		1								0.1	0.5
Totals		13h45	4089	2036	420	194	733		3		(1)		(1)		(1)		0.5	3.3

*Dab Patch – Catch Record #4*

Date (1958)	Shot No	Fishing Time	Snapper		Gurnard		Trevally		Dabs		Flounder		Lemon Sole		Other Flats		Legal Flats to total main catch	Legal Flats per fishing hour
			Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small		
9/12	15/58	1h45	137	128	404	21	3		11	2							1.6	6.3
10/12	16/58	2h03	342	220	918	74	3		18	14							1.1	8.8
11/12	17/58	2h15	266	188	543	71	1		27	11			1				2.5	12.4
12/12	18/58	2h05	548	257	241	1	2		1	4							0.1	0.5
16/12	19/58	2h22	470	275	516	24	17		2	4							0.2	0.8
17/12	20/58	2h05	484	375	212	8	5		5	1							0.5	2.4
18/12	21/58	2h05	653	330	159	5	5		8	5			1				0.8	4.3
18/12	22/58	2h15	641	310	293	8	15		8	7							0.6	3.6
18/12	23/58	2h15	652	313	188	11	5		4	5							0.3	1.8
18/12	24/58	1h40	474	273	82	3	2		4	2							0.5	2.4
Totals		20h50	4567	2669	3556	226	58		88	55			2				0.8	4.3

*Dab Patch – Catch Record #5*

Date (1959)	Shot No	Fishing Time	Snapper		Gurnard		Trevally		Dabs		Flounder		Lemon Sole		Other Flats		Legal Flats to total main catch	Legal Flats per fishing hour
			Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small	Legal	Small		
6/1	1/59	3h	118	59	60	21	13						1				0.4	0.3
8/1	2/59	2h30	519	70	34	1	119			1							0.0	0.0
9/1	3/59	1h30	553	217	67	5	1										0.0	0.0
13/1	4/59	2h30	537	121	38	2	32		5	1							0.7	2.0
16/1	7/59	1h45	502	132	79	2	3		1	3							0.1	0.6
17/1	8/59	1h45	461	130	392	25	28		1								0.1	0.6
18/1	9/59	2h	990	111	58	1	102			10							0.0	0.0
Total		15h	3 680	840	728	57	298		7	15			1				0.1	0.5

## S9: Archival Data/Observations for Otago Study Area – pre 1880s

1869

Report of the commissioners for the province of Otago, No. 2 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.

- notes that the evidence 'is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.'
- three regular fisheries at work: Otago Heads (Harbour and 'outside'), Moeraki, and Molyneux Bay
- these fisheries are worked all year around, though seasonal fluctuation
- estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux
- Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux
- the number of boats working the coast about 30
- fishing inside the harbour is carried on all year, each boat working about six tides a week
- outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March
- the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads
- each boat usually uses one net besides lines – the number of nets estimated to be about 20
- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.
- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon
- crayfish are also 'caught in large numbers'
- frost-fish is the most notable of the fish that only visit the coast occasionally – found on banks during frosty weather with an off-shore breeze
- information based on principally on that provided by fishermen themselves
- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast

Evidence obtained from Molyneux Bay, No. 3 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.

*George Henry Sherwood (fisherman) examined by Mr Burns*

- groper, ling, barracouta, red cod, and skate found within a short distance of Otago Heads
- blue cod and trumpeter very plentiful off Cape Saunders
- crayfish at Purakinui and Blueskin Heads

*Captain Tall (oyster fisherman) examined by Mr Burns*

- estimates that 40,000 oysters taken from the coasts of Otago in a year (unclear if this includes oysters brought from Stewart Island); notes that a considerable quantity are taken from Cross Channel, within Otago Heads



## **S10: Archival Data/Observations for Otago Study Area – 1880s**

### **1885 Oysters and Fish**

Marine Department annual report, 28 May 1885, AJHR 1885 H-13

Fisheries Conservation Act 1884 ‘enabled some urgently-needed regulations to be made for the protection of the local fisheries.’ Order in Council issued on 27 March 1885 provides for close seasons for various kinds of oysters, the minimum size of fish and oysters to be taken, the minimum size of nets to be used, etc. (p 4)

### **1885 Moki, Ling, Groper, Barracouda, Blue Cod, Trumpeter, and Crayfish**

Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15

*No. 1: J Mackenzie to Julius Vogel, 29 March 1885*

- Provides details of a brief assessment of New Zealand’s fish stocks and the potential for commercial exploitation.

- States that from Martins Bay (South Westland) he ‘commenced to meet with fish in such numerous shoals that from there to off Oamaru, inshore and offshore, I believe millions of tons of fish could be caught yearly. . . . Raupuka Isles, off Bluff Harbour, in Foveaux Strait, swarms with moki and trumpeter, but, as the moki has to be netted on rocky bottoms, high winds and rough sea, generally prevailing here, make the fishing rather dangerous. Chaslands Mistake, on the mainland, commands splendid moki fishing grounds, and also blue-cod, rock-cod, and trumpeter fishing. And here I began to meet with the barracouda in large numbers, and found them all the way northwards to off Oamaru; but off Cape Saunders and Otago Heads seems to be a central gathering ground for countless millions of these fish for several months in the year. . . . Two men fishing, and one man rowing the boat, will often catch from thirty to forty dozen fish in two or three hours.’ (p 2)

- ‘Ling and groper in great quantities I found from off Chaslands Mistake to off Timaru. Those fish are sometimes found inshore, but to get them in any quantity they must be fished for offshore. Otago Harbour commands most extensive and valuable barracouta, groper, ling, rock-cod, and crayfish fishing, and with proper fishing-smacks Otago Harbour could also command the blue-cod fishing.’

*No. 2: Dr Hector to Julius Vogel, 30 May 1885*

- Comments that knowledge of fishes round New Zealand is imperfect, particularly in respect of deep-sea fish. (pp 5-9)

- Provides details of the ‘food fishes of New Zealand’, focussing on the following fish, mentioned in the regulations issued under the Conservation of Fisheries Act 1884: hapuku, kahawai, snapper, terakihi, trumpeter, moki, barracouda, horse-mackerel, trevally, kingfish, warehou, mackerel, rock cod (blue cod), gurnard, mullet, butterfish, red-cod, flounder, soles, garfish, herring. [See notes from published sources – Hutton and Hector, *Fishes of New Zealand – Catalogue With Diagnoses of the Species and Notes on the Edible Fishes*, Wellington, NZ, 1872.]

### **1886 Oysters**

Marine Department annual report, 1 June 1886, AJHR 1886 H-24

- During the year to 31 December 1885, 170,455 dozen mud oysters exported. (p 5)

## S11: Archival Data/Observations for Otago Study Area – 1890s

### 1892 Oysters

Marine Department annual report, 2 August 1892, AJHR 1892 H-29

- Oyster exports from ports in the South Island (Bluff) amounted to 374,091 dozen. 'So large a drain on the oyster beds of the colony will, I am afraid, before long almost deplete them.' (p 3)

### 1893 Oysters

Marine Department annual report, 7 August 1893, AJHR 1893 H-31

- Oyster exports from the South Island (Bluff only) 184,080 dozen (p 3).

### 1895

Order in Council prescribing minimum size or weight at which fish may be taken, *New Zealand Gazette*, 1895, no. 32, pp 729-739.

- Order in Council made under the Fisheries Conservation Act 1895 - individuals liable to a penalty not exceeding £20 for taking or possessing undersized fish.

- Schedule:

Description of fish	Weight in ounces or pounds avoirdupois	Length in inches
Hapuku	5 lb	
Kahawai	6 oz	
Schnapper	1 lb	
Tarakihi	4 oz	
Trumpeter	1 lb	
Moki	8 oz	
Barracouta	8 oz	
Horse-mackerel	4 oz	
Trevally	4 oz	
Kingfish	3 lb	
Warehou	4 oz	
Mackeral	8 oz	
Blue-cod	8 oz	
Rock-cod	8 oz	
Gurnard	4 oz	
Mullet	4 oz	
Butterfish	4 oz	
Flounder		9 in
Soles		9 in
Garfish		9 in
Herring		5 in

G.M. Thomson, 'New Zealand Fisheries, and the Desirability of Introducing a New Species of Sea Fish', in *Protection of Mullet*, AJHR Sess. II. 1897, H-17, pp 21-24.

- Comments on the descriptions used for certain fish identified in the regulation.

- Mullet: In Auckland, this refers to the grey mullet or kanae (*Mugil perusii*). In Dunedin, this is the sea mullet (*Agonostoma*), a completely different fish.

- Blue cod and rock cod: Notes that these names apply to one and the same fish (*Percis colias*), the first being the name given to the fish in the southern part of the colony.

- Herring: 'The so-called Picton herring is affirmed by some to be the sea-mullet (*Agonostoma*), while the fish that is so abundant round the southern and south-eastern coasts of this Island in the early part of the year is the sardine or pilchard (*Clupea sagax*).'

### **1895 Fish and Oysters**

Fish and Oysters Exported – 1 April 1892 to 31 March 1895, Department of Trade and Customs, 1 August 1895, AJHR 1895 H-21

- from Dunedin and Port Chalmers: 3,647 cwt of fish; 1,150 dozen oysters.
- from Invercargill and Bluff: 8,748 cwt of fish; 408,353 dozen oysters.

### **1899**

Petition – signed by Robert Erskine and 18 fishermen and others interested (from Nuggets, Port Molyneux), addressed to J.W. Thomson, M.H.R., dated 3 August 1899, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.

- Protesting against activities of trawler owned by Dunedin syndicate. 'This trawler . . . trawled the whole of Nugget Bay from the Light House to the mouth of the Molyneux River, many times being in a distance of one mile from the shore.'
- states that if this continues it will be disastrous to the line fishing of the local fishermen
- requests that limits be imposed on trawling to protect inshore fishing

D. Harris Hastings, Inspector of Fisheries, to the Collector of Customs, Dunedin, 2 September 1899, 'Report upon the probable effect of Trawling upon the Line Fishing Industry of Otago', M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.

- notes that trawling still at only an experimental stage; does not believe any restrictions should be imposed at this stage
- surveyed the views of the Otago line fishermen; provided details of the various fishing ports
- fishermen at a number of ports notes that the rocky nature of the coastline provided a natural barrier against trawlers coming too close
- Nugget Bay: 4 boats at work; all fishing done with the shore line (no long lining); fished from Coal Point to Long Point (some 25 miles); fishermen claimed that there had been few fish since the trawler had visited.
- Moeraki: 30 boats, supporting some 70 men. 'This is without doubt the most important line fishing station in Otago, if not in the Colony. The reason of its prominence is, because a reef six or seven miles wide and perhaps 30 miles long runs off their coast line. On this reef, blue cod, moki, and trumpeter, all good saleable fish, are plentiful.'
- Karitane or Puketirakai: 4 or 5 boats with 10 men. 'This station, which is inside the mouth of the Waikouaiti River, is used largely by fishermen from Port Chalmers who come in the season and stop for weeks at a time, sending their fish by rail.'
- Port Chalmers: 'At Port Chalmers there are a number of boats that go outside the Heads, but as sometimes they engage in seining in the harbour, the actual number was impossible to obtain. I should think, however, some forty or fifty men are engaged in the industry.' Almost all the men against any limit being imposed on trawling.
- 'As you are aware . . . up to the present steam trawling in Otago has only reached an experimental stage. The Harbour Board granted the use of their tug for prospecting purposes, was the result of her work was to prove that the Otago waters were full of suitable and marketable fish. . . . The best fish were obtained from five to seven miles off the coast alongside the current. Since then the Otago Trawling Company has been formed and tried experiments with the Napier, but partly on account of the weather and partly on account of the unsuitability of the boat, they did not meet with much success. They have, however, bought a suitable steamer and will commence active operations in a few weeks. There is also talk of another company being started, and I should not be surprised that in about 12 months time, there will be several trawlers working from this port.'

## **S12: Archival Data/Observations for Otago Study Area – 1900s**

### **1900**

Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 23 July 1900, AJHR 1900 H15A

- the steam trawler 'Doto' chartered, fitted with an otter trawl (p 1)
- expedition undertaken during autumn and winter months of 1900
- around all the coast-line, prospected fish life found to be most prolific in from 5 to 25 fathoms; in water over the 25 fathom line few fish were taken
- south of Oamaru found reefs with a considerable extent of sandy bottom, but even where good bottom was found very fish were taken in the trawl net (p 3)
- uneven bottom from Moeraki to Waikouaiti
- in Blueskin Bay and to the north of the Otago Peninsula an even sand bottom was found with fish fairly plentiful
- a good piece of trawling bottom was found off the mouth of the Mataura River with fish in considerable quantities
- total hauls of the trawl net were 154
- hauls numbered 47 to 53 were located off the coast between Oamaru and Moeraki (p 7)
- the following fish were taken from these hauls: common flounder, brill (or turbot), sole, lemon-sole, megrim, blue cod, moki, terakihi, ling, macrurus australis, skate, tiger shark, and dog fish (p 14)
- hauls numbered 54 to 67 were located off the coast between Moeraki and Cape Saunders (pp 7-8)
- the following fish were taken from these hauls: common flounder, yellow-bellied flounder, sole, lemon sole, megrim, red cod, king fish, barracouta, terakihi, red gurnard, ling, skate, sea perch, tiger shark, dog fish, elephant fish, and octopus (p 14)
- hauls numbered 68 to 71 were located off the coast between Cape Saunders and Nugget Point (p 8)
- the following fish were taken from these hauls: brill (or turbot), sole, red cod, and crayfish (p 14)
- hauls numbered 72 to 75 were located off the coast between Nugget Point and Bluff (p 8)
- the following fish were taken from these hauls: common flounder, sole, lemon sole, megrim, red cod, red gurnard, ling, skate, dog fish, and elephant fish (p 14)

### **1902**

Report of Inspector of Fisheries on Trawling at Port Chalmers, 18 December 1902, AJHR 1903 H-15B

- Inquiry into the complaint by fisherman at Port Chalmers that trawling is affecting their interests and request that they should not be allowed to work within a certain distance of shore. Inquiry held at Port Chalmers on 14 and 15 November 1902.
- Notes that there has been an unusual scarcity of fish in the last winter and spring – believes that trawling not the cause and looks to other factors, such as unusual weather. Points out that there has also been a scarcity of fish at other places, where there are no trawlers operating.
- Notes that two trawlers working out of Port Chalmers – the 'Express' and 'Napier', owned by F.J. Sullivan.
- Did not believe that the line and seine net fisherman had bought any proof to substantiate their claims that trawling was destroying fish-feed on the bottom and driving fish away.
- Trawler owner and men working on the trawler stated that they generally work outside of the area where the small boats go and that they get quite a different class of fish from what the small boats get.
- Fish mongers stated that the trawlers gave a more plentiful supply and more varied. Stated that the small-boat men cannot supply what is needed all year round and that in winter the market was almost entirely supplied by the trawlers.

*Evidence of F.J Sullivan, trawler owner*

- At the moment trawlers are working about eight miles off land and cannot get fish in less than 30 fathoms of water. Fish have confined themselves to deep water this season. Would be wrong to prevent trawlers from coming inshore. (p 2)
- Notes that 14 men employed on the two trawlers, which are the largest boats in the country.
- Have been able to catch fish in all weathers, when other fisherman could not venture out. (p 3)

*Evidence of Captain Ryffell of the trawler 'Express'*

- Employed for 12 months; usually trawl in 20 or 30 fathoms of water; never make a point of trawling in shallow water; keep on the same ground for 8 or 9 miles from 'the Point'(?). (p 3)
- Mostly catching large tarakihi, moki, soles, and kingfish; in deeper water always catching kingfish and ling.
- The following fish that are caught by the trawlers, but not the fishermen: moki, terakihi, and sole. Conversely, the small-boat men catch barracouta and groper.

*Evidence of Frank Keenan, outside fisherman*

- States that outside fishing ground extends from Cape Saunders to Shag Point. (p 4)
- Fishes 10 miles from Otago Heads, catching by line fishing groper, red cod, ling, barracouta, and kingfish.
- Claims that trawlers injuring fishing. Has been fishing for 10 years; fish terribly scarce the last 2 or 3 years. Now have to go much further than in other years, and the supply is shorter. Used to be able to get plenty of fish near Otago Heads.
- Believes that trawling over the ground where the fish feed is disturbing the fish.

*Evidence of John Malcolm, outside fisherman*

- States that he has fished locally for 25 years and has observed a marked decline in the last four years. (p 3)
- 'Many years ago the boats used to keep the market more than supplied, and they have done it all along. They were limited very often to perhaps two dozen a day. They could take in perhaps thirty or forty barracouta, and two dozen groper.'
- Details that there are 27 outside boats and craft, with two or three men on each.
- States that there are over 200 'seine men'. [Seems that seine netting was done within the harbour, while the outside fishermen used lines.]

*Evidence of Edward Nelson, inside fisherman*

- States that he has been fishing locally for 18 years, seine fishing all that time from the Port to the Heads. Has only once seen a season as bad – some 20 years ago. (p 4)
- States that since trawling has started inside fishermen rarely get sole, used to get 6 or 8 dozen. Has also been a decline in flounder over the last 10 years.
- Number of seine fishermen the same as 15 years ago.
- Believes that greater mesh size of trawl net would limit the destruction of small fish.

*Evidence of John H Tunnage*

- Sullivan employs four boats [all trawlers?]; outside there are five cutters (average size about 15 tons) and 31 small boats; inside a total of 32 three man boats. (p 5)

*Evidence of W.G. Robertson, wholesale fish merchant*

- 'Since we have had the trawlers here the supply has very much increased, and undoubtedly so has the demand.' (p 5)
- States that trawlers and fishermen catch different fish.

- Notes that for several years past we have had no moki or sprats, which were formerly very plentiful; red cod also dropped off.
- Small boats catch most of their fish from Jan to May, when shoal fish appear and come close in shore, sometimes right up harbour.
- Notes that trawlers continue to work in rough weather; the line-men cannot work in such weather, except in the three cutters (though even these cannot work several days after rains owing to fish not being able to see the bait). (p 6)

*Evidence of W Stewart, fishmonger, Princes Street*

- Has been in business for 16 years, observes that there has been a poor supply of fish over the last few years. (p 6)
- 'We should have had nothing at all if it had not been for the trawlers.'
- Notes that trawlers catch fish that are not usually taken by the small boat fishermen, principally the terakihi.
- Comments that flounders 'seem to be going out of existence altogether.'

*Evidence of H Kenton, master of the trawler "Napier"*

- Many of the varieties of fish caught by trawl are not caught by the line and seine net men. Barracouta and groper are not caught in the trawl because the frequent the rocky bottom, which cannot be trawled. (p 6)
- States it would be detrimental to trawling if a three mile limit was imposed from the shore. Sometimes fish more plentiful inshore than in deep water, and if weather rough need to fish closer to land.
- States that he does not believe the supply of flounder is going down. (p 7)

*Evidence of Francis Hewitt, mate of the trawler "Napier"*

- Formerly worked as a small boat fisherman and fish curer. States that in winter the flounder always 'go off' and that the only thing the seine men have to live on is red cod. 'Five years ago we were catching nothing but red-cod, and it was owing to that that Mr Sullivan took up the trawling business.' (p 7)

## 1905

Marine Department annual report, 15 May 1905, AJHR 1905 H-15

- Order in Council has been issued to provide that the mesh of a net or seine is to not be less than 2 and 1/2 inches, except for flounder (4 inches), gar fish (1 inch), herring (1 and 1/4 inches) and mullet in the North Island (3 and 1/4 inches). (p 4)

## 1905

Marine Department annual report, 15 May 1905, AJHR 1905 H-15

- Marine fish hatchery at Portobello completed and now in working order – work of the hatchery will now begin, including the introduction of suitable food-fishes.

## 1906

Marine Department annual report, 30 May 1906, AJHR 1906 H-15

- Regulations for fish and oysters to be consolidated. (p 4)
- Reports received from Inspectors of Fisheries . . .
- 'In the Otago District the principal centres of fishing are the Catlins, Molyneux, Taieri Mouth, Port Chalmers, Waikouaiti, Moeraki, and Oamaru, and the principal fish taken are flounders, hapuku, blue cod, and trevalli; and it is stated that notwithstanding the unseasonable weather experienced much larger catches were taken than during the previous year. There has been a considerable improvement in the boats and gear used in the industry.' (p 5)
- 39 smokehouses in the district
- 359 people employed on fishing boats

- 'The principal fish caught by the Bluff fishermen are blue cod in Foveaux Strait and Stewart Island, and flounders in Bluff Harbour, and large numbers of oysters are taken from beds in the strait. There are five freezing plants on the mainland and at Stewart Island.'

- A survey of the oyster beds in Foveaux Strait has been carried out by Mr Hunter, customs officer at Bluff. His report shows that oysters are plentiful in the strait. (p 6)

- Oysters exported from Bluff to Australia for year ending 31 December 2005: 303,771 dozen.

- Return of fishing boats at each port during year ending 31 December 1905 (p 35):

- Oamaru – 46 registered and 46 licensed

- Dunedin and Port Chalmers – 92 registered and 92 licensed

- Bluff – 86 registered and 86 licensed

- Invercargill – 49 registered and 49 licensed

## **1906**

Marine Department annual report, 30 May 1906, AJHR 1906 H-15

- Portobello Marine Hatchery: large number of flounder-fry hatched and the fry liberated.

## **1907**

Marine Department annual report, 25 May 1907, AJHR 1907 H-15

- Regulations for fish and oysters have been consolidated. (p 5)

- Manufacture of fertilisers from fish is now carried on at three places in the colony, including Moeraki – deserves encouraging. 'It also leads to the destruction of large numbers of sharks, dog-fish, & c., which now infest some of the fishing grounds, and which, up to recently, have been allowed to increase unmolested to the great destruction of market fish.'

- Notes that 'sea trout' are plentiful along the east coast of the South Island, from Pegasus Bay to Tewaewae Bay, south of Bluff. Are caught by fishermen when netting for indigenous fish.

- Reports received from Inspectors of Fisheries . . .

- 'The Inspector at Dunedin reports that in all old-known fishing-places the catches have been good. In all shallow bays flounders and small fish are obtained in large quantities, and groper, kingfish, schnapper, barracouta, blue and red cod, terakihi, trevalli, and moki are found along the coast from Oamaru to Chaslands.' (p 6)

- 140 boats employed in the district, 59 with oil engines

- 367 people employed in fishing

- Return of fishing boats at each port during year ending 31 December 1906 (p 35):

- Oamaru – 50 registered and 48 licensed

- Dunedin and Port Chalmers – 96 registered and 92 licensed

## **1907**

Marine Department annual report, 25 May 1907, AJHR 1907 H-15

- Portobello Marine Hatchery: 'Several millions of ova of New Zealand food fishes, principally soles and flounders, have been fertilised and hatched out at the station and liberated in Otago Harbour.' Looking into introduction of herring and one other kind of fish – cod, haddock, or turbot ova.

## **1907**

Interim Report on Experimental Trawling, by L.F. Ayson, Chief Inspector of Fisheries, 12 November 1907, AJHR 1907 H-15B

- report on the fishing and deep-sea trawling cruise of the *Nora Niven*, chartered by the Government from June to September 1907 (p 1)

- object of cruise was to test the ocean-floor off the east coast from Stewart Island to the Bay of Plenty and around the Chatham Islands; ascertain trawling grounds exist outside those already known and worked; ascertain what fish-life exists out to 100 fathoms; to look for offshore banks
- used otter trawl nets; spread of 120 ft (footrope) and 80 ft (head-line)
- owing to time constraints, difficult to thoroughly test each section or to go very far off to test off-shore banks
- 106 hauls made, range from 4 to 120 fathoms (p 2)
- range of depth where most fish life found was from inshore to 30 fathoms
- no flat fish taken over 30 fathoms
- hapuku, kingfish, and ling taken in any depth and out to over 100 fathoms
- terakihi and snapper were frequently in large quantities out to 60 fathoms
- notes that seasonal differences in fish numbers not established by trawl
- comments that it is likely that the result of the trawl will have the effect of encouraging more capital and energy being put into the fishing industry
- notes that a new trawling and fishing company is being floated with capital of £20,000 in Dunedin

*Summarised report on the section of coast from Stewart Island to Otago Heads (p 3)*

- good trawling bottom to the east of Stewart Island (40 miles east of Port Adventure, and about 50 miles in extent from north to south), but quantity of fish poor, mostly ling, hapuku, and kingfish
- Bluff to Waipapapa Point worked by *Doto* in 1900
- worked from Waipapapa Point to Nugget Point, from inshore to 100 fathoms; result with regard to both bottom and fish supply unsatisfactory
- good results in Molyneaux Bay in regard to bottom and fish numbers
- sandy bottom indicate good sole and flounder grounds
- three hauls, with large quantities of red-cod, dogfish, and elephant-fish
- from Molyneaux Bay to Cape Saunders a considerable extent of good trawling bottom and a fair supply of market-fish taken, though a large extent of hard shingle bottom
- from Cape Saunders to about 18 miles north of Otago Heads good bottom was found
- terakihi the main fish taken from 25 to 60 fathoms
- ling and kingfish taken out to 102 fathoms
- 'The best trawling-grounds off the Otago coast extend from Cape Saunders to some distance west and north of Otago Heads, extend from inshore out to about 30 fathoms. These grounds have been considerably worked by Mr. Sullivan's trawlers from Port Chalmers.'

*Otago to Lyttelton (p 4)*

- trawlers from Port Chalmers presently engaged in working the fishing grounds off Otago Heads and in Blueskin Bay – no attempt was made to test these well known grounds
- thirty hauls made between Otago and Lyttelton – almost every haul between Otago and Akaroa inside of about 40 fathoms disclosed the presence of a great variety of fish
- foul ground exists to a distance of nine miles, perhaps more off Moeraki and London Bluff – this bottom unsuitable for trawling, though fish appear to be plentiful
- at present is being worked by line fishermen from Moeraki, with blue cod and hapuku being the main fish taken

## **1908**

Marine Department annual report, 12 June 1908, AJHR 1908 H-15

- Comments on the experimental trawling of the *Nora Niven* – practical results obtained will no doubt prove of great value in helping to develop the fishing industry. (p 7)
- Netting has been prohibited in a part of the upper portion of Otago Harbour.
- 'In Canterbury and Otago there has been a steady all-round improvement in connection with the fishing industry. New boats, gear, and appliances are continually coming into use, and catches have been on a



larger scale than formerly. Freezing and preserving works have been enlarged, and the turnover has increased. . . . There has been an increase in the quantity of the fish taken in Oamaru, Moeraki, Port Chalmers, and Catlins. At present five new motor fishing-boats are being built at Dunedin. Owing to the improved class of boats in use grounds hitherto unvisited are now being worked.'

- 142 fishing boats in Otago, 385 men employed in fishing
- 38 fish canning and preserving works in Otago
- during the year, 172, 384 lbs of frozen and potted fish exported from Dunedin
- Return of fishing boats at each port during year ending 31 December 1907 (p 35):
- Oamaru – 49 registered and 44 licensed
- Dunedin and Port Chalmers – 87 registered and 87 licensed

## **1908 Blue Cod**

Sullivan, Otago Inspector of Fisheries to Secretary, Marine Department, 22 June 1908, M 1 2/12/324 part 1, Cod, 1908-1903, NAW.

- Responding to query re minimum weight: 'the fishermen are adverse to any alteration in the regulations as to the weight of this particular class of fish, being a hook and line fish when once taken they are not fit to be returned to the water again.'

## **1909**

Marine Department annual report, 12 June 1909, AJHR 1908 H-15

- 'In Otago and Canterbury there has been an improvement in the industry. Fishing operations have been carried out along the whole of the coast-line, with good results.' (p 7)
- steady supply at Oamaru
- catches at Moeraki not up to the standard of previous years
- from Waikouaiti to the Catlins River there has been continued improvement
- considerable improvements have been made to the Otago fleets – another steam trawler has been procured; sixteen ordinary boats fitted with oil engines and the latest appliances have been launched
- 43 fish curing and preserving plants, from which £7000 worth has been exported as well as amount for local consumption
- freezing chambers being erected
- main fish taken are kingfish, groper (hapuku), trevalli, terakihi, schnapper, trumpeter, moki, barracouta, blue cod and flounder
- Return of fishing boats at each port during year ending 31 December 1908 (p 47):
- Oamaru – 49 registered and 49 licensed
- Dunedin and Port Chalmers – 99 registered and 99 licensed

## **1909**

Chairman of the Portobello Fish Hatchery Board to Minister of Marine, 1 June 1909, Marine Department annual report, AJHR 1909 H-15

- Notes that on 31 March five year term of annual £250 subsidy granted by R.J. Seddon expired – suggests implementation of proposed new funding scheme
- Lists achievements during five years, includes:
- release of millions of larvae of sole, lemon-sole, flounder, gurnard, crayfish, and prawn into Otago Harbour
- work on introduction and breeding of imported crab and lobster

### S13: Archival Data/Observations for Otago Study Area – 1910s

#### 1910

##### Marine Department annual report for 1910-1911, AJHR 1910 H-15

- The area where netting is prohibited in the upper Otago Harbour has been reduced. (p 6)
  - Report of local inspector for the Otago and Canterbury districts:
  - reports a depression in the industry caused mainly by the scarcity of fish
  - owing to new class of boats and gear, many parts of the coast formally untouched have been visited, and, as a consequence, a better variety of fish has been taken
  - kingfish have been taken in fair numbers, though not so plentiful as previous year
  - groper, trevally, terakihi, snapper, moki, and barracouta have been taken, 'though some of them have disappeared from their old haunts'
  - soles, flounder, and flatfish have generally been as plentiful, but there is a scarcity of blue cod
  - fair quantities of marketable fish taken at Moeraki, Oamaru, and Timaru
  - £3,116 of frozen, potted, and preserved fish exported from Dunedin, mostly to Australia
  - Return of fishing boats at each port during year ending 31 December 1909 (p 38):
  - Oamaru – 48 registered and 32 licensed
  - Dunedin and Port Chalmers – 106 registered and 106 licensed
- Table of larvae numbers liberated during 1905, 1906, 1907, 1908, and 1909 from the Marine Fish Hatchery, Portobello – flounder, lemon sole, brill, gurnard, blue cod, prawn, crayfish, lobster, and crab. (p 12)

#### 1910

##### Chairman of the Portobello Fish Hatchery Board to Minister of Marine, 11 May 1910, Marine Department annual report, AJHR 1910 H-15

- Notes large numbers of ova of lobsters and edible crabs liberated. Claims additional funding required for further work on the introduction and naturalisation in New Zealand water of desirable food fishes from other parts of the world.

##### T. Anderton, Curator of the Portobello Fish Hatchery Board to Chairman of the Portobello Fish Hatchery Board, 30 April 1910, Marine Department annual report, AJHR 1910 H-15

- Report includes following details of larvae liberated during 1905, 1906, 1908, and 1909:

Fish	1905	1906	1908	1909	Total
Flounder ( <i>Rhombosolea monopus</i> and <i>taperina</i> )	562 000	217 000		123 000	902 000
Lemon sole	59 000	3 000			62 000
Sole ( <i>Peltorhamphus novae zealandiae</i> )		2 747 000		335 000	3.082 000
Brill		5 000		313 000	318 000
Gurnard ( <i>Trigla kumu</i> )	5 000				5 000
Blue-cod ( <i>Parapercis colias</i> )	5 000			16 000	21 000
Prawn ( <i>Palaemon affines</i> )	698 000				698 000
Crayfish ( <i>Jasus edwardsii</i> )		7 000 000		2 275 000	9 275 000
Lobster ( <i>Homarus vulgaris</i> )			36 000	99 3600	135 360
Crab ( <i>Cancer pagurus</i> )			6 500 000	10 500 000	17 000 000
Totals	1 329 000	9 972 000	6 536 000	13 661 360	31 498 360

#### 1910

##### Ayson, Chief Inspector of Fisheries, to Secretary Marine, 16 November 1910, M 1 2/12/324 part 1, Cod, 1908-1903, NAW.

- Reports on visit to South Island fishing ports.
- 'I visited Nugget Bay on the 13<sup>th</sup> Oct. While I was there I saw all the fishing boats come in. As the weather was rather strong the catches were poor, the largest being 11 Hapuku and a few red cod. The fishermen report good catches through the winter and spring whenever they were able to get out.'

## 1911

### Marine Department annual report for 1910-1911, AJHR 1911 H-15

- In Otago district the supply of fish has been equal to demand except in winter months. (p 8)
- No notable change in any of the quantity of market fish; no material change in the number of vessels and men employed in the industry.
- Return of fishing boats at each port during year ending 31 December 1910 (p 40):
- Oamaru – 31 registered and 30 licensed
- Dunedin and Port Chalmers – 95 registered and 95 licensed

## 1912

### Marine Department annual report for 1911-1912, AJHR 1912 H-15

*[1912 is the first year that a separate report provided by the Chief Inspector of Fisheries – before this fisheries matters had been included in the Marine Secretary's report to the Minister.]*

- Otago inspector reports that catches from most of the Otago fishing grounds have been unusually good (p 12)
- Complaints from Moeraki fishermen of the scarcity of blue cod. 'Some of the oldest stated that there had been a steady decrease for a good many years. One man made the statement that "Fifteen years ago one of the old sailing-boats would bring in as many blue-cod in a day as all the boats could do now."'
- Collector of Customs at Oamaru reports: "Blue-cod are now very scarce."
- The large fish salesmen in Dunedin report that the supply of soles and flounders as poor during the year.
- Return of fishing boats at each port during year ending 31 December 1911 (p 49):
- Oamaru – 35 registered and 32 licensed
- Dunedin and Port Chalmers – 92 registered and 92 licensed

## 1912

### Chairman of the Portobello Fish Hatchery Board to Minister of Marine, 8 May 1912, Marine Department annual report, AJHR 1912 H-15

- Notes that no young lobsters or crabs turned out in the past have 'been met with' – hope to locate some with traps and nets during coming year.

### T. Anderton, Curator of the Portobello Fish Hatchery Board to Chairman of the Portobello Fish Hatchery Board, 4 May 1912, Marine Department annual report, AJHR 1912 H-15

- Notes that have collected ova and examined fish taken from trawlers through out the year; ripe eggs of the turbot (*Ammotretis nudipinni*), witch (*Caulopsetta scapha*), and kelp-fish (*Cordiodax pullus*) secured for the first time.

## 1912

### Report of the Blue-Cod Commission, AJHR 1912 H-15B

*Report: Commissioners G.H.E. Mc Clure and L.F. Ayson to Secretary, Marine Department, 10 October 1912 (p 1)*

- Inquiry in regard to the weight at which blue cod can be taken, held at Bluff on 27 September 1912 – representative attendance of fishermen from Halfmoon Bay and Riverton.
- In their evidence, the fishermen claim:
- that the blue-cod grounds off Halfmoon Bay and in Foveaux Strait are not depleted
- that a close season is not required as the taking of blue cod practically ceases about the end of August, when the fish evidently disappear for the purpose of spawning

- that a size limit is necessary to protect the small fish, but that this should be based on length, not weight
- Recommend that the regulation gazetted on 14 March 1912, fixing the size limit to 16 oz, be revoked, and an amending regulation be brought into force fixing size limit to 10.5 inches in length when in green state or 9 inches when headed properly.

Report: L.F. Ayson to Secretary, Marine Department, 11 October 1912 (p 2)

- Difficult to ascertain the condition of the blue cod fishing grounds – difficult to get reliable evidence from fishermen.
- Has been frequent complaints for some years past about the supply of blue cod and size of the fish brought to market.
- most of the Stewart Island fishermen who gave evidence stated that the old fishing grounds yielded as much blue cod now as in former years
- one witness (H. Hansen) admitted that there are hardly any fish on the old grounds
- Mr Tothill (shareholder in the Pegasus Fishing Company, Stewart Island) stated that when the freezing plant was erected at Pegasus (1899) all the blue cod that could be handled were caught in the Pegasus Inlet. But these grounds have now been depleted to such an extent for some years that they are not worth fishing – the men now fish the reefs as far outside as the ‘Traps’ and in order to keep up supply are constantly on the lookout for new fishing grounds.
- All this shows the necessity of protecting these fisheries; plan to make a trip to the principal fishing grounds in March.

### **1913**

Marine Department annual report for 1912-1913, AJHR 1913 H-15

- Otago District: (p 11)
- from information gathered from fishermen along the coast, the quantity of fish landed about the same as last year
- at Moeraki some exceptional hauls of hapuku made well off-shore in from 50 to 90 fathoms
- at Nugget Point the fishermen report that fishing in the inshore grounds has been rather poor, but further off in the deeper water the catches were equal to other years – hapuku the principal fish taken
- Return of fishing boats at each port during year ending 31 December 1912 (p 51):
- Oamaru – 36 registered and 32 licensed
- Dunedin and Port Chalmers – 80 registered and 80 licensed

### **1913**

T. Anderton, Curator of the Portobello Fish Hatchery Board to Chairman of the Portobello Fish Hatchery Board, 17 May 1913, Marine Department annual report, AJHR 1913 H-15

- Further importation for breeding and release of lobsters and crabs, also turbot (*Rhombus maximus*).

### **1913 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 September 1913, M 1 2/12/2 part 1, NAW.

- ‘At Owaka several of the seine boats were found to be practically laid up owing to the scarcity of fish. This attributed by the local men to the injurious effects of large quantities of sawdust [?] into the river by the sawmills.’
- Two new boats at Port Chalmers:
- an ordinary whale boat type fitted with a cabin
- a 38 ft ketch rigged craft fitted with a 10 HP oil engine and winch and will be used for line fishing and trawling

### **1913 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 October 1913, M 1 2/12/2 part 1, NAW.

- 'Red-Cod have been very scarce for some time, but on the last day of the month a very large haul was made by one of the trawlers some distance NE of Otago Heads.'
- Fishermen at Puketeraki have been fishing solely for crayfish for the last 2 months – average catch for all the boats is 100 sacks a day.

### **1913 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1913, M 1 2/12/2 part 1, NAW.

- Supply of flat fish from the local grounds has been good. Now only 3 steam trawlers working the grounds; small craft haven taken to line fishing.
- 'Some very large hauls of groper have been caught about 8 miles SE of Otago Heads. One boat is credited with having taken 16 dozen in one day.'
- 'Barracouta have been caught in large quantities close inshore.'
- Kingfish have not been very plentiful; now working in towards the land.
- Ling very scarce for this time of the year.
- Cod are not being caught by the Port Chalmers fishermen.
- Garfish have made their appearance in the harbour and some good hauls have been obtained by the seine boat men.

### **1913 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 December 1913, M 1 2/12/2 part 1, NAW.

- Red cod have been taken by the trawler, few by the line men, owing it is supposed to the abundance of natural feed that in this season is found in the stomachs of red cod, blue cod, and moki.
- 'Several good hauls of silver fish have been taken in the seine nets inside Otago Harbour.'

### **1913 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 December 1913, M 1 2/12/2 part 1, NAW.

- 'Early in the month the steam trawlers were catching large quantities of crayfish. It is estimated that at least six tons weight of crayfish were sent up to Dunedin on one occasion.'
- 'Red cod are now very plentiful inside the harbour, and some good catches have been taken by the line men when it has been too rough too venture outside the Heads.'
- 'Silverfish and trevalli have been caught in fairly large numbers by the seine boat men.'

### **1913**

Report on Fisheries of New Zealand, by Chief Inspector of Fisheries, L.F. Ayson, 10 June 1913, AJHR 1913 H-15B

*A report on New Zealand's fisheries – their present condition and future development*

- Fishing vessels: (p 2)
- the introduction of the motor launch has been an immense assistance to fishermen – scarcely a sailing vessel in use anymore
- every year there is an improvement in the class of vessel built
- larger and more powerful boats enable fishermen to go further afield and make more regular and quicker trips to and from the fishing grounds
- high price of benzine is preventing fishermen from prospecting for new grounds
- Systems of fishing:

- principal methods of taking fish up to the present time: hook and hand line, seine and set nets, and trawling
- fishermen are realising the necessity of adopting more up-to-date methods – in the Hauraki Gulf and Cook Strait a number of fishermen have adopted a system of long-lining, which is proving very successful and a great improvement to a single hand-line – little doubt that in a short time long-line fishing will be in general use through out the Dominion
- trawling with oil launches is now quite common on a good many grounds
- Fishing grounds: (p 3)
- ‘Up to the present time it may be said that the fishing-grounds which have to be worked are only those within easy reach of the principal markets, and beyond those, there is a vast extent of coast-line which has practically never been fished, and on which is to be found abundant supplies of our best market fishes.’
- The fishing-grounds that have been systematically worked include ‘a section of the coast off Timaru; from Oamaru to Cape Saunders; and from Coal Point to Chaslands Mistake; from Waipapa Point, through Foveaux Strait, to Preservation Inlet, and round Stewart Island.’
- ‘Some of the old fishing-grounds within a certain distance of the larger centres are not now producing anything like the quantity of fish which they have done formerly, and in several places fishermen find it necessary to keep moving farther afield in order to get the supplies required. The cause of this decline is, I consider, due to overfishing and the predominance of sharks, dogfish, and other enemies of our market fish. . . . The areas I have mentioned as suffering from overfishing are not very extensive; in fact, they may be considered as a mere bagatelle in comparison to the fishing-grounds round our coasts which have as yet not been exploited. At the same time, their condition proves the possibility of exhausting the inshore fisheries and the necessity for certain conservation measures.’
- discusses the need for suitable system of collecting fisheries statistics (pp 6-7)
- ‘Trawling has undoubtedly largely increased the fish-supply, and we hope to see a considerable increase in this system of fishing as new grounds are opened up. (p 7) Trawling is not, however, the only means of capturing fish on a large scale; there are others which might be employed with advantage in this country, and assist in largely increasing the fish-supply. The methods I refer principally to are purse-seining, long-lining, and trammel and drift netting.’
- states that a large proportion of NZ coast rocky and weedy – attention must be given to improving the methods of fishing on these grounds – besides long-lining, recommends the use of the trammel net
- Sea trout should be made available for market purposes – now inhabit our coast in immense numbers – state that thousands of tons of these fish exist off the coasts of Canterbury, Southland, and Otago – undoubtedly have an important influence on supply of flounders and other inshore market fish in certain localities (p 9)

## 1914

Annual report on fishing industry at Otago for year ending 31 March 1914 by Inspector of Fisheries, W Adams, 6 May 1914, M 1 2/12/35 NAW.

- Details the same as those that appear in the annual report (see notes below).

## 1914

Marine Department annual report for 1913-1914, AJHR 1914 H-15

- Otago District 121 fishing boats registered (p 8)
- Oamaru – principal fish taken were groper, blue cod, and ling, but the catches poor on account of the weather
- Moeraki – fair catches of groper, blue cod, and red cod made in the early part of the season, but later on all fish became scarce and many of the fishermen had to lay their boats up
- Dunedin – catches as good as those made in previous year
- three steam trawlers have been in use during the year – they and several of the fishing boats fitted with trawling gear made good catches of flounders and soles during the winter months
- groper were plentiful up to the end of February, but have since been getting scarce

- kingfish taken in fairly large quantities during the summer months
- good hauls of barracouta made within a few mile of Otago Heads
- ling not so plentiful as previous seasons
- good hauls of red cod made by the trawlers, but very few taken by the line fishermen
- supply of terakihi and moki has met demand
- some good catches of trumpeter have been made, but the supply has been intermittent
- inside the harbour flounders and trevalli have been caught in fairly large numbers by the seine fishermen
- Nuggets – the season has been a poor one and the boats have had to go farther away
- groper, ling, and barracouta have been the principal fish taken
- fair catches of blue cod were made early in the season, but this fish is now very scarce
- Pounaweia – the seine fishermen report a fairly good year
- flounder – the principal fish taken – has been plentiful
- Return of fishing boats at each port during year ending 31 December 1913 (p 41):
- Oamaru – 33 registered and 31 licensed
- Dunedin and Port Chalmers – 88 registered and 88 licensed

### **1914 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1914, M 1 2/12/2 part 1, NAW.

- Supply of flatfish well maintained; soles fairly plentiful.
- Good hauls of groper and kingfish some 16 miles NE of Otago Heads.
- Barracouta taken in large quantities near Cape Saunders.
- Ling and red cod are fairly plentiful within a few miles of the Heads.
- Trevally still taken in quantity inside the Harbour.
- Puketeraki fishermen have kept the market supplied with moki, tarakihi, and blue cod.
- 71 fishing boats of all classes registred at Dunedin; 61 in the Otago district.

### **1914 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 March 1914, M 1 2/12/2 part 1, NAW.

- Catch details, including . . .
- ‘Red Cod have not been very plentiful, and are only been taken by the trawlers.’
- ‘On several occasions the fishermen have secured good catches of blue cod off Sand-Fly Bay.’
- Trevally now getting scarce in Harbour; good catches up to about a fortnight ago.

### **1914 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 March 1914, M 1 2/12/2 part 1, NAW.

- ‘Several good hauls of red cod have been taken by the trawlers & on one occasion as many as 20 casks were captured by one boat.’

### **1914 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 May 1914, M 1 2/12/2 part 1, NAW.

- Weather unsettled, strong NE winds; consequently the linemen not able to go out regular to the fishing grounds. When weather favourable, good hauls of soles, red cod, flounders caught in the trawls.
- Line men have had a variable month – except barracouta, round fish have not been too plentiful.
- ‘Groper seem to be continually on the move. A man might catch three dozen one day & then perhaps at the same place he might average half a dozen a day for several days.’

### **1914 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 June 1914, M 1 2/12/2 part 1, NAW.

- Seine boat men have had a good month. On several occasions, when the weather unsettled, school fish and flounders were the only fish in the market.

### **1914 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 July 1914, M 1 2/12/2 part 1, NAW.

- Weather again very bad, fishermen compelled to fish close inshore – catches have not been good.
- Early in the month, the trawlers were catching splendid hauls of red cod, but very few flatfish; during latter part of month soles more plentiful and red cod scarce.
- Three new boats registered – fitted with trawls and will engaged in trawling on the Otago coast.

### **1914 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 August 1914, M 1 2/12/2 part 1, NAW.

- Weather again bad; fishing poor. Line men able to proceed to outer grounds on only about 8 occasions. Trawlers also detained on several occasions and have been compelled to fish close inshore and in Blueskin Bay.

### **1914 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1914, M 1 2/12/2 part 1, NAW.

- Steamers and a number of whale boats fitted with trawls have been making good hauls of soles and flounders.
- Large hauls of red cod also taken by trawls, but these fish constantly seem to be on the move; line fishermen unable to secure them.
- Groper scarce, as usual during August – spawning season and not inclined to take the bait until they are spent.
- Ling fairly plentiful.
- Small quantities of blue cod coming in from the Nuggets.
- Garfish have only now made their appearance inside the Harbour.
- Puketeraki fishermen have kept the market well supplied with crayfish.

### **1914 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 September 1914, M 1 2/12/2 part 1, NAW.

- Pukuteraki fishermen solely engaged in crayfishing – sending about 100 sacks of crayfish a day to the canning factory in Dunedin.

### **1914 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 November 1914, M 1 2/12/2 part 1, NAW.

- Three steam trawlers have kept the market well supplied with flatfish, red cod, and tarakihi. Small craft engaged in trawling throughout the winter have now taken to line fishing. Groper now plentiful; good hauls of kingfish taken by the linemen some 14 miles NE of Otago Heads.

### **1914 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 November 1914, M 1 2/12/2 part 1, NAW.



- Seine boat men not affected by the bad weather – keeping market well supplied with flounders, garfish, and mullet.
- Barracouta now being caught in large numbers inshore.

### **1914 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 January 1915, M 1 2/12/2 part 1, NAW.

- More bad weather, restricting fishing. Also states that ‘prevailing low temperature also appeared to drive fish away from the shallow coastal waters’.
- During fine weather some good hauls of groper, kingfish, and ling.
- Barracouta are now becoming scarce, though caught in large numbers at the beginning of the month.
- Soles and red cod the principal fish taken by the trawlers.
- Seine men, as usual, not affected by the bad weather; catches of flounders and school fish inside the Harbour.

### **1914**

Preliminary Report on Fisheries of New Zealand, by Professor Prince, AJHR 1914 H-15C

- Deals with fishing industry in general terms, looking towards future developments

### **1915**

Marine Department annual report for 1914-1915, AJHR 1915 H-15

- Otago district: monthly reports provided by Mr Adams, Inspector of Fisheries for the Otago District, show that during winter and spring weather frequently interfered with fishing. (p 15)
- At Dunedin, there were good catches of flounder, trevally, etc, frequently made by the seine men inside the Harbour when the weather prevented the trawlers and line-men getting outside.
- in fine weather, there has been good catches of the best market fish
- Nugget Bay – fishermen report a poor season – unfavourable weather to end of 1914, but since then fair catches of groper and blue cod made.
- Pounawea – the fishing is all seining in the tideway of the Catlins Estuary – good catches of flounders made.
- Tautuku – there are now five boats fishing and getting good catches – needs better facilities of getting fish to market.
- Moeraki – catches of blue cod and groper poor through the winter, and since then fishermen report that supply has not been equal to an average season.
- Oamaru – poor catches of groper made till the end of the year, but since then supply has improved.
- 88,000 young flounder and 322,000 soles released by Portobello Marine Fish-Hatchery during year ending 31 March 1914. (p 18)
- ova secured from fish taken by trawlers
- Return of fishing boats at each port during year ending 31 December 1914 (p 19):
- Oamaru – 34 registered and 28 licensed
- Dunedin and Port Chalmers – 91 registered and 91 licensed

### **1915**

Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.

- See also details recorded in Marine Department annual report.
- October to December poor weather; but otherwise favourable, with good catches from linemen and trawlers.
- ‘The supply of flatfish from the four trawlers has been exceptionally good. During the winter months, trawling with oil launches was carried on in the shallower waters with good results.’

- Groper, ling, kingfish, red cod plentiful; barracouta, moki, tarakihi, trumpeter somewhat scarce; supply of blue cod poor, though a few good catches have been made to the south of Cape Saunders
- Oamaru and Moeraki:
- towards end of year weather and conditions approved; fish became more plentiful – groper, red cod, ling, blue cod, crayfish were principally taken; an average catch of blue cod would be about 70 lbs per man per day
- Tautuku:
- 5 whale boats engaged in line fishing for groper and blue cod
- ‘The rich fishing grounds lying off this portion of the coast will no doubt in time become a very important source of supply to the Dunedin market.’
- About 114 boats registered in the Otago District.

## **1915**

T. Anderson, Curator of the Portobello Fish Hatchery Board to Chairman of the Portobello Fish Hatchery Board, 7 June 1915, Marine Department annual report, AJHR 1915 H-15

- Provides no details of any evidence suggesting survival of lobster and crab previously released.
- Observations of life-cycle of local fish have continued.
- Acknowledges help of F.J. Sullivan in allowing him to accompany his trawlers and secure fish ova. From eggs collected by this means, 88,000 young flounders and 322,000 young soles, hatched and liberated.

## **1915 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 3 March 1915, M 1 2/12/2 part 1, NAW.

- ‘Exceptionally good hauls of trevally have been secured by the seine boat men inside Otago Harbour.’

## **1915 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 March 1915, M 1 2/12/2 part 1, NAW.

- Red cod now plentiful inside and outside Harbour – large quantities taken by the trawlers and seine boat men.
- Kingfish now more plentiful than for some time.
- Fair numbers of groper and ling have been caught by the line men some 16 miles NE of Otago Heads.
- Barracouta are being taken in large numbers close inshore.
- Good hauls of blue cod made on several occasions off Sand Fly Bay.

## **1915 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, undated, M 1 2/12/2 part 1, NAW.

- Details include . . .
- Flounders have been very plentiful inside the Harbour.
- ‘Red Cod can be caught in quantity in almost any part of the harbour. Several good catches of blue-cod have been caught off Cape Saunders.

## **1915 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 August 1915, M 1 2/12/2 part 1, NAW.

- Weather conditions unusually favourable.
- Steam trawlers and several of the whale boats fitted with trawls have been taking large quantities of flat fish – lemon and common soles are now more plentiful than for some years past; selling for one pound a case, each case holding 6 dozen fish. Red cod also taken in fair numbers in the trawls.

- 'Good catches of groper & ling are being taken "on the reef" some 16 miles NE of Otago Heads.'
- Kingfish and Barracouta now becoming very scarce.
- Several good hauls of blue cod and sea perch have been caught off Cape Saunders.
- Seine men continue to secure fair numbers of flounders, trevally, and mullet inside the harbour.

### **1915 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 August 1915, M 1 2/12/2 part 1, NAW.

- Moeraki fishermen report a good winter's fishing. Groper taken in fair numbers up to the end of June. Blue cod are now more plentiful than for some years passed. The fishing boats brought in 1500 lbs of blue cod during the month of July. Red cod still being taken in quantity.

### **1915 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 September 1915, M 1 2/12/2 part 1, NAW.

- Details include . . . Trawlers continue to secure exceptionally large hauls of soles.

### **1915 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1915, M 1 2/12/2 part 1, NAW.

- Supply of groper has been good; appear to be working in towards the land, being caught within 4 miles of Otago Heads.

### **1915 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 January 1916, M 1 2/12/2 part 1, NAW.

- 'Lemon soles are now the principal flat fishes & are being taken in about 21 fathoms to the NE of Otago Heads. Large numbers of red cod of large size, but in very poor condition, have been taken by the trawlers. On several occasions, owing to their enormous numbers, they have greatly interfered with trawling, & it has been necessary at times, to cut away the meshes before hoisting the trawl on board.'

### **1916**

Marine Department annual report for 1915-1916, AJHR 1916 H-15

- Otago district: inspector says in his annual report that the past year has been extremely satisfactory for those engaged in the fishing industry – catches by trawlers and linemen have been above those taken for many years. (p 11)
- supply of flat fish has been unusually good during the months of July – October, with a large number of soles taken
- during July and August the catches almost all the common sole and of a large size, but more lemon soles taken as the season advanced and trawling carried on at a greater depth
- 110 licensed fishing boats, 232 fishermen employed
- 3 steam trawlers and 3 oil engined vessels engaged in trawling throughout the year
- total quantity of fish brought in from fishing grounds off the Otago coast about 3,163 tons
- Return of fishing boats at each port during year ending 31 December 1915 (p 18):
- Oamaru – 34 registered and 34 licensed
- Dunedin and Port Chalmers – 94 registered and 94 licensed

### **1916**

Annual report on Otago fisheries by inspector of fisheries, W Adams, for year ended 31 March 1916, M 1 2/12/115 NAW.

- Much of this report is captured in the Marine Department annual report (see above) and is not repeated here.
- 3 steam trawlers and 3 smaller craft driven by oil – have been engaged in trawling on the local grounds; fleet increased in the winter months by several whale boats discarding line fishing and taking to the trawl.
- Red cod has been very plentiful; large numbers taken in trawls. On some occasions it has been necessary to cut the net before hoisting the trawl owing to the enormous numbers. Good hauls off Cape Saunders.
- Other fish taken – groper, ling, bream, kingfish, barracouta (caught in quantity by line men within a few miles of Otago Heads), moki, and tarakihi.
- Inside the Harbour, flounder, trevally, and mullet the principal fish caught.
- Oamaru and Moeraki – groper, blue cod, red cod, taken in fair numbers. Exceptionally large hauls of groper caught in January and February.
- Nuggets – good hauls of groper and kingfish from the end of October; supply of blue cod not good; barracouta and red cod off the coast in large numbers, but very few caught (owing to cartage freights).
- Pounaweia – good hauls of flounder and mullet.
- Tautuku – fishermen report no scarcity of fish; groper, kingfish, and barracouta plentiful; little fishing during the summer months owing to hot weather.
- 110 licensed fishing boats; 232 men engaged in fishing.
- Various kinds of fish caught: round fish – groper, kingfish, barracouta, ling, blue cod, red cod, moki, mullet, trevally, tarakihi, and a small quantity of trumpeter, garfish and bream. Also flat fish – soles, flounder, and brills.
- Have ascertained, with the help of the railway traffic manager, that the total weight of fish carried from the ports of Otago during the year is 2963 tons. Estimates that about 200 tons sold annually that is not conveyed by railway, giving a total weight of 3163 tons.
- 250 sacks of crayfish canned.

### **1916 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 February 1916, M 1 2/12/2 part 1, NAW.

- Details includes . . . Trawlers continue to take good hauls of soles & red-cod. Groper and ling fairly plentiful – good catches by the linemen within 3 miles of Otago Heads. Falling of in number of Kingfish being taken. Barracouta reported to be very plentiful, but little demand.

### **1916 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 April 1916, M 1 2/12/2 part 1, NAW.

- Trawlers taking good hauls of flat fish and small numbers of moki, tarakihi, and ling. Groper plentiful until the latter part of the month. Kingfish are now very plentiful and good catches were taken 'on the reef' NE of Otago Heads. Barracouta still being caught in large quantities close inshore.
- 'Both inside & outside the harbour the water is practically alive with red-cod, but on account of the poor demand, very few of these fish were taken.'
- Scarcity of blue cod throughout the month.
- Flounders, trevally, and mullet the chief fish taken by the seine boats.

### **1916 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 July 1916, M 1 2/12/2 part 1, NAW.

- 'Unsettled foggy weather has prevailed & the trawlers & linemen have not been able to go out regular to the grounds.'
- 'During the past two months enormous quantities of trevally were taken by the seine fishermen inside the harbour.'

- States that has distributed a census schedule to the owners of all licensed fishing boats – 98 returned, 10 to come. ‘Very little credence can be placed on the majority of the schedules, as the fishermen, with one or two exceptions, have not kept any records.’

### **1916 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 July 1916, M 1 2/12/2 part 1, NAW.

- Catch details include . . . ‘The weather has been fair throughout the month & has allowed the linemen to visit the offshore groper grounds regularly. Large numbers of groper were taken daily during the early part of the month, but the numbers have gradually decreased towards the end of the month – this is usual at this time of the year.’

- ‘The flat-fishes have been taken in varying quantities, over a wide area, in from 7 to 15 fathoms, but on the whole in much smaller numbers than at this season of last year’.

### **1916 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1916, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘During the fine spells the trawlers were taking good hauls of soles and flounders. On several occasions crayfish were also taken in large numbers in the trawls. It is estimated that at least seven tons of crayfish were landed at Port Chalmers on one occasion.’

- ‘Bream made their appearance early in the month, but only in small and irregular supply.’

### **1916 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 October 1916, M 1 2/12/2 part 1, NAW.

- Details include . . . Comments that weather not favourable and as a consequence line-men have not been able to keep the market well supplied. ‘During the more settled weather fish were fairly plentiful & good catches of groper, bream, & small numbers of ling & trumpeter were taken “on the reef” NE of Otago Heads.’

### **1916 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1916, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The supply of flatfish from the trawlers has been well maintained. There are at present four steam trawlers working the grounds. The smaller craft which were engaged in trawling have now taken to line-fishing. Groper have been very plentiful & large numbers are being caught on the North and South reefs.’

### **1917**

Marine Department annual report for 1916-1917, AJHR 1917 H-15

- Oamaru – catches have been above average. (p 13)

- Otago District – good fishing when weather favourable; good catches by both trawlers and line-men.

- some wastage from oversupply – 10 tons returned to sea and thrown overboard (unclear whether excess fish included in stats below)

- Moeraki, Nugget Bay, and Pounaweia – average season for all kinds of fish.

- Table of boats and persons employed for year ending 31 March 1917 – compiled from returns given in the District Inspectors’ reports (p 14)

Port	Steam Trawlers	Oil Engine Trawlers	Line and Net Fishing Vessels	Fishermen Employed
Oamaru			13	20
Dunedin and Port Chalmers	3	4	75	162

- Table of fish caught for year ending 31 March 1917 – compiled from returns given in the District Inspectors' reports (p 15)

Port	Kind of Fish Caught	Total Weight Cwt.
Oamaru	Groper, red cod, blue cod, moki, warehou, barracouta	6 860
Dunedin and Port Chalmers	Groper, trumpeter, mullet, garfish, bream, kingfish, ling, blue cod, red cod, barracouta, moki, terakihi, trevally	52 980

### 1917

Annual report for Oamaru for the year ended 31 March 1917 by Fisheries Inspector Foster, M 1 2/12/137 NAW.

- Excludes Moeraki, except to state that 21 licensed boats at Moeraki are on the Oamaru register.
- 13 boats in the local fishing fleet.
- Table of fish caught:

Kind of fish	Tons
Groper	64
Red Cod	119
Moki	50
Blue Cod	6
Barracouta	19
Warehou	80
Miscellaneous	5
Total	343

Fishery returns from 6 Moeraki fishermen sent to the Inspector of Fisheries, Oamaru, M 1 2/12/137 NAW.

- This doesn't represent all Moeraki fishermen. 21 boats at Moeraki. The men who provided the returns appear to have fished alone, except one who stated that he employed one man.
- Details of catch:

Fish (cwt)	Findlay	Victharson	Sproule	Steele	Todd	Burylson
Groper	80	60	100		159½	30
Red Cod	70		80			
Moki		30	30			5½
Blue Cod	115	50	120		5	36
Trevally				160		
Barracouta					20 doz	
Crayfish		100 sacks				50 sacks

Annual report for Otago by Fishery Inspector W Adams for the year ended 31 March 1917, M 1 2/12/137 NAW.

- Provides general details of the season – catch, weather, etc. Includes Moeraki, and locations south of Dunedin.
- Provides figures set out above in Marine Dept annual report. (3 steam trawlers; 4 oil engined vessels engaged in trawling throughout the year.

- Total catch 2649 tons; individual catch for each species not itemised. Notes that there is one canning factory, which canned 447 sacks of crayfish.

### **1917 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1917, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Blue-cod are reported to be fairly plentiful off Cape Saunders, but owing to the unsettled weather very few were taken by the fishermen.'

### **1917 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 March 1917, M 1 2/12/2 part 1, NAW.

- Details include . . . Unsettled weather. 'The weather has also interfered with the trawling, & on the few occasions that the trawls were able to get out, two cases of soles, per boats, was considered a good haul. Inside the harbour, seine-men were taking poor hauls of flounders & only fair numbers of school fish.'

### **1917 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 April 1917, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Some splendid hauls of blue-cod were caught off Cape Saunders, & were realizing up to 9/- per doz.'

### **1917 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1917, M 1 2/12/2 part 1, NAW.

- Details include . . . Weather conditions bad, boats have only averaged 2 days fishing each week. 'All fish have demanded a fair price and owing to the small catches taken the fishermen have decided on raising the limit of groper from 2 dozen to 3 dozen per boat.'

- Dunedin market on 24 May 1916: total of 80 cases of fish (20 cases of trevally from Oamaru, remainder caught locally). Local supply: small trevally (4 cases), red cod (5 cases), blue cod (9 cases), groper (16 cases), ling (4 cases), flounders (2 cases), coutre (2 cases), bream (4 cases), soles (7 cases), kingfish (4 cases), mixed fish (3 cases).

### **1917 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 1 October 1917, M 1 2/12/2 part 1, NAW.

- Details include: 'Fair catches have been taken from the North Reef during the intervals of calm weather, these bringing higher prices than usual. // At the beginning of the month one boat was fortunate enough to catch the limit (three dozen) of groper . . . whilst the remainder of boats out the same day caught practically nothing at all. // The steam trawlers are barely paying working expenses whilst most of the smaller craft are not going out at present on account of the high price of benzine and the scarcity of fish.'

### **1917 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1917, M 1 2/12/2 part 1, NAW.

- Outside fishermen have decided to change the limit for groper back to 2 dozen per day.

### **1917 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 November 1917, M 1 2/12/2 part 1, NAW.

- Market poor. 'Several of the boats are working single handed as the limit of fish has been reduced so much that two men can hardly make a living. . . . The steam trawlers have been bringing in large quantities of school fish which have demanded very low prices . . . . The small trawlers have been catching a fair quantity of flat fish . . . . There has not been any quantity of seine fish caught during the month'.

## 1918

### Marine Department annual report for 1917-1918, AJHR 1918 H-15

- Chief Inspector of Fisheries, in his report for year ending 31 March 1918, notes that the wartime conditions have seen a number of men give up fishing owing to high fuel prices, and short supply of nets, etc. (pp 6-7)
- Oamaru and Moeraki – notes that fish plentiful, but weather conditions limited the number of fishing days (p 8)
- Otago District – with the exception of the first four months, the last season very unsatisfactory for the fishermen – weather limited the number of fishing days
- for a considerable time fish were scarce on the trawling grounds
- seine fishermen have done fairly well
- Nugget Point fishermen have had a poor season and a number have given up and taken up other employment
- Table of boats and persons employed for year ending 31 March 1918 – compiled from returns given in the District Inspectors' reports (p 10)

Port	Steam Trawlers	Oil Engine Trawlers	Line and Net Fishing Vessels	Fishermen Employed
Oamaru and Moeraki			29	42
Dunedin and Port Chalmers	2	2	69	129

- Table of fish caught for year ending 31 March 1918 – compiled from returns given in the District Inspectors' reports (p 11)

Port	Kind of Fish Caught	Total Weight Cwt.
Oamaru	Groper, red cod, blue cod, moki, warehou, barracouta, ling	6 389
Moeraki	Groper, red cod, blue cod, moki, barracouta, ling crayfish	2 640 (345 sacks)
Dunedin and Port Chalmers	Groper, kingfish, ling, barracouta, blue cod, red cod, moki, trumpeter, bream, terakihi, trevalli, mullet, garfish, elephant fish, kahawai, flounder, sole, brill	37 200

## 1918

### Annual report for year ended 31 March 1918 for Oamaru and Meoraki by Inspector of Fisheries at Oamaru, H Foster, M 1 2/12/163 NAW.

- Generally fish have been plentiful during the year, but fishing handicapped by inconvenient transport, the price of benzine, and unfavourable weather and sea conditions.
- The number of red cod in local waters has declined during the last three years. While still fairly plentiful off Moeraki, Oamaru fishermen scarcely catch enough to provide bait. Suggests that this is because of a corresponding increase in the numbers of Warehou, owing to the Warehou eating the food or the sliminess of this fish.
- 9 launches comprise the Oamaru fleet; 2 smokehouses; employ a total of 17 men.
- The following table shows the catch of the local boats (excludes catch of visiting boats):



Kind	Cwts
Groper	2 681
Red Cod	78
Blue Cod	69
Moki	194
Warehou	3 185
Barracouta	156
Ling	8
Misc.	18
Total	6 389

- Moeraki possesses 20 boats and 2 smokehouses, employing 25 men.
- Fish caught by the Moeraki fleet:

Kind	Cwts
Groper	1 229
Red Cod	224
Blue Cod	971
Moki	24
Barracouta	145
Ling	25
Misc.	22
Total	2 640

Annual report on Otago fisheries for the year ending 31 March 1918 by Fisheries Inspector S Broadley, M 1 2/12/163 NAW.

- No further details provided from those that appear in the Marine Department annual report (see above).
- Copied, to get all details re fishing locations, etc.

### **1918 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1918, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The steam trawlers have been working well offshore and taking good catches of round fish principally ling and at times a number of kingfish. Very few flat fish have been taken for the month by any of the trawl boats. Seven to ten dozen has been an average catch for the oil boats. Fair catches of flounders have been taken inside the harbour by the seine fishermen.’

### **1918 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1918, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘At the beginning of the month the trawlers were taking very few fish but towards the latter part fish were more plentiful and the catches large. One oil boat caught 100 dozen soles in one day. Such a large catch as this by one boat has not occurred for some considerable time.’

### **1918 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1918, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘With the exception of ling all round fish are very scarce and the market has been poorly supplied. For the whole of the month only three dozen groper has been brought in . . . At the beginning of the month fair catches of flat fish were taken but towards the end all trawling boats found it difficult to work on account on account of large quantities of weed settling on the trawling area. A catch

of 30 dozen soles was taken by one oil boat . . . . The catches taken by the seine fishermen have not been extra large . . . . One seine boat was fortunate enough to get, in one tide, ten casks of trevally’.

### **1918 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1918, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘All trawling boats have been able to work more regular on account of the flatfish setting in to Blueskin Bay which is more sheltered and easier worked than other grounds.’

### **1918 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1918, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The steam trawlers on several occasions have taken fair catches of flatfish also a number of round fish. These fish have been taken from deep water about seven miles offshore. // The oil trawling boats having to work closer inshore have not been so successful as last month. // The seine fishermen have taken fair quantities of flounder and also a few school fish.’

### **1919**

Marine Department annual report for 1918-1919, AJHR 1919 H-15

- Oamaru – local Inspector states that there has been a noticeable decrease in practically all kinds of fish – partly due to the bad weather, but mainly due to the absence of fish on the usual fishing grounds. (p 11)  
Fishermen state that this season is the worst on record.

- Moeraki – quantity of fish taken about the same as last year.

- Otago District:

- rough weather interfered with fishing operations

- poor catches of flat fish by the trawlers on the usual grounds

- on account of the scarcity of flat fishes the trawlers worked off shore in about 20 fathoms, getting fair catches of tarakihi, moki, and other round fish

- seine net fishermen working in the harbour not affected by the weather; had a prosperous year

- all the outlying fishing ports were visited by the Inspector during the year and a scarcity of fish reported all round

– with the exception of the first four months, the last season very unsatisfactory for the fishermen – weather limited the number of fishing days

- for a considerable time fish were scarce on the trawling grounds

- seine fishermen have done fairly well

- Nugget Point fishermen have had a poor season and a number have given up and taken up other employment

- Table of boats and persons employed for year ending 31 March 1919 – compiled from returns given in the District Inspectors’ reports (p 10)

Port	Steam Trawlers	Oil Engine Trawlers	Line and Net Fishing Vessels	Fishermen Employed
Oamaru and Moeraki			29	41
Dunedin and Port Chalmers	2	4	60	111
Invercargill			13	15

- Table of fish caught for year ending 31 March 1918 – compiled from returns given in the District Inspectors’ reports (p 11)

Port	Kind of Fish Caught	Total Weight Cwt.
Oamaru	Groper, red cod, blue cod, moki, warehou, barracouta, ling	3 548
Moeraki	Groper, red cod, blue cod, moki, warehou, barracouta, ling	2 556
Dunedin and Port Chalmers	Groper, kingfish, ling, barracouta, blue cod, red cod, moki, trumpeter, bream, terakihi, trevally, herring, garfish, elephant fish, flounder, sole, brill	34 180
Invercargill	Blue cod, red cod, groper, flounder	645

## 1919

Annual report for year ended 31 March 1919 for Oamaru and Moeraki by Inspector of Fisheries at Oamaru, Richardson, M 1 2/12/182 NAW.

- This year shows a decrease in practically all kinds of fish – partly due to bad weather, partly due to absence of fish in these waters.
- Numbers of Red Cod have steadily declined; fishermen catch barely enough for bait.
- Fishermen state that this is the worst season on record; industry handicapped by high cost of benzine and gear, and slow transport to market at Christchurch.
- 9 launches comprise the Oamaru fleet; 2 smokehouses; employ a total of 15 men.
- The following table shows the catch of the local boats (excludes catch of visiting boats):

Kind	Cwts
Groper	1 957
Red Cod	53
Blue Cod	112
Moki	92
Warehou	590
Barracouta	719
Ling	12
Misc.	13
Total	3 548

- Moeraki possesses 20 boats and 2 smokehouses, employing 26 men.
- Fish caught by the Moeraki fleet:

Kind	Cwts
Groper	1 080
Blue Cod	1 258
Moki	25
Warehou	65
Barracouta	78
Ling	30
Misc.	20
Total	2 556

- Crayfish: 335 sacks caught at Moeraki.
- Fishermen state that high cost of benzine means they can't prospect for new grounds.

S Broadley, Otago Inspector of Fisheries, to Secretary, Marine Department, 13 May 1919, M 1 2/12/182 NAW.

- Estimates the total weight of fish caught for year ended 31 March 1919 to be about 1709 tons.

Annual report on Otago fisheries for the year ending 31 March 1919 by Fisheries Inspector S Broadley, M 1 2/12/182 NAW.

- No further details provided from those that appear in the Marine Department annual report (see above).
- Copied, to get all details re fishing locations, etc.

G.M. Thomson, Chairman of the Portobello Marine Fish Hatchery Board to Secretary, Marine Department, 23 May 1919, Marine Department annual report, AJHR 1919 H-15

- Notes appointment of new curator and assistant curator.
- Board has had a new launch built – “Karoro”, now fitted with trawl-nets, dredges, tow-nets, and other collecting apparatus.
- Details that during the spawning season of the flat fishes, July and August of each year, a considerable number of sole and brill eggs collected and hatched out. States that about three million larvae have been liberated each winter, but no attempt has been made to work out their development.
- Recalls that 128 European turbot released off Tautuku Bay in May 1916; 42 more released in same place in September 1917.
- No sign of young, released lobsters, but notes that Scottish expert has advised that young lobster and edible crabs are never found on the coast.

**1919 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1919, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Good catches of flounders have been taken inside the harbour by the seine boats, some taking as many as thirty dozen in one tide.’

**1919 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1919, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Four oil trawling boats from Timaru are at present fishing out of Port Chalmers, the reason for this being a great scarcity of fish in Timaru.’

**1919 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1919, M 1 2/12/2 part 1, NAW.

- Notes: seven groper per case, about 10 dozen flatfish per case.

**1919 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1919, M 1 2/12/2 part 1, NAW.

- Details include . . . Usually a poor month for line men, weather has made it worse than usual. ‘On more than one occasion several of the boats have returned from a distance of 18 miles with from one to six ling for the days catch. . . . As another instance of the uncertainty of fishing one boat came in with three dozen groper for the day’s catch’.
- Fair quantities of crayfish from Puketeraki.

**1919**

Petition by The Otago Fisherman’s Society Limited, October 1919, to the Minister of Marine, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.

- ‘We the undersigned members of the above Society, petition you to introduce a three mile limit from point to point Moeraki to Cape Saunders, similar to that appertaining to the British Isles, Auckland and other ports of the Dominion. // Prior to the trawlers commencing operations, flat fish (flounders and soles) used to go outside the heads into deeper water to spawn, and return again unmolested to the

harbours, where Seine fishermen caught them in large quantities. The same applies to groper, kingfish, cod, ling and so on which came close in shore and were easily caught in plenty. Since the trawlers started without a limit, the flat fish which usually go outside the heads into the bays to spawn are caught, while full of spawn, and as time has elapsed the want of a limit has caused the fish to grow scarcer and still scarcer, which will continue until the precautions that were take[n] in the British Isles to preserve the fish close in shore is manifested. // The trawls of the trawlers, which are dragged for hours also kill millions of small fish and spawn, and drive groper, kingfish etc. miles off into deeper water, which prior to trawling let it again be mentioned were caught close in shore.'

## **S14: Archival Data/Observations for Otago Study Area – 1920s**

### **1920**

Annual report for Oamaru (incl Moeraki) for year ending 31 March 1920 by Inspector of Fisheries Richardson, M 1 2/12/207 NAW.

- This year shows an increase in quantity of all fish except Warehou and Barracouta, the figures for which show a marked decrease. Fishermen state that they catch barely enough of the latter for bait. After steadily declining over a number of years, rock cod [blue cod] appears to be on the increase, but are still scarce.
- Industry is handicapped by the high cost of benzine and gear, together with slow and costly transport to the chief market – Christchurch.
- Fishermen emphasise the necessity of a cooler at Moeraki.
- 9 boats in the Oamaru fleet, employing 13 men.
- 2 fish curing houses, but little used owing to the scarcity of fish.
- The following table shows the catch of the local boats (excludes catch of visiting boats):

<b>Kind</b>	<b>Cwts</b>
Groper	2 690
Red Cod	157
Blue Cod	175
Moki	144
Warehou	16
Barracouta	71
Ling	4
Misc.	17
Total	3 274

- Moeraki possesses 25 boats, employing 34 men.
- 1 fish curing house at Moeraki, but owing to scarcity of fish no curing done this year.
- Fish caught by the Moeraki fleet:

<b>Kind</b>	<b>Cwts</b>
Groper	1 482
Red Cod	52
Blue Cod	1 256
Moki	125
Warehou	36
Barracouta	74
Ling	38
Misc.	32
Total	

- Crayfish: 248 sacks caught at Moeraki.

Annual report for Otago for year ending 31 March 1920 by Inspector of Fisheries S Broadley, M 1 2/12/207 NAW.

- Line fishermen: irregular catches for first four months owing to weather; when conditions improved the market was oversupplied and the fishermen worked less (partly on account of the high cost of benzine). A cool store would have enabled them to keep the fish over until a scarcity took place.
- Weather conditions interfered with the steam trawlers, but toward the latter part of the year some very large catches were taken by the steam trawlers working offshore, including large hauls of red cod. Oil boats have also had some fair catches of flat fish.
- Seine fishermen not being so much affected by the weather have had a fairly prosperous year; flounders fairly numerous and on account of scarcity of other fish prices high.
- All outlying districts visited:
- Nugget Bay – several fair catches of groper, majority of these fish sent to southern markets; several boats idle during the war now being worked by returned soldiers
- Pounaweia – small catches of flounders being taken
- Puheteraki - fishermen have sent a fair supply of crayfish to Dunedin market and canning factory
- Moeraki – fishermen report a poor season
- 74 boats engaged in fishing.
- 2 steam trawlers and 7 oil engined boats engaged in trawling.
- 149 men directly engaged in fishing.
- Various kinds of fish caught: groper, kingfish, ling, barracouta, blue cod, red cod, moki, trumpeter, bream, tarakihi, trevalli, mullet, crayfish, elephant fish, kahawai, gurnard, red perch, soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2049 tons.

### **1920 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 March 1920, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Large numbers of both round and flat fish have been taken by the steam trawlers. For one day’s catch one of these boats brought in 70 cases of red cod . . . The oil trawling boats have had a very successful month also, and have taken some large hauls of flatfish.’

### **1920 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1920, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Some good hauls taken by the line fishermen principally red cod, groper, kingfish, ling, and barracouta. . . One man working alone secured 20 dozen barracouta in one day’.

### **1920 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1920, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Red cod have again made their appearance off Cape Saunders from which place they have been absent for about four years. Several boats working off the North Reef in about 80 fathoms have secured good hauls of groper. . . During the month a few cases of blue cod taken . . . // The steam trawlers working offshore in about 20 fathoms have had some large hauls of soles, flounders, and school fish. The oil trawlers have taken fair numbers of flat fish . . . // There has been a falling off in the catches of trevalli taken by the seine fishermen, but there is a slight improvement in the catches of flounders.’

### **1920 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1920, M 1 2/12/2 part 1, NAW.

- Details include . . . Unsettled weather. A few bream taken from the North Reef. Steady supply of flatfish (but few round fish) taken by the trawling fleet, which have mostly worked from 3 to 8 miles offshore. Great scarcity of seine fish.

### **1920 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1920, M 1 2/12/2 part 1, NAW.

- Details include . . . Small quantities of crayfish from Puketeraki. Bags of 10 dozen mentioned.

### **1920 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1920, M 1 2/12/2 part 1, NAW.

- Details include . . . 'There has been a marked improvement in seine fishing from last month. Large hauls of both schoolfish and flounders were sent in.'

### **1920**

L.F. Ayson, Chief Inspector of Fisheries, to Secretary, Marine Department, 23 March 1920, M 1 2/12/191 part 1, Otago Trawling, NAW.

- 'I think Mr Broadley's report for February gives further proof that trawling is not affecting the small boat fishermen at Port Chalmers. // These trawlers have been working these grounds for about 20 years and fish seem to be taken in as large quantities now as they were 15 and 20 years ago. According to Mr Broadley's report fish are so plentiful at the present time that "the line men have made a rule that only four boats are to go out each Friday as the Dunedin market will not carry the present quantity of fish taken.'

S. Broadley to Secretary, Marine Department, 30 September 1920, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Advises that complaints have been made by seine fishermen regarding trawlers operating in Otago Harbour. States that trawling in the Harbour had been tried 'by one or two men who do not care to venture outside to the trawling grounds'.
- Claims that if the trawling is allowed to continue it will effect the livelihood of the seine fishermen and may be dangerous to fishing.
- Suggests that a regulation be made to prevent trawling within Otago Harbour.

Extract from *NZ Gazette*, 17 February 1921, M 1 2/12/191 part 1, Otago Trawling, NAW.

- regulation prohibiting trawling in Otago Harbour inside a line drawn from Taiaroa Head Lighthouse to Hayward Point

### **1921**

Annual report for Oamaru (incl Moeraki) for year ending 31 March 1921 by Collector of Customs, M 1 2/12/224 NAW.

- This year shows an increase in the total quantity of fish – most noticeably red cod, which has increased by 2069 cwts; balanced somewhat by a decrease in groper to 1962 tons.
- As stated in earlier reports, the industry is hampered by slow and costly transport to Christchurch.
- 9 boats in the Oamaru fleet, employing 18 men.
- 2 fish curing houses, only one used.
- The following table shows the catch of the local boats (excludes catch of visiting boats):

Kind	Cwts
Groper	1 217
Red Cod	1 678
Blue Cod	121
Moki	174
Barracouta	121
Ling	37
Misc.	19
Total	3 367

- Moeraki fleet 24 boats, employing 36 men.
- 1 fish curing house at Moeraki, not used during past year.
- Fish caught by the Moeraki fleet:

Kind	Cwts
Groper	1 093
Red Cod	1 140
Blue Cod	969
Moki	166
Barracouta	114
Ling	46
Misc.	32
Total	3 560

Annual report for Otago for year ending 31 March 1921 by Inspector of Fisheries S Broadley, M 1 2/12/224 NAW.

- Satisfactory year for the majority of line fishermen, weather favourable. Several fishermen have purchased more up to date boats, which have enabled them to put to sea under conditions previously unworkable.
- brought in some good catches of kingfish caught during the night
- red cod have appeared again in large shoals
- Two steam trawlers and seven oil trawling boats constantly working. Good catches of flatfish; frequently large catches of round fish as well.
- On account of large supplies of flatfish there has been no demand for flounders and school fish. Seine fishermen have therefore found other employment and do not intend to take up fishing until there has been a slackening off of trawl fish.
- Outlying districts:
  - Nugget Bay – good catches of groper occasionally caught
  - Pounaweia – few fish taken sold locally
  - Tautuku – some fine boats, fishermen mostly inexperienced, but take large quantities of groper and blue cod; proves that fish plentiful and that this may become a popular fishing ground; transport difficulties
  - Puketeraki – large quantities of crayfish and a few groper and blue cod
  - Moeraki – medium catches of groper, red cod, and blue cod
- 86 boats licensed and engaged in fishing.
- 2 steam trawlers; 7 oil engined boats engaged in trawling.
- 146 men directly engaged in fishing.
- Various kinds of fish caught: groper, kingfish, ling, moki, barracouta, blue cod, red cod, trumpeter, bream, tarakihi, trevally, mullet, garfish, elephant, kahawai, gurnard, and red perch, soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2261 tons.
- 1 canning factory and 14 curing sheds in the district.



## 1921 April

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1921, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Both steam trawlers are still bringing in large hauls of flat fish, kingfish, and red cod . . . . The oil trawling boats working closer in shore are also taking large hauls of flatfish and red cod.’

## 1921 July

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1921, M 1 2/12/2 part 1, NAW.

- Details include . . . Weather conditions favourable. Fair quantities of groopers were taken from the North Reef, which fish at present are heavy in spawn. ‘Several of the fishermen report having no recollection of the fish ever having been so plentiful in this month of the year.’  
- The boats working closer inshore brought in large supplies of red cod and barracouta. Trawlers taking less fish than previous months. Seine fishermen have taken only fair catches of flounders.

## 1922

Annual report for Oamaru (incl Moeraki) for year ending 31 March 1922 by Collector of Customs, M 1 2/12/245 NAW.

- Past year shows a decrease in the quantity of fish landed at Oamaru and Moeraki.  
- At Oamaru groper fairly plentiful during the summer months, falling away during winter. During winter months deep sea fishing, 20 miles or so off the coast, is relied upon, but last winter was a complete failure.  
- High cost of benzine has militated against any prospecting for new grounds.  
- Comments on fish:  
- red cod fairly plentiful, but small  
- blue cod is said to be becoming more rare, catches mostly small  
- moki, no market  
- barracouta and crayfish not plentiful  
- warehou (exceedingly plentiful a few years ago) have now completely disappeared  
- Moeraki returns disappointing, though aggregate of the returns show a comparatively even catch with other years.  
- Oamaru: 9 boats, with 16 men.  
- Moeraki: 26 boats, with 30 men.  
- The following tables show approximate quantities of the fish landed. ‘Owing to the impossibility of obtaining returns from some of the fishermen, the totals have had to be more or less assessed from the returns actually received.’  
- Oamaru catch:

Kind	Cwts
Groper	1 071
Red Cod	1 125
Blue Cod	286
Moki	106
Barracouta	159
Ling	38
Crayfish	40
Total	2 825

- Moeraki catch:

Kind	Cwts
Groper	1 200
Red Cod	1 100
Blue Cod	860
Moki	80
Barracouta	53
Ling	80
Crayfish	200
Total	3 573

Annual report for Otago for year ending 31 March 1922 by Inspector of Fisheries S Broadley, M 1 2/12/245 NAW.

- Unsettled weather for whole of the year saw the line fishermen average about 3 working days per week. Make a point of catching groper and kingfish as far as possible all year round, believe that they fetch higher prices than say, red cod, ling, and barracouta, which are at times unsaleable. Large quantities of barracouta have frequented the fishing grounds during the year, but fishermen have not troubled to take any quantity.
- The trawling boats have taken large catches of flat and round fish for practically the whole of the year.
- Seine catches have varied; some large hauls of trevally.
- Outlying districts:
  - Nugget Bay – forward catches to southern markets
  - Pounaweia – few fish taken sold locally
  - Tautuku – majority of fishing boats have moved to Waikawa owing to anxiety of landing catches; intend to work same ground as previously; usually bring in fair hauls of groper and blue cod, which are railed to Invercargill
  - Puketeraki – continue to supply Dunedin market with crayfish
- 74 boats licensed and engaged in fishing.
- 3 steam trawlers; 7 oil engined boats engaged in trawling.
- 157 men directly engaged in fishing.
- Various kinds of fish caught: groper, kingfish, ling, moki, barracouta, blue cod, red cod, trumpeter, bream, tarakihi, trevally, mullet, garfish, elephant, kahawai, gurnard, and red perch, soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2592 tons.
- 1 canning factory and 17 curing sheds in the district.

## 1922

Chairman of the Portobello Marine Fish Hatchery Board to Secretary, Marine Department, 31 March 1922, Marine Department annual report, AJHR 1922 H-15

- Notes that Station officially opened in January 1904 – history and research work published at a bulletin by the Board of Science and Art in October 1921.
- Primary function of the Hatchery was intended to be the introduction of the best kinds of foreign fishes and marine animals. This work has become impossible owing to the high cost of trade resulting from war.
- Work on release of lobster larvae continues – estimates about 30,000 released from hatchery. Only a few of the imported adult lobsters remain alive in the tanks – three males and two females.

## 1922 June

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1922, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The line fishermen have brought in large quantities of groper, barracouta, ling and red cod most of which have been taken from 10 to 18 miles off the heads. . . . The trawlers working well

offshore have brought in smaller catches than for some time past . . . . Owing to fine weather large quantities of flounders were taken by the seine boats one boat having taken 40 dozen in one tide’.

## 1922 September

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1922, M 1 2/12/2 part 1, NAW.

- ‘At the end of the month a whale made its appearance inside the Otago Harbour and came ashore about two miles inside the Heads. . . . A small hair seal also came ashore and died at Lower Portobello.’

## 1923

Annual report for Oamaru (incl Moeraki) for year ending 31 March 1923 by Collector of Customs, M 1 2/12/269 NAW.

- Past year shows a marked decrease in the quantity of fish landed at Oamaru, and a slight decrease at Moeraki.
- At Oamaru groper fairly plentiful, but all other kinds of fish showed a decrease, particularly red cod.
- At Moeraki groper not so plentiful as it was last season, red cod also a falling off, whereas blue cod an increase, ling and crayfish also plentiful.
- ‘Some of the fishermen strongly recommend a close season for groper from the end of June to October. They state that during these months the fish go out to spawn and by catching them during this time millions of fish are lost annually, and in a few years groper will be exceedingly scarce. // Others again hold that when the groper go to spawn they remove themselves so far from the coast that the fishing boats seldom get near them.’
- Oamaru: 8 boats, with 11 men.
- Moeraki: 28 boats, with 34 men.
- Oamaru catch:

Kind	Cwts
Groper	1 921
Red Cod	270
Blue Cod	82
Moki	56
Barracouta	39
Ling	27
Total	1 495

- Moeraki catch:

Kind	Cwts
Groper	1 141
Red Cod	448
Blue Cod	1 192
Moki	46
Barracouta	14
Ling	148
Crayfish	413
Total	3 402

Annual report for Otago for year ending 31 March 1923 by Inspector of Fisheries S Broadley, M 1 2/12/269 NAW.

- Fair catches of all round fish by the line fishermen for the greater part of the year. High prices for groper and kingfish; on several occasions ling, barracouta and red cod taken too, latter in large quantities.

- Trawling fleet have taken large amounts of flat and round fish, though trawl fish became scarce towards the end of the year and for about 2 months exceptionally poor catches taken; owners of steam trawlers stated they were losing money.
- Seine fishermen have taken fair catches of flounder and on some occasions large quantities of trevally.
- Outlying districts:
  - Moeraki and Puketeraki – report a decided scarcity of crayfish
  - Tautuku – no boats fishing
  - 87 boats licensed and engaged in fishing.
  - 4 steam trawlers; 11 oil engined boats engaged in trawling.
  - 171 men directly engaged in fishing.
- Various kinds of fish caught: groper, kingfish, ling, moki, barracouta, blue cod, red cod, trumpeter, bream, tarakihi, trevally, mullet, garfish, elephant, kahawai, gurnard, and red perch, soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2462 tons.
- 1 canning factory and 19 curing sheds in the district.

Fishing Industry at Port Chalmers, return for the year ending 31 March 1923, provided by Otago Fishermen's Society, M 1 2/12/269 NAW.

- Details that 100 boats on the Customs register; 51 boats at Port Chalmers; balance at Puketeraki and the Nuggets.
- 51 boats comprise 28 line boats, 12 trawlers, 11 seine fishing boats.
- Several of the line boats are convertible into oil launches and the majority own trawls, but as they catch groper and other large fish for the greater part of the year they are classed as line boats.
- Of the 12 trawlers: 4 steam trawlers (2 large, 1 medium, 1 small); 7 motor oil launches; 1 crude oil launch.
- Number of men fishing: 117:
  - 2 in each of the 28 line boats
  - 12 in the 2 large steam trawlers
  - 3 in the medium steam trawler
  - 3 in the small steam trawler
  - 2 in each of the 7 motor trawlers
  - 2 in the 1 crude oil boat
  - 27 in the 11 seine boats (2 or 3 in each)
- Total weight of fish caught approximately 130 tons – does not include the weight and value of fish caught by the three privately owned company's steam trawlers whose private registered offices are in Dunedin.

## **1923**

G.M. Thomson, Chairman of the Portobello Marine Fish Hatchery Board to Secretary, Marine Department, 5 May 1923, Marine Department annual report, AJHR 1923 H-15

- Quotes from report of the curator, W. Adams:
- Notes that owing to poor weather, it has not been possible to spend as much time trawling and line fishing off Otago Heads. This fishing was presumably carried out for experimental purposes. Notes that whale-feed was 'exceptionally plentiful' throughout the summer months.
- Have received reports of large Turbot been taken and sold in shops from many quarters. Unfortunately, it was not possible to obtain specimens – probably large flounder.

## **1923**

### **Crayfish**

NZ Times, 27 July 1923, clipping in M 1 2/4/1 part 1

- Minister of Marine reported to tell House of Representatives that there was an unlimited demand for tinned crayfish in England and America. Stated that a Nova Scotia company had asked the government to

give it a monopoly of tinning crayfish in NZ, but the government had refused. A successful local company was already in operation in Thames.

### **1923 Crayfish**

L.F. Ayson (Chief Inspector of Fisheries) to Secretary, Marine Department, 6 September 1923, M 1 2/4/1 part 1

- 'It is well known that there is a large demand in England, France and other countries for canned crayfish. The reason for this is the depletion of the lobster grounds on the Canadian and American coasts . . . // New Zealand has extensive crayfish grounds away from the centres of population which have practically never been fished, and which will not be required for supplying crayfish to the cities for a great many years . . . ' Recommends leasing areas of the coastline.

### **1923 Crayfish**

Johnson, (2004), p 141.

Crayfish made subject to the provisions of the Fisheries Act 1908 in November 1923. The Act already controlled fishing for wetfish and oysters. [Sections 21 and 22 – relating to the granting of exclusive licenses.]

### **1924**

Annual report for Oamaru for year ending 31 March 1924 by Collector of Customs, M 1 2/12/298 NAW.

- Local fishery has had a varied experience during the past 12 months:
- first part of the year exceptionally poor; fish of all kinds scarce and weather conditions unfavourable
- latter part of the year improved; last three months successful
- During the whole period there has been an abnormal scarcity of all kinds of fish, except for groper – to catch this boats have to run some 20 miles or more from the coast. Catches of red and blue cod poor; other fish landed in small numbers.
- 37 boats (45 men) on the Oamaru Register: 9 of these fish from Oamaru, the remainder from Moeraki.
- Not possible to obtain reliable reports and figures from the men at Moeraki; report therefore only covers Oamaru.
- Oamaru catch:

Kind	Cwts
Groper	1 375
Red Cod	124
Blue Cod	50
Moki	69
Barracouta	30
Ling	10
Total	1 560

Annual return for Otago for year ending 31 March 1924 by Inspector of Fisheries S Broadley, M 1 2/12/298 NAW.

- 86 boats engaged in fishing.
- 3 steam trawlers; 8 oil engined boats engaged in trawling.
- 175 men directly engaged in fishing.
- Various kinds of fish caught: groper, kingfish, ling, barracouta, blue cod, red cod, moki, trumpeter, bream, tarakihi, trevally, mullet, garfish, elephant, kahawai, gurnard, and red perch, soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2295 tons.
- 1 canning factory and 18 curing sheds in the district.

Annual report for Otago for year ending 31 March 1924 by Inspector of Fisheries S Broadley, M 1 2/12/298 NAW.

- Comments on catch of different species (relating to line fishermen?):
- groper and ling scarce for the greater part of the year
- fair quantities of kingfish taken at night during the months of November and December
- fair numbers of red cod taken throughout the year
- barracouta have frequented the Otago coast in large numbers during the season, but there was no demand, so no large catches brought in
- Trawling fleet 'experienced a very bad year with the exception of two or three months. Occasionally the round fish brought in realised bad prices. The flatfish, being scarce, averaged very high prices.
- Seine boats working inside the Harbour have taken fair catches of flounders and trevally.
- Outlying districts:
- fishermen reported very poor catches in the first part of the year, though fishing improved considerably towards the end
- Puketeraki – large catches of crayfish
- Tautuku – several fishermen making a start again
- Owaka – good catches of flounder and mullet reported; mostly sold locally

## **1924**

G.M. Thomson, Chairman of the Portobello Marine Fish Hatchery Board to Secretary, Marine Department, 16 April 1924, Marine Department annual report, AJHR 1924 H-15

- Reports on work undertaken to establish better understanding of native Clupeids (members of the herring family) – trawling with a herring net on the coast from Papanui Inlet to Blueskin Bay. Dredging was also carried on at a depth of 60 fathoms, about nine miles east of Otago Heads. Results disappointing – did not encounter the fish in any numbers a safe enough distance from shore to allow for trawling. Noted that sprats were reported in vast numbers off The Nuggets, during latter part of January, but only small shoals have been seen off Cape Saunders, where they usually make their first appearance in these waters. Surface trawling may be the best means of catching these fish.
- Whale-feed has again been plentiful – stomachs of barracouta, groper, kingfish, ling, and cod found to contain little but Whale-feed.
- Notes that number of ova hatched out from flat fish was smaller than usual.

## **1924 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1924, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Fair quantities of groper and red cod were brought in by the line boats, groper mostly being taken in deep water about sixteen miles from Otago Heads. . . . There has been a slight improvement in the catches of flatfish taken by the trawling fleet . . . . The trawlers also brought in fair quantities of red cod. // The seine fishermen have taken fair catches of flounders throughout the month. One of these boats working the outside beaches was very successful . . . . The Puketeraki fishermen are sending large consignments of crayfish into Dunedin.'

## **1924 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1924, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Large catches of blue cod were taken [by the line fishermen] during the first two weeks . . . being caught mostly from Cape Saunders, close inshore.'

## **1924 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 September 1924, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘At the beginning of the month the Dunedin Market was well supplied with groper and red cod; also fair quantities of other fish. Towards the middle the weather became bad and the line boats could not get out . . . // For the greater part of the month the trawling boats have brought in very poor catches of flatfish, but on a few occasions fair catches of round fish were taken. One steam trawler had the good fortune to catch five dozen kingfish, and these were readily sold. // The seine fishermen have taken good hauls of flounders, and at times large catches of red cod . . . .’
- Peketeraki men sent in good supplies of groper and blue cod; unfortunately lost all their cray-fishing gear in very rough weather – cost of the material is high and a great deal of labour is incurred in making new pots.
- Tautuku fishermen are taking large catches of groper when able to go out; one of these fishermen reported that ‘a great quantity of sprats have been washed up on the beach, and also that there is a scarcity of flounders in the river.’

### **1924 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1924, M 1 2/12/2 part 1, NAW.

- Details include . . . Comments that demand for fish slackens in warmer weather. Notes that one steam trawler owners has decided to lay up his boat until conditions improve.

### **1924 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1924, M 1 2/12/2 part 1, NAW.

- Details include . . . Owing to poor catches of flatfish, the largest of the steam trawlers is laid up indefinitely. Seine boats report flounders to be very scarce for this time of the year, but on several occasions have taken large hauls of flounders.
- Towards the end of the month large quantities of barracouta were noticed outside the Heads.

### **1925**

Marine Department annual report for 1925-1926, AJHR 1926, H-15, p 14.

- ‘It has hitherto been the practice to incorporate a long and detailed report by the Chief Inspector of Fisheries. The report is not yet available, but it is doubtful if much of the matter it has usually contained serves any real valuable purpose, in that it is based upon reports and information from outside people who have no responsibility and may often unconsciously mislead. // It is proposed to institute as soon as possible a system of simple returns which will provide data of greater reliability and value as to the quantities of fish caught and their species. The information supplied will be regarded as strictly confidential to the Department, and will in course of time enable the collation of reliable data, and from this and investigation in various localities valuable results may be expected to accrue. There is reason to believe, from the opinions expressed by fishermen who have been consulted, that the fishermen, in the assurance that their returns will be regarded as confidential, will readily assist.’

### **1925**

Annual report for Oamaru and Moeraki for year ending 31 March 1925 by Collector of Customs, M 1 2/12/330 NAW.

- Uneventful year; extremely poor returns in winter, improving in summer.
- As usual, groper the mainstay of the fleet, but must be sought 20 miles off the coast in fine weather.
- 36 boats (employing 40 men) on the Oamaru register. 10 of these boats fish from Oamaru, remainder from Moeraki.
- Difficult to obtain returns from Moeraki.
- Approximate catch at Oamaru:

Kind	Cwts
Groper	1 260
Red Cod	200
Blue Cod	74
Moki	73
Barracouta	35
Ling	20
Total	1 662

- Approximate catch at Moeraki:

Kind	Cwts
Groper	1 800
Red Cod	385
Blue Cod	1 965
Moki	40
Barracouta	12
Ling	87
Crayfish	315
Total	4 602

Annual return for Port Chalmers for year ending 31 March 1925 by Inspector of Fisheries J.M. McRae, M 1 2/12/330 NAW.

- 55 boats licensed and engaged in fishing.
- 13 trawlers.
- 33 boats engaged in Danish seining. (?)
- 122 men engaged in fishing.
- Kinds of fish caught: soles, lemonfish, brill, kingfish, barracouta, flounders, groper, blue cod, red cod, rock cod, wamimo(?), trevally, silverfish, elephant fish, mullet, garfish, mackerel, crayfish, greenbone.
- Total weight of catch: 744 tons.
- 1 fish curing establishment.

Annual return for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.

- 90 boats engaged in fishing.
- 4 steam trawlers; 9 oil engined boats engaged in trawling.
- No boats engaged in Danish seining.
- 180 men directly engaged in fishing.
- Various kinds of fish caught: groper, kingfish, ling, blue cod, red cod, barracouta, moki, trumpeter, bream, tarakihi, trevally, mullet, garfish, elephant, kahawai, gurnard, and red perch, soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2131 tons.
- 1 canning factory and 18 curing sheds in the district.

Annual report for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.

- Fish have become more scarce throughout the year, prices rising accordingly.
- Groper and kingfish taken by the line fishermen. Large quantities of red cod and barracouta frequented the Otago waters, but not caught because lack of demand.
- Trawling fleet have taken only very poor catches of all kinds of fish for practically the whole year. One large steam trawler withdrawn. Another going as far as the Nuggets, but not profitable owing to the time getting there and back.



- Seine fishermen have secured fair catches of flounder and trevally.
- Outlying districts:
  - Puketeraki – fair catches of groper and blue cod sent from Puketeraki; also a good season with crayfish
  - Moeraki – fair season with blue cod and groper
  - Oamaru – medium season for all kinds of fish
  - Nuggets – good catches of groper and trawl fish
  - Tautuku – majority of fishermen have moved to Waikawa
  - Pounawea – good catches of flounder, mostly sold locally

## **1925**

G.M. Thomson, Chairman of the Portobello Marine Fish-Hatchery Biological Station Board to Minister of Marine, 2 June 1925, Marine Department annual report, AJHR 1925 H-15

- Advises that attempts to introduce European turbot, lobsters, and crabs are now concluded, but hopes the Government will renew efforts when conditions are more favourable.
- Attempts to locate the shoals of Clupeids (pilchards and sprats) have not been very successful so far. Small shoals have been seen among the rocks of Cape Saunders, and a times reported to be plentiful at the Nuggets and at Moeraki.
- Weather during the winter months has been very unsettled – flat fish more scarce than for some years past. During the spawning season, the flat-fish were only being caught in small numbers on the grounds four miles north and north-east of Otago Heads. The grounds closer inshore were foul with loose weed throughout the greater part of the winter, and as a result were almost bare of flounder and sole. Towards the end of July, the flat fish began working closer in shore, but further bad weather drove them into deeper water and from then on were on the move. First ripe soles caught on 25 July, all being male; not until 11 August that any ripe females were caught. A week later the majority of soles taken in the trawl were spent, a small number retaining only a few eggs. All were in poor condition. Brill exceptionally scarce – none caught during the spawning season.

## **1925 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1925, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The line fishermen have brought in moderate catches of groper and kingfish during the month, whilst red cod, ling and barracouta have been fairly plentiful.’ Price low – on one occasion secretary of the Fishermen’s Union issued instructions for fishermen to cease working in the middle of the week.
- ‘At the present time barracouta are to be seen in large quantities outside Otago Heads.’
- Trawling boats continuing to take poor catches of flatfish. Seine boats record good catches of flounders and trevally.

## **1925 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1925, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The trawling fleet continue to take poor catches of flatfish. On of these boats however has been going as far as the Nuggets, where good catches of flatfish have been taken. As it takes about three days to work this place (10 hours being the time taken to steam to the grounds from Port Chalmers), it is necessary for the fish to be put down in ice. It must easily be seen that to make this venture a profitable one, large catches of fish must be obtained
- Puketeraki fishermen have forwarded good supplies of groper, also a few blue cod.

## **1925 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1925, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The trawling boats continue to take very poor catches of all kinds of fish. Several of these have been compelled to cease fishing, as expense could not be met. A number of these boats I believe, are for sale.’
- Puketerake fishermen sent in a few bags of crayfish.
- ‘A few boats hooking in the Harbour secured good catches of small red cod on different occasions, and these they received good prices for.’

### **1925 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 August 1925, M 1 2/12/2 part 1, NAW.

- Details include . . . Weather unfavourable for the line men; averaged about three days fishing per week. When able to get well off land, these fishermen have secured fair catches of groper. Red cod and groper very scarce outside Harbour for this time of the year.
- Slight improvement in the flatfish taken by the trawling boats.
- Seine boats have taken fair catches of flounder and trevally.
- Large quantities of crayfish have been sent in from Puketeraki.
- Several boats from Timaru at present trawling out of Port Chalmers.

### **1925 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1925, M 1 2/12/2 part 1, NAW.

- Details include . . . Fishing much restricted by weather.

### **1925 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1925, M 1 2/12/2 part 1, NAW.

- Details include . . . Weather conditions improved, line fishermen working more regularly off shore, taking moderate catches of groper, a few red cod.
- Trawling boats working off Otago Heads have experienced a decided scarcity of all fish; some of the larger trawlers going as far as the Nuggets, where they are securing very large catches of sole and flounders.

### **1925 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1925, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘One steam trawler working off Otago has taken large catches of terakhi and cod.’

### **1926**

G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, 5 May 1926, Marine Department annual report, AJHR 1926 H-15

- Investigations into the occurrence and distribution of sprats and pilchards along the coast have not proceeded satisfactorily – have not been in any numbers to observe. Mr Adams, the curator, considers that during June these fish were no doubt plentiful on the bottom off Cape Saunders (too deep for nets) as larger fish caught were found to contain large quantities of sprats. In July, none of the larger fish caught in the same location contained sprats or pilchards, the stomach contents being large amounts of whalefeed (*Munida subrugosa*).
- During October, sprats were recorded to be in large shoals north of Moeraki, and small numbers seen of the surface at Sandfly Bay. Have been reported as abundant pretty much the whole year around at The Nuggets. Reports usually received are too vague – can only be taken as an indication of the general occurrence of sprats. Occurrence of these elupeids on the coast over the last three years has been erratic. In the past, they have been recorded as present in enormous quantities, but in last three years have been

conspicuous for their absence. Similar to what occurs in Australian waters – would be difficult to establish an industry in such circumstances.

- Mr Adams, the curator, reports that there has been an exceptional scarcity of flat fish on the local grounds. All the trawlers able to have been travelling as far south as The Nuggets, where large hauls of sole have been made over the last seven years. Only two small trawlers have worked the local grounds – there catches have been the poorest on record. During October, flat fish were more plentiful than in any other time of the year. Fair numbers were taken in the shallow water of Blueskin Bay, but in the deeper water some three miles north-east and east of Otago Heads the grounds were found to be almost bare of fish. A greater variety of fish is usually caught on these grounds than on the grounds well off shore.

## 1926

### Annual report for Oamaru and Moeraki for year ending 31 March 1926 by Collector of Customs, M 1 2/12/356 NAW.

- Year at Oamaru unprofitable for the fishermen during the past 12 months; at Moeraki the fishermen report more favourably on their catches.
- 36 boats employing 45 men on the Oamaru register – 9 (15 men) at Oamaru; 27 (30 men) at Moeraki.
- 2 smokehouses at Oamaru; 2 smokehouses and a cooler at Moeraki.
- Oamaru boats rely on groper for their main catch – plentiful for the first two months, then patchy, during the winter barely enough petrol consumed in seeking new grounds. Red cod and blue cod scarce. Moki plentiful during the summer months, though small – a market recently obtained in Wellington.
- At Moeraki, blue cod and groper proved the mainstay of the Moeraki boats, fairly plentiful. Red cod, barracouta, ling, and crayfish caught in fair quantities throughout the summer months.
- Oamaru catch:

Kind	Cwts
Groper	1 454
Red Cod	300
Blue Cod	189
Moki	123
Barracouta	82
Ling	26
Total	2 174

- Approximate catch at Moeraki:

Kind	Cwts
Groper	1 504
Red Cod	123
Blue Cod	1 190
Barracouta	85
Ling	65
Crayfish	98
Total	3 065

### Annual return for Otago for year ending 31 March 1926 by Inspector of Fisheries S Broadley, M 1 2/12/356 NAW.

- 93 boats engaged in fishing.
- 5 steam trawlers; 9 motor launches engaged in trawling.
- No boats engaged in Danish seining.
- 186 men directly engaged in fishing.

- Various kinds of fish caught: (round) groper, ling, red cod, barracouta, kingfish, blue cod, moki, trumpeter, bream, tarakihi, trevally, mullet, garfish, elephant, kahawai, gurnard, red perch, kelpfish; (flatfish) soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2177 tons.
- 1 canning factory and 19 curing sheds in the district.

Annual report for Otago for year ending 31 March 1926 by Inspector of Fisheries S Broadley, M 1 2/12/356 NAW.

- Line fishermen have been compelled to work further afield than usual; owing to unsettled weather, only moderate catches of groper and kingfish. Very few red cod have frequented Otago waters, and on account of weather blue cod scarce.
- Trawling boats working at Nuggets have taken large catches of flatfish. Other trawlers fishing around Otago have taken very poor catches for the whole year. One of the steam trawlers taken out of commission last year, has made another start, but only able to bring in small catches. None of these boats have taken large catches of school-fish.
- Seine fishermen have taken large catches of trevally; reported a scarcity of flounder.
- Outlying districts:
  - Puketeraki – fair catches of groper, blue cod, crayfish
  - Oamaru and Moeraki – fishermen report a bad year
  - Nuggets – good catches of groper and soles on several occasions, these being sent to private buyers in Invercargill
  - Pounawea – good catches of flounder, mostly sold locally
  - Tautuku and Waikawa – brought in fair catches of groper, ling, and blue cod, mostly railed to Invercargill

**1926 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 10 February 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The trawling boats working at Nuggets brought up large hauls of flatfish when the weather permitted. The other trawlers working about Otago Heads secured only small catches for practically the whole month.’

**1926 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 7 May 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . Favourable weather has seen line fishermen averaging five days of fishing per week and have been able to work a long distance off the land, several of these boats taking 3½ hours to reach the fishing grounds, where good catches of groper were taken. Fair quantities of barracouta brought in.
- Trawling boats working at Nugget Bay secured large catches of flatfish; trawlers working off Otago Heads secured very small catches of flatfish.
- Seine boats have taken large quantities of trevally, but report flounders to be very scarce.

**1926 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . Two steam trawlers stationed at the Nuggets.

**1926 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . Owing to favourable weather the line fishermen able to work well off the land, taking 4 hours to get to the fishing grounds. Some of the larger craft are staying out for 2 or 3 days at a time. All of these boats have taken good catches of groper. Other line fishermen working around Cape Saunders have brought in fair quantities of barracouta and ling.

- 'Some of the large line boats are handicapped with their catches, as they can only send three dozen to Dunedin daily, and when out for three days generally bring in from seven to ten dozen groper.'

### **1926 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . 'One or two of the larger trawlers made a trip to the Nuggets, but with little success.'

### **1926 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The trawling boats still average moderate catches of flatfish around Otago Waters, and on a few occasions have taken small quantities of school-fish, and a fair quantity of red cod'.

### **1926 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . 'For this time of year the line fishermen are compelled to go well off the land to secure any quantity of groper. Some of these boats are steaming up to 25 miles to get on the fishing grounds. The boats working close in shore are taking moderated catches of groper and large quantities of barracouta.

- 'On account of changeable weather the water outside Otago Heads is discoloured for about six miles offshore, this I think, is responsible for the fish not working inshore. There appears to be no sign of any fish food about the Otago Waters at the present time, and this is unusual for this month of the year.'

- Trawling boats have taken small catches of flatfish, but large quantities of terakihi. On a couple of occasions, two of the larger trawlers went to the Nuggets grounds and brought in good catches of soles.

- Seine fishermen continue to take small catches.

### **1926 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1926, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The trawling boats brought in fair catches of soles, red cod, terakihi and moki'.

- Seine fishermen have only taken small hauls of flounders; school fish have not made their appearance in any number inside the harbour.

### **1927**

Annual report for Oamaru and Moeraki for year ending 31 March 1927 by Collector of Customs, M 1 2/12/388 NAW.

- Past year showed an increase in the quantity of fish landed at both Moeraki and Oamaru, though the fishermen consider the year far from good.

- At Oamaru, groper (relied upon for the main catch) plentiful during the summer months; red cod very scarce during the winter months (when it is usually plentiful); other kinds of fish were landed in about the usual numbers.

- At Moeraki, seek blue cod and groper chiefly, but unable to land any great quantity of these fish, largely due to unfavourable weather conditions.

- 35 boats employing 49 men on the Oamaru register – 9 (14 men) at Oamaru; 26 (35 men) at Moeraki.

- 2 smokehouses at Oamaru; 2 smokehouses at Moeraki.

- The following tables show approximately the quantities of fish landed and sold during the 12 months; owing to the impracticability of obtaining returns from some of the fishermen a small proportion of the totals has had to be assessed from the returns actually received.
- Oamaru catch:

Kind	Cwts
Groper	1 588
Red Cod	252
Blue Cod	198
Moki	125
Warehou	129
Barracouta	129
Ling	54
Total	2 475

- Approximate catch at Moeraki:

Kind	Cwts
Groper	1 821
Red Cod	237
Blue Cod	1 718
Barracouta	191
Ling	58
Crayfish	278
Total	4 303

Annual return for Otago for year ending 31 March 1927 by Inspector of Fisheries S Broadley, M 1 2/12/388 NAW.

- 106 boats engaged in fishing.
- 5 steam trawlers; 11 motor launches engaged in trawling.
- No boats engaged in Danish seining.
- 212 men directly engaged in fishing.
- Various kinds of fish caught: (round) groper, ling, red cod, barracouta, kingfish, blue cod, moki, trumpeter, bream, tarakihi, trevally, mullet, garfish, elephant, kahawai, gurnard, red perch, kelpfish; (flatfish) soles, flounders, brill, skate.
- Estimate total weight of fish brought in to be 2480 tons.
- 1 canning factory and 20 curing sheds in the district.

Annual report for Otago for year ending 31 March 1927 by Inspector of Fisheries S Broadley, M 1 2/12/388 NAW.

- Line fishermen have lost a considerable amount of time owing to weather throughout much of the year; have averaged only 3 working days a week; with exception of a few months, experienced a scarcity of all kinds of fish.
- Trawling fleet have also found it difficult to keep going; a scarcity of the class of fish taken by this boat also reported; good deal of time lost owing to weather conditions.
- Men working inside the Harbour report a scarcity of flounders for almost the whole year; some of these fishermen have taken very large catches of trevally near Tairoa Heads.
- Fair quantity of fish sent to Dunedin from outlying ports; all the fishermen at these ports (except the Nuggets) report a poor year.
- On account of windy weather there has been only small quantities of fish food both inside and outside this year; believes this will cause a scarcity of fish this winter.

## **1927**

G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, 26 May 1927, Marine Department annual report, AJHR 1927 H-15

- Occurrence of sprats most erratic throughout the year. Sprats were plentiful on the bottom during June and July – found in large quantities in the stomachs of all fish caught off Cape Saunders during these months.
- Reports that the Board's boat made hauls with the trawl on all suitable occasions from Papanui Head to Blueskin Bay, to a depth of 15 fathoms. Line fishing was carried out mostly off Cape Saunders, as a greater variety of fish is caught there than at any other part of the local fishing-grounds. Record kept of all fish caught at all locations, including stomach contents.
- Mr Adams (curator) reports that during the summer and spring months there was a marked absence of minute pelagic life, usually seen in large quantities both inside and outside Otago Heads. Vast numbers of minute jellyfish are often to be seen during the summer months being carried north by the current, which, after passing the Cape, sweeps away from the coast. Also common for whale-feed to occur in patches, sometimes extending for miles, but the past year has been an exception. Whale-feed of a small size made its appearance for only a few days in December, while outside the Heads only scattered specimens were met during visits to the off-shore fishing grounds.

## **1927 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 February 1927, M 1 2/12/2 part 1, NAW.

- Details include . . . Line fishermen caught groper about 10 miles from the Otago Heads, kingfish at night time about 4 miles off. Towards the end of the month no sale for red cod and barracouta, therefore the fishermen had to cease fishing for them. Trawlers working from 4 to 6 miles off the Heads have brought in fair catches of flatfish, also a few kingfish. A poor month for the seine fishermen, who have taken few flounders and school fish.

## **1927 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1927, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Whilst visiting the Nuggets, one of the fishermen brought in a quinnat [sic?] salmon weighing 24 lbs. This I examined, and found to be a male fish, which when cleaned, contained several sprats . . . several fishermen report having seen a large school about the fishing grounds.'

## **1927 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1927, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The trawling boats have taken fair catches of flatfish and school fish, and red cod have been plentiful. . . These fish were taken from three to six miles off Otago Heads. At present there are about ten motor launches trawling and five steam trawlers.'
- 'Throughout the month large catches of trevalla have been taken from the North Spit by the seine fishermen. The seine boats working for flounders, have taken fair catches'.

## **1927 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1927, M 1 2/12/2 part 1, NAW.

- Details include . . . Weather conditions restricted fishing. Line fishermen only able to work about 8 days during the month. A few fishermen brought in large catches of barracouta from Cape Saunders. Trawling boats have mostly worked close inshore off Wickliffe Bay, where flat fish set in for about 1 week until heavy weather came on and these fish shifted into deeper water.

- 'The seine fishermen have taken very poor catches of flounders for practically the whole month, and report a great scarcity of school fish in Otago Harbour. In my opinion this has been brought about by the amount of silt on the bottom caused by dredging and other operations being carried on in the Harbour. In windy weather the water in the Harbour becomes very muddy. In calm weather a considerable amount of water is to be seen on the surface; this is accounted for by the oil from motor boat exhausts and pumped from the bilges.'

### **1927 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1927, M 1 2/12/2 part 1, NAW.

- Details include . . . The line fishermen have taken very poor catches of groper for practically the whole month. These fish were taken from the southern grounds, about 10 miles off Cape Saunders. The fishermen report a scarcity of fish at the North Reef for this time of the year. Some of the boats worked this ground at the beginning of the month, catch averaging 2 to 10 groper. Some of the boats working closer inshore secured small quantities of ling and red cod.

### **1927 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 November 1927, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The steam trawlers working in twenty to twenty-four fathoms, have taken large catches of ling, kingfish, red cod, terakihi and moki, but very few flatfish. The oil trawlers working closer inshore have taken moderate catches of flatfish.'

### **1927 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1927, M 1 2/12/2 part 1, NAW.

- Details include . . . Trawling fleet have taken only moderate catches of flatfish, most being taken about 5 miles NE of the Heads. Fair quantities of flounders were also taken from Blueskin Bay on several occasions.

- 'Small fish are very scarce in Otago Harbour this year. I am of the opinion that this has been caused by the amount of oil which has been allowed to escape on several occasions from oil burning steamers at Port Chalmers.'

### **1928**

A.E. Hefford, 29 June 1928, Marine Department annual report for 1927-1928, AJHR 1928, H-15.

- 'A proper fisheries report . . . must be sound as regards its statistical matter. The present report, though I trust to a less degree than previous ones, is admittedly defective in this respect, and much uphill work lies ahead . . . ' Data obtained from different ports are not at present of a uniform standard.

- This year the form of tabular statements have been somewhat modified to distinguish between men and vessels operating part-time. 'But we still lack the data to indicate with some degree of approximation the quantities of fish caught in a definite period and with reference of the character and number of fishing instruments employed.'

- Last year log-books issued to skippers of vessels in the Auckland District – hope to extend this to other ports and obtain more frequent returns, which should give an indication of seasonal variation. Might require legislation; further staff.

### **1928**

Annual return of fishing information for Port of Oamaru (including Moeraki) for year ending 31 March 1928 by Superintendent, Customs, M 1 2/12/413 NAW.

- boats: motor vessels engaged in set net and line net fishing – 38 full-time  
row boats engaged in fishing – 2 full-time



10 of these vessels intermittently engaged in craw fishing [crayfishing?].

- 53 men engaged in fishing full-time.
- kinds of fish landed in order of importance: blue cod, red cod, craw-fish, ling, barracouta, groper
- total quantity of fish landed at Oamaru:

Kind	Cwt.
Groper	1 379
Red cod	149
Blue cod	191
Moki	120
Barracouta	99
Ling	51
Craw-fish	87
Total	2 076

- total quantity of fish landed at Moeraki:

Kind	Cwt.
Groper	1 903
Red cod	115
Blue cod	1 147
Barracouta	80
Ling	113
Craw-fish	305
Total	3 663

- at Oamaru, red cod and warehou very scarce; average season for other fish
- at Moeraki, groper were fairly plentiful, but the returns for red cod and blue cod showed a decided decrease
- best time of year for fishing: March-June
- least productive time of the year: August and September, December and January
- reason:
  - fish naturally scarce in August and September, go off the coast to spawn; seas often too rough to get the small quantity of fish that is near the coast
  - December and January poor owing to transport conditions to Christchurch

Annual return on crayfishing at Moeraki for year ending 31 March 1928, M 1 2/12/413 NAW.

- States that difficult to obtain replies from fishermen.
- 12 boats shellfishing intermittently in conjunction with ordinary fishing.
- Location: 3 miles north of Moeraki to Seacliff, inshore 9-11 fathoms.
- Catch: approximately 16,000 dozen.
- Fishermen agree that supplies have been diminishing for some years past, variously ascribed to rocky bottom becoming sanded over, too constant working of grounds, too much rain increasing proportion of fresh water.

Annual return for Port Chalmers for year ending 31 March 1928 by Inspector of Fisheries Police Sargent McCrae, M 1 2/12/413 NAW.

- boats: steam trawlers – 4 full-time
  - motor trawlers – 10 full-time
  - motor vessels engaged in set-net and line fishing – 20 full-time
  - row boats engaged in fishing – 7 full-time
- 93 men engaged in fishing full-time.

- kinds of fish landed in order of importance: groper, kingfish, red cod, blue cod, barracouta, trevally, English-soles, Lemon-soles, flounders, moki, ling, brill.
- total quantity of fish landed:

Kind	Cwt.
Groper	3 120
Kingfish	340
Assorted	10 060
Total	13 520

- fishing above average
- best time of year: December to April
- least productive time of the year: April to November
- reason: scarcity of fish and weather conditions

Annual return for Dunedin for year ending 31 March 1928 by Superintendent of Mercantile Marine, Fraser, M 1 2/12/413 NAW.

- boats: steam trawlers – 4 full-time
  - motor trawlers – 8 full-time, 11 part-time
  - motor vessels engaged in set-net and line fishing – 72 full-time
  - row boats engaged in fishing – 24 full-time
  - vessels engaged in crayfishing – 8 part-time
- 214 men engaged in fishing full-time.
- kinds of fish landed in order of importance: groper, blue cod, flounders, soles, kingfish, tarakihi, trevally, moki, bream, trumpeter, ling, red cod, barracouta.
- total quantity of fish landed: 47,340 cwt – one third of the total weight is groper, one-third is flatfish, balance being remaining species
- groper and kingfish slightly scarcer about the Otago grounds
- best time of year: December to May
- least productive time of the year: December to January and July to October
- reason: first period – poor marked owing hot weather and people out of town; second period – on account of spawning season

Annual report for Otago for year ending 31 March 1928 by Inspector of Fisheries S Broadley, M 1 2/12/413 NAW.

- Except for three months, line fishermen have had to work at a far greater distance from Otago Heads than in previous years. Some Port Chalmers boats steaming to the Nuggets fishing grounds (getting good catches of groper in favourable weather); others fishing off Green Island and Taieri Mouth.
- Fish scarce on the North Reef – only 1 or 2 large catches caught during the year. Few kingfish; red cod and barracouta more plentiful, but demand poor.
- Trawling boats have found fish scarce for several months of the year, though for a few months fair catches of flat fish were brought in. (Notes that it was difficult to dispose of these fish because of the warm weather.) Some boats visited the Nuggets trawling grounds, but expense and bad weather meant that this did not pay.
- Seine men brought in large quantities of trevally at the beginning of the year, but few school fish of any kind. Catches of flounder have been fair.
- Outlying districts:
  - Puketeraki – scarcity at the beginning of the season, then fair catches of groper, blue cod. Between May and October, most of the fishermen at this place fish for crayfish alone.
  - Moeraki – fair catches of groper.
  - Nuggets – good year with line and trawl fish.

- Pounaweia – fair hauls of flounder; scarcity of school fish.
- Tautuku – large catches of groper and blue cod supplied to the Dunedin market during that last 2 months.
- Waikawa – moderate catches of groper and blue cod.

## 1928

G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, 5 June 1928, Marine Department annual report, AJHR 1928 H-15

- European lobsters obtained, have renewed work to naturalise this species.
- For the past three years, a close look out has been kept for surface shoals of sprats. The occurrence of these fish on this part of the Otago coast is so erratic that the idea of using them commercially may be abandoned.
- Mr Adams (Curator) believes that large numbers of sprats pass and repass the coast in great numbers between Cape Saunders and Moeraki. It would appear that the strong current running north, which flows close to Cape Saunders, and then shoots off the Peninsula, carries the sprats some distance off the coast.
- Trawling and line fishing again carried out, records of catch kept.
- Mr Adams (curator) reports that whale-feed appeared in the harbour during the latter part of November, and has since been more plentiful than during the last three years.
- Red cod, no doubt following the whale feed, have been seen in the Harbour in larger quantities than for some time past.
- The set-net was put down in the deep water channel close to the Station early in August, but not until 28 September that a kelp-fish was caught, and a moki not taken before 1 December. During the last three months kelp fish and moki plentiful in most parts of the Harbour.
- In August and September, trawling grounds foul with loose weed, catches taken by the trawlers therefore poor. Catches of soles no means plentiful, but better than those of the previous three years. In May, soles were fairly plentiful in the shallow water between Haywards Point and the Heads.

## 1928 April

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1928, M 1 2/12/2 part 1, NAW.

- Details include . . . Line fishermen have had moderate catches of groper, and ‘a fair number of kingfish’ – most caught at a distance of from 15 to 18 miles off Otago Heads at a depth of 70 to 100 fathoms. Fair quantities of ling, red cod, barracouta were taken from the fishing grounds closer inshore.
- Trawling boats working in from 2 to 8 miles off the Heads report a scarcity of flatfish; at times brought in large catches of red cod.
- Seine boats have taken large quantities of trevally from the North Spit. Flounders more scarce than usual for this time of the year.

## 1928 July

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1928, M 1 2/12/2 part 1, NAW.

- Details include . . . Line fishermen working well off shore have brought in only moderate catches of groper. ‘One boat brought in forty groper from the North Reef, this being the largest for one day during the month. The other catches ranged from five to thirty fish for one day’s taking.’ The line fishermen working about Cape Saunders have taken fair catches of red cod.
- About the middle of the month flatfish began to work closer inshore to spawn. Sixteen steam and motor trawlers have worked constantly, bringing in some fair hauls of flatfish; fish taken from a depth of from 10 to 19 fathoms.

## **1928 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1928, M 1 2/12/2 part 1, NAW.

- Details include . . . Weather very poor. Most line fishermen averaged only four days fishing per month. These fishermen mostly worked the north reef, but found fish scarce, an average per boat being ½ dozen fish, mostly small groper and bream.
- Trawling boats have mostly worked in Blueskin Bay on account of the weather; have taken small catches of red cod.
- Seine boats have secured small catches of flounders and majority have worked with lines inside the Harbour for small catches of red cod.

## **1928 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1928, M 1 2/12/2 part 1, NAW.

- Details include . . . The Nuggets boats have taken very few groper for this time of the year, but when able to go trawling have brought in fair catches of flatfish. Fair quantities of whitebait have reached Dunedin market from Taieri Mouth.

## **1928 Groper**

S. Broadley, Inspector of Fisheries, to the Secretary, Marine Department, 31 July 1928, M 1 2/12/295, Groper, 1914-1938, NAW.

- ‘At the present time the groper taken from the North Reef are in heavy spawn. I have suggested to the men working those grounds that they cease fishing for the months of July and August of each year. // Since these fishing grounds were first worked the supply of groper each year is gradually diminishing. This, in my opinion, is due to the large quantities being taken during the spawning season. The majority of the fishermen concerned are of the same opinion as myself in this respect.’

Ayson to Secretary, Marine Department, minute on Superintendent, Mercantile Marine, Dunedin, to Secretary, Marine Department, 30 November 1928, M 1 2/12/295, Groper, 1914-1938, NAW.

- Reports on a meeting with fishermen at Port Chalmers on 15 November: ‘I found them less unanimous about the closure of the North Reef ground – or any restriction at all – than I had been led to expect. But they were all agreed as to the deterioration of the fishing. They hesitated to recommend any restriction on fishing because they feared it might handicap them & the line fishermen of Port Chalmers) as individuals & as a community in competition with others. There was a general feeling that any restrictive regulation would have to be general, not local: in which I am inclined to agree. They would not at this stage pass any formal resolution but agreed to talk the question over among themselves & arrange for a conference at a later date. // It would appear that there will be difficulty in getting them all to think alike or some of them to think at all.’
- File records no further action taken in respect of the proposed closed season for groper on the North Reef.

## **1929**

Annual report for Oamaru and Moeraki by Inspector of Fisheries, Brewer, 30 May 1929, M 1 2/12/452 NAW.

- States that it is the opinion of the experienced fishermen in this district that the Department should consider a closed season for groper during spawning. At this time, the fish are naturally in poor condition and go from 15 to 20 miles off shore into greater depths of water.
- Most fishermen at Oamaru and Moeraki have recently adopted the fixed line method of fishing, some lines having up to 500 hooks. ‘This system will no doubt be the means of more quickly exhausting the groper fishing grounds.’

Annual return for Oamaru (including Moeraki) for the year ending 31 March 1929 by Inspector of Fisheries, Brewer, M 1 2/12/452 NAW.

- boats: motor vessels engaged in set-net and line fishing – 37 full-time; 1 part-time  
vessels engaged in cray fishing – 8 part-time (includes above boats)
- men engaged in fishing: 8 part-time
- kinds of fish landed in order of importance: groper, blue cod, moki, ling, barracouta, red cod, craw-fish, warehou.
- total quantity of fish landed: 2500 cwt.
- red cod have been very scarce for the last 2 or 3 season, other fish are not quite as plentiful as in previous years
- best time of year for fishing: March to June
- least productive time of the year: (1) January and February, (2) July to September
- reason: (1) fishing unprofitable owing to warm weather and transport difficulties, (2) natural scarcity of fish and weather conditions
- total quantity of fish landed:

Kind	Cwt.
Groper	3 016
Blue Cod	972
Moki	420
Craw-fish	191
Red Cod	250
Barracouta	240
Ling	180
Warehou	112
Total	5 381

Annual report for Otago for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW.

- For the first months of the year, the Dunedin market was moderately supplied; later declined through a scarcity of fish and rough weather.
- The line fishermen now have to work a long way back, and the expense of doing it is very great (fuel). For last 8 months of the year the grounds worked were Taieri Mouth and North Reef. The supply of groper and kingfish from north reef has been poorer this year than ever before. No kingfish have been taken at night about Otago Heads. Some of the Port Chalmers and Puketeraki fishermen have made Taieri Mouth their headquarters.
- The trawling fleet fishing out of Otago Harbour have fished the Otago grounds and taken only moderate supplies for practically the whole year. For about 2 months, 2 of the steam trawlers worked for school-fish, and brought in large catches of red cod, kingfish, and tarakihi.
- Seine fishermen working inside the Harbour took fair hauls of flounder and trevally. School fish later became very scarce and flounders were taken in much smaller numbers.
- Outlying districts:
  - Puketeraki – fishermen have had a bad year, some giving up fishing
  - Moeraki – fishermen report a scarcity of all fish, 2 or 3 have started fishing with long-lines and on several occasions brought in large catches of groper
  - Oamaru – fishermen have for most of the year worked about 16 miles offshore and have taken moderate catches of line fish
  - Nuggets – fishermen have also experienced a poor year, for line fish often bringing in anything from 4 to 18 fish for a day's catch
  - Tautuku – a fair amount of blue cod and groper reached the Dunedin market from Tautuku
  - Pounaweia – small quantities of flounders and mullet caught

Annual return for Ports of Otago (excluding Moeraki and Oamaru) for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW.

- boats: steam trawlers – 3 full-time
  - motor trawlers – 16 full-time, 12 part-time
  - motor vessels engaged in set-net and line fishing – 40 full-time, 16 part-time
  - row boats engaged in fishing – 6 full-time, 20 part-time
  - vessels engaged in crayfishing – 8 part-time
- 100 men engaged in fishing full-time, 120 part-time
- kinds of fish landed in order of importance: groper, soles, flounders, kingfish, trevally, blue cod, bream, tarakihi, brill, red cod, moki, barracouta, garfish, mullet, kahawai, gurnard, trumpeter, red perch, elephant fish, kelpfish, skate
- groper and kingfish slightly scarcer
- best time of year: November to end of January
- least productive time of the year: July to October
- reason: spawning season for majority of fish, when they do not bite freely
- total quantity of fish landed: 41,320 cwt

Annual return for Port Chalmers for year ending 31 March 1929 by Inspector of Fisheries Police Sargent McCrae, M 1 2/12/452 NAW.

- boats: steam trawlers – 3 full-time
  - motor trawlers – 8 full-time
  - motor vessels engaged in set-net and line fishing – 30 full-time
  - sailing boats engaged in fishing – 8 full-time
  - row boats engaged in fishing – 8 full-time
- 93 men engaged in fishing full-time.
- kinds of fish landed in order of importance: groper, soles, flounder, red cod, blue cod, ling, barracouta, trevally, moki, kingfish
- returns supplied by the secretary of the Fishermen's Association show the fishing as a whole to be above the average of last year
- best time of year: December to April
- least productive time of the year: April to November
- reason: scarcity of fish and weather conditions
- total quantity of fish landed:

Kind	Cwt.
Groper	4 500
Soles and Flounder	3 300
Red and Blue Cod	2 100
Ling	1 500
Barracouta, Trevally, Moki	600
Kingfish	100
Total	12 100

**1929**

G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1929, Marine Department annual report, AJHR 1929 H-15

- Trawling has been carried out on all grounds in the vicinity of Otago Heads worked by local trawlers – every week when weather permits. Engine in launch only 7½HP, so only able to trawl to 18 fathoms. Board is going to acquire a 15HP engine, which will enable the trawl to be worked to a depth of about 25

fathoms, approximately the limit of the trawling grounds off Otago Heads. It is probably much greater, but the local fishing fleet is not of sufficiently heavy craft to work in much deeper water.

- 1,200,000 sole eggs hatched out and liberated.

- Late appearance of kelp-fish (*Coriodox pullus*) and moki (*Latridopsis ciliaris*). These fish mostly leave the harbour on the approach of winter and return at the beginning of spring. Kelp-fish are not a common fish in the Dunedin fish market, sold in Wellington as buttefish.

- Whale-feed scarcer in the harbour than for some years past. For a short time large quantities were one the surface both outside and inside the harbour. From November to the end of March only scattered shoals appeared. It would seem that they had mostly gone to the bottom, for right through the season the stomachs of most fish caught, both inside and outside the Harbour, contained large quantities of these crustaceans.

### **1929 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1929, M 1 2/12/2 part 1, NAW.

- Details include . . . A fair supply of groper and blue cod came in from Puketeraki. Very few fish of any kind came in from the Southern Ports; fishermen there report a great scarcity of line fish. 'The fishermen from Nuggets and Waikawa report having on several occasions seen large shoals of sprats.'

### **1929 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1929, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Throughout the month the line fishermen have brought in fair catches of groper and a few kingfish. The majority of these taken from the North Reef and Taieri Mouth grounds.'

### **1929 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1929, M 1 2/12/2 part 1, NAW.

- Details include . . . 'At present there is some trouble between the seine fishermen and others who are using set nets.'

### **1929 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1929, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The first of the whale feed was noticed about the middle of the month off Otago Heads, and later worked inside the Harbour, but very few fish have appeared inside with it. This feed is about two months later than usual in making an appearance.'

## **S15: Archival Data/Observations for Otago Study Area – 1930s**

### **1930**

A.E. Hefford, 8 August 1930, Marine Department annual report for 1929-1930, AJHR 1930, H-15.

- 'That a uniform system of collecting and collating fishery statistics is an urgent need will be appreciated fully if one endeavours to learn anything from the figures published as statistics in the Annual Reports of the Marine Department for the last fifteen years.'

- With regards to Otago ports, line fishing for groper has been especially disappointing, particularly on the nearer grounds. Several fishermen have adopted the long-line method of fishing and gone further afield, others have sought different employment for the time being. Trawlers have done somewhat better, good catches of flat fish in fine weather, though poor to fair fishing the rule.

**1930**

R Brewer, Oamaru Fisheries Inspector, to Secretary, Marine Department, 7 May 1930, M 1 2/12/477, NAW.

- Encloses annual return.
- States that the majority of fishermen believe the Department should consider making a brief close season for groper during spawning. Moeraki fishermen have requested a fisheries expert to visit their port.
- Suggests regulation required to impress upon fishing boat owners their obligation in supplying statistical information. 'In some instances I have reason to believe that the figures are very inaccurate, thereby reducing the value of the return.'

Return of fishing information and statistics for the port of Oamaru for the year ended 31 March 1930 by Oamaru inspector R Brewer, M 1 2/12/477, NAW.

- boats: motor vessels engaged in set-net and line fishing – 35 full-time; 2 part-time  
cray fishing – 8 boat part-time ('included above')  
men engaged in fishing – 55 full-time; 2 part-time
- kinds of fish landed: groper, blue cod, ling, moki, barracouta, red cod
- red cod and barracouta below average for previous years
- best fishing from February to May
- fishing least productive June to November, owing to: 1) weather, and 2) scarcity of fish, especially groper, which go too far off shore when spawning
- quantity of fish landed:

Kind	Cwt.
Groper	3 532
Blue Cod	1 339
Ling	384
Moki	130
Barracouta	113
Red Cod	111
Total	5 609

- source of information: fishermen

R Fraser, Dunedin Fisheries Inspector, to Secretary, Marine Department, 28 April 1930, M 1 2/12/477, NAW.

- Encloses annual return.
- Comments that it has not been possible to obtain the weight of the different kinds of fish – believes each licensed boat should have to provide the Department with a monthly return of species taken and weight.
- Has interviewed fish auctioneers, but they only keep returns of the weight sold, and only handle part of the catch.

Return of fishing information and statistics for the port of Dunedin for the year ended 31 March 1930 by R Fraser, Superintendent, Mercantile Marine, M 1 2/12/477, NAW.

- boats: steam trawlers – 3 full-time  
motor trawlers – 34 [sic?] full-time  
motor vessels engaged in set-net and line fishing – 55 full-time  
sailing boats engaged in fishing – 1 part-time  
row boats engaged in fishing – 9 full-time; 19 part-time  
cray fishing – 8 boat part-time



men engaged in fishing – 189 full-time; 32 part-time

- kinds of fish landed: groper, soles, flounders, kingfish, blue cod, trevally, ling, red cod, tarakihi, moki, greenbone, mullet
- except red cod, all the fish have been below average – groper very scarce
- best fishing from November to March
- fishing least productive July to October, owing to fish not biting freely during the spawning season
- quantity of fish landed:

Kind	Cwt.
Unobtainable	34 320

- source of information: inquiries made by fisheries inspector S Broadley

Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1930, M 1 2/12/477, NAW.

- Line fishermen around Otago Heads have had a bad year. During the latter part of the year some began long-lining – catching fair amounts of groper and ling.
- Men working out of the Taieri Mouth caught fish from a depth of 40 to 70 fathoms; long lines also worked there.
- The Nuggets fishermen report a scarcity of groper, have taken very few line fish. Some boats there have been laid up – few boats left mostly working trawl nets, secured several good catches of flat fish.
- Conditions at Puketeraki have been no better – men there gave up line fishing and tried set nets and just about made ends meet with a few catches of greenbone and moki.
- Fair supply of groper from Tautuku; also steady supply of groper and blue cod taken at Moeraki and Oamaru.
- For two or three months some of the larger trawling boats from Port Chalmers visited The Nugget's trawling grounds, securing some good catches of flatfish.
- Smaller boats working out of Otago Harbour secured only moderate hauls of flatfish and very few school fish.
- Seine fishermen have also had a bad year – flounders and school-fish very scarce. During the winter months some of these men secured large hauls of red-cod off the banks near Port Chalmers.
- A regular supply of flounders and mullet taken at Pounaweia.
- Except for two months – when fair numbers of whalefeed and small sprats about – little fish-food was noticed during periodic visits to Otago fishing grounds.
- The scarcity of school-fish in the Harbour and the short stay of the whalefeed is accounted for by the amount of dredging done, and a good amount of clay has been thrown over along the water edge during road alterations. This has stirred up during the winter weather and the water becomes very dirty and discoloured.

### 1930

G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1930, Marine Department annual report, AJHR 1930 H-15

- About 250,000 larvae of the European lobsters released.
- 'The occurrence of whale-feed which is a pelagic stage in the life-history of the bottom living crustacean *Munida gregaria*, is a matter of regular record, as it is for several months of the year the most abundant fish- and bird-food material found in these waters.' Mr Adams reports that whale-feed were absent from the sea during the early part of the year (i.e. April) till early in November, when small specimens seen in surface shoals. Yet in May they were found in the stomachs of red cod and flat fish taken outside the harbour – probably ground forms or specimens about to change from the pelagic to the ground form. 'In former years he has noted that they occurred in the harbour in immense shoals, but that for the past six years they have only been seen in greatly reduced numbers, and have remained in the harbour for only

limited periods. These observations agree with my own, which extend for over thirty years. As far back as September, 1898, immense numbers of the adult bottom-living form – a stout thick-set crustacean 3-4 inches long – appeared in immense numbers in the Upper Harbour, creeping over the stones and under the jetties. . . . In previous years I have notes of vast shoals both inside and outside the harbour from January to May, but especially in the month of February and May. In some seasons not only every fish taken was found to contain them, but the gulls and terns were gorged with them.’

- By the end of August, nearly all flat fish taken were found to have spawned. As spring advanced the supply of fish remained limited. While fishermen in the Nuggets were securing good hauls of trawl fish the area within 10 miles of Otago Heads was poorly supplied. In 16 fathoms common soles and lemon soles were mostly taken in small numbers, but close inshore and near the harbour entrance sand flounders of a small size were practically the only flat fish caught.

- Mr D.H. Graham, newly appointed biologist, has commenced to make a reference collection of the local marine fauna.

- Mud oysters are known to occur outside the harbour and are frequently taken in the dredge. Mr Graham is to make a survey to establish whether the beds are of economic value.

**NB: Otago monthly reports from 1930 have been copied – sample year. [Photocopy 29]**

### **1930 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1930, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The Taieri Mouth fishermen sent in fair catches of groper on a few occasions, but on account of their having to work a treacherous bar, a good deal of time has been lost during the month. Several of the Port Chalmers fishermen are working at Taieri Mouth at present, but have averaged very low wages during the month. The Puketeraki fishermen report a decided scarcity of line fish, and to make a living at all, have found it necessary to set nets with a view to catching moki and greenbone. Several of these men have also moved to Taieri Mouth owing to the scarcity of fish on their own grounds. The Nuggets fishermen also report a great scarcity of all line fish for this time of the year, and several of these men have been compelled to seek other employment until conditions improve.’

### **1930 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1930, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The majority of line fishermen are at the present time using long lines for catching groper and ling, good catches of which were brought in on these boats. The Taieri boats have sent in large catches of groper and a few kingfish, and some of the smaller boats working closer inshore secured fair catches of blue cod and groper.’

### **1930 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1930, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The trawling boats have been more fortunate, and have taken fair hauls of soles and flounders; also large quantities of red cod. . . . The majority of these fish were taken from the grounds off Wickcliffe Bay. There has not been such a large number of flounders taken from these grounds for a number of years.’

### **1930 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1930, M 1 2/12/2 part 1, NAW.

- Details include . . . Poor weather; line fishermen only able to get out about seven days during the month. A number of these men preferred to stay inside the Harbour hooking small red cod.

- A bad month for the trawling fleet; small catches of flat fish from the Otago grounds. 'One of them brought back one large catch of 39 cases of flatfish. The other one working at a different time did not meet with much success. . . . Very few round fish were taken by the trawlers.'

### **1930 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1930, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The seine fishermen are experiencing a very bad time. The water in the harbour is very dirty and the fishing grounds covered with a slimy weed. Very few flounders are being taken from the Harbour.'

### **1930 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1930, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Whale feed have not yet made their appearance inside the Harbour. This is a very bad sign of course, as they are usually thick about the first week in November, and the fish always follow them in.'

### **1931**

A.E. Hefford, 28 July 1931, Marine Department annual report for 1930-1931, AJHR 1931, H-15.

- Order in Council gazetted 19 February 1931 requires owners of fishing boats to make monthly returns of the quantities of fish landed; operation of the Order deferred owing to a lack of staff.

- Canterbury and Otago fishing affected by bad weather, but also is certain areas a general scarcity of line fish, particularly groper. Otago fishermen have expressed the view that a restriction should be placed on these fish when they are spawning or about to spawn. Some fishermen believe that present scarcity may be the result of dead fish on lost long-lines polluting the grounds. I disagree that there is any chance of appreciable pollution occurring. 'The effect of long-lines, in my opinion, is to bring about an increase in the number of fish abstracted from an already depleted stock.'

- Has been remarked that the pelagic crustaceans known as whale feed (*Munida gregaria*) were about two months later appearing in the inshore waters of Otago. They usually enter Otago Harbour during the first week in November; did not appear until the end of December. This had a marked effect on the inshore fisheries, since fish of various kinds invariably follow the shoals of feed when they come in.

### **1931**

R. Brewer, Oamaru Fisheries Inspector, to Secretary, Marine Department, 21 May 1931, M 1 2/12/500, NAW.

- Encloses annual return.

- Moeraki fishermen still request that a fisheries expert to visit their port; concerned that about the future supply of groper ('the mainstay of fishing in this district'), which they claim are becoming more difficult to obtain owing to the long-line method of catching (believe that hooked fish frighten off others).

R Brewer, Oamaru Fisheries Inspector, to Secretary, Marine Department, 21 May 1931, M 1 2/12/500, NAW. (Different from above)

- Have previously suggested steps be taken to improve the method of obtaining information from fishermen.

- 'The figures for this year I venture to state are less accurate than previously.'

- Encloses extract from Moeraki fisherman's return, where it is stated that fishermen do not have a means of ascertaining the weight of their consignments – says returns are 'purely imaginary'.

Return of fishing information and statistics for the port of Oamaru and Moeraki for the year ended 31 March 1931 by Oamaru inspector R Brewer, M 1 2/12/500, NAW.

- boats: motor vessels engaged in set-net and line fishing – 40 full-time; 1 part-time  
cray fishing – 1 boat part-time ('included above')  
men engaged in fishing – 55 full-time
- kinds of fish landed: groper, blue cod, red cod, ling, barracouta, moki, warehou, soles, crayfish
- fishing below average for previous years
- best fishing late spring to autumn
- fishing least productive winter to late spring
- quantity of fish landed:

Kind	Cwt.
Groper	3 468
Red Cod	435
Blue Cod	1 546
Moki	60
Barracouta	177
Ling	274
Warehou	60
Soles	15
Crayfish	10
Total	5 609

- source of information: mainly from fishermen

Return of fishing information and statistics for the port of Dunedin for the year ended 31 March 1931 by Otago inspector S Broadley, M 1 2/12/500, NAW.

- boats: steam trawlers – 4 full-time  
motor trawlers – 11 full-time; 8 part-time  
motor vessels engaged in set-net and line fishing – 67 full-time; 7 part-time  
sailing boats engaged in fishing – 1 part-time  
row boats engaged in fishing – 11 full-time; 7 part-time  
cray fishing – 5 boats full-time; 4 boats part-time  
men engaged in fishing – 224 full-time; 16 part-time
- kinds of fish landed: groper, kingfish, blue cod, flounders, soles, brill, bream, trevally, garfish, red cod, tarakihi, barracouta, moki, trumpeter, ling, mullet, sea perch, [?]fish, elephant fish, kowhi, skate
- groper below average, red cod and barracouta well above average
- best fishing from December to March
- quantity of fish landed:

Kind	Cwt.
Unobtainable	42 240

- source of information: railway, carriers, and own estimates

Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1931, M 1 2/12/500, NAW.

- Very lean year for line fishermen:
- for the greater part of the year line fish have been very scarce, with the exception of red cod
- at the latter end of the season, fair catches of groper were secured by the Taieri Mouth and Tautuku fishermen; very poor catches taken from the Otago, Puketeraki and Nuggets grounds – two dozen fish for one day's work being a good haul

- for several months a number of Port Chalmers line fishing boats fished inside the harbour for small red cod (as they were not earning sufficient to meet benzine expenses outside), but the North Reef upon which these men have depended in former years proved of little value (on many occasions some boats returned without a single fish)
- in all ports visited, the majority of fishermen were using long lines where large quantities of ling were taken
- towards the close of the season, large quantities of red cod appeared in Blueskin Bay
- Waikawa boats have experienced a bad time for practically the whole year
- The trawling fleet fared much better:
- catches appear to have been more regular, though for a few months bad catches owing to poor weather
- July and August – large quantities of flounder taken off Wickliffe Bay in 16 to 20 fathoms of water
- one steam and one oil boat visited the Nuggets grounds, where large catches of flatfish were taken
- Seine boats working inside the harbour have taken poor catches of flounders and very few school-fish; Pounawea seine fishermen have secured fair catches of flounders and mullet throughout the year

### 1931

G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1931, Marine Department annual report, AJHR 1931 H-15

- Shortly after his appointment, Mr D.H. Graham commenced the establishment of a reference collection of the zoological life of the harbour and the adjacent sea. Observations have been made on some 80 species of fish, some of them rare – eg, *Eleotris radiata*, *Tripterygium segmentatum*, and *Notohenia purpuriceps* (new to NZ waters). *Auchenoceros punctatus*, found in the stomach of red cod, is a new record for Otago. Over 100 species of mollusca have been collected.
- Dredging: the station launch is fitted with a dredge suitable for collecting scientific specimens to a depth of 70 fathoms. Have done a good deal of dredging within an area outside of Otago Heads – to a distance of about 12 miles north-east of the heads to a line abreast of Cape Saunders.
- Oysters: there are two distinct and apparently separate occurrences of mud oysters in the dredged area: (1) very few from 10 to 50 fathoms, but fairly common from 50 to 70 fathoms (average diameter of shell 3 inches). Mr Adams considers that with an ordinary dredge, considerable quantities could be secured, but whether it would be an economic proposition is open to question; and (2) just inside Wickliffe Bay and at the southern end there are several very good beds of oysters.
- The southern rock-oyster (*Ostrea tatei*), which were very abundant in Otago Harbour is still found in immense quantities on unfrequented rocky shores along the Otago coast, but especially around Stewart Island and the West Coast sounds.
- Pipi: attention is drawn to the occurrence of great quantities of pipi both within and outside Otago Harbour – occur in abundance in the sandbanks off the Kaik, which are partially bare at low water. ‘No use at present is made of this valuable food-supply, and very little is done with either cockles or mussels, which are equally abundant in the estuaries and round the coast. There is a constant outcry about the cost of living, but natural sources of good food are lying at our door unutilised.’
- Food of fishes: examination of stomach contents has continued. Mr Graham has examined 45 species (results set out in an appendix).
- Trawling and dredging were carried out on most of the grounds within 10 miles of Otago Heads. For a number of years, groper have been very scarce within this limit, while blue cod, although frequently plentiful off Cape Saunders, are often only to be caught on the reefs a few miles further south. The catches of flatfish during the season were somewhat similar to those of the previous year.
- Whale-feed was again especially scarce throughout the year. It was only for a few days in January that any seen on the surface in any number inside the Harbour.

### 1931

Notes on Conference on the Development of Port Chalmers Fishing Industry, held at Dunedin, 15-16 November 1931, M 1 2/4/1 part 2 NAW

- Attended by representatives of the local fishing industry, DSIR, and Dept of Industry and Commerce.
- Minnock (fishing industry rep) stated that quantities of fish at present landed at Port Chalmers did not represent the maximum possible catch. He admitted 'the deficiency of groper', but said that other kinds of fish had come into favour, eg smoked ling replacing imported fillets.
- 'The discussion then turned upon the total available supply of fish from the Port Chalmers fleet. The lack of definite statistical information was seriously felt.'
- Judged that at present time about 40,000 cwts could be landed without any increase in the number of boats fishing. Quantity could be raised to about 70,000 cwts per annum if the fishermen worked full time (weather permitting). At present time, fishermen frequently stay ashore because there is no demand for their supplies. In addition about 80 sacks (each 1½ cwt) of crayfish could be brought in daily.

### **1931**

S Broadley, Otago Inspector of Fisheries, to Secretary, Marine Department, 28 February 1931, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Reports of fishing at Nuggets and the claim by local fishermen that visiting boats should not be able to enter a 30 (3?) mile limit from Nuggets Lighthouse.
- Notes that there are 10 fishing boats at Nuggets: 7 trawling and line fishing; 3 line fishing only. Size range of boats between 20 and 25ft.
- 'The trawling ground operated by these fishermen is from 3 to 8 miles distant from the lighthouse. The length of chain used on the trawls of boats is approx. 64 ft. These are the smallest trawls used by any fishing fleet in the Otago District.'
- Notes that the visiting boats during current season have been steam trawlers (between 53 and 67 ft.), with the exception of one oil boat (41 ft.).
- 'These visiting fishermen have been involved in considerable expense building larger boats to enable them to go further afield. This is essential in order that they may be able to follow the fish which certainly do migrate from one place to another. At the present time there are four of the Otago line boats fishing out of Oamaru, and frequently boats from other districts operate from Port Chalmers. . . . The steam trawler "Waitangi" is the only regular visitor to Nuggets, as the remainder of the boats are not always able to meet the expense attached to such long distance trips. A few years ago several other boats visited these grounds, but were unable to continue and were forced to return to their grounds on account of the high expense involved and the poor catches taken.'
- Advises against anything being done to prevent fishing at the Nuggets.

### **1931 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1931, M 1 2/12/2 part 1, NAW.

- Details include . . . Seine fishermen have taken fair hauls of flounders. 'During the month large quantities of very small sprats made their appearance just inside the Otago Heads. No attempt was made by the fishermen to secure any of these fish . . . // The appearance of these fish brought in large quantities of birds to the Harbour.'

### **1931 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1931, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Large quantities of spawn resembling small garfish made their appearance inside the Harbour and were followed by large shoals of mullet and barracouta. These were seen for about two weeks when they worked their way outside the Heads. Red cod and barracouta could have been taken in plenty, but . . . there was no demand and prices were accordingly low.'

### **1931 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1931, M 1 2/12/2 part 1, NAW.

- Details include . . . Unsettled weather. Line fishermen have had a poor month. A few of the larger craft working the North Reef brought in small catches of bream, but very few groper. Trawlers have brought in moderate catches of flatfish, mostly working 4 to 6 miles off Otago Heads. Seine fishermen a poor month.
- Taieri fishermen brought in fair quantities of blue cod when able to get out. Puketeraki fishermen mostly working for crayfish; sending in fair quantities.

### **1932**

A.E. Hefford, 'Report on fisheries for the year ended 31 March 1932', 27 August 1932, Marine Department annual report, AJHR 1932-1933, H-15.

- Notes that reduced catch the result of the purchasing power of the public, which restricted market requirements. Increased numbers of people have taken up fishing in a casual semi-professional way. These catches generally not taken into account in the returns, but would not alter statistics markedly.
- Notes that in Otago groper (hapuku) catches have been below the average of former years, but better fishing for red cod and kingfish has been experienced.

### **1932**

G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1932, Marine Department annual report, AJHR 1932 H-15

- Set net in use more frequently, but the catches of kelp-fish and moki were the poorest on record.
- Whale-feed again were late in making their appearance in the harbour – not until early January that they were seen in any quantity. The scarcity of this important food source and unsettled weather no doubt explain the small number of fish taken in set-nets. During January and February whale-feed was more abundant in the harbour than in previous four years. Still present in March.

### **1932 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 29 February 1932, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Trawlers working the Otago grounds brought in fair quantities of flatfish. Their work was greatly hindered by the large shoals of red cod being taken in almost every haul.'
- 'Fishermen at both Tautuku and the Nuggets report having seen for the last two months large shoals of sprats along the coast between the Nuggets lighthouse and Waikawa.'

### **1932 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1932, M 1 2/12/2 part 1, NAW.

- Details include . . . After rough weather, line fishermen working in deep water with hand lines secured some fair catches of kingfish. Supply of groper lessened – two dozen being a good catch for a days fishing, most taking from 5 to 12 fish.

### **1932 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1932, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Apart from Crayfish, very little else was sent in from Puketeraki. Three merchants in Dunedin are exporting large quantities of crayfish to London. . . . The crayfish at present being exported are of the very large variety and almost unsaleable here.'

### **1932 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1932, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Large quantities of whale feed are at present to be seen off Otago Heads. Barracouta and red cod are feeding off these in great numbers.'

### **1933**

A.E. Hefford, Report on fisheries for the year ended 31 March 1933, Marine Department annual report, AJHR 1933, H-15.

- Otago and Canterbury, supplies have been more than equal to demand, but prices very poor. Exception with regard to the groper (hapuku) fishery. 'A general scarcity of this fish and of the Southern kingfish has been reported from Cook Strait to South Otago.' It is alleged that fishing with long lines has been the cause of the decline. This is another problem that calls for closer investigation.

### **1933**

W.B. Benham, Vice-Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1933, Marine Department annual report, AJHR 1933 H-15

- Notes that financial situation has restricted the use of the launch.  
- During the summer months Otago Harbour was visited by exceptional quantities of whale-feed and shrimps. Shrimps made their appearance in early November, swimming on the surface until the end of that month; abundant for several months, but remained on the bottom. They were so numerous in November that they were thrown up in quantities on the beaches and fish and gulls fed freely on them.  
- 'Great numbers of large-sized mullet followed the shrimps in the harbour and also small mullet, red cod, small terakihi and moki, and lesser quantities of warehou and large moki. Towards the end of March pilchards were about in fair quantity. Red cod, during the latter part of the season, were more plentiful than for some years past.'

### **1933 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1933, M 1 2/12/2 part 1, NAW.

- Details include . . . 'During the past two months large shoals of whale feed have been about the Otago Heads, and large numbers of barracouta and red cod have been making that their feeding ground.'

### **1933 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1933, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Fair number of crayfish were sent to Dunedin from Puketeraki, and sold . . . per bag of 9 to 10 dozen fish.'

### **1933 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1933, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Large quantities of large crayfish tails are being exported to England. . . . Four different firms are engaged in the export of these fish.' Inspected several bags of these fish and found some with berries attached; asked that fish in this condition not be accepted, warning that regulations would be enforced.

### **1933 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1933, M 1 2/12/2 part 1, NAW.



- Details include . . . ‘A number of the Port Chalmers fishermen are going to considerable expense in fitting up their gear in preparation for catching large crayfish for export. One of the boats so fitted visited the crayfishing grounds off the Southern Coast, but found the majority of fish heavy with berries, with the result that they are ceasing operations until the spawning season is over.’

### **1933 August**

The Otago Daily Times, 22 August 1933

- Improvements in fishing industry:

- 1) installing the latest type of engines in the auxiliary power boats (more economical, use crude oil, faster, suitable for trawling)
- 2) question of providing a wider market for fish – installation of freezers for crayfish export

### **1933 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1933, M 1 2/12/2 part 1, NAW.

- Details include . . . Line boats working the Otago grounds, principally North Reef, brought in fair numbers of bream, but a very limited supply of groper. A few bass groper were brought in from North Reef. Line boats working closer inshore brought in moderate catches of large red cod.
- For almost the whole month the trawling fleet secured fair catches of soles and flounders within six miles of the Otago Heads.

### **1933 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1933, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The steam trawlers working in deeper water secured large numbers of kingfish and tarekihi. On account of demand, large quantities of red cod were thrown back.’

### **1933 Crayfish**

Acting Secretary, Marine Department, to Commissioner of Unemployment, 13 June 1933, M 1 2/4/1 part 2.

- States that he had heard that consignments totalling some 1200 cases [of tails?] had been exported from Dunedin.

### **1933 Crayfish**

Petition re Proposed Fish Regulations by 16 Karitane Fishermen and Residents (E. Stammers and others) to Minister of Marine, 25 July 1933, M 1 2/4/1 part 2.

- Notes that: Crayfish are caught in quantities in traps that area emptied into the launches. ‘These fish have been caught off Karitane for 35 years in our season without diminution of supplies.’ States that proposed size regulations and loss of sales ‘would be a serious loss to our community’.

### **1934**

A.E. Hefford, Report on fisheries for the year ended 31 March 1934, Marine Department annual report, AJHR 1934-1935, H-15.

- Fisheries of Canterbury and Otago have shown improvement. Fishermen at isolated Otago ports have had good fishing but are hampered by transport difficulties.
- Comments on the effect of the Depression. Notes the presence of dinghy and shore fishermen, previously employed doing other work, are hawking fish.
- Notes further decline in the operation of vessels of the highest class. Steam-trawlers operating out of Auckland described as the ‘North Sea type’, contrasting with those operating in other ports, including Port Chalmers, described as ‘small converted vessels originally built for other work and not to be classed as deep-sea trawlers according to the standards of the Northern Hemisphere.’

- 'Hapuku or groper fishing in Cook Strait and off the Canterbury and Otago coasts is another special fishery to which more intensive methods are being increasingly applied. This kind of fish is becoming more and more difficult of catch. Formerly the market requirements could be supplied by hand-line fishing, but nowadays the majority of groper are taken by long lines. Each line carries several hooks, usually on wire snoods, a sinker being attached to the further end of the line and a buoy to the nearer end. Several of these lines may be fished by a single boat, and in fishing they are allowed to drift with the tide. Experience has shown that groper grounds which are fished in this way do not maintain their original productiveness for very long.' Notes that fishermen believe that the problem results from dead fish on lost lines fouling the grounds. 'In my opinion the more probable explanation is that the local depletion is largely a matter of the abstraction of larger numbers of the fish population by the intensified efficiency of the fishing operations. Even hand-line fishing, if carried on continuously, can have a marked effect in reducing the stock of fish.' Also suggests that variation in reproduction may be a relevant factor. 'The occurrence of good spawning years and bad spawning years is well known, and the elucidation of the factors effecting such variation in the ultimate results of the natural reproduction of fishes have been clearly demonstrated by fishery investigations in other parts of the world. The remain matters of obscurity with regard to New Zealand fishes, though statistical records of the fisheries, even without biological investigations, would have thrown a great deal of light on these questions'.

### 1934

Collector of Customs, Oamaru, to Secretary, Marine Department, 14 June 1934, M 1 2/12/533, NAW.

- Encloses annual return for Oamaru and Moeraki; notes that returns do not include particulars of vessels registered at other ports that have been fishing at Oamaru and Moeraki.
- States that the industry as a whole 'is still seriously affected by the depression'.
- prices low; several local fishermen have abandoned the work and undertaken relief work; owners of a number of boats have not the means to affect very necessary repairs
- Suggests regulation required to impress upon fishing boat owners their obligation in supplying statistical information. 'In some instances I have reason to believe that the figures are very inaccurate, thereby reducing the value of the return.'

Return of fishing information and statistics for the port of Oamaru for the year ended 31 March 1934 by Collector of Customs, M 1 2/12/533, NAW.

- boats: motor vessels engaged in set-net and line fishing – 10 full-time; 4 part-time  
men engaged in fishing – 17 full-time; 6 part-time
- kinds of fish landed: groper, blue cod, red cod, barracouta, ling, moki
- fishing as a whole slightly above average
- quantity of fish landed:

Kind	Cwt.
Groper	2 460
Blue Cod	150
Red Cod	190
Barracouta	110
Ling	110
Moki	30
Total	3 050

- source of information: fishermen's returns and from own estimates after personal investigations

Return of fishing information and statistics for the port of Moeraki for the year ended 31 March 1934 by Collector of Customs, M 1 2/12/533, NAW.

- boats: motor vessels engaged in set-net and line fishing – 13 full-time; 8 part-time

- crayfishing – 8 boats part-time
- men engaged in fishing – 20 full-time; 10 part-time
- kinds of fish landed: groper, blue cod, red cod, ling, moki, crayfish
- crayfish well above average in supply; other fishing slightly above average
- quantity of fish landed:

Kind	Cwt.
Groper	990
Blue Cod	420
Red Cod	350
Ling	70
Total	1 830
Crayfish	2 600

- source of information: fishermen's returns and from own estimates after personal investigations

Inspector of Fisheries for Otago, S Broadley, to the Secretary, Marine Department, Wellington, 10 May 1934, M 1 2/12/533, NAW.

- Discusses 'the effects of [the] trade depression.'
- A number of men compelled to seek other employment. Had it not been for the large amount of fish exported during the past year about half the fleet would have been laid up immediately. Export trade has also been a great assistance to the crayfish industry also – 2300 bags of large crayfish sent to Dunedin from Taieri Mouth, the majority for export and taken as part-time fishing.

Return of fishing information and statistics for the port of Dunedin for the year ended 31 March 1934 by Otago Inspector of Fisheries, S Broadley, M 1 2/12/533, NAW.

- boats: steam trawlers – 2 full-time
  - motor trawlers – 9 full-time; 17 part-time
  - motor vessels engaged in set-net and line fishing – 41 full-time; 33 part-time
  - row boats engaged in fishing – 12 full-time; 14 part-time
  - crayfishing – 19 boats part-time
  - men engaged in fishing – 190 full-time; 50 part-time
- kinds of fish landed: groper, soles, blue cod, flounders, bream, brill, tarakihi, trevally, trumpeter, greenbone, red cod, ling, barracouta, mullet, garfish, gurnard, red perch, kahawai, skate
- quantity of fish landed:

Kind	Cwt.
Mixed	50 320

- source of information: fishermen, harbour authorities, railway, merchants, carriers, and own estimates

Annual report for Otago by Inspector of Fisheries, S Broadley, for the year ended 31 March 1934, M 1 2/12/533, NAW.

- Description of catches, locations, etc.

## 1934

W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1934, Marine Department annual report, AJHR 1934 H-15

- Again, work limited by financial restrictions.

- Whale-feed appeared in October, plentiful during November. Not on the surface during January, but fish caught in the harbour found to be feeding on them.
- Clear shrimp (*Nyctiphanes australis*) occurred in large numbers from October, and though not seen in later months, fish found to be full of them.
- Mullet, red cod, wrasse, and spotties numerous around the Station. Barracouta, ling, and kahawai fairly numerous in the vicinity of the Station. Kelpfish, moki, warehou (*Seriotelella brama*), and terakihi (*Dactylosparus macropterus*) scarce.

### **1934 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1934, M 1 2/12/2 part 1, NAW.

- Details include . . . 'At present large numbers of first-class lemon soles are being caught on the Taieri Mouth grounds. Several of the larger craft from Port Chalmers have been working these grounds and returning to Port with some good hauls. There has been a marked scarcity of flounders inside Otago Harbour.'

### **1934 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1934, M 1 2/12/2 part 1, NAW.

- Details include . . . Seine boats working inside the Harbour have not had a profitable month on account of the scarcity of flounders, secured a small number of school fish and one or two hauls of mackerel. 'The latter fish were very plentiful in Otago Harbour about 35 years ago, but during the latter years, have not been seen in any great numbers.'

### **1934 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1934, M 1 2/12/2 part 1, NAW.

- Details include . . . 'During the early part of the month when weather conditions were favourable, the line boats working the North Reef, and in the deep water off Cape Saunders brought in moderate catches of groper and a few kingfish. The smaller boats working from Blue Skin Bay to Cape Saunders in shallow water brought in fair catches of ling, red cod, and a few dozen barracouta. Heavy weather then set in . . . The steam trawlers also lost a considerable amount of time averaging for the month about twelve day's fishing. The steam trawlers working long distances from the Otago Heads brought in small catches of flat fish.
- 'The heavy weather has interfered considerably with the supply of large crayfish for export. This class of work is very dangerous in anything but very calm water. The principal grounds to the south of Cape Saunders are all of a very risky nature, and at times much gear is lost.'

### **1934 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1934, M 1 2/12/2 part 1, NAW.

- Details include . . . Poor weather. Some of the line fishermen decided to work the grounds round Cape Saunders in search of red cod, but this proved unpayable; average catch was two cases per day. A case of red cod contains 6 dozen fish.
- Trawling fleet has also experienced a bad month. 'The large motor boats after twelve hours travelling often came in with only two boxes of fish. Some of the large trawlers journeyed to the Nuggets and brought back fair catches of flat fish.'
- Seine boats have secured small numbers of flounders and occasionally a small number of warehou.
- Taieri Mouth fishermen have sent in some fair catches of blue cod, but few trawl fish.
- Supply of crayfish for export has also decreased. Puketeraki fishermen have kept up a steady supply for the Dunedin market; a good supply from Moeraki for export.

- Most fishermen at The Nuggets are working with trawling nets, and have been taking some fair hauls of flatfish.
- Large quantities of whitebait were sent to Dunedin from the southern rivers.

### **1934 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Unsettled weather and a decided scarcity of fish; 'shortage has been more acute than for the same month in several years past'.
- 'The trawling fleet experienced one of the worst months for many years. Two to four benzene boxes was the average catch for the steam trawlers, while the smaller fleet were able to secure only one or two boxes for a long day's fishing. One steam trawler changed the fishing gear and went in search of school fish. A few cases of terakihi were taken, but not in sufficient quantities to make this class of fish payable.'
- 'All seine fishing has been practically at a standstill.'

### **1934 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Weather improved, supply increased. 'Large shoals of barracouta appeared off the Otago Heads, but very soon there was no demand and the fishermen had to cease catching them.'
- 'The majority of the larger [trawling] craft have been journeying to The Nuggets and Taieri Mouth where they have secured very large hauls of flat fish.'
- Seine fishing at a standstill owing to the harbour at present being full of floating weed.
- Large numbers of flatfish were sent to Port Chalmers for export from Taieri Mouth.
- The supply of crayfish for export has decreased considerably owing to the loss of gear from last months weather.

### **1934 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Line fishermen working about 8 miles offshore brought in fair numbers of groper, ling, and a few kingfish. Smaller craft working closer secured fair quantities of red cod, ling, and barracouta.
- Steam trawlers working well off Otago Heads brought in large catches of kingfish, moki, terakihi, ling, and a few groper. Some of the oil trawlers working the Nuggets and Taieri Mouth grounds returned with large catches of flatfish. 'The scarcity of flatfish on the grounds about Otago Heads still continues.'
- Taieri Mouth fishermen sent in large quantities of flatfish, groper, and blue cod.
- 'A number of Port Chalmers fishermen changed over from line to crayfishing and brought in good catches for the export sheds. The majority were taken from Sandfly Bay and to the South of Cape Saunders.'

### **1934 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Majority of the trawling fleet working the Taieri Mouth and Nuggets' grounds, bringing back very large catches of flat fish. Very few of these fish have been taken from the Otago grounds. 'One steam trawler working the Otago grounds brought in large numbers of Moki, Tarakihi, Ling, and Kingfish, as many as 400 of the latter being caught in one day.'

### 1934 Crayfish (and other species)

'Export of Crayfish', *Dominion*, 24 July 1934, M 1 2/4/1 part 2 NAW.

- Export trade in crayfish has languished. (Re-exported to France from London – met taxes and quotas.)
- Hefford: 'When waters are overfished stocks gradually disappear. Of recent years there has been a very decided increase in the export of fish from New Zealand to Australia, principally schnapper and blue cod. The exports of flounder fell off somewhat last year, owing to the fact that fewer flounder than usual were available.'

### 1935

A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, AJHR 1935, H-15.

- 'The returns obtained from fishing centres in the South Island are for the most part inadequate for enabling one to form anything more than a vague and general idea as to the fishery conditions.'
- 'With few exceptions both fishermen and fish-dealers in Otago had a difficult year. The prevalence bad weather . . . and even when conditions for fishing were favourable the catches were generally inferior to those at corresponding season in previous years. The deficiency was marked in respect of flounders; consequently both trawlers working the outside grounds and seiners operating in Otago Harbour and other inshore waters had a decidedly unprofitable year . . . When weather was favourable moderate supplies of groper and ling were brought in, but the boats engaged in the long-line fishery are now compelled to go further afield than formerly. A comparative shortage of large crayfish on the usual grounds was also reported.'

### 1935

W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1935, Marine Department annual report, AJHR 1935 H-15

- Notes that during winter the blanket weed in the Harbour died off, and great masses floated and so clogged the nets as to cause a handicap to fishermen, and fished moved out of the harbour to cleaner areas.
- Records the presence and abundance of a number of species in the vicinity of the Station:
- greenbone (*Coridodax pullus* and *Odax vittatus*) exceptionally plentiful; *O. vittatus* noted to be uncommon;
- smooth-hound (*Mustelus antarcticus*) appeared in large numbers;
- young dogfish caught in the harbour;
- skate caught off the Station;
- pilchard and sprat were in abundance throughout the year; variations in size point to a succession of shoals;
- cucumber smelt (*Retropinna retropinna*) has occurred in vast numbers; usually a freshwater fish, but here exists in all stages of growth as a salt water fish;
- mullet (*Agonostomus foresti*) have been numerous as usual;
- warehou (*Seriola lalandi*) have appeared in fair number, but only small specimens near Portobello;
- red-cod scarce this year;
- kahawai shoals appeared in November; in February a large shoal appeared near the hatchery and remained there for a fortnight;
- Moki not plentiful this year;
- Tarakihi (*Dactylosparus macropterus*) – small sized fish of this species usually plentiful for most months of the year in the Harbour; never get the large ones taken 9 to 10 miles from the Heads;
- wrasse and spotties have been in great abundance;
- flat fish not so plentiful in the harbour as in previous years;
- sea perch (*Helicolenus percooides*) have been fairly numerous in certain favoured spots;
- blue cod has appeared this year in fair numbers, but not of great size; it is some years since they were common near the Station;

- flathead (*Kathetostoma giganteum*) have not been as plentiful as usual; notes that two species appear to have been treated as one;
- *Pseudolabris pittensis* and *Bovicthus variegates* appeared here this year and are unusual near the hatchery.
- Whale-feed appeared in successive shoals, but was never in great abundance. November to February, not seen since.
- Clear shrimps, 'as usual, appeared in tremendous numbers, but the season was limited. They were here in October and were found on the surface and in fish-stomachs until March. The arrival of shoals of this shrimp always results in numbers of fish appearing in the harbour and it appears to be of even more importance than the whalefeed. Flights of screaming gulls give the first indication of the approach of the shoals.'

### **1935 Groper**

Article entitled 'Close season for groper – support for proposal among fish retailers', extract from Christchurch Press, 8 August 1935, M 1 2/12/295, Groper, 1914-1938, NAW.

- Christchurch retailers stated to be in favour of a close season for groper. President of the Christchurch Fish Retailers Association, F.L. Knowles, quoted to say that supplies of groper clearly being depleted and size of fish reduced. Knowles thought that this was particularly noticeable at Timaru and Oamaru, where fishing was done for a distance of five miles out to sea. Noted that fish were taken during spawning. Suggested a close season.

Article entitled 'Close season for groper – several problems to be considered – views of inspector of fisheries', 9 August 1935, extract from Christchurch Press, M 1 2/12/295, Groper, 1914-1938, NAW.

- Hefford interviewed by the Christchurch Press. Agreed that the supply of groper was becoming depleted, but declaration of close season would involve problems – suggested that it was for the fishermen concerned to take the first action.
- Quotes a recent report by Hefford: 'Hapuku or groper-fishing in Cook Strait and off the Canterbury and Otago coasts, is another special fishery to which more intensive methods are being increasingly applied. This kind of fish is becoming more and more difficult to catch. Formerly the market requirements could be supplied by hand line fishing, but nowadays the majority of groper are taken by long lines. Each line carries several hooks, usually on wire snoods, a sinker being attached to the further end of the line and a buoy to the nearer end. Several of these lines may be fished by a single boat, and in fishing they are allowed to drift with the tide. Experience has shown that groper grounds which are fished in this way do not maintain their productiveness for very long.'

### **1935 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Trawling boats working the Otago grounds secured small quantities of English soles and flounders; very few lemon soles were taken as the grounds frequented by these fish have been covered with weed that has worked out from inside the harbour. As a result the majority of the trawling fleet have been forced to journey to Taieri Mouth where there has been a plentiful supply of soles in first class condition.
- 'The seine fishermen are having a very lean time as there is a decided scarcity of all fish inside the Harbour for this time of the year.'
- A small freezing plant installed at Waikawa – has proved very beneficial during the hot weather. They have been landing some large catches of flatfish and a fair number of groper and blue cod.

### **1935 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Flatfish still in short supply on the Otago grounds – the exporters will take as many of these fish as can be caught.
- Seine fishermen working inside the Harbour have experienced a very bad month; flounders and school fish both scarce.
- Taieri Mouth fishermen have taken several good catches of soles and fair numbers of groper and blue cod.
- Nuggets boats have been line fishing and some fair catches of groper have been taken.

### **1935 March**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Line fishermen brought in fair catches of groper, also a few bream and trumpeter, the latter being very large. Most of these fish were taken from very deep water well off Cape Saunders. Small boats working inshore secure fair catches of red cod and ling.
- ‘The quantity of soles and flounders taken by the trawling boats from the Otago grounds increased considerably, but the condition of these fish is still very poor when compared with those from Taieri Mouth.
- Towards the end of the month, the seine fishermen caught more flounders than for some considerable time. A few mackerel have also made their appearance inside the harbour.

### **1935 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Some good catches of red cod and ling were taken from Blueskin Bay by the smaller craft.’
- Supply of flatfish from Taieri Mouth has dropped off.
- Seine boats have taken moderate hauls of flounders and school fish.
- The Puketeraki boats have been fishing for crayfish for practically the whole month.

### **1935 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . One or two boats of the trawling fleet worked at night in Blueskin Bay and brought in good catches of flounders. The majority were caught in a depth of between three to six fathoms.
- Early in the month a fair quantity of large trevally made their appearance inside the Harbour and the seine fishermen secured some good hauls from the Spit beach.
- One new fishing boat was launched at Port Chalmers to fish out of Waikawa.

### **1935 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Fish scarce, weather poor. One of the steam trawlers made two trips to the Nuggets fishing grounds and returned each time with fair catch of fish. The other steam trawler operating from Port Chalmers has been sold to Southern buyers. ‘The removal of this boat from the Otago grounds will considerably lessen the supply of fish to the Dunedin market.’
- ‘The number of seine boats working inside the Harbour is gradually decreasing, as for some time past they not been able to make a living. In many instances they have only caught one or two dozen flounders for a full night’s work.’



### **1935 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'There has been very little seine fishing inside the harbour. The average catch for three men for a night's work was about four dozen flounders'.
- One export shed at Port Chalmers has received a fair supply of flat fish from Waikawa. On account of local scarcity, a few of the Port Chalmers' fishermen have moved to Waikawa under contract to the exporters.

### **1935 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Notes that most of the English soles caught by trawlers had not spawned.
- 'During the early part of the month large numbers of small shrimps were off the Otago Heads with quantities of Barracouta in the vicinity.'
- Puketeraki boats are securing crayfish for canning.

### **1935 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Supply of flatfish from the Otago grounds still very small. The seine fishermen have taken better hauls of flounders than for some considerable time.
- 'A large trawler owned by an Australian firm is shortly to arrive at Port Chalmers and work out of this port. It is their intention to supply Dunedin and export the surplus to Australia.'

### **1935 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The steam trawler "Olive Cam" commenced fishing out of Port Chalmers about the middle of the month and secured large hauls of flat fish and round fish of all kinds. The majority were taken from a depth of from 30 to 40 fathoms. After one trip of 96 hours fishing she returned with 550 boxes each weighing 50 lbs, and made up of groper, ling, soles, barracouta, terakihi, moki, trevally, gurnard, flounders, red cod, dogfish, elephant fish, a few trumpeters, and blue cod.'
- Boats fishing out of Taieri Mouth report a decided scarcity compared with this time last year.

### **1936**

A.E. Hefford, Report on fisheries for the year ended 31 March 1936, Marine Department annual report, AJHR 1936, H-15.

- 'It has been possible to obtain only a general impression of conditions off the east coast of the South Island, but it would appear that the fishing has been below an average standard, and rather more than usually checked by bad weather. Generally speaking, flatfish as well as groper supplies have been below requirements. As might be expected, the small-boat and inshore fishermen have been most seriously affected and some of the Otago men have abandoned the fishing.'
- Notes that an Australian trawler fished from Port Chalmers in December 1935 and January 1936, making 'fairly good catches', landed at Port Chalmers.
- Statistics: 'For several years efforts have been made to obtain records of the catches of different types of fishing-boats as a basis for statistical study, but this has only been possible to a limited extent. A scheme for obtaining monthly returns of fish landed from every licensed fishing-boat in the Dominion was commenced in January 1936.'

## 1936

W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1936, Marine Department annual report, AJHR 1936 H-15

- Set-net used occasionally and a few greenbone and moki secured by its use. Dogfish were numerous in December. Setting the seine for mullet has only been moderately successful, large mullet being rather scarce. Using the seine net in the sandbanks was not very productive, the harbour in the vicinity of the station depleted of its normal supply of fish. Fish life has not been abundant, and red cod, useful as a food supply for the hatchery fish, has not been obtainable in any numbers either in 1935 or 1936.
- We have made and constantly used fish traps, set off the jetty on sandy bottom, or amongst weed between the rocks below the station. The traps have provided a steady supply of fish – the spotty, pigfish, wrasse, and occasional red cod secured in this way have helped maintain a food supply. Traps have also produced an interesting list of specimen fish:
  - greenbone (*Coridodax pullus*), kelpfish (*Odax vittatus*), weedfish (*Tripterygion*) – two species, taumaka (*Acanthoclinus quadridactylus*), rock cod (*Lotella rachinus*), a rockling (*Motella novae-zelandie*), mullet, small tarakihi, bullies, crabs, sea horses, one large sea-hare, flathead (*Kathetostoma giganteum*), thornfish (*Bovichthys variegatus*), suckerfish (*Diplocrepis puniceus*), and triggerfish (*Cantherinus scaber*).
- With a 200 cp light off the jetty, attracted shoals of garfish in the late spring months. Also, at all times of the year, shoals of cucumber smelts, pilchards, sardines and mullet. Occasional red cod, tarakihi, moki have been attracted, and two small species of squid and an unidentified sand-eel. Also quite a number of pipe-fish, idotea, prawns, shrimps, fish-lice, crab zooae[?], swimmings crabs and various fish-fry, as well as a variety of sea-worms.
- Whale-feed was present over a long period, from November to March. One large Squilla was taken from amongst the swimming whale-feed.
- The clear shrimp (*Nyctiphanes*) was not as common as previous years.

## 1936 January

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . “Olive Cam” has ceased fishing out of Port Chalmers; sailed to Australia with a large consignment of fish. Had been working both the Nuggets and Waikawa grounds at a depth of from 20 to 30 fathoms.

## 1936 February

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . During the past month the Port Chalmers fishermen have taken fair catches of groper, ling, red cod and a few barracouta. (Little demand for barracouta, fishermen did not bring many ashore.) Majority of these fish taken off Hayward’s Point about 4 miles from the Otago Heads. ‘Groper have been more plentiful in this locality than for a considerable number of years.’ Moderate catches of groper and kingfish were taken by the boats fishing in deep water.
- Flatfish more plentiful in the Otago grounds – smaller trawlers have had better results. Majority of the larger have regularly fished the Nuggets grounds and secured large catches – most sold to export.
- Weather interfered with the Waikawa fleet, though on several occasions large quantities of both line and flatfish were sent to the export sheds at Port Chalmers.
- “Olive Cam” has been working Waikawa grounds.

## 1936 March

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . “Olive Cam” ceased working at Port Chalmers owing to insufficient shipping space for the quantity of fish being caught. Owner intends to replace with a smaller boat.

### **1936 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Line fish scarce with the exception of a couple of fair catches of groper from deep waters. 'These fish are in first class condition, many of them carrying heavy roes.'

### **1936 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Practically no trawling done on the southern grounds as they are covered with heavy slimy weed.

### **1936 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Moderate hauls of flounders have been taken inside the harbour by the seine fishermen. One boat secured a few catches of small red cod from the banks near Port Chalmers. It is some considerable time since any quantity was taken from this locality.'

- 'On account of the mild weather experienced during the winter month this season for groper has been longer. The majority caught during the months of June and July were carrying heavy spawn. In my opinion it would benefit the fishing industry if the taking of groper from the North Reef was prohibited during these months as I consider this to be the main spawning ground about Otago.'

### **1936 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Catches by line fishermen poor. 'The trawlers working the Otago grounds have taken better catches of flat fish than for some considerable time. The main supply consisted of lemon soles and flounders taken from about five to seven miles off Otago Heads. . . . Some of the large boats journeyed to the Nuggets grounds and returned with several good catches of lemon soles, the average catch being from 17 to 30 benzine boxes per trip.'

- Large quantities of lemon soles railed to Port Chalmers from Waikawa. One boat fishing there for crayfish secured very large catches, on one occasion bringing in 3½ tons for one day's fishing. These have been sent in for export; tails only being used, averaging 30 lbs for 17 tails.

### **1936 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Trawling fleet have generally had a poor month. 'One boat working in 40 fathoms for school fish secured in one catch 20 cases of large moki, each case containing about 40 fish.'

### **1937**

A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, AJHR 1937-1938, H-15.

- Notes an important development in collection of statistics. 'For the first time in the history of the Department we have obtained data that may properly be called statistical. . . . The statistical tables that it has been customary to present with this report are for this year based on monthly returns of the landings on individual fishing-vessels and not, as hitherto, on an estimate made for a whole year by local Inspectors who sometimes had limited opportunities for obtaining comprehensive data for such an estimate.'

- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location, though does have a (one-off?) breakdown for South Island ports in main body of report.

Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method
Oamaru	Lines	97.4	Groper, red cod, blue cod, ling
	Set-nets	2.4	Moki, butterfish
	Trawl	0.2	Sole, flounder
Moeraki	Lines	98.3	Groper, blue cod, ling
	Set-nets	1.7	Moki, butterfish
Port Chalmers	Trawl	48.6	Sole, red cod
	Lines	42.5	Groper, ling
	Seine-nets and set-nets	8.9	Flounder, red cod
Taieri Mouth	Trawl	76.9	Sole, flounder
	Lines	23.1	Groper, blue cod, red cod
Nuggets	Trawl	78.2	Sole, flounder
	Lines	21.8	Groper, barracouta
Owaka	Lines	66.7	Groper, blue cod
	Nets (seine)	33.3	Flounder
Waikawa	Trawl	65.7	Sole, flounder
	Lines	33.9	Groper, blue cod
	Nets (seine)	0.4	Flounder

- Little comment on Otago fisheries: 'The general impression obtainable from various reports is that the local trawling-grounds off Canterbury and Otago are not as productive as formerly. The groper fishery, though yielding good supplies to long-liners on occasions, requires more effort than formerly to produce the same results.'

## 1937

*No annual report from Portobello Marine Research Station in AJHR.*

## 1937

'Report of the Sea Fisheries Investigation Committee', AJHR, 1937-1938, H-44A.

- Committee comprised of James Young (M.P.), M.W. Young (Assistant Chief Inspector of Fisheries), and E. Sheed (Investigating Accountant, Department of Industries and Commerce) (p 10). Appointed on 25 February 1937; delegated with powers of a judicial inquiry. Order of reference to inquire into:
  - (1) the condition and prospect of the sea-fishing industry, including any matter relating to exploitation and conservation of fisheries; the catching, landing, distribution, etc of sea fish, shell, and other marine products; and the
  - (2) the scientific evaluation, control, and administration of the sea fisheries.
- Committee commenced its duties in Bluff on 15 March 1937, ended on 8 September 1937. Visited 38 ports and centres; heard evidence continuously.
- 'Extending over a period of years and up to the time of the Committee's appointment, Dominion wide representations had been made to the Government as the difficulties under which the sea-fisheries industry generally was operating, and as to the lack of any real co-operation amongst the various units engaged in production and marketing. So varied and conflicting in their nature were the complaints received, that it was the obvious that before any remedial measures could be formulated complete information concerning the conditions prevailing should be in the hands of the Government. As any effective investigation would necessarily have to cover the fully the ramifications of the industry, the order of reference gave the Committee sufficient power to inquire into all the problems associated with its main objective as they were confronted.'
- Methods of Fishing – trawling – Otago and South Canterbury (p 6)

- annual report for the year ending 31 March 1937 shows the relative importance of the different types of methods in relation to the total landings by each method (p 7):

Port	Trawl	Danish Seine	Drag & Set Nets	Lines
Port Chalmers	48.6		8.9	42.5
Taieri Mouth	76.9			23.1
Moeraki			1.7	98.3
Oamaru	0.2		2.4	97.4

- notes that since these statistics, a large steam trawler began operating from Port Chalmers
- 'Trawling is in the main carried out by small motor-vessels, the two districts maintaining as at 31 March 1937, two relatively small steam trawlers and eighteen full-time and nine part-time motor trawlers. The practically unanimous opinion of the men operating or owning these boats is that although the total weight of the annual landings has been maintained, the grounds which have been consistently fished are showing evidence of strain, for which reason the fishermen have to go farther afield or stay out longer for the catches they bring in to-day.'
- recommended that minimum mesh of trawl nets be raised to 5 inches (same as Danish seine nets) – existing mesh size 4 inches (p 11)
- Methods of fishing – drag netting – Otago and South Canterbury (p 25)
- except for a few small boats operating on the sand banks in Otago Harbour, this method is not used to any extent by the commercial fishermen
- any troubles comes from the amateur week-end fishermen, using under-sized gear and illegally dragging the net right ashore
- Methods of fishing – line-fishing (dan lines and windy buoys) – Otago and South Canterbury (p 27)
- at Port Chalmers, Oamaru, Moeraki, and off Taieri Mouth dan lines are the most common type of gear, very little hand-lining been done
- see appendix for details of gear used
- lines are suspended from drums to which flags are attached to indicate their position
- dan lines are responsible for a large proportion of landings in this area; almost the sole method of fishing used at Oamaru; significant at Port Chalmers
- the main fish landed is groper, but also large quantities of less valuable ling; other fish such as red cod and barracouta could be landed in greater quantities if there was a market for these fish
- 'Groper are markedly declining both in quantity and in size. From Taieri Mouth to Timaru, the statements of the fishermen and merchants all agree that this fishery is in a serious state'.
- many fishermen suggest a close season while the fish are in heavy roe, a number asserted that depletion or the groper grounds had been accelerated by the use of dan lines
- general recommendations – that the number of windy buoys or dan lines be restricted to 3 for each man on board; that the number of traces on each windy buoy or dan line not exceed 6; that the number of hooks on each trace not exceed 30
- Methods of fishing – line-fishing (set-lines and long lines) – Otago and South Canterbury (p 29)
- set-lines mainly used by the fishermen at Timaru, though their use not confined to that port
- Methods of fishing – hand-lining – Otago and South Canterbury (p 30)
- 'This method of fishing is used throughout the Otago and South Canterbury districts, but the fisheries have declined to such an extent that it is becoming practically impossible for the men to make a fair living by the use of hand-lines only, and they are used mainly as an auxiliary method of fishing either while waiting for the set gear to be picked up or when weather conditions make it inadvisable to use set or dan lines.'
- Blue Cod fisheries, Foveaux Strait – hand-lining for Blue Cod (p 32)
- 'The consensus of opinion amongst the older and more experienced fishermen who are well qualified to judge is that the inshore grounds are showing definite signs of depletion, and that they are now only

carrying stocks of younger and smaller fish. The more distant grounds, such as South Cape and The Traps, are still carrying a good stock of fully grown fish. The handy grounds have been fished hard by the many new arrivals in the industry, particularly since the Sawmills at Stewart Island closed down.'

- recommendation – that size limits gazetted in April 1936 be enforced in Foveaux Strait

- Crayfish – Southland

- 'There is no great activity in regard to the catching of crayfish in the Southland district. Sufficient are caught to supply the local requirements.'

- Crayfish – Otago and South Canterbury (p 34)

- 'The main crayfishing centres in these districts are Karitane, Moeraki, and Taieri Mouth. Before the export market collapsed owing to the application of a quota in France, arrangements had been made for the purchase of large supplies from these districts by the various firms engaged in the industry. After one year of intensive fishing to supply the heavy demand, the grounds showed marked signs of depletion. This was not so noticeable in the quantity of fish coming forward, but in the alarming decrease in size. The Moeraki grounds suffered worst and have not recovered. Taieri Mouth, which was not exploited so much, suffered least, and these grounds are now coming back to normal. The state of the Karitane grounds is rather doubtful as, although it was noticed that when the question of conservation was being discussed the fishermen would agree to the prohibition of taking of "berried" females, they would not agree to even a mild restriction on the size. From this it would appear that there is still a large proportion of crayfish in the landings. The cannery at Dunedin provides a market for crayfish, but the fishermen complain that the low prices offered and the intermittent market, due to its dependence on overseas orders, make their livelihood precarious. The methods used in taking the crayfish in these waters by means of supplejack pots are satisfactory and call for no comment.'

- Crayfishing – recommendations (p 36)

- that the legal size of crayfish be fixed at 9 in. in length

- that it be made illegal to take any female crayfish carrying external ova or to remove the ova (berries) prior to sale

- that investigations be made into the crayfish stocks at various centres, and that a study be made of the habits, size, sex groups, and migrations of the crayfish, the results being the basis for future legislation

### **1937 April**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The large steam trawler fishing for the Port Chalmers exporters made a few trips to the southern grounds. So far the catches have been small . . . She is at present working with only one trawl until others can be made to suit the size of boat. When in full working order she should be able to keep up a much better supply and assist the retail trade.'

- 'The seine fishermen have secured large catches of fair sized trevally from the Spit beach just inside the Otago Heads. This locality is very rough and the men have to work in the breakers. . . . As much as four tons was caught in one haul.'

### **1937 May**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The large steam trawler working the grounds North East of Otago Heads at a depth of 40 to 60 fathoms brought in some very large catches of Tarakihi, moki, barracouta, red cod, dogfish, elephant fish and a few cases of flatfish.'

### **1937 June**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The large steam trawler has secured several large hauls of round fish of all kinds, the principal being terakihi. For one catch of two days fishing she brought in 14,000 lbs of terakihi, 3,000 lbs ling, 410 lbs moki, 300 lbs kingfish, and 1600 of mixed.’

### **1937 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Line boats working the Otago grounds have taken small catches of red cod and a few blue cod. Groper in short supply, presently carrying heavy spawn; when in this condition do not bite freely. ‘Several of the line boats have changed over to trawling until conditions improve.’

- ‘The trawling fleet working the Otago grounds secured small catches of flatfish the average from one to three boxes for a day’s fishing. The supply from these grounds is decreasing each year, especially since diesel engines have been installed in the majority of boats. A number of boats from Port Chalmers have moved to Timaru.’

- ‘The large steam trawler continues to bring in large catches of round fish, comprising about 75% of terakihi . . . . The majority of these are taken from a depth of 40 to 70 fathoms about 14 to 20 miles off Otago Heads towards Moeraki. This boat averages tow trips each week and brings in 180 to 220 boxes, each weighing about 1 cwt, every trip. Had it not been for this source of supply, the retailers in Dunedin and surrounding districts would have had a disastrous month.’

- Seine fishermen have ceased netting for flounders owing to slimy weed being in Otago Harbour. Some of these boats have hooked small quantities of red cod about Port Chalmers; others have worked set nets for mullet.

### **1937 September**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . The catch of the large steamer has dropped from 200 boxes per trip to 85 for one trip, 56 for the next. ‘From my experience I consider the largest catches are taken during the time the fish are schooling up for spawning season, as after that period they become more scattered.’

### **1937 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Seine fishermen are having a very lean time, flounders are scarce and the harbour is full of floating weed. Added to this they have to contend with many weekenders who fish the Harbour from Friday night to Monday morning with a result the grounds never have time to settle.’

### **1937 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Large quantities of whale feed have been seen on the fishing grounds both inside and outside the Harbour.’

### **1937**

Hefford to Secretary, Marine Department, 12 February 1937, M 1 2/12/191 part 2, Otago Trawling, NAW.

- Commenting on a letter from Secretary of the Port Chalmers Fishermen’s Co-operative Society, requesting that Danish seining not be allowed to be introduced into Otago waters.

- Comments that Danish seining appears to have a depleting effect, though notes that ‘the period during which Danish seiners have been operating regularly has been a period of considerably increased fish landings.’

- Suggests that a restriction should be imposed before Danish seining is taken up in Otago.

Minister of Marine to Secretary, Port Chalmers Fishermen's Co-operative Society, 3 May 1937, M 1 2/12/191 part 2, Otago Trawling, NAW.

- Advises that Fisheries Regulations have been made, prohibiting Danish seining from the south bank of the Waitaki River to Long Point (about 10 miles southwards of Nuggets).

### **1937 Groper**

Secretary, Moeraki Fishermen's Co-operative Society, to Minister of Marine, 10 July 1937, M 1 2/12/295, Groper, 1914-1938, NAW.

- Puts before Minister motion passed by the executive of the MFCS on 6 July. Motion concerned difficulties of implementing regulation for size of groper. Suggested that: 'A far more effective way of checking the constantly diminishing supply of Groper would be the enforcing of a Close Season during the Spawning period.'

Secretary, Marine Department, to Secretary, MFCS, 9 September 1937, M 1 2/12/295, Groper, 1914-1938, NAW.

- States that for many years there was a minimum weight limit (5 lbs) for groper, but this was altered to a minimum length limit in 1935 (2 ft overall or 15 inches from the back of the pectoral fin to tip of tail). New limit represented only a slight increase in size.
- In regard to suggested close season, states that declaring a universal close season would cause too much hardship; notes that the Department doesn't consider the depletion to be universal.

### **1937 Crayfish**

N.W. Young, to Secretary, Marine Department, 21 November 1940, M 1 2/4/1 part 2, Crayfish, NAW.

- Encloses monthly catch details for Moeraki and Karitane for the year ending 31 March 1937:

<b>Month</b>	<b>Moeraki</b>	<b>Karitane</b>
April		650
May		4 570
June		8 736
July	2 620	25 260
August	3 474	29 030
September	2 075	44 000
October	10 173	16 660
November	5 484	17 780
December	4 541	9 660
January	160	
February		
March		
<b>Total (lbs)</b>	<b>28 527</b>	<b>156 346</b>

### **1937**

Chief Inspector of Fisheries to S Broadley, Inspector of Fisheries, Otago, 22 June 1937, M 1 2/12/565, NAW.

- Advises that it is not compulsory for merchants to provide information about the amount of fish they handle.
- As the law stands, is only compulsory for the owner of a licensed fishing vessel to render a return for fish handled.



Annual report for Otago by Inspector of Fisheries, S Broadley, for the year ended 31 March 1937, M 1 2/12/565, NAW.

- Description of catches, locations, etc.

### 1938

A.E. Hefford, Report on fisheries for the year ended 31 March 1938, Marine Department annual report, AJHR 1938, H-15.

- Comments on report of the Sea Fisheries Investigation Committee: 'So when one studies the report . . . one should remember that history and experience have taught that State control in regard to the conservation and rational utilization of natural resources cannot begin too soon. If its restraints are not brought into effect early enough to prevent undesirable and detrimental developments it only means that at a later date much more onerous measures of control and restriction will have to be applied to attempt to remedy evils or restore losses that should never have been allowed to come about. The evidence presented by the Committee show that New Zealand Governments have been too complacently allowing individualism to compete with individualism in the exploitation of its fisheries and have been unmindful or unaware of the tasks imposed by the responsibility of conserving such resources for the general good and for the benefit of posterity. // The fundamental requirement for the exercise of a wise and just control of fishery exploitation is an adequate acquaintance with and a proper practical understanding of the conditions with reference to the fishery resources themselves and to the agencies concerned in getting and disposing of their products. It is, unfortunately, a fact that a substantial amount of State intervention for the regulation of the operations of the fishery industry has been called for before that adequate acquaintance with and proper understanding of the conditions have been acquired; and this Department is called upon to make special efforts in order to catch up in the race in which exploitation has so far out-paced and out-distanced conservation.

- Little comment on Otago: Notes that a significant increase in catch shown in the figures for the Dunedin and Otago district – up 32.3%.

- Provides details of proportion of catch from different methods of fishing.

Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method
Oamaru	Lines	97.1	Groper, red cod, blue cod
	Set-nets and seine	2.9	Moki, herring
Moeraki	Lines	99.8	Groper, blue cod, ling
	Set-nets and seine	0.2	Mullet
Karitane	Lines	99.1	Groper, blue cod, barracouta
	Set-nets and seine	0.9	Moki, butterflyfish
Port Chalmers	Trawl	77.8	Tarakihi, sole, red cod, barracouta
	Lines	13.6	Groper, red cod, ling
	Seine-nets and set-nets	8.6	Warehou, red cod, flounder
Taieri Mouth	Trawl	80.6	Sole
	Lines	19.4	Groper, blue cod
Nuggets	Trawl	87.1	Sole, flounder
	Lines	12.9	Groper
Waikawa	Trawl	59.6	Sole, flounder
	Lines	39.2	Blue cod, groper
	Set-nets and seine	1.2	Flounder

### 1938

W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1938, Marine Department annual report, AJHR 1938 H-15

- Difficult to use set-nets, drag-nets, or fish-traps from August to September owing to an exceptional quantity of loose, floating weed. Conditions better by February, and kelp-fish, greenbone, weedfish, large numbers of spotties, wrasse, pigfish, trigger-fish, and sea-horses were taken in the traps. During March the traps were extremely successful – one trap when lifted contained eight greenbone and kelp-fish and forty spotties and wrasse. Large mullet were also caught in fair numbers by the set-net. An odd marble-fish, Māori-chief, and small weedfish were taken, and one specimen of the bearded rockling. But the season was rather disappointing – quite a variety of fish we expect to have seen have not appeared.
- Only a few small tarakihi appeared. Small warehou were very plentiful in December. No red cod have been taken since December.
- 300 c.p. light suspended over the jetty attracted garfish, cucumber smelt, and small mullet. In July and again in September lamprey (*Geotria australis*) were taken. A number of squilla (*Lysiosquilla spinosa*) appeared in August – rarely seen in Otago waters. A variety of sea-worms and fish-lice are exceedingly plentiful when the light is turned on, and occasionally small squid and octopus are attracted. Swimming crabs are fairly common.
- One species of sea-worm (*Nereis* sp.) Using this worm as a bait on a small hook it is possible to catch mullet and warehou in the area illuminated by the light.
- During the months December to April the tremendous shoals of whale-feed covering the surface of the harbour make collecting by light rather unproductive, as the masses of re whale-feed are attracted by the light and swim up in such numbers that it is impossible to see anything else in the water.
- Whale-feed appeared near the Station in November, and gradually the following swarms arrived until by the end of March they were in masses everywhere. Large numbers were stranded on the beaches. They form a limitless supply of food for all fish, and it is surprising to note that the number of fish in the harbour this year is rather below normal. During December, dogfish, moki, warehou, small mullet, garfish, and a large number of wrasse were in the vicinity of the Station, and a few blue cod were also taken. Flathead, greenbone, kelp-fish, trigger-fish, black cod (*Notothenia microlepidota*), and pigfish were more or less plentiful, and a few kahawai appeared in the vicinity of the Station.
- The seine net gave only poor results – a few small flounder, leather-jackets, and pigfish being the usual haul.
- The set-net produced large moki and dogfish, the latter rather too plentiful.
- Several medium sized octopus (*Octopus Māorium*) appeared in March.

### **1938 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Harbour conditions have improved and supply of flounders.

### **1938 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Large shoals of whalefeed are at present to be seen both inside and outside the Otago Harbour. It is many years since this was seen in such large quantities and all the fish are feeding on it.’

### **1938 July**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The seine fishermen in Otago Harbour have taken small catches of flounders, red cod, and small trevally.’ [Notes on the monthly report indicate that what Broadley refers to as ‘trevally’ is in fact warehou.]

### 1938 September

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The large steam trawler owned by the exporting firm did not cease operations during the heavy weather and secured some very large catches of round fish from the Otago grounds N.E. of Otago Heads. Some of the landing amounted to 300 boxes of 100lbs each. About 75% of this was terakihi, the remainder rigs, red cod, groper and ling.' Also trawled for flatfish on the southern grounds.'

### 1939

A.E. Hefford, Report on fisheries for the year ended 31 March 1939, Marine Department annual report, AJHR 1939, H-15.

- Notes that one of the chief features of interest concerning returns from the South Island centres was a tendency towards a decline in the proportion of flat fish to the total quantity of fish caught in the Otago District, indicated in the following table.

	1936-37	1937-38	1938-39
Total quantity of wet fish landed (cwt)	21 968	27 784	30 779
Total quantity of flat fish landed (cwt)	10 915	10 954	13 218
Percentage of flat fish landed	49.7	39.4	42.9

- Table showing proportion of fish captured by different methods for each port. (Details not recorded – appear to be similar to previous years.)

### 1939

*No annual report from Portobello Marine Research Station in AJHR.*

### 1939 March

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The large steam trawlers brought in some very large catches of terakihi, red cod, and ling, with smaller quantities of groper and kingfish. For two days fishing one catch consisted of 20,000 lbs of mixed fish, 12,000 of which were terakihi.'

- 'Large shoals of fish-feed in the form of small shrimps have been in the Harbour for some time with the result that large number of red cod, mullet and mackerel have made an appearance. This is the first time in about thirty-eight years that mackerel have been in such numbers in Otago Harbour.'

### 1939 April

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Large steam trawler condemned; no longer fishing. Port Chalmers exporters have had to rely on outlying ports for their supply; haven't handled anything like the usual quantity of fish for export.

### 1939 Crayfish

Petition by 17 Karitane Fishermen, 21 July 1939, M 1 2/4/1 part 2, Crayfish, NAW.

- Concerned at the restriction of 8 inches placed on crayfish. Claim that: 'The Crayfish in this region of New Zealand are of a much smaller variety than the species which exist in other parts of the sea of this country.'

N.W. Young, Senior Fisheries Officer to Chief Inspector of Fisheries, 3 August 1939, M 1 2/4/1 part 2, Crayfish, NAW.

- Discusses petition, noting that there are 8 boats landing crayfish at Karatane. Notes that regulation only gazetted in Aug 1938, therefore difficult to establish the effect on fishing. Season starts in June, goes to September. Believes that regulation should remain in place for longer to get a better idea of the impact on the fishermen and fishery. Includes following statistics:

*1) Crayfish catch at certain Otago reports*

Year	Port	Catch (Cwt.)
1933–34	Moeraki	2 600
1934–35	Oamaru, Moeraki, and Dunedin	3 917
1935–36	Oamaru, Moeraki, and Dunedin	2 017
1936–37	Oamaru, Moeraki, and Dunedin	2 249
1937–38	Oamaru, Moeraki, and Dunedin	2 827
1938–39	Oamaru, Moeraki, and Dunedin	2 336

*2) Crayfish catch of the two 'best' boats at Karitane*

Year	'Ballymena'	'Scout'
1936–37	48 440	37 900
1937–38	34 448	46 844
1938–39	20 660	28 360

**1939**

Macfarlane to Secretary, Marine Department, 20 October 1939, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Commenting on protest by Nuggets fishing regarding trawlers working their grounds. Notes that Nuggets fishermen themselves are quick to seek out more distant grounds when supplies fall low. Nuggets fishermen trawl for about half the year, hand line for the rest of the time.

- 'The trawling grounds are extensive reaching up the coast with very good returns obtainable in season over a wide area. The master of the "Hananui" has told me he has been able to keep a trawl down from Waikawa to Taieri Mouth. It is natural that boats should seek out the most remunerative grounds and in this case I would suggest that less harm is being done by Port Chalmers boats there than if they were to concentrate of grounds nearer the home port and showing a marked degree of depletion. In effect, I would consider the present practice has a compensating result.'

- Notes that Nuggets fishermen have had good returns recently.

**S16: Archival Data/Observations for Otago Study Area – 1940s**

**1940**

A.E. Hefford, Report on fisheries for the year ended 31 March 1940, Marine Department annual report, AJHR 1940, H-15.

- Quantity of fish landed in the Otago district 34.4% less than in the previous year – largely due to the fact that the steam trawler "Hananui" was not in operation for 11 months of the year.

- Of the total quantity of fish landed in the Otago district, 20,189 cwt, 59.5% was made up of flat fish.

**1940**

*No annual report from Portobello Marine Research Station in AJHR.*

### 1940 Crayfish

Secretary, Marine, to Superintendent of Mercantile Marine, Dunedin, 31 July 1940, M 1 2/4/1 part 2, Crayfish, NAW.

- Advises that restrictions on crayfish are to be removed in the interests of the national economy. Fuel and wastage of undersized crayfish.

### 1940 Crayfish

N.W. Young, to Secretary, Marine Department, 21 November 1940, M 1 2/4/1 part 2, Crayfish, NAW.

- Encloses monthly catch details for Moeraki and Karitane for the year ending 31 March 1940:

Month	Moeraki	Karitane
April		330
May		720
June	634	6 600
July	3 057	5 820
August	17 567	25 100
September	30 595	45 983
October	16 925	20 886
November	15 728	1 800
December	5 907	
January		
February		
March		
<b>Total (lbs)</b>	<b>90 413</b>	<b>107 239</b>

**NB: Otago monthly reports from 1940 have been copied – sample year.**

### 1940 January

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Outlying ports. Good catches of flatfish at Taieri Mouth.  
- Some large catches of flatfish taken from the Nuggets, especially considering the small size of the boats. One boat has been working up to 13 cases, each averaging 70 lbs, for one day's fishing. Boats working hand lines brought in fair catches of groper and blue cod.  
- A launch working out of Pounawea for a short period secured some fair catches of flatfish, averaging from 4 to 10 cases of 70 lbs each. (Notes that the fishing grounds close by are considered to be very good and that one or two of the Port Chalmers men are seriously thinking of working from there.)  
- Moderate catches of groper and blue cod, together with a few green bone, were taken at Tautuku.  
- At present there are 14 large boats from Timaru, Port Chalmers, and Riverton working at Waikawa. One is line fishing and reports scarcity of all round fish. The others, during favourable weather, have secured large catches of flatfish from about the Nuggets and off Tautuku. The average catch for one day was from 5 to 14 cases of 70 lbs each.

### 1940 April

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The large steam trawler owned by the Port Chalmers exporters is again working and has taken some large hauls of terakihi together with smaller quantities of kingfish, ling, elephant fish, rigs and a small amount of groper. The majority of these fish were caught 20 to 30 miles north of Otago Heads, so far she has not been trawling for flatfish.'

### 1940 May

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Line fish scarce for this time of the year.
- The Port Chalmers trawling fleet worked the grounds about Blueskin Bay; average catch from 1 to 4 cases of soles and flounders per day, a few cases of gurnard taken further off shore.

### 1940 December

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘Conditions in the Otago Harbour have been very unsatisfactory for the seine boats for some considerable time. The catches of flounders and trevally have been small.’

### 1941

A.E. Hefford, Report on fisheries for the year ended 31 March 1941, Marine Department annual report, AJHR 1941, H-15.

- Notes that the deep-sea trawler “Hananui” was back fishing full-time. Owing to this, the proportion of flat fish landings less than previous year, though quantity about the same.

### 1941

W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1941, Marine Department annual report, AJHR 1941 H-15

- Notes that there is only just enough money to keep the Station going. Mr Adam, curator, has provided monthly reports.
- January: Warm. Whale-feed very plentiful in the vicinity of the Station, small mullet very numerous; an absence of the usual larger fish.
- February: Much rain and heavy wind. Shoals of clear shrimp and whale-feed still numerous in the vicinity of the Station. Large fish not much in evidence; plenty of medium sized mullet.
- March: Cold and unsettled weather. Except for mullet, few fish about. Whale-feed and shrimp still in good supply. The fish trap produced a good number of interesting specimens, including weed-fish (*Cristiceps australis*), sea-horses (*Hippocampus abdominalis*), pipe-fish (*Syngnathus blainvillianus*), seaweed covered crabs, etc. A powerful light suspended over the jetty on suitable nights attracted small prawns, cucumber-smelt, squid, and garfish.
- April: None of the larger fish noted in the vicinity of the Station, but fish trap produced an interesting selection, including a number of kelp-fish (*Odax vittatus*). Whale feed disappeared from the surface and clear shrimp not so numerous.
- May: Fish trap continued to produce interesting catches, including the rare bearded rockling (*Gaidropsarus novae-zelandiae*), along with a variety of blennies and crabs and plenty of common spotty and wrasse.
- October: Set-net produced a fair quantity of mullet. Fish trap produced a better variety of fish, including kelp-fish, black cod (*Epinephelus demaelii*), weed fish, sea-horses, and a large number of spotties and wrasse.
- November: Water temperatures became steadily higher. Large shoals of clear shrimp and whale-feed were on the surface, but the set-net caught few mullet as the bulk of the shoals were on only small-sized individuals.
- December: An abundant supply of whale-feed on the surface of the water of the harbour, but school fish and ordinary Garfish, including some large females, were taken with the hand-net at the light.
- During the year there was no appearance of the large shoals of pilchards that have visited the Harbour in other years. Although clear shrimp and whale feed came into the Harbour great supply, providing abundant feed for fish and birds, there was a notable shortage of such fish as red cod, blue cod, trevally (warehou), and tarakihi.

### **1941 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Early in the month the line boats working out of Port Chalmers brought in very small catches of groper. This was on account of large numbers of elephant and dog fish frequenting the fishing grounds.' Supply later improved, with small lots of ling also taken. Those working inshore secured large catches of barracouta.
- Elephant and dogfish were occasionally very numerous on the trawling grounds and at times interfered with fishing. One of the larger vessels made a few trips to the Nuggets. The large trawler brought in an occasional large catch of kingfish and ling. Otherwise the catches were small and made up of all kinds of round fish.
- 'The few remaining seine fishermen in Otago Harbour are experiencing a very lean time, often finishing a full tide without catching enough fish of any kind to send to the market.'

### **1941 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Port Chalmers line boats fishing in deep water secured small catches of groper; those working inshore secured very small catches of ling and red cod. Red cod very scarce for this time of the year.
- Otago trawling grounds secured fair catches of flatfish – 2 to 6 boxes of each per day.

### **1941 October**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'The few line boats working out of Port Chalmers report a decided scarcity of groper, often the catches were too small to send to market. The boats working closer inshore secured small catches of red cod, ling, blue cod and a few barracouta.'

### **1941 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'Barracouta were seen in large numbers about Cape Saunders, but it was not until nearing the end of the month they were taken in any quantity.'

### **1941 December**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . 'All fishing in the Otago Harbour is practically at a standstill and the majority of fishermen have found other employment as for the past two years they have been unable to make wages.'

### **1942**

A.E. Hefford, Report on fisheries for the year ended 31 March 1942, Marine Department annual report, AJHR 1942, H-15.

- Notes less groper landed at Port Chalmers than in previous years.

### **1942 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . ‘The seine boats in Otago Harbour secured some good hauls of flounders, and on one occasion a large haul of trevally from the Spit Beach.’

### **1942 August**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Trawling fleet worked the grounds around Blueskin Bay, brought in small catches of flatfish and an odd case of gurnard – average catch 2 to 5 cases, mostly small size. A few trips to the Nuggets proved unprofitable as the catches were small and the grounds covered with weed. The large steam trawler took small catches of red cod, terakihi, and ling.

### **1942 November**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Large shoals of barracouta often seen, but did not bite freely.

### **1943**

A.E. Hefford, Report on fisheries for the year ended 31 March 1943, Marine Department annual report, AJHR 1943, H-15.

- No relevant details.

### **1943 February**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- Details include . . . Large catches of barracouta taken by the line fishermen working the Otago grounds for export.

### **1944**

A.E. Hefford, Report on fisheries for the year ended 31 March 1944, Marine Department annual report, AJHR 1944, H-15.

- Notes Port Chalmers landings were 38.1% less.

- ‘The very interesting question as to why landings have increased or decreased, as the case may be, is one that cannot be answered simply or briefly; the results are usually due to various factors. . . . In some cases losses of fishing-time through the difficulty of making replacements and repairs under wartime conditions have had a substantial effect in reducing supplies. The most significant light is thrown on the figures representing fish catches when they can be correlated with the time spent in actual fishing. So far as possible, data on this factor have been collected, but the task of working them up cannot be undertaken at present.’

### **1944 January**

Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

- ‘Large quantities of fish feed including sprats are to be seen both inside and outside the Otago Harbour. Also large shoals of barracouta, but so far this season they have not been on the bite’.

### **1945**

A.E. Hefford, Report on fisheries for the year ended 31 March 1945, Marine Department annual report, AJHR 1945, H-15.

- Otago:



	1941–42	1942–43	1943–44	1944–45
Steam-trawling	12 069	12 011	7 648	5 980
Motor-trawling	11 388	10 241	7 349	9 463
Line-fishing (motor-vessels)	5 508	11 070	6 282	7 648
Line-fishing (row boats)		15	9	1
Net-fishing (motor-vessels)	85	11	33	21
Net-fishing (row-boats)	674	255	202	151
Totals cwt	29 724	33 603	21 523	23 264

- Increased total for previous year arises from somewhat better catches of barracouta, flounder, soles, groper, and elephant-fish. Diminished supplies are shown for terakihi, pioke (dogfish), and ling. General production is substantially below that of the year 1942-43, especially with regard to steam-trawler and line catches.

- 'Reports have been received, through the Marine Biologist, of the recent reappearance of large shoals of sardine-like fish off the Otago coast.'

## 1946

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1946, Marine Department annual report, AJHR 1946, H-15.

- Port Chalmers: no steam-trawler has replaced the one wrecked in 1944, though a new motor-trawler is operating in the middle of 1945. The lack of a steam trawler has seen a substantial drop in the catches of terakihi from 3,166 cwt in 1944 to 173 cwt in 1945.

- 25,533 cwt landed at Port Chalmers:

- 16,260 cwt from motor-trawlers (including 7,034 cwt of red cod and 6,282 cwt of sole)

- 9,091 from line-fishing vessels (including 7,402 cwt of barracouta)

- Main types of fish landed over the last five years:

	1941–42	1942–43	1943–44	1944–45	1945–46
Tarakihi	5 101	2 886	3 361	3 166	173
Sole	6 394	5 410	4 114	4 993	6 282
Red cod	6 952	10 377	4 501	4 033	7 605
Barracouta	5 599	9 878	5 157	6 300	7 502
Flounder	1 516	840	885	1 163	1 366
Total	29 724	33 603	21 523	23 264	25 533

## 1946 Crayfish

Secretary, NZ Wholesale Fish Merchants Association, to Minister of Marine, 21 November 1946, M 1 2/4/1 part 2, Crayfish, NAW.

- States that total crayfish landed for the year 31 December 1945 was 1,800,000 – survey carried out by the Association. Requests that earlier regulations regarding size and taking of females be re-enacted, otherwise 'the waters of the Dominion will, within a nominal period be depleted of this type of fish'.

## 1947

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1947, Marine Department annual report, AJHR 1947, H-15.

- Port Chalmers: landings dropped to 23,250 cwt from 25,533 cwt the previous year

- drop is mainly accounted for by trawler landings dropping from 16,260 cwt to 14,326 cwt; line boat landings dropped from 9,091 cwt to 8,825 cwt

	1942–43	1943–44	1944	1945	1946
Tarakihi	2 886	3 361	3 166	173	81
Sole	5 410	4 114	4 993	6 282	8 366

Red cod	10 377	4 501	4 033	7 605	3 846
Barracouta	9 878	5 157	6 300	7 502	8 171
Flounder	840	885	1 163	1 366	745
Total (cwt)	33 603	21 523	23 264	25 533	23 250

### 1947

‘Portobello Marine Biological Station’, AJHR 1947 H-15, Marine Department Annual Report

- Station continues to carry out valuable researches in marine biology, despite restricted material resources owing to wartime conditions. Notes that Station used by staff and students of Otago University.

### 1947

F.H. Arthur to Minister of Marine, 8 February 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.

- ‘We the fishermen operating boats at Nugget Bay are much concerned about the depletion of fish in Nugget Bay by outside trawlers, and are desirous of getting an area set aside on which Nugget boats only are allowed to operate.’

McIvor, District Inspector of Fisheries to Secretary, Marine, 11 March 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Commenting on above letter by F.H. Arthur: ‘The depletion, I am afraid is a known fact, as all who know the area concede that the grounds are slowly becoming poorer. All along the coast the position is the same, but this is in a large measure offset by higher prices.’

- Suggests that trawling be totally prohibited from the area if the depletion was to become an urgent problem.

### 1948

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1948, Marine Department annual report, AJHR 1948, H-15.

- Port Chalmers: total landings of 44,849 cwt, almost double the previous year. Increase mainly due to the fact that a modern steam trawler commenced fishing from this port in February, landing 14,670 cwt for the year.

	1943–44	1944	1945	1946	1947
Tarakihi	3 361	3 166	173	81	9 977
Sole	4 114	4 993	6 282	8 366	10 963
Red cod	4 501	4 033	7 605	3 846	2 536
Barracouta	5 157	6 300	7 502	8 171	13 938
Flounder	885	1 163	1 366	745	1 062
Total (cwt)	21 523	23 264	25 533	23 250	44 849

### 1948

A.E. Hefford, Chairman of the Portobello Marine Research Station Board, report for the year ended March 1948, AJHR 1948, H-15, Marine Department annual report

- Notes ongoing financial difficulties, preventing the Board carrying out repairs and improvements.  
- Station used by Otago University.

### 1948

Article entitled: “Fishing Industry – Nationalisation and Study Suggested – Need for Sanctuaries”, extract from the Otago Daily Times, 9 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Discusses depletion of fish stocks etc. . .

- ‘Red cod were now brought ashore, whereas once they were returned to the sea, dead from nets. Ling, once despised, were now a valuable catch, even for the price realised by their livers.’

Article entitled: "Fishing Grounds – Excessive Trawling – Effect on Taieri Mouth Fleet", extract from *Otago Daily Times*, 12 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.

- 'A claim that the livelihood of fishermen at Taieri Mouth was being affected by the inroads of Port Chalmers boats, which had destroyed 10 years' work on the part of the Taieri Mouth fishermen, and the operations of a "large steam trawler" between Otago and Oamaru had depleted the fishing grounds of proper and had a harmful effect on private boats operating from Oamaru, Moeraki and Karitane was made to the Daily Times in the week-end by a man who has been fishing at Taieri Mouth for many years. // "About 20 years ago two boats went to Taieri Mouth to look for fresh fishing grounds", he said. "They became established, and in time about 11 boats were operating from Taieri Mouth. No trawling had been done there before, and the fishing grounds were found to be good. Six cases of fish were caught for a tow lasting an hour and a-half, boats with low-powered engines being used. There was no export market at the time and, in order to preserve the grounds and regulate the supplies of fish to the market, the fishermen did one tow a day. // The Port Chalmers boats heard about the grounds, however" he continued, "and they worked them continuously until the fish became seriously depleted. Eventually, Port Chalmers fishermen did not gain by trawling off Taieri Mouth, and they went away. After that the Taieri Mouth fishermen got about two cases of fish from a two-hour tow."
- "It took 10 years for us to build up the grounds," he said, "and in the past two years, when the fish have been better than ever, the Port Chalmers boats have begun to visit the grounds again. All through the summer they worked round the clock, and catches of up 100 cases have been known to go back to Port Chalmers."
- "The export of fish has not been of benefit to the public of Otago. It has been a means for the outlet of surplus fish, and the fishermen have 'threshed' it to such an extent that the grounds are becoming depleted."

#### **1948 Paua**

Managing Director, Irvine and Stevenson, to Secretary, Marine Department, 11 August 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Requests information on regulations relating to purchase of paua from fishermen; wanted for canning.

Secretary, Marine Department to Managing Director, Irvine and Stevenson, 16 August 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Advises that paua must only be purchased from a licensed fishermen.

#### **1949**

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1949, Marine Department annual report, AJHR 1949, H-15.

- Port Chalmers: total landings of 38,460 cwt, almost double the previous year.
- 15,827 cwt landed by one steam trawler, compared with 14,670 cwt the previous year
- motor-trawlers landed 12,693 cwt, down from 16,843 cwt the previous year
- motor line fishing vessels landed 9,938 cwt, down from 13,264 cwt the previous year

	1944	1945	1946	1947	1948
Tarakihi	3 166	173	81	9 977	8 476
Sole	4 993	6 282	8 366	10 963	9 652
Red cod	4 033	7 605	3 846	2 536	1 304
Barracouta	6 300	7 502	8 171	13 938	11 262
Flounder	1 163	1 366	745	1 062	766
Total (cwt)	23 264	25 533	23 250	44 849	38 460

- Annual report includes maps showing the approximate distribution of commercial catch of snapper, terakihi, blue cod, groper.

#### 1949

A.E. Hefford, Chairman of the Portobello Marine Research Station Board, report for the year ended March 1948, AJHR 1948, H-15, Marine Department annual report

- Notes ongoing financial difficulties, preventing the Board carrying out repairs and improvements.
- Research work again carried out by member of the Zoology Department of the University of Otago. For example, Miss Brewin working on the embryology of the compound ascidian, *Distaplia fasmeriana*.

### S17: Archival Data/Observations for Otago Study Area – 1950s

#### 1950

M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1950, Marine Department annual report, AJHR 1950, H-15.

- Oamaru:
- a motor-trawler commenced operations in 1948, fished for a total of eight months in 1949 and landed a total of 369 cwt; otherwise all fish caught be line

	1945	1946	1947	1948	1949
Total (cwt)	1 860	2 020	3 646	3 389	3 402
Hapuku	1 548	1 840	3 126	2 851	2 642
Blue cod	170	138	414	490	356
Gurnard		1			119
Tarakihi		5		1	102

- Moeraki:
- 2,365 cwt taken by lines (1,502 cwt the previous year), 7 cwt taken by nets (65 cwt the previous year)
- a single motor trawler also landed 13 cwt in 1948

	1945	1946	1947	1948	1949
Total (cwt)	2 017	1 964	2 499	1 580	2 372
Blue cod	549	383	736	617	1 243
Hapuku	1 336	1 352	1 565	846	1 053

- Karitane:
- 396 cwt taken by lines (555 cwt the previous year), 71 cwt taken by trawl (34 cwt the previous year), 1 cwt by nets

	1945	1946	1947	1948	1949
Total (cwt)	1 186	1 153	1 361	589	468
Blue cod	197	279	211	242	171
Barracouta	797	429	391	177	138
Hapuku	150	158	161	119	80
Soles	1		169	33	46

- Port Chalmers: total landings of 38,460 cwt, almost double the previous year.
- one steam trawler landed 16,043 cwt, up with 15,827 cwt the previous year
- motor-trawlers landed 15,106 cwt, down from 12,693 cwt the previous year

- lines landed 10,185, up from 9,938 cwt the previous year
- nets landed 25 cwt, up from 2 cwt the previous year

	1945	1946	1947	1948	1949
Tarakihi	173	81	9 977	8 476	9 566
Sole	6 282	8 366	10 963	9 652	10 648
Red cod	7 605	3 846	2 536	1 304	1 708
Barracouta	7 502	8 171	13 938	11 262	11 027
Hapuku	829	562	1 418	1 124	1 394
Total (cwt)	25 533	23 250	44 849	38 460	41 359

- Taieri Mouth:

- 596 cwt taken by lines (544 cwt the previous year), 681 cwt taken by trawl (188 cwt the previous year), 2 cwt by nets

	1945	1946	1947	1948	1949
Total (cwt)	714	989	669	732	1 279
Soles	559	849	389	183	638
Hapuku	82	83	230	390	486
Blue cod	70	42	50	152	110

- Nuggets:

- 405 cwt taken by lines (472 cwt the previous year), 3,458 cwt taken by trawl (3,619 cwt the previous year)

	1945	1946	1947	1948	1949
Total (cwt)	4 250	4 565	6 177	4 091	3 863
Soles	3 838	3 528	4 258	2 994	2 935
Flounder	214	427	644	283	351
Hapuku	94	290	333	362	297
Blue cod	45	111	232	113	108

- Waikawa:

- 810 cwt taken by lines (1,210 cwt the previous year), 4,138 cwt taken by trawl (3,004 cwt the previous year)

	1945	1946	1947	1948	1949
Total (cwt)	2 610	2 694	4 456	4 214	4 948
Soles	2 320	2 818	3 608	2 931	3 999
Blue cod	121	55	526	734	420
Hapuku	36	24	229	475	385
Flounder	94	22	12	29	98

## 1951

Christchurch Press, 26 October 1951, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.

- Notes that export of frozen tails to the US has produced a phenomenal increase in the crayfish catch off the New Zealand: 15,924 cwt in 1945, 52,482 cwt last year. Exports of frozen crayfish last year totalled 11,814 cwt, compared with 3731 cwt in 1948. 'The annual report of the Marine Department says that while the catch has increased some grounds are already showing a reduced return for the year worked compared with the peak pre-war catch of 12,212cwt.'

Secretary, Marine Department, to Messrs Rosser Bros Ltd, 5 August 1952, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.

- Notes that crayfish exports were mostly as 'tails' and nearly all to the USA. States that to convert 'tails' to 'green' weight', need to multiply by 3.

### **1951 (approx) Crayfish and other**

'The Crayfish Industry', author unknown, no date [seems to be a Marine Department report]

- Notes recent growth in crayfish catch. 'Such a rapid increase in the catch of a single species is from past experience a danger signal. Experience has shown that a rapid increase in the catch of a species is followed by a rapid drop when the stocks are unable to withstand the impact of increased fishing intensity. Already in a number of places the catch is beginning to drop.'

- Notes that the catching industry has responded to the crayfish incentive in the following ways:

- vessels normally engaged in fishing for 'wet' fish have changed to crayfishing in season;
- vessels normally engaged in fishing for 'wet' fish are making trips to distant, sometimes little worked or virgin grounds to catch crayfish;
- additional vessels are being used to develop new fishing areas; and
- the methods of fishing for crayfish have changed. Trawlers now more actively hunt the crayfish.

'Crayfish were not caught at Bluff or by the larger vessels operating from Port Chalmers until the export of craytails became so profitable. Now the Port Chalmers boats forsake their own markets and operate around on the West Coast on the same grounds that are worked by the boats from Westport and Greymouth. . . . The following is a view of the fishing industry at Otago. The population density is lower in Otago and Southland than in many other parts of New Zealand and there is therefore more of a surplus left over for export. With the development of the export trade in the post-war years in particular the lemon sole fishery here has been so heavily fished in the summer months and the catch exported that the market has been poorly supplied in the winter months. The export price has resulted in larger and more powerful vessels being financed into the industry but it appears now that these grounds are being strained for the export trade and that there are lean years ahead. The fleet or at any rate the bigger vessels are now forsaking the local market during the winter months to catch crayfish because of the big profits in tails.'

### **1952**

Article entitle 'This is a Fish Story', extract from *Evening Star*, 4 October 1952, M 1 2/12/191 part 1, Otago Trawling, NAW.

- Article about a day's fishing in the trawler 'Bravo'; describes fishing method.

- Photos: 1) fish being gutted, cleaned, and packed on board; and 2) boat unloading at wharf.

### **1956 Paua**

Otakou Fisheries to Secretary, Marine, 2 August 1956, M 1 2/12/425 part 3, Paua, 1950-1961.

- Attaches an application for the export of 'a token shipment' of paua meat.

Secretary, Marine, to Manager, Otakou Fisheries, 13 August 1956, M 1 2/12/425 part 3, Paua, 1950-1961, NAW.

- Approves export application for trial shipment, but advises that it is unlikely that export permits will be approved for future shipments.

### **1957**

'Deep Sea Fishing', *Otago Daily Times*, 18 May 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.

- 'Trawler and line fishermen operating off the Otago coast are not "striking it rich" just now. For reasons that only research officers will be able to explain comparatively few fish are being taken from the recognised grounds. In previous years the poundage each day rose into four figures. Now only about

300lb are being taken in a day that lasts as long as 15 hours. . . . No one seems to know why the flounders and sole have disappeared.

- Article also contains account of typical day of fishing on the 'Bravo'.

'Fishing Boats Idle in Rough Weather', *Otago Daily Times*, 8 June 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.

- Photo of vessels at Port Chalmers.

## **1958 Paua**

Minister of Marine to P.G. Connolly, M.P., undated (recommended for signing on 3 February 1958), M 1 2/12/425 part 3, Paua, 1950-1961, NAW.

- relates to request for information relating to taking and exporting of paua by Dunedin individual
- advises that only a limited number of licences had been granted around the country (some for vessels operating in West Coast Sounds), and only small token parcels approved for export.
- notes an increasing demand for paua flesh by Māori and Europeans; flesh also used by crayfishermen as bait; shell is used for manufacture in the jewellery trade
- manufacture of shell jewellery and other articles largely carried out by ex-servicemen; for this reason there is a total prohibition on the export of shell except in manufactured state
- any expansion of taking of paua would result in temporary over-supply of shell, followed by scarcity because of slow growth rate because of known slow recovery rate
- in light of these reasons, advises against any attempt to develop export trade; also notes that 'Māori people hold the paua in special regard' and any attempt at commercial exploitation would be opposed by the tribal committees.

## S18: General Accounts of Fish and Fishing in North-East New Zealand

Year	Details	Source
1769	[Page 103, footnote): Quotes from Wharton, <i>Captain Cook's Journal</i> (London, 1893), p. 162. Cook anchored in Bream Bay (Whangarei Bay) on 25th November, 1769: 'We had no sooner come to an anchor than we caught between 90 and 100 Bream (a fish so called). This occasioned my giving this place the name of Bream Bay. The north head of the Bay, called Bream Head, is high land and remarkable on account of several peaked rocks ranged in order upon the top of it.'	Elder, J. (Ed.) <i>The Letters and Journals of Samuel Marsden</i> , 1932.
1769	<p>- (p 194) At Mercury Bay, 5 November 1769: 'After the natives were gone I went with the Pinnacle and Longboat into the River to haul the Sene and sent the Master to the Bay and dridge for fish in the yawl. We hauled the Sene in several places in the River but caught only a few mullet, with which we return'd on board about noon.'</p> <p>- (p 194) At Mercury Bay, 6 November 1769: 'I went to another part of the Bay to haul the sene but met with as little success as before and the Master did not get above half a Bucket full of shells with the dridges. The Natives brought to the Ship and sold to our people, small Cockles, Clams and Mussels enough for all hands, these are found in great plenty upon the Sand Banks of the River. [new paragraph] In the Morning I sent the Long-boat to Trawl in the Bay, and an officer with the Marines and a party of men to cut wood and hale the sene, but neither the sene nor the Trawl met with any success, but the natives in some measure made up for this by bringing several baskets of dry'd or ready dress'd fish'.</p> <p>- (p 195) At Mercury Bay, 9 November 1769: 'As soon as it was day light the Natives began to bring off Mackarel and more then we well know'd what to do with'.</p> <p>- (pp 196-197) At Mercury Bay, 11 November 1769: I saw the head of the River . . . both sides of the River were cover'd with the same sort of wood: the sand banks were well store'd with Cockles, and clams and in many places Rock Oysters.'</p> <p>- (p 202) Mercury Bay, 15 November 1769: 'The best anchorage is in a sandy bay which lies just within the south head . . . here it is very convenient Wooding and watering, and in the River are an immense quantity of Oysters and other small shell fish, and this is the only thing it is remarkable fore and hath occasioned my giving it the name of <i>Oyster River</i> [Purangi River].'</p> <p>- (p 209) Exploring the Waihou River, 24 November 1769: 'We saw poles stuck up in many places in this River to set nets for catching of fish, but of what sort we know not for we saw more.'</p> <p>- (pp 210-211) At Bream Bay, 25 November 1769 (referring to 24 November 1769): 'At half past 7 PM we Anchor'd in a bay in 14 fathom water a Sandy bottom. We had no sooner come to an anchor then we caught</p>	J.C. Beaglehole (ed.), <i>The Journals of Captain James Cook: The Voyage of the Endeavour, 1768-1771</i> , Cambridge, 1955.



	between 90 and a hundred Breams, (a fish so called) this occasioned me giving this place the name of <i>Bream Bay</i> .’ [Beaglehole suggests that the fish were tarakihi. J.C. Beaglehole, <i>The Endeavour Journal of Joseph Banks, 1768-1771</i> , vol. 2, Sydney, Australia, 1963, p 438, footnote 3.]	
1769	<p>- (p 438) Bream Bay, 24 November 1769: ‘At night we came to an anchor in a small open bay; our fishing lines were tried and we soon caught a large number of fish which were calld by the seamen Sea bream, as many as I believe the ships company could eat in 2 days.’ Beaglehole suggests that this fish was tarakihi – p 438, footnote 3.</p> <p>- (p ?) 4 December 1769 in Bay of Islands ‘and after having a little laught at our seine, which was a common kings seine, shewd us one of theirs which was 5 fathom deep and its length we could only guess, as it was not stretchd out, but it could not from its bulk be less than 4 or 500 fathom. Fishing seems to be the cheif business of this part of the countrey; about all their towns are abundance of netts laid upon small heaps like hay cocks and thatchd over and almost every house you go into has netts in it making’</p>	J.C. Beaglehole, <i>The Endeavour Journal of Joseph Banks, 1768-1771</i> , vol. 1, Sydney, Australia, 1963.
1770	- (pp 6-7) March 1770, general observation on New Zealand: ‘For this scarcity of animals on the land the Sea however makes abundant recompense. Every creek and corner produces abundance of fish not only wholesome but at least as well tasted as our fish in Europe: the ship seldom anchord in or indeed passd over (in light winds) any place whose bottom was such as fish resort to in general but as many were caught with hook and line as the people could eat, especially to the Southward, where when we lay at an anchor the boats by fishing with hook and line very near the rocks could take any quantity of fish; besides that the Seine seldom faild of success, insomuch that both the times that we anchord to the Southward of Cooks streights every Mess in the ship that had prudence enough salted as much fish as lasted them many weeks after they went to sea. // For the Sorts, there are Macarel of several kinds, one precisely the same as our English ones and another much like our horse macarel, besides several more; these come in immense shoals and are taken by the natives in large Seines from whom we bought them at very easy rates. Besides these were many species which tho they did not at all resemble any fish that I at least have before seen, our seamen contrivd to give names to, so that hakes, breams, Cole fish &c. were appellations familiar with us, and I must say that those who bear these names in England need not be ashamd of their nam[e]sakes in this country.’	J.C. Beaglehole, <i>The Endeavour Journal of Joseph Banks, 1768-1771</i> , vol. 2, Sydney, Australia, 1963.
1770s	- (p 9) Discusses large seine nets made by Māori. Thomson, in his <i>Story of New Zealand</i> , tells that some were 1000 yards long and required 500 people to draw them properly.	Elsdon Best, <i>Fishing Methods and Devices of the Māori</i> , Dominion Museum Bulletin No. 12, Wellington, 1929.
1817	The following observation concerns the Firth of Thames: [Page 412] ‘At the entrance of the narrow part of the river, the land is covered with mangroves and other shrubs; but farther there are immense woods of perhaps the finest timber in the world: in several places the wood extends to the very edge of the water, and where it is at a little distance, the intermediate space is marshy, like some parts of the banks of the river Thames in England: it is probable that the river contains plenty of fish, for we saw poles	Nicholas, J. L. <i>Narrative of a Voyage to New Zealand</i> [Vol.I], 1817.

	<p>stuck up in many places to set nets for catching them, but of what kinds I do not know.’</p> <p>Nicholas describes a successful fishing in Bream Bay:  [Page 418] ‘As we were getting very short of provi [Page 419] sions, and our warriors had nearly exhausted their stock of fern-root, our principal object in entering this bay was the expectation of meeting with the chief who had visited us at the Cowa-cowa; and from whom we had hopes of procuring a supply. . . . However, though unsuccessful in other provisions, we got here a seasonable supply of fish, every man being set to work with his hook and line; and we very soon caught a large quantity of bream, the fish that gives name to the bay, and an abundance of snappers.’</p>	
1817	<p>This book includes general observations on the abundance of fish around New Zealand:  [Page 257] ‘During the short stay which I made in this interesting island, I had repeated occasions to observe the great abundance of fish that every where visited the coast; and, indeed, so immense a supply is here provided for the use of man, as must inspire him with admiration and gratitude for the liberality of nature. Nor is the profusion more remarkable than the variety; and there is no part of the world where the epicure who understands the qualities of this species of food, could more readily select a treat for his discriminating palate, than on the shores of New Zealand. . . . [258] Sailing round the whole extent of coast, he found as he proceeded, shoals of the most excellent fish; and I must observe, that while we remained here, our table was not only plentifully but luxuriously supplied. The fish, however, which are in common use among the natives, are snappers, bream, the beneecootoo, the parrot-fish, cray-fish, the herring, the flounder, and a fish resembling the salmon, but much inferior to it in flavour. In some of the coves were large flats, which, at low water, had beds of cockles, muscles and other shell fish. The muscles were of immense size, and the natives relished them exceedingly.’</p>	Nicholas, J. L., <i>Narrative of a Voyage to New Zealand</i> [Vol.II], 1817.
1819	<p>In 1819 the missionaries Samuel Marsden and John Butler, Butler’s family and two Māori chiefs, Tuhi and Titore, were on route to the Bay of Islands from Sydney on board the American Brigg, the <i>General Gates</i>. Close inshore off North Cape they sighted and passed close by a fleet of canoes with the occupants fishing with short lines. Tuhi spoke with the Māori anglers who explained they were fishing for swordfish, which they would dry and keep for winter use. Drying platforms could be seen on the adjacent shore (Sharp 1958).</p>	Sharp, A. (1958). <i>Crisis at Kerikeri</i> . A.H. & A.W. Reed, Wellington, New Zealand.
1819	<p>[Page 222] ‘Sept. 3d [1819], Sunday. Fine, wind S. S. E. and moderate. Weighed at daylight, and stood out of Prince Regent’s Channel between the islands of Moto-tappa and Moto-eehee: this passage bore north of Moto-corea, and the soundings through it were from ten to sixteen fathoms. At nine, having cleared all the islands, and being in the great channel between Point Rodney and Cape Colville, altered course to N. W. and by N. At ten the wind became very light, and at twelve it fell calm. We now threw out our fishing lines, and in a short time caught as much snapper (many of which weighed from twelve to fourteen pounds) as we could possibly make use of in several days.’</p>	Cruise, R. <i>Journal of a Ten Months’ Residence in New Zealand</i> [2nd ed.], 1819 [Capper 1974].
1831	<p>[Page 100] ‘November 12 [1831]. Light winds and fine; close to the N.E. end of Barrier Island; ran in shore, for the purpose of replenishing our wood and water. Sent the canoe for a cask of water, fearing further delay. Ran</p>	Carleton, H. <i>The Life of Henry Williams</i> , [Vol. I.], 1874.

1833	<p>down the eastern shore of Barrier Island, in order to gain the weather shore. No appearance of natives on the Island-- all killed or dispersed. . . . There are numbers of small rivers and bays, and timber in every part of the Island, and fish in the greatest abundance.</p> <p>November 13. Light airs all night; at 8, light airs from the S.E., which continued through the day,--by the help of which we crossed the mouth of the Thames; in the evening, calm.</p> <p>November 14. Light air's all night. In the morning caught a quantity of fish. . . . At five we rounded the north head of the Thames [Kawau], and entered a small deep cove [Little Omaha], which was as quiet as a fishpond, with trees on either side growing down to the water's edge; anchored in three fathoms water, which was beautifully clear, with sandy bottom, shewing the fish in great numbers, while the birds were singing most delightfully in the bushes. We went on shore to stretch our legs, which was a great relief. All soon at work cutting wood, gathering oysters, and shooting birds.'</p> <p>[Page 142]: 'October 24 [1833]. All in motion at daylight, and by sunrise, pulled out, and with a pleasant breeze from the north, passed on to Omaha, our favourite spot. Determined to remain the day, to adjust our things, and send the boys for a stock of fern-root and fish; some in quest of pigeons. . . . The lads returned early, with ten pigeons and a large collection of fine fish, which occupied them till dark to cook, as sea-stock.'</p> <p>[Page p 144]: 'October 30 [1833]. . . At half-past three we took our departure, and about five landed in a small bay on Motuihu [Motuihu Island]. We had to contend with a rough sea for a short time, as the weather tide was making strong; but as we drew near to land, we found it quiet, and soon went to work upon our quarters for the night. Sent off a party to fish; they returned with a large quantity.'</p>	
1833	<p>[Page 3] 'December 23rd, 1833. Te Puna, 1 Bay of Islands. This morning took leave of my family, and with Mr. Fairburn (my good colleague) left Te Puna in an open boat -- "Kukupu" -- some two and a-half tons burden, with the intention of visiting the recently selected site for a new mission station on the Thames River, which is to be called the "Thames Station," and is about 150 miles to the south-east of the Bay of Islands. . . . As the evening drew on the wind headed us, with a heavy swell from the sea, and prevented our passing Matakokako, Cape Brett, so we anchored for the night in Paroa Bay. Here we found many [Page 4] natives fishing for kahawai, and preserving large quantities for winter use. They were nearly all heathens, but they received us kindly and gave us a liberal supply of fresh and dried fish.</p> <p>24th. Got the boat ready before daylight . . . . After midnight we drew our boat up at Whangarei, and pitched our tents at two o'clock in the morning.</p> <p>25th. The weather perfect. Standing before a fresh sea breeze, we passed at times through shoals of kahawai, in places covering the whole surface of the water. In these immense gatherings the fish appear in millions. They are finely formed, a model of symmetry, and are something like the mackerel. In going through these shoals the natives row quickly, and throwing a cleverly made artificial bait overboard, generally catch some. In the evening entered</p>	Wilson, J. A. <i>Missionary Life and Work in New Zealand</i> , 1889.

	the more than pretty little cove of Omaha, which is well sheltered except from the east. The rocks here were covered with oysters, and so also the branches of the trees which dip in the water.	
1835	[Page 25] ‘Between the Bay of Islands and about thirty miles south of it are three harbours . . . There is also a small but snug harbour, called Wangari . . . [New Paragraph] The entrance to the frith of the Thames is rendered dangerous, in a few instances, by small rocks showing themselves a few feet above the surface of the water, and not readily distinguished at night. The Bay of Mahurangi, on the western side of the frith, is deep; has several rivers running into it; is studded with several small islands; and has a fine harbour, named, by the natives of the place, Kaihu. . . . [New Paragraph] With the exception of the Bay of Islands, none of these ports are generally known, as no charts or descriptions of them have hitherto been published. A few Europeans, expressly trading to some of them, are the only civilized people perfectly acquainted with them. All the ports abound in fish and oysters.’	Yate, William. <i>An Account Of New Zealand</i> [2nd ed.], 1835
1838	[Page 254] ‘Some fine islands lie in the Thames – such as <i>Waikeke</i> , <i>Motutapu</i> , <i>Pokoinu</i> . The latter is openly situated. [New Paragraph] The rivers are abundantly supplied with [Page 255] shoals of fish, including small sharks: oysters and other shell-fish are also to be found in abundance.’	Polack, J. S. <i>New Zealand</i> [Vol.I] 1838 [Capper reprint, 1974].
1838	Described Māori fishing practices: [Page 28] ‘Fishing is carried on in large parties. In the river Thames, during the season for catching sharks, the banks are occupied by numerous fishers.’	Polack, J. S., <i>New Zealand</i> [Vol.II], 1838 [Capper reprint, 1974].
1830s	Hodgskin visited New Zealand in the 1830s. The exact year of his visit is unclear. Hodgskin spent his time on a ship that was engaged in obtaining kauri spas from the Hokianga, Bay of Islands, and Hauraki districts.  [Page 32] ‘Towards the latter end of January (this month corresponding to our July, but more serene and settled, the thermometer ranging from 72 to 79,) we anchored in a lonely and romantic harbour, called by the natives Ki-ya-hou, situated at the head of the Bay of Mourangee or Mahranga, on the western side of the frith or mouth of the river Thames, the latitude of which is 36d. 28m. 50s. south, long. 174d. 46m. 30s. east, affording excellent shelter and secure anchorage for vessels of any size for a distance of two miles from its entrance. . . . [Page 33] This part of the country was but thinly inhabited; but numerous natives, from the neighbouring tribes, resort here in the fishing seasons for the purpose of catching and drying fish, and procuring oil from the livers of the fish. The skin of the sting ray serves the purpose of a bladder for containing the oil. I purchased several gallons for the use of our ship’s company, and found it burn remarkably well.’  Hodgskin does not specify the district to which the following observations relate – they may relate generally to the northern districts that he visited: [Page 33] ‘Large quantities of the horse mackerel are annually caught, and dried by the natives in a peculiar manner, without the use of salt; they keep good a long time, and are an agreeable relish for breakfast; but I did not see any of the real mackerel, although the coasts and harbours are full of excellent flavoured fish, and wherever we anchored we generally caught as many as we could make use of with hook and line; when we hauled the net we caught abundance of fine mullet, soles, and other flat fish, for the use of our men work[Page 34]ing in the forests;	Hodgskin, R. <i>A Narrative of Eight Months’ Sojourn in New Zealand</i> , 1841.

	<p>but we could purchase them so cheap from the natives that they were hardly worth the trouble of catching. There is a very fine fish taken with hook and line much resembling the salmon in appearance, but it is drier and cuts whiter. These usually come into the harbours with the flood-tide, in pursuit of the swarms of small fry--as we always found one of the small fry their favorite bait. I never observed the natives bring any of these sort of fish alongside for sale. Gurnets are plentiful everywhere, very large and richly flavoured, with the most beautiful coloured fins. Whiting, bream, and snappers are abundant, with several kinds of skate. Fine large crayfish as good as any lobsters. The oysters are inferior in quality, and not altogether very plentiful; but the cockles exceed in size and flavour the best that can be got in this country, and are to be found in most of the sandy coves. Mussels are also to be had; but I did not observe large quantities. As there are no rivers of any importance in New Zealand, it cannot be expected that there is much variety of fresh water fish. Even the Thames is not a large river, and cannot by any means be put in comparison with the majestic Thames of England. Its entrance is rocky, with numerous shoals, and is not navigable for vessels drawing more than ten feet of water. . . . The natives about here rather excel those of the Bay of Islands in making their fishing gear, and also in making kakaas or mats.'</p>	
1840	<p>The following quote describes Māori fishing practices generally, but includes a specific reference to shark fishing in the Firth of Thames:</p> <p>[Page 199] 'Fishing consumes much of the time of these people, who undertake the art in large parties, the entire inhabitants of several villages joining forces to engage in this piscatory warfare; for this purpose, they repair to the sea-girt shores, or to the sides of the numerous bays that imbricate the coast and harbours of this favoured country. Fishing [page 200] for young sharks is confined to the southward, principally on the east coast, and especially in the Frith of Thames, (lat: 36 degrees 25' S., long: 175 degrees 25' E.)'</p>	<p>Polack, J. S. <i>Manners and Customs of the New Zealanders</i> [Vol. I.], 1840. [Capper reprint, 1976].</p>
1841	<p>[Page 84] 'There are not many anchorages in the Thames, and but three places which can be considered harbours: the one called Coromandel harbour . . . . The shores are all very rocky and covered with trees, but the cliffs are not in general high, and are always very rugged; those at the water's edge are covered with oysters in a most extraordinary manner; generally they are more than a foot thick, and very good; other shell-fish are also abundant, particularly Cockles--of these I have seen more than a man could [Page 85] carry collected by one woman during the space of a tide; Scallops are also tolerably abundant, and are most delicious eating. There are no Lobsters nor Crabs, but a great abundance of fish of all kinds; one, the Salmon of the English, or Carwai (Carwhy), is a most excellent fish, the best I have tasted in the southern hemisphere; it is about the size of a salmon, and so like it in figure, fins, &amp;c., that I should think it must belong to an allied family. Flat-fish are also more abundant than they usually are on these coasts, but I have never tasted any equal even to a Plaice.'</p>	<p>Bidwill, J. <i>Rambles in New Zealand</i>, 1841, [Capper facsimile, 1974].</p>
1847	<p>Description of Kawau Island:</p> <p>[Page 164] 'The coast is rocky, and indented with many picturesque and sheltered bays, that terminate in sandy beaches. Nothing can exceed the loveliness of some of these fairy-like bays: the water, sheltered on all sides by the steep hills, is clear and blue, and so transparent that the fish may be seen sporting in thousands through the cool element . . .'</p>	<p>Angas, G. F. <i>Savage Life and Scenes in Australia and New Zealand Vol.II</i>, 1847.</p>

1853	[Page 179, footnote] 'In three months, in 1853, there visited Auckland alone (but Auckland is the chief seat of the native trade) 442 canoes, navigated by 1592 men and 590 women, bringing produce to the value of nearly £4000'. Included 5 ½ tons of fish and 18 kits of oysters	Hursthouse, C. <i>New Zealand, or Zealandia, the Britain of the South</i> [Vol.I.], 1857
1853	... the harbours abound in fish – abound is a poor word for it: they are literally alive with fish. M—— and myself now live almost entirely on them at every meal; they are delicious, and in great variety. We have a fish here exactly like the salmon, and of as good flavour. On a sunny morning the surface of the harbour is a complete mass of fishy life.	Earp, G.B. (1853). <i>New Zealand: its emigration and goldfields</i> . London: George Routledge and Co. 115 pp.
	<u>Fitton, Edward. <i>New Zealand: its Present Condition, Prospects and Resources</i>, 1856.</u> [Page 60] 'The fish caught near Auckland, although of but moderate quality, is plentiful and cheap.'	
1859	The following observations were made in 1859, near Auckland: [Page 249] 'In passing along the beach, we came to a kind of scaffold about 30 feet long. Our organs of smell betrayed to us at a considerable distance its object. A long row of fish, sharks and other kinds, were suspended from it to dry, tossed to and fro by the wind and promising the natives a favourite dish for the winter with a great deal of "haut gout." Fat pigs and lean dogs were running about; and farther on, there were some Māori huts. . . . [250] Our object was, to visit and to examine the most easterly of the three cones, called Takapuna by the natives.'	von Hochstetter, Ferdinand. <i>New Zealand</i> , 1867
1869	- (p 113) Claims that the report of the 1869 commission headed by Hector 'was apparently completely ignored.' Commission had not been adequately resourced.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1872	- (p 27) By 1872, two coastal fishing stations established north of Whangarei, employing about 100 men and operating 21 vessels – focussed on snapper. [Auckland Provincial Council, Report of Local Industries Committee, Session XXVIII 1872, A-14]  - (p 49) In the early 1870s, mullet began to be canned at Whangarei. Mullet could be fished in quantity in the east coast of the North Island from North Cape to the Bay of Plenty, concentrated in harbours and tidal estuaries. Mullet was well known in Auckland households – a staple catch for which a specialised form of small sailing craft was developed, known by the 1890s as 'mullet boats'. Fish were caught in nets as they came across shallows in the tide. With a full catch – perhaps 40 dozen – the boat would sail to Auckland.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1877	- (p 113) Marine Department first became interested in fisheries administration with passage of the Fish Protection Act 1877. [Regulations were introduced under the Act in 1878 – see notes on regulations.] 1877 Act was introduced after J. Macandrew (Dunedin MP) complained to Parliament about destruction caused by drag-net fishing and requested legislation to provide protection. [NZPD, vol XXV, pp 659-660, 26 September 1877: 'Mr Macandrew asked the Attorney-General, If the attention of the Government has been called to the necessity of legislative action being taken in order to the protection of seine fisheries throughout the various harbours of New Zealand during the spawning season; and if the Government will take such action this session? Attention has been directed during the last few years to the wanton destruction of fish which has taken place in the waters of Dunedin	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.

	and in other parts of the colony. Ground fish, such as flounders and soles, were being rapidly exterminated, and he put the question in the hope that the Government would pass a measure dealing with the subject this session. He thought that if the Protection of Animals Act were extended to fish it would effect the object he had in view. There ought to be at least three months in the year during which no such fish should be caught, and no fish below a given size should be allowed to be exposed for sale.']	
1878	- (p 113) Fisheries (Dynamite) Act 1878 prohibited the dynamiting of fish in the sea, lakes, and rivers.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1880	- (p 113) Colonial Fisheries Commission set up in 1880 – reported that industry did not seem to flourish as it should, recommended lower rail rates for transport of fish.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1885	- (p 113) Julius Vogel was Commissioner of Trade and Customs in 1885 – ‘one of the first politicians to realise the value and importance of a NZ fishing industry.’ Vogel asked J. McKenzie to write a report on his study into the fishing industry – reported that millions of tons of fish could be caught annually. - (p 113) In 1884 the Department undertook the administration of the Fisheries Conservation Act 1884, passed because commercial fishing practices were said to be recklessly destroying small fish. - (pp 113-114) Fisheries Encouragement Act 1885 passed to promote the establishment of fisheries in NZ and the production of canned and cured fish for export, and the maintenance of fishing populations through setting apart land. An export bonus under the Act helped to create a thriving mullet canning business in North Auckland, for some reason the bonus was abolished by the Govt in 1905. - (p 114)	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1899	A.F. Ayson appointed first Inspector of Fisheries in 1899, to ‘enable the Department to take more active steps in assisting the development of the fishing industry’.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1900	- (pp 114-115) One of Ayson’s first tasks was to organise experimental trawls – carried out in 1900 and 1991 (on the <i>Doto</i> ) and in 1907 (on the <i>Nora Niven</i> ). ‘Although the expedition of the <i>Doto</i> and <i>Nora Niven</i> were valuable, neither vessel was suitable for carrying out the work scientifically; what was attempted was more in the way of making a “flying survey” of the coastal fisheries and an attempt at discovering offshore banks. However, several valuable fishing grounds were discovered and much valuable knowledge of the coastal waters was acquired.’	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1900	- (p 78) ‘Around 1900 a fourth major technological change – the oil engine – was added to trawl nets, steam power and ice.’ Oil engines initially installed on small craft and were not powerful enough for trawling, which continued to be carried out by steam-powered vessels.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry

		Association, Wellington, 2004.
1904	- (pp 80-81) From 1 July 1904, all fishing boats had to be registered and marked with a licence number and landing port. All owners of licensed boats were to provide the Marine Department with details of all fish caught. Reporting was carried out by Fisheries Inspectors in a generalised fashion.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1914	- (pp 115-116) In 1914, Commissioner of Fisheries for Canada, Edward Prince brought to NZ as an expert to report on fisheries. Submitted a preliminary report in 1914, no final report was to appear. Made a number of recommendations, many similar to Ayson's 1913 report. Also thought that NZ should define territorial limits to preserve resource – suggested 8 to 10 miles.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1915	- (p 115) In 1915 Ayson instructed to report on the condition and development of the NZ fishing industry. In his report, he recommended that a separate Fisheries Department be established and that coastal waters up to 100 fathoms be scientifically prospected. Also thought practical fishermen should have money advanced to them to purchase boats, and that benzene and lubricating oil should be supplied at cost, also transport and other working expenses. He advocated a proper system of collecting statistics.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1917	- (p 101) Auckland City Council operating two trawlers by 1917.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1919	- (p 116) 1919 Fishing Industry Commission made recommendations in line with suggestions made by Ayson and others in preceding 10 years. It advocated the government acquiring and working steam trawlers and establishing fish-freezing and ice-making plants near the fishing grounds. Also thought that a government vessel should survey the fishing grounds, and that advance should be made to fishermen on the security of their boats and gear. - (p 116) Fishing Industry Promotion Act 1919(?) – more than £5000 advanced to fishermen to purchase or build boats 1920-1924.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969. Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1920s	- (pp 52-53) 'In early European days, until about the 1920s, most fishing was done from small sailing boat, by line or set nets.'	Luff, Helen Jordan (2003). <i>Tales From Great Barrier Island</i> . David Ling Publishing, Auckland.
Early 1920s	- (pp 110-111) In the early 1920s a new fishing method – Danish seining – was introduced to the Hauraki Gulf. Danish seining worked by pulling a net towards a stationary vessel. It was more fuel efficient, the gear was	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> ,



	cheaper and it took less fishing time. The net and tow ropes (called warps) were laid around a school or concentration of fish, then hauled in so the fish were landed in the net. Seining worked well for smaller vessels, many of which did not have powerful enough engines for trawling. Also, there were no restrictions on where seiners could fish, but there was a prohibited area for trawling.	completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1923	<p>- (p 116) Notes that Danish seining method of fishing began on the Auckland grounds in 1923.</p> <p>- (pp 116-117) Sea Fisheries Investigation Committee 1937 – report gave a comprehensive review of the fishing industry at the time. Resulted in the application of the Industrial Efficiency Act 1936 – licensing scheme extended to all aspects of the fishing industry.</p>	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1924	- (pp 110-111) In 1924, one of the Sanford trawlers was fitted out for Danish seining and returned to port from her first attempt with a large catch, principally of flounder. Within a year there were 22 vessels Danish seining from Auckland.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1926	<p>- (p 111) Some line fisherman claimed that seining destroyed immature fish. After Ayson retired in 1926, fishing inspectors began measuring sample catches. Spawning grounds were closed to any form of netting from mid-November to the end of January, the minimum mesh size of seine cod ends was increased to 11.5 cm, and some areas were closed completely to Danish seining.</p> <p>- (p 112) In 1926, following Ayson's retirement, Arthur Hefford was appointed as his replacement, with the title 'Fisheries Expert'. Hefford wanted to make decisions based on hard facts about the size of fish stocks. His arrival coincided with the expansion of fishing. Trawling and Danish seining, combined with oil engines which replaced the last sailing vessels, brought a great increase in catches.</p> <p>- (p 112) Hefford was concerned about maintaining numbers of fish, particularly in the Hauraki Gulf snapper fishery. He had no past statistics to work on but was certain that 'considerable depletion has taken place' (see <i>AJHR</i> H15 1928). He gave logbooks to skippers of vessels in the Hauraki Gulf so that catches could be recorded. There was no way of checking that accuracy of the recording and sometimes the logbooks were ignored.</p> <p>- (p 112) Hefford's other major concern was oysters. Statistics were gathered on Auckland rock oysters and oyster beds in Foveaux Strait.</p>	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1929	- (p 115) Danish seining limits were extended in 1929. As more vessels adopted the method, their maximum length was restricted to 50 feet (15.25 metres). While Auckland boat numbers increased rapidly, the quantity of fish landed remained about the same – about 4500-5000 tons. The number of steam trawlers had dwindled to four by 1930, with one or two of them laid up during the worst of the Depression years.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.

		Association, Wellington, 2004.
1935	- (p 113) Until the early 1930s the Auckland fleet had been dominated by Sanford with its steam trawlers, but the number of small line boats (which made day trips) and the number of Danish seiners increased. From 1935, a dozen or so new wooden vessels were built for new merchants – most were seiners, many of which were converted to trawling in later years.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1937	- (p 118) The 1937 Sea Fisheries Investigation Commission looked into ‘the condition and prospect of the sea-fishing industry of New Zealand, including . . . any matter relating to the exploitation and conservation of our sea fisheries.’ [see AJHR 1937-38 H44A]  - (pp 118-120) At the time of the report, the Marine Department had been gathering statistics of fish landings for nearly 20 years. Ayson’s summaries were based on annual reports from his inspectors. Hefford had introduced logbooks to skippers, but skippers were still notoriously unreliable. Logbooks were not completed, often the wrong species was entered, and there was a thriving cash economy.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1939	- (p 134) In 1939, Hefford noted that the supply of statistical data had improved. More than 40 percent of the national catch landed in Auckland – 70 percent by Danish seiners and 27 percent by trawlers. Landings were dominated by a small number of species.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1935–1944	- (p 137) Between 1935 and 1944 landings of wetfish declined only slightly, even though the catching power of most of the trawlers was removed during the war years. The value of the fish increased, Hefford believing this was a result of one main reason: scarcity. Fish had become harder to catch, despite bigger boats, more powerful engines, longer voyages and better fishing gear. Danish seiners were now travelling further afield. Through the 1930s they had concentrated on the Hauraki Gulf, seldom going past Kawau. Now they fished around the Coromandel Peninsula as far as the Bay of Plenty, and northward to Cape Maria van Dieman and along Ninety Mile Beach on the west coast. Hefford saw this as clear evidence of overfishing.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1944	- (p 157) In November 1944 trawling restarted from Auckland.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1944	Petition to the Speaker and members of the House of Representatives. Signed by 2,511 inhabitants of the Whangarei District, including the Mayor, President of the Trades and Labour Council, Chairman of the Harbour Board, etc. ‘Humbly sheweth: 1. That the inhabitants of the said District, numbering approximately 20,000, are alarmed concerning the effect on their local fisheries of the operation of the Auckland-owned fishing boats using Seine or heavy drag nets.	Petition of N. Jones and others, undated (forwarded by Clerk of the Public Petitions Committee to Secretary of Marine on 6 September 1944), M 1 2/12/146 part 1, Trawling and netting

<p>2. That formerly the shallow waters of the harbours, tidal rivers and creeks of the district abounded with mullet, herring, flounders and parore, which were regularly taken and depended upon as a food by settlers, Māoris and others.</p> <p>3. That in the outer bays the sea bed, producing and covered with a great diversity of mollusca and sea weed, afforded food and shelter for vast numbers and various species of fish, including schnapper, terakihi and blue cod, while the surface waters of these bays fed shoals of school fish, principally trevalla and kahawai, and with which were associated the king fish etc. and flocks of sea birds.</p> <p>4. That previous to the coming North of the Seine net boats, the local long-line fishermen operating in the coastal bays could depend on securing a boat load of fish on the one tide, and the people had a regular supply of fish, cheap and fresh, while the fishermen, with two men on a boat and two trips a week, made a good living.</p> <p>5. That the scarifying of the bed of the bays and harbours by the repeated dragging thereover of heavily leaded nets has dislodged the mollusc and torn the vegetation out by the roots, and proof of this may be seen by the extra-ordinary quantities of immature seaweed and shell fish cast up on the beaches during easterly seas, and that these Areas, which hitherto supported a wealth of marine life are now, through the destruction wrought by the drag nets, being reduced to lifeless wastes.</p> <p>6. That the damage taking place to the harbour and coastal fisheries by the drag nets is widely recognised, and to quote one example of the many and constant complaints made, the following is submitted from the pen of Mr. J.I. Thomason, a well-known and responsible resident of the district: "There was in this harbour some two months ago a fishing boat with a net near half a mile long, with a pocket in it; it was hauled from one side of the harbour to the other, heavily leaded so as to stick to the bottom and it took eight men to haul it in. When it was hauled up on the beach they had over three tons of fish that were marketable but the number of small snapper tangled up among the kelp and weeds was tens of thousands, killed and smashed to pieces, thousands of them not one inch long."</p> <p>7. The since the introduction of the heavy drag nets in our Northern waters, operated by both engine and man power, the fish of our inner shallow waters and outer bays, as described above, have practically disappeared, with the exception of the surface school fish mentioned, and that these are now falling victim to the encircling power nets and, it is believed, will soon be cleaned right up, perhaps not to return in our lifetime.</p> <p>8. That Whangarei shops are receiving fish from Auckland, Kaipara and Bay of Islands, where drag netting is prohibited, and that the supply is, in consequence, irregular and inadequate . . .</p> <p>9. That after careful and impartial investigation, a plan of the affected fisheries was prepared and a request made that use of drag nets in such fisheries by prohibited, that such plan was signed, under resolution, by the following named Whangarei District organisaitons: Borough Council; County Council; Harbour Board; Town Boards of Onerahi; Kamo and Hikurangi; Māori Council; Chamber of Commerce; Farmers' Union; Acclimatisation Society and Cruising Club.</p> <p>10. That the document signed as stated above was forwarded to the Marine Department on 27 January 1944, and that no action on the part of the Department has apparently been taken.</p> <p>11. That in consideration of the foregoing statement of facts, and of the fact that the spawning season is close at hand, your petitioners seek protection from your Honourable House and respectfully and strongly urge that the taking of fish for sale by means of a net of any description which is drawn over the sea-bottom or through the sea</p>	<p>restrictions – Whangarei and vicinity, 1917-1954, NAW.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------

	<p>be prohibited within the area described as follows: - Inside a line drawn straight from Bream Tail to Bream Head: thence straight to Three Gables, Tutukaka: thence straight to the outer point of Wide Berth Islands and thence straight to Home Point Whangaruru.</p> <p>12. That such area is equal, approximately, to one-twentieth part of the Hauraki Gulf.</p>	
1944	<p>- Comments on petition by N. Jones and others (see above), responding to each point:</p> <ol style="list-style-type: none"> <li>1. Claims that the alarm is based on self-interest and that the prime movers are owners of big launches who had become accustomed to making big catches of fish.</li> <li>2. States that: 'No doubt this is correct. The same thing could be said of every other harbour and estuary in early times.</li> <li>3. 'There is no evidence for this notion.'</li> <li>4. Provides table of landings from annual reports. Claims that local fish supplies have never been adequate in Whangarei and have depended partly on supplies from elsewhere</li> <li>5. 'This . . . is a notion that is certainly not based on properly observed facts . . . vain charges against the nets which they wish to see prohibited.'</li> <li>6. 'I can only conclude that this statement is a very exaggerated one. It certainly refers to an exceptionally heavy catch . . . It seems unlikely that kelp would be taken in the net, for kelp needs a bottom of stones or rock – an impossible sort of bottom on which to work a seine net. However, among hundreds of hauls made with heavy trawl nets which are much rougher in their effect on the fishes than these seines could be I have never seen any fish in the catch that was 'smashed to pieces'. I cannot regard this statement as credible'</li> <li>7. 'This paragraph is . . . the only argument that need have been put forward. It is of course an exaggeration to say that the fish have practically disappeared, for commercial boats have been getting fair quantities in the last few months. I am myself concerned about the question as to whether the increased exploitation of the fisheries of late years has not abstracted more from the fish stocks than is safe. The question is, as I have pointed out before, entirely one of abstraction or subtraction; and this has to be balanced against natural increase or else a state of depletion must be brought about. The state of abundance of fish that existed all around our coasts in earlier times is now admittedly a memory of the past . . . // The whole problem is one of sorting out, and as far as possible measuring, the quantitative effects of all the factors that are responsible for the additions to and the subtractions from the fish populations around the coasts. It is quite obvious, though for a long time this view was stoutly contradicted by people who were regarded as experts, that the biggest factor responsible for the reduction of the fish population is the operation of the commercial fisheries. . . . Taking large quantities of fish out of the sea is like taking large sums out of a banking account. . . . // With reference to the Whangarei petition, this much may be said about the snapper, the species which probably holds the first place in their interest. If the "virgin" state of their harbour and coastal waters had been maintained by a rigorous limitation of commercial fisheries the local settlers and week-enders would certainly have benefitted by being able to catch more snapper with less expenditure of time and trouble. From the point of view of this Department, and the Government, however, it is a question of national economy, not of local interests. In the first place the snapper of Whangarei Harbour are certainly not bred in those waters, though young stages occur which have been carried in by tidal currents from the open sea. . . . It is also pretty certain that mature snapper and other fish make seasonal migrations into Whangarei Harbour. . . . // The present point is that the snapper occurring in Whangarei Harbour, whether they drifted in passively in their larval</li> </ol>	<p>A.E. Hefford, Chief Inspector of Fisheries to Secretary, Marine Department, undated, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.</p>

	<p>or embryo stages or whether they entered by active migration at an older age, must be regarded as part of the general stock of that area. The all-important desideratum[?] for conservation is that the quota of fish caught from the whole stock should not exceed what can be replaced by natural reproduction. If an abundant stock of fish is preserved from commercial fishing merely to provide good fishing for amateurs, it is not making the best of our resource. A certain amount of killing off and utilisation is true economy in fish husbandry as in stock-farming. How, when and where to put restrictions on exploitation is the problem and it is not an easy one. In fact, with out present limited knowledge we cannot deal with it with the confidence and promptitude that is desirable. // The prescription of “sanctuary” areas appears to me to be a sound one. We have applied it to a considerable portion of the Hauraki Gulf and to all harbours which are likely to be exploitable by Danish Seine vessels or trawlers. But it is not much use having prohibited areas without the means of detecting and apprehending poachers. Much complaint has been made about poaching inside Whangarei Harbour but Whangarei Inspector never managed to do anything about it. // The recently developed method of working large seines (drag-nets) . . . hauled on to a beach by man-power, represents an attempt at big-scale commercial fishing within the law as it stands at present. It has already been recommended that no drag net or seine exceeding a length of 90 yards should be allowed to be used in any waters. No further restriction is recommended at present for the following reasons – (1) owing to wartime conditions there is a general shortage of fish supplies to the general public, (2) a very large proportion of the fish taken by the large drag-nets in Whangarei Harbour consists of kinds such as trevally, kahawai, dogfish, and sharks which are not usually fished for to any extent . . .</p> <p>8. I can say nothing about the sources of supply or the prices in the Whangarei fish shops except that this Department is in no way responsible for them and that Whangarei appears to be in no worse position than other places and better than some. The statement that drag-netting is prohibited on the fishing grounds from which supplies for Auckland, the Kaipara and Bay of Islands are obtained is quite incorrect.</p> <p>- States that, if the requested restriction was imposed, the following consequence would result:</p> <ul style="list-style-type: none"> <li>a) commercial fishing would be deprived of valuable fishing ground because the best fishing is near the coast</li> <li>b) market supplies would be reduced</li> <li>c) with all net-fishing prohibited, the professional line fishermen might revert to the formerly common practice of using explosives to obtain bait</li> <li>d) the large sanctuary area would provide improved fishing for amateur fishermen</li> <li>e) ‘if the commercial fishing operations continued to take as many fish from the outside of the proposed boundary line as they normally take under present conditions there would be no appreciable advantage to conservation which depends essentially upon the survival factor of the whole population’</li> <li>f) there would be practical difficulties in providing the patrol boat that would be necessary to prevent poaching within the proposed closed area</li> </ul> <p>- Also notes that the area inside the proposed line has a rocky bottom and is therefore naturally protected against trawl or Danish seine fishing.</p>	
1946	<p>- (p 138) Following the war and the return of steam trawlers, the volume of wetfish picked up quickly. In 1946, a record 19,000 tons of wetfish was caught nationally.</p> <p>- (pp 138-139) In 1946 Hefford retired; replaced by M.W. Young as Chief Inspector of Fisheries. . . . The Marine</p>	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry

	Department had limited resources. It still had no means of measuring what it should be controlling other than by analysis of incomplete statistics grudgingly supplied by fishermen.	Association, Wellington, 2004.
1947	- (p 158) By 1947 there were 125 full-time motor- trawlers nationally. Engines were becoming more powerful and the post-war vessels were substantially larger than those built 10 years previously. In the 1930s most trawlers built were about 12 metres long and drew about 1.5 metres. The post-war generation were 14 to 18 metres long and drew between 1.8 and 2.1 metres.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
Late 1940s	- (p 160) The Dalmation seine vessels were, by the 1940s, fishing outside of the Hauraki Gulf, down to the Bay of Plenty at times and sometimes around North Cape.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
Late 1940s	- (p 52) ‘Until the late 1940s, after World War Two, people who set out to catch fish were always successful. It was quite common for a member of the family to be sent out to catch fish from the rocks for breakfast.’	Luff, Helen Jordan (2003). <i>Tales From Great Barrier Island</i> . David Ling Publishing, Auckland.
1950	- (p 159) The rush to convert to trawling had been accentuated by new fishing regulations in August 1950. Seining was effectively banned from all North Island waters not being fished by the Auckland fleet. Trawling in the Hauraki Gulf was banned between 1 October and 1 March. Whether vessels were equipped with seine nets of trawls it was clear that they were going to have to travel further to fish.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1951	- (pp 158-159) By 1951, the number of Danish seiners had almost halved owing to conversion to trawling. The small vessels had some advantages over steam trawlers, requiring less crew and being cheaper to run.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1955	- (p 160) By 1955, 70 percent of total New Zealand wetfish landings were caught by trawl, and 5 percent by Danish seine. Most of the seine catch was snapper, with smaller quantities of gurnard, John Dory, and terakihi.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1959	- (p 160) By 1959 total wetfish landings had reached 25,000 tons. Auckland remained by far the largest fishing port, but no longer dominated the industry to the extent that it had 20 or even 10 years earlier. Sanford had spread its interests to other ports, especially Tauranga. About 8500 tons, a third of the total wetfish catch, was landed at Auckland (including Manukau) and Thames. . . . Lyttelton, Nelson, Port Chalmers and Bluff (including Stewart	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry

	Island) ranged down from 950 to about 500 tons.	Association, Wellington, 2004.
1961	- (p 117) Problems relating to development, expansion, and restrictive licensing saw government set up a select committee in 1961. Its report contained a number of far-reaching recommendations, including the abolition of licensing system, replacement of FIAC with a Fishing Industry Board, greater research in handling/storage/processing technology, and expansion of fisheries research.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1964	- (p 117) Following the passage of legislation in 1963, a system of registrations and permits replaced licensing of fishing boats, and a Fishing Industry Board was established. Also, at the end of 1964, the Marine Department's Fisheries Division was split into the Fisheries Research Division and Fisheries Management Division.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.

### S19: Hauraki: Crayfish

Year	Details	Source
Unspecified	- (p 52) 'Crayfish are numerous on many parts of the rocky coast-line, and so furnished quite an important food-supply to the natives. They were taken largely by means of a lobster-pot, termed a taruke, and also often by hand.' - 'Concerning crayfish Captain Cook wrote as follows: "These we also brought everywhere to the northward in great quantities of the natives, who catch them by diving near the shore and finding out where they lie with their feet."	Elsdon Best, <i>Fishing Methods and Devices of the Māori</i> , Dominion Museum Bulletin No. 12, Wellington, 1929.
1872	- (p 1) In 1859, Cameron Buchanan (aged 1) went to live with his parents on Great Mercury Island. - (pp 8-9) About 1872, Cameron observed Māori catching crayfish, 'of which there are quite a lot in the seaweed that fringes the beaches and reefs around the Island'. The Māori felt for the crayfish with their feet, then reached down and caught them by their feelers and threw them onto the beach. In about 20 minutes, they caught about 12-15 crayfish.	Anon., <i>Ahuahu (Great Mercury Island): Memoirs of Cameron Buchanan, 1859-1873</i> . Mercury Bay Historical Society, Whitianga, 1977.
1901	- the steam trawler 'Doto' chartered, equipped with trawl nets, one purse seine net, one bottom dredge, and hooks and lines (p 1) - expedition undertaken from February to May 1901, around the coast of the North Island - from Tolaga Bay to Hauraki Gulf little work was done (p 2) - from Tauranga to Cape Colville only one haul was made – the quantity of fish taken at this season was sufficient to warrant its selection as a permanent trawling ground - in and around Hauraki gulf good hauls of marketable fish were made on every occasion - total hauls of the trawl net were 122 - haul numbered 25 was located off the coast from Whangapoua on the east coast of the Coromandel Peninsula (p 5)	Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 11 July 1901, <i>AJHR</i> 1901 H-15A <i>[Photocopy 39]</i>

	<ul style="list-style-type: none"> <li>- the following fish were taken from this haul: crayfish, leather jackets (pp 10-11)</li> <li>- hauls numbered 26 to 54 were located in the Hauraki Gulf, including the Firth of Thames (pp 5-7)</li> <li>- the following fish were taken from these hauls: common flounder, sole, lemon sole, blue cod, john dory, red gurnard, snapper, crayfish, electric ray, whip ray, dog fish, cat fish, leather jacket, octopus, mussels, shark, stingray, and trevally (pp 10-11)</li> <li>- hauls numbered 55 to 58 were located in Bream Bay (p 7)</li> <li>- the following fish were taken from these hauls: lemon sole, john dory, red gurnard, snapper, dog fish, leather jacket, (pp 10-11)</li> </ul>	
1915	- Sanford recommenced steam trawling – beyond the closed waters of the immediate Hauraki Gulf. In December 1915, one of Sanford's three trawlers landed a six-ton catch that included trevally, gurnard, mackerel and crayfish.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 97.
1916	<ul style="list-style-type: none"> <li>- Return prepared by my shipping clerk after making enquiries from all fish dealers throughout the city.</li> <li>- Gives details of various kinds of fish caught on the local grounds, giving as near as possible the total weight.</li> <li>- Impossible to state exactly what amount would be caught on the local grounds only. However, all or 95% of the flounder would be caught at Thames, while most of the crayfish (if not all) would be obtained from Great Barrier. Of the remainder, they would be caught in all parts of the province.</li> </ul>	Return of Auckland fisheries for the year ended 31 March 1916, Collector of Customs to Secretary, Marine Department, 7 April 1916, M 1 2/12/115 NAW.
1919	<ul style="list-style-type: none"> <li>- Snapper is the principal fish caught here, also hapuku, mullet, trevally, kahawai, rock cod, guard fish, herring, crayfish, moki, and flounder</li> <li>- Have tried to get an estimate of the quantity caught and value, but it is exceedingly hard to get anywhere near the exact amount.</li> </ul>	Annual fisheries report for the year ended 31 March 1919 for Tauranga by Fisheries Inspector A Skinner, M 1 2/12/182 NAW.
1923	- (p 141) Crayfish made subject to the provisions of the Fisheries Act 1908 in November 1923. The Act already controlled fishing for wetfish and oysters. [Sections 21 and 22 – relating to the granting of exclusive licenses.]	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 153.
1928	<ul style="list-style-type: none"> <li>- Boats: vessels engaged in crayfishing – about 30</li> <li>- figures apply to all vessels marked AK and AK boat landings only.</li> </ul>	Annual return for Port of Auckland for year ending 31 March 1928 by Inspector of Fisheries C Daniel, M 1 2/12/413 NAW.
1928	- Several boats fish only for crays, others seldom go further than the river of the centre island, while about 8 boats are regular outside boats and work as a rule from Cuvier Island, Mercury Island, Alderman and Mayor Island, and the coast generally.	Annual report on Mercury Bay for the year ending 31 March 1928 by Inspector of Fisheries Daniel M 1 2/12/413 NAW.
1929	- Boats engaged in cray fishing – 30 part time	Annual return for Auckland for year ending 31 March 1929 by Inspector of Fisheries, Charles Daniel, M 1 2/12/452 NAW.
1930	- Boats crayfishing – 40 boats part-time	Return of fishing information and statistics for the port of Auckland for the year ended 31 March 1930 by Auckland inspector C Daniel, M 1 2/12/477,



		NAW.
1930	- Boats crayfishing – 1 boat part-time	Return of fishing information and statistics for the port of Tauranga for the year ended 31 March 1930 by Tauranga inspector A Skinner[?], M 1 2/12/477, NAW.
1933	- Last week 2000 cases of tails were consigned to London through an Auckland firm; further shipment to be made shortly. 'The waters of Coromandel Peninsula abound in crayfish and Mercury Bay fishermen are already reaping the benefit of the export trade.'	'Crayfish Tails', <i>Star</i> [Auckland], 5 September 1933, M 1 2/4/1 part 2 NAW.
1933	- Owing to the collapse of the London market, one Auckland packing firm has notified fishermen that it will discontinue packing – will have a serious effect on the Mercury Bay fishermen.	'Crayfish Tails – Market Collapses', <i>Star</i> [Thames], 2 October 1933, M 1 2/4/1 part 2 NAW.
1933	- Zealandia Company states that it is still taking supplies from fishermen. 'There are nine tons of Mercury Bay crayfish going to our Whangaroa factory to-day, and the industry is being organised all along the East coast from Whitianga northwards, including the Barrier. Larger supplies are required to meet the company's orders.'	'Crayfish Industry – New Zealand Firm's Orders', <i>Dominion</i> , 10 October 1933, M 1 2/4/1 part 2 NAW.
1933	- For 11 months ended November 1933 – 2146 cwt of frozen crayfish exported; 168,920 cwt of tinned crayfish exported.	Acting Secretary of Marine to Managing Director, Redtail Canning, Perth, 29 December 1933, M 1 2/4/1 part 2 NAW.
1934	- Poor demand for fish at Thames caused a reduction in the number of line fishing boats operating at Mercury Bay, where, however, 18 boats worked at crayfishing to supply the demand brought about by increased requirements for canning and for export.	A.E. Hefford, Report on fisheries for the year ended 31 March 1934, Marine Department annual report, <i>AJHR</i> 1934-1935, H-15.
1934	- Export trade in crayfish has languished. (Re-exported to France from London – met taxes and quotas.)	'Export of Crayfish', <i>Dominion</i> , 24 July 1934, M 1 2/4/1 part 2 NAW.
1934	- Mercury Bay: - a great deal of cray-fishing in these waters during the year.	Report on Auckland fisheries for the year ended 31 March 1934, by Auckland Inspector of Fisheries, C Daniels, M 1 2/12/533, NAW. <b>[Photocopy 27]</b>
1934	- Boats: 1 boat engaged full-time in crayfishing (for the Whangaroa Fish Canning Co.)	Return of fishing information and statistics for the port of Whangarei for the year ended 31 March 1934 by Whangarei inspector WM Fraser, M 1 2/12/533, NAW.
1934	- Boats: crayfishing – 30 boats part-time	Return of fishing information and statistics for the port of Auckland for the year ended 31 March 1934 by Auckland Inspector of Fisheries, C. Daniel, M 1 2/12/533, NAW.

1934	- Boats: crayfishing – 18 boats part-time	Return of fishing information and statistics for the port of Mercury Bay for the year ended 31 March 1934 by fishery inspector T Cannon, M 1 2/12/533, NAW.
1934	- Boats: cray fishing – 1 boat full-time	Return of fishing information and statistics for the port of Waihi for the year ended 31 March 1934 by fishery officer C Harley, M 1 2/12/533, NAW.
1937	<p>- Committee comprised of James Young (M.P.), M.W. Young (Assistant Chief Inspector of Fisheries), and E. Sheed (Investigating Accountant, Department of Industries and Commerce) (p 10). Appointed on 25 February 1937; delegated with powers of a judicial inquiry. Order of reference to inquire into:</p> <p>(1) the condition and prospect of the sea-fishing industry, including any matter relating to exploitation and conservation of fisheries; the catching, landing, distribution, etc of sea fish, shell, and other marine products; and the</p> <p>(2) the scientific evaluation, control, and administration of the sea fisheries.</p> <p>- Crayfishing – Mercury Bay (p 35)</p> <p>- ‘The fishermen from Mercury Bay and Waihi Beach . . . reported that crayfishing was carried on at various points between Whangamata and Cape Colville, the centre of the greatest supply being at Mercury Bay (Whitianga). There are two seasons for the taking of crayfish from these waters, one from July to September with a short break in October, and another from November till after Christmas. Supplies are not being diminished by the present fishing, and indeed, stood up fairly well to the heavy abstractions of up to 25 tons per week during the short time the export trade flourished, but in the opinion of one of the more experienced men such a rate of extraction could not have been continued for long, there being unmistakable signs that the supplies were commencing to decline. “Berried” females are not paid for, and the small fish are not marketed in the district. These small fish are the cause of the break between Christmas and July, as they constitute the major portion of the catch – at least 75 per cent, during this period. The pots used are left down continuously, but are lifted each day and the fish removed. The crayfish-men follow the crayfish out when they leave the inshore rocks and migrate to the sand and kelp bottom.’</p> <p>- Crayfishing – Auckland (p 35)</p> <p>- Supply from vicinity of Cape Colville and Mercury Island, some from Kawau. Only 7 vessels engaged full-time in this fishery, total landings from all sources in Auckland, Mercury Bay, and other places being no more than 2,500 sacks for the year ending 31 March 1937. Complaints were received as to the practice of taking undersized and egg-bearing crayfish. In the interests of conservation it is desirable that this practice should stop.</p> <p>- Crayfishing – recommendations (p 36)</p> <p>- that the legal size of crayfish be fixed at 9 in. in length</p> <p>- that it be made illegal to take any female crayfish carrying external ova or to remove the ova (berries) prior to sale</p>	‘Report of the Sea Fisheries Investigation Committee’, <i>AJHR</i> , 1937-1938, H-44A. [ <i>Photocopy 43</i> ]

	- that investigations be made into the crayfish stocks at various centres, and that a study be made of the habits, size, sex groups, and migrations of the crayfish, the results being the basis for future legislation	
1938	A size limit of 9 inches was set for North Island landings and 8 inches for South Island landings. Females carrying eggs were not to be taken and eggs were not to be stripped from them. In 1940 all restrictions were removed. [This is not quite correct. The restriction imposed a size limit of 9 inches for all places, but an informal concession was made that this would not be enforced providing that the fish was over 8 inches. See: N.W. Young, Senior Fishery Officer, to Chief Inspector of Fisheries, 3 August 1939, M 1 2/4/1 part 2.]	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 145.
1940	- Advises that restrictions on crayfish are to be removed in the interests of the national economy. Fuel and wastage of undersized crayfish.	Secretary, Marine, to Superintendent of Mercantile Marine, Dunedin, 31 July 1940, M 1 2/4/1 part 2, Crayfish, NAW.
1946	- States that total crayfish landed for the year 31 December 1945 was 1,800,000 (lbs?) – survey carried out by the Association. Requests that earlier regulations regarding size and taking of females be re-enacted, otherwise ‘the waters of the Dominion will, within a nominal period be depleted of this type of fish’.	Secretary, NZ Wholesale Fish Merchants Association, to Minister of Marine, 21 November 1946, M 1 2/4/1 part 2, Crayfish, NAW.
1947–49	Reported national crayfish landings: 900 tons in 1947, 1336 tons in 1948, and 1838 tons in 1949. Wellington remained the main crayfish port, followed by Karitane, Picton, Kaikoura, Auckland, and Gisborne. There were significant landings in the far north, on the Coromandel Peninsula, at Akaroa, and at Moeraki. There were practically none south of the Taieri mouth or on the west coast of the South Island.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 148.
1947	A size limit of 8 inches was imposed for both the North and South Islands.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 146.
1948	New size limit of 9 inches, except in Otago where smaller fishes could be taken, but not sold outside Otago.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 146.
1948	- States that he has been a crayfishermen for 17 years, relying on this solely for his living. - Requests that no further licences be issued. - ‘Cray-fish operations have been carried on at Port Charles for the last 40 years or more with the consequence that these grounds are being depleted to such an extent that there is only a living for two full-time cray-fisherman [sic], and if any more than that are issued for operations at Port Charles then there will not be a living for anyone. . . . 15 years ago a man could get a living from a dozen cray-pots whereas now at Port Charles one needs to have 40 pots or more and often get less fish.’	James Smith, Port Charles, to Minister of Marine, 19 July 1948, M 1 2/4/1 part 2, Crayfish, NAW.
1950	Official figures for crayfishing in 1950 recorded 2624 tons landed. Because of tailing at sea there was an element of guesswork involved in calculating this figure. Also, much of the crayfish landed for local consumption was not recorded. Actual landings were well over 3000 tons. Landings in the north from Mangonui down to the Bay of Plenty were about 270 tons, with more than two-thirds landed at Whitianga and Auckland.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 150.
1951	‘We . . . feel that local crayfishermen who have held licences for a number of years should have greater protection from the Marine Department than is afforded by the law as it now stands. // We would suggest that areas now being worked by us, should be protected from intrusion, by the holders of licences recently granted, who have not	Petition: Roland Smith and four others to Superintendent, Marine Department, 9 March 1951, M 1 2/4/1 part 3,

	got an area of coastline on which to put their pots, or alternatively to exclude crayfishing from their licences. // We would also point out that the grounds are becoming more depleted each year, consequently we work these grounds only from July to October to spell them for the rest of the year to conserve the crayfish.'	Crayfish, 1948-1952, NAW.
1951	- States that the claim that the grounds are depleted is not borne out by the statistics in the annual reports for the last three years for crayfish caught at Mercury Bay: 809 cwt in 1948, 1522 cwt in 1949, 2219 cwt in 1950. - 'The present control and conditions of licensing provide all the protection that is practical for a fishery since any zoning of the sea for individual boats could not be worked.'	Secretary, Marine Department, to R Smith, 20 March 1951, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.
1951	- Notes that export of frozen tails to the US has produced a phenomenal increase in the crayfish catch off the New Zealand: 15,924 cwt in 1945, 52,482 cwt last year. Exports of frozen crayfish last year totalled 11,814 cwt, compared with 3731 cwt in 1948. 'The annual report of the Marine Department says that while the catch has increased some grounds are already showing a reduced return for the year worked compared with the peak pre-war catch of 12,212cwt.'	Christchurch Press, 26 October 1951, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.
1952	- Notes that crayfish exports were mostly as 'tails' and nearly all to the USA. States that to convert 'tails' to 'green' weight', need to multiply by 3.	Secretary, Marine Department, to Messrs Rosser Bros Ltd, 5 August 1952, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.
1951 (approx)	- Notes recent growth in crayfish catch. 'Such a rapid increase in the catch of a single species is from past experience a danger signal. Experience has shown that a rapid increase in the catch of a species is followed by a rapid drop when the stocks are unable to withstand the impact of increased fishing intensity. Already in a number of places the catch is beginning to drop.' - Notes that the catching industry has responded to the crayfish incentive in the following ways: <ul style="list-style-type: none"> <li>vessels normally engaged in fishing for 'wet' fish have changed to crayfishing in season;</li> <li>vessels normally engaged in fishing for 'wet' fish are making trips to distant, sometimes little worked or virgin grounds to catch crayfish;</li> <li>additional vessels are being used to develop new fishing areas; and</li> <li>the methods of fishing for crayfish have changed. Trawlers now more actively hunt the crayfish.</li> </ul>	'The Crayfish Industry', author unknown, no date [seems to be a Marine Department report].
1952	- 'The popular idea that Waihi beach is not a good fishing beach is being disproved by several amateur fishermen who get boats out. During the last two or three months quite big catches have been made. // As an instance of this a newcomer to the beach, using a set line, caught 18 big schnapper on Saturday and on Sunday caught 24. These were all excellent fish, the heaviest weighing 12lb. // The fish were caught at practically no distance from the main part of the beach and within two hours. // Other fishermen have been getting good catches, not only of schnapper and terakihi but also of crayfish. // A professional fisherman on Sunday, November 23, who ventured three miles out, to Petley's reef, caught eight dozen schnapper and hapuku within a period of four hours.'	<i>Hauraki Plains Gazette</i> , 28 November 1952, extract in AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW
1952	In 1952, as export volumes continued to expand, concern was expressed about the sustainability of the crayfish industry. In November 1952, the minimum size was increased from 9 to 10 inches, except in Otago, where fisherman were still free to catch what they could so long as any crayfish under the size set for other areas was sold in the province. The taking of berried females was prohibited.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 150-151.
1952	There was concern about the fouling of grounds by dumping large quantities of cray bodies over the side.	David Johnson, <i>Hooked: The Story of</i>

(approx)	Crayfisherman complained about careless dumping by other fishermen. A ban on tailing was introduced in the early 1950s to slow down the fishery.	<i>the New Zealand Fishing Industry</i> , Wellington, 2004, pp 152-153.
1956	The 1952 landings of 3264 tons were enough to raise concern, but by 1956 landings had doubled to 6430 tons, more than half of which was landed at Stewart Island and Bluff. This was the peak of crayfish landings.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 153.
	<p>- (p 148) In 1948, new size limit of 9 inches, except in Otago where smaller fishes could be taken, but not sold outside Otago.</p> <p>- (p 150) Official figures for crayfishing in 1950 recorded 2624 tons landed. Because of tailing at sea there was an element of guesswork involved in calculating this figure. Also, much of the crayfish landed for local consumption was not recorded. Actual landings were well over 3000 tons. Landings in the north from Mangonui down to the Bay of Plenty were about 270 tons, with more than two-thirds landed at Whitianga and Auckland.</p> <p>- (pp 150-151) In 1952, as export volumes continued to expand, concern was expressed about the sustainability of the crayfish industry. In November 1952, the minimum size was increased from 9 to 10 inches, except in Otago, where fisherman were still free to catch what they could so long as any crayfish under the size set for other areas was sold in the province. The taking of berried females was prohibited.</p> <p>- (pp 152-153) There was concern about the fouling of grounds by dumping large quantities of cray bodies over the side. Crayfisherman complained about careless dumping by other fishermen. A ban on tailing was introduced in the early 1950s to slow down the fishery.</p> <p>- (pp 153) The 1952 landings of 3264 tons were enough to raise concern, but by 1956 landings had doubled to 6430 tons, more than half of which was landed at Stewart Island and Bluff. This was the peak of crayfish landings.</p>	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 153.

## S20: Hauraki: Flatfish

Year	Details	Source
1901	<ul style="list-style-type: none"> <li>- the steam trawler 'Doto' chartered, equipped with trawl nets, one purse seine net, one bottom dredge, and hooks and lines (p 1)</li> <li>- expedition undertaken from February to May 1901, around the coast of the North Island</li> <li>- from Tolaga Bay to Hauraki Gulf little work was done (p 2)</li> <li>- from Tauranga to Cape Colville only one haul was made – the quantity of fish taken at this season was sufficient to warrant its selection as a permanent trawling ground</li> <li>- in and around Hauraki gulf good hauls of marketable fish were made on every occasion</li> <li>- hauls were especially good in the Firth of Thames, where fish appear to be particularly plentiful and of good quality</li> <li>- exhaustive tests were made in all parts of the gulf to Great Barrier Island on one side and along the coast to Whangarei on the other – with suitable bottoms and the hauls sufficiently encouraging except in Motuihi Channel, Whangaparapara Harbour, and the vicinity of Whangrei (though these areas might prove fruitful in different seasons)</li> <li>- notes that proper evaluation would require the areas to be fished at different seasons</li> <li>- best results were obtained in from 5 to 15 fathoms</li> <li>- total hauls of the trawl net were 122</li> <li>- haul numbered 25 was located off the coast from Whangapoua on the east coast of the Coromandel Peninsula (p 5) <ul style="list-style-type: none"> <li>- the following fish were taken from this haul: crayfish, leather jackets (pp 10-11)</li> </ul> </li> <li>- hauls numbered 26 to 54 were located in the Hauraki Gulf, including the Firth of Thames (pp 5-7) <ul style="list-style-type: none"> <li>- the following fish were taken from these hauls: common flounder, sole, lemon sole, blue cod, john dory, red gurnard, snapper, crayfish, electric ray, whip ray, dog fish, cat fish, leather jacket, octopus, mussels, shark, stingray, and trevally (pp 10-11)</li> </ul> </li> <li>- hauls numbered 55 to 58 were located in Bream Bay (p 7) <ul style="list-style-type: none"> <li>- the following fish were taken from these hauls: lemon sole, john dory, red gurnard, snapper, dog fish, leather jacket, (pp 10-11)</li> </ul> </li> </ul>	<p>Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 11 July 1901, <i>AJHR</i> 1901 H-15A  <i>[Photocopy 39]</i></p>
1904	<ul style="list-style-type: none"> <li>- From 1 July 1904, all fishing boats had to be registered and marked with a licence number and landing port. All owners of licensed boats were to provide the Marine Department with details of all fish caught. Reporting was carried out by Fisheries Inspectors in a generalised fashion.</li> <li>- At 31 December 1904, Auckland had 197 licensed vessels. Snapper were so plentiful that merchants were imposing limits. Kahawai, trevally, gurnard and flounder were abundant, but mullet were scarce.</li> </ul>	<p>David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i>, Wellington, 2004, pp 80-81</p>
1906	<ul style="list-style-type: none"> <li>- 'At Auckland schnapper, which is the principal fish caught, has been plentiful and there has been a good supply of flounders at the Thames. During the summer the fishermen on several occasions caught more flounders than there was a demand for, and had to give them away to the Māoris.' (p 5)</li> </ul>	<p>Marine Department annual report, 30 May 1906, <i>AJHR</i> 1906, H-15</p>

1907	<ul style="list-style-type: none"> <li>- Reports received from Inspectors of Fisheries . . .</li> <li>- 'In the Auckland District the supply of fish has been generally equal to the demand. . . . There is now a good deal of fishing done in Tauranga, and there is a fish-curing establishment at that place. There are five such establishments at Auckland, and one at Kawau Island.' (p 6)</li> </ul>	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15
1908	<ul style="list-style-type: none"> <li>- (p 6) 'At Auckland the fish-supply has been equal to the demand. Schnapper, flounders, kahawai, trevalli, and gurnard have been plentiful, but mullet have been exceptionally scarce. <ul style="list-style-type: none"> <li>- 75 fishing boats, employing 160 men, fishing out of Auckland</li> <li>- 2 fish curing plants in Auckland, 1 at Kawau, 1 at Great Barrier Island</li> </ul> </li> <li>- 'At the Thames . . . . Most of the fish are taken in nets, and the principal kinds caught are flounders and schnapper. The supply has generally been equal to demand, and during last summer flounders were taken in such large quantities that the demand was exceeded.' <ul style="list-style-type: none"> <li>- 2 fish curing plants in Thames, 1 fish freezing chamber</li> </ul> </li> </ul>	Marine Department annual report, 12 June 1908, <i>AJHR</i> 1908 H-15.
1909	<ul style="list-style-type: none"> <li>- (p 6) 'Flounders have been fairly plentiful.'</li> <li>- At Thames, 38 boats employing 80 men; flounder and schnapper usually taken – good supplies.</li> </ul>	Marine Department annual report, 12 June 1909, <i>AJHR</i> 1908 H-15.
1910	<ul style="list-style-type: none"> <li>- (p 6) Report of local inspector: <ul style="list-style-type: none"> <li>- flounders have been plentiful, also rock-cod, kahawai, trevally, and garfish</li> <li>- 187 boats, employing 325 men, engaged in the fishing industry in Auckland and Manukau</li> </ul> </li> </ul>	Marine Department annual report for 1909-1910, <i>AJHR</i> 1910 H-15.
1911	<ul style="list-style-type: none"> <li>- Report of inspectors of fishing in Auckland: (p 8) <ul style="list-style-type: none"> <li>- fish plentiful and market fully supplied</li> <li>- in the Auckland and Thames districts flounders have been plentiful</li> </ul> </li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1911 H-15
1912	<ul style="list-style-type: none"> <li>- In Auckland fish have been fairly plentiful, market well supplied. (p 12) <ul style="list-style-type: none"> <li>- the supply of flounder in the Thames flounder grounds has been well maintained, but the inspector reports a poor supply from other parts of the Hauraki Gulf – recommends increasing the trawling area in the Hauraki Gulf to allow trawlers to work the off-shore flounder grounds that exist in the Thames Gulf south of Cabbage Bay, which cannot be worked by small boats</li> </ul> </li> </ul>	Marine Department annual report for 1911-1912, <i>AJHR</i> 1912 H-15.
1913	<ul style="list-style-type: none"> <li>- In the Hauraki Gulf and Thames: (p 10) <ul style="list-style-type: none"> <li>- snapper – the 'principal market fish' reported by Inspector Bennett to have been fairly plentiful</li> <li>- flounder also fairly plentiful</li> </ul> </li> <li>- 'A system of long-lining for schnappers and other hook-and-line fish has now been adopted by a number of Hauraki Gulf fishermen, and it is a great improvement on the single hand-lines generally used.'</li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15.
1914	<ul style="list-style-type: none"> <li>- 'Schnapper has been plentiful since October after which month the school fish arrive in the Hauraki Gulf; but previous to Oct fishing fishermen had to proceed to Great Barrier, Mercury Bay, and north of Little Barrier to obtain a fair catch. // The Hauraki Gulf is becoming more depleted of Schnapper each year and it is my opinion Auckland will have to draw on the west coast for a supply before two years; it is my opinion that the long line system of fishing now extensively practised in the Hauraki Gulf will in that time deplete it to such an extent that a close season for Schnapper will be nesisary [sic].'</li> <li>- Flounders plentiful in the Thames and Auckland waters.</li> </ul>	Annual report on fishing industry at Auckland for year ending 31 March 1914 by Fisheries Inspector J.P. Bennett, M 1 2/12/35 NAW. <b>[Photocopy 6]</b>
1914	<ul style="list-style-type: none"> <li>- About 40 registered boats, employing about 100 men.</li> </ul>	Annual report on fishing industry at

	<ul style="list-style-type: none"> <li>- Most of the boats are employed net fishing, 'during this last two or three years the Thames Fishermen have had to contend with enormous quantities of jellyfish which fill the nets to that extent that it is impossible to work them; and oweing [sic?] to the jelly fish the supply has been greatly lessened.'</li> <li>- But fishermen report that flounder are plentiful when they can be worked.</li> <li>- Flounder is the principal fish taken at Thames. Flounders in the Hauraki Gulf abound from Cabbage Bay to the mud flats at the head of the tidal waters. Those flounders that are in abundance off Coromandel and the east side of Waiheke cannot be taken by set nets as the water is too deep; only means of taking them is by trawling for them.</li> <li>- Snapper has been very plentiful at Thames during the last 2 months, very scarce last winter.</li> </ul>	Thames for year ending 31 March 1914 by Fisheries Inspector J.P. Bennett, M 1 2/12/35 NAW.
1915	<ul style="list-style-type: none"> <li>- Flounder taken in fairly large quantities by the net fishermen at Auckland.</li> </ul>	Annual report of Auckland Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW
1915	<ul style="list-style-type: none"> <li>- supply of fish plentiful</li> <li>- flounders have been very plentiful; fishermen mostly fishing in from 2 to 15 fathoms of water and by this method obtain the largest flounder, 'which abound in enormous quantities in the Hauraki Gulf'</li> <li>- snapper and flounder the principal fish taken at Thames, where 40 boats and 90 men employed</li> </ul>	Annual report for Thames by Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW
1915	<ul style="list-style-type: none"> <li>- Thames fishermen have adopted a system of deep set-netting, enabling them to net in a depth of 20 to 30 fathoms. They now work out to Deadmans Point and across the Gulf to the other coast; capable of working all the water inside the trawling limits. Would not be possible for them to work with their nets if trawling was allowed in this area.</li> </ul>	Chief Inspector of Fisheries to Secretary, Marine Department, 26 October 1915, M 1 2/12/55 part 1 NAW.
1916	<ul style="list-style-type: none"> <li>- Flounder – supply limited.</li> </ul>	Annual report on fisheries at Auckland by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.
1916	<ul style="list-style-type: none"> <li>- Return prepared by my shipping clerk after making enquiries from all fish dealers throughout the city.</li> <li>- Gives details of various kinds of fish caught on the local grounds, giving as near as possible the total weight.</li> <li>- Impossible to state exactly what amount would be caught on the local grounds only. However, all or 95% of the flounder would be caught at Thames, while most of the crayfish (if not all) would be obtained from Great Barrier. Of the remainder, they would be caught in all parts of the province.</li> </ul>	Return of Auckland fisheries for the year ended 31 March 1916, Collector of Customs to Secretary, Marine Department, 7 April 1916, M 1 2/12/115 NAW.
1916	<ul style="list-style-type: none"> <li>- Snapper and flounder the principal fish taken.</li> <li>- Flounder – supply good; taken by set nets, mostly in the shallow waters of the Gulf. <ul style="list-style-type: none"> <li>- 'It is well known that the lower waters of the gulf from Tapu to Dead Man's Point abound with flounder which cannot be taken by the present method of net fishing, but might be taken with the purse seine, and if the local fishermen do not adopt this method . . . very shortly I would suggest the Trawlers be allowed to take them as the supply of Flounders at Auckland is very limited, and flounders are very dear.'</li> </ul> </li> </ul>	Annual report on fisheries at Thames by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.
1917	<ul style="list-style-type: none"> <li>- Supply of fish has been fully met during past year.</li> <li>- 25 licensed fishing boats, employing about 50 men, mostly employed in net fishing.</li> <li>- Fish taken is most flounder and snapper.</li> </ul>	Annual report for Thames for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137



	<ul style="list-style-type: none"> <li>- Fish are taken from the Hauraki Gulf as far north as Kirita, but seldom past Waikawau Creek as the water to the north is too deep to be worked by hand nets. North of this to the trawling limit lie some 20 by 15 miles of the best possible area for trawling, which has not been fished for the last 16 years and which at the present time is teaming with fish, as proved by the enormous quantity of fish taken in a short time by the trawler Murial (222 baskets) when seized trawling within the restricted zone.</li> </ul>	NAW.
1917	<ul style="list-style-type: none"> <li>- Report on the question of whether the trawling limits in the Hauraki Gulf should be removed. Argues that they should remain.</li> <li>- ‘ . . . I do not think this is necessary, for the immense quantities of Schnapper, Tarakehi, John Dory etc. which are brought in from the trawling grounds which are within such easy reach of the Auckland market, and supplemented by the catches from line and net fishermen at Thames and other ports, it would certainly seem that there is no occasion to remove the restrictions on account of supplying the public with these fish in large quantities and at a reasonable price’.</li> <li>- Flat fish do not about all over the Gulf; principal flat fish grounds are from line from Spit Light to Deadman’s Point on the Coromandel to the head of the Thames Gulf.</li> </ul>	Chief Inspector of Fisheries to the Secretary, Marine Department, 20 March 1917, M 1 2/12/55 part 1 NAW.
1918	<ul style="list-style-type: none"> <li>- Auckland: return shows a large increase in the quantity and value of marketable fish in comparison to the previous year (p 7) <ul style="list-style-type: none"> <li>- except for mullet and flounder, all other marketable fish were plentiful</li> </ul> </li> <li>- Thames: fish usually caught by the net and hook and line fishermen at Thames plentiful</li> </ul>	Marine Department annual report for 1917-1918, <i>AJHR</i> 1918 H-15.
1918	<ul style="list-style-type: none"> <li>- Comments on different species: <ul style="list-style-type: none"> <li>- Flounder: very scarce.</li> </ul> </li> </ul>	Annual report for year ended 31 March 1918 for Auckland by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.
1918	<ul style="list-style-type: none"> <li>- 5 boats engaged in fishing; no trawlers.</li> <li>- ‘The greatest number of fish caught in this harbour and outside the Heads are Schnapper, and few mullet, Hapuku, Travalli [sic], Kahwai, and flounder.’</li> <li>- Weight of fish brought in during the year – about 150 tons.</li> </ul>	Annual report for year ended 31 March 1918 for Whangarei by Fisheries Inspector M Stuart, M 1 2/12/163 NAW.
1919	<ul style="list-style-type: none"> <li>- The Department is frequently urged to reduce the area within which trawling is prohibited in the Hauraki Gulf, but line fishermen have always opposed, claiming it would interfere with their fishing and fish breeding grounds – inquiry into this and other matters has been held – report will be forthcoming. (p 7) [See below]</li> </ul>	Marine Department annual report for 1918-1919, <i>AJHR</i> 1919 H-15.
1919	<ul style="list-style-type: none"> <li>- Supply at Thames has been good – all fish such as snapper, flounder, and gurnard taken in large quantities.</li> <li>- ‘The Thames fishing industry is developing of late and will in very few years become one of Auckland’s greatest industries and will necessitate all trawling being prohibited with the Hauraki Gulf and reserve the Gulf solely for line and net fishermen only.’</li> </ul>	Annual report for year ended 31 March 1919 for Thames by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.
1919	<ul style="list-style-type: none"> <li>- Flounder: has been in poor supply, probably owing to high cost of nets and gear.</li> </ul>	Annual report for year ended 31 March 1919 for Auckland (incl. Manukau) by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.
1919	<ul style="list-style-type: none"> <li>- Sat at Auckland, Thames, Helensville.</li> </ul>	<i>AJHR</i> 1919 H-28, ‘Fisheries

	<ul style="list-style-type: none"> <li>- Deals with trawling restrictions and other matters.</li> <li>- Notes that trawling presently prohibited from a line starting at Matakana and extending from there to the southernmost point of Tiritiri, and from that point to Cabbage Bay.</li> <li>- ‘The evidence shows fairly conclusively that fish cannot now be caught in the gulf by the line and net fishermen with the same ease with which they were caught many years ago; but the evidence also shows that this great difficulty in catching the fish was noticeable even before the advent of the trawler, and the evidence that the trawlers have had any great part in producing the state of affairs is far from conclusive. Undoubtedly, however, the trawlers have had some part in bringing it about, and if in trawling well up into the gulf the greater part of their catches consists of moderate sized fish, it follows that more fish will be destroyed than if the same weight of larger fish were taken. If, as seems quite clear, the shallower waters of the bays and inlets are inhabited by small fish, it is to be expected that trawling waters anywhere in their vicinity will lead to the catches containing a considerable proportion of smaller, even if not undersized, fish.’</li> <li>- Recommended that the line be fixed from Mahurangi Heads to Shearer Rock, off the north-east point of Tiritiri, and thence to Cabbage Bay. [See NZG of 8 February 1920]</li> </ul> <p>[See Hauraki archival notes for details of the (considerable) evidence provided by the witnesses to the Commission.]</p>	Commission’.
1923	- States that, following a meeting of local fishermen, would like to bring Minister’s attention to issues concerning purse seining in the Hauraki Gulf. ‘That Purse-seining, if permitted within the Hauraki Gulf, will eventually destroy the supply of flounder in the Gulf for the following reasons.’ States also that the Gulf is a breeding ground for flounder, and that hauling the bottom has been proved to disturb the bottom, destroy spawn, and cause loss of small fish.	G.A. Pollack, Chairman of Thames Fishermen Union, to Minister of Marine, 29 October 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.
1923	- ‘Great catches of flounders have been made by the new seine net carried on by one of the privately-owned trawlers operating in Hauraki Gulf. “We are getting them by the ton”, declared an employee of the trawling company to an “Auckland Star” reporter. The new seine net has revolutionised fishing in these waters. Flounder will soon be cheaper than snapper.’	<i>Dominion</i> , 3 November 1923, extract in M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.
1924	- Remarkably good year for fish, snapper particularly. About September, the seine net was introduced into these waters and taken up by 2 or 3 vessels, and onward to February brought in very big hauls of flounder, dabs, and sole, which found a very good market locally. Several trawlers laid up during the schooling season and right through the summer owing to little demand for snapper. Seine net becoming very popular in this area.	Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1924 by Inspector of Fisheries C Daniel, M 1 2/12/298 NAW.
1925	<ul style="list-style-type: none"> <li>- 5 steamers belonging to Sanfords and 1 belonging to Munroe Bros converted back from Danish seiners to trawlers – claims that this is because they believed the area they fished in had been ‘played . . . out’ as far as quantity and size of fish. Emphasises that the size of snapper very small over last 6 months.</li> <li>- Small seiners now getting reasonable catches, but fish small. ‘These Seine boats are now getting very few flats and dabs, and places where 18 months ago almost hundreds of tons of flats were got, not a scale could be got today.’</li> </ul>	Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1925 by Inspector of Fisheries C Daniel, M 1 2/12/330 NAW. <b>[Photocopy 15]</b>
1926	- Comment:	Annual return/report for Auckland

	<ul style="list-style-type: none"> <li>- at Thames, flounder below normal, mullet apparently on the decrease (now only one regular mulleting boat out of Auckland)</li> <li>- notes slight increase in the fish brought in at Thames, but comments that the figures 'do not count for much as in both years I understand that the boats engaged in the catching could have brought in twice as much fish, if it were not for the limit placed on the quantity each boat may dispose of to the Merchants they deal with'</li> </ul>	(including Thames, Coromandel, and Manukau) for year ending 31 March 1926 by Inspector of Fisheries C Daniel, M 1 2/12/356 NAW. <i>[Photocopy 17]</i>
1930	- Good flat fish season experienced by the Danish seiners in spring months working the 'Dab Patch' (between Ponui and Deadman Point. 'This fishery is prosecuted at the expense of spawning aggregations of flounders and dabs, and therefore requires careful watching both from the economic and the biological aspect.'	A.E. Hefford, 8 August 1930, Marine Department annual report for 1929-1930, <i>AJHR</i> 1930, H-15.
1930	<ul style="list-style-type: none"> <li>- Referring to Auckland port, notes that type of fish caught, in order of importance: snapper, flounder/sole/dabs, tarakihi, hapuku . . .</li> <li>- Detailed month-by-month report – recording weather, catch success, fishing grounds: <ul style="list-style-type: none"> <li>- notes that the flat season this year 'has been the biggest ever known to the oldest fishermen here'</li> </ul> </li> </ul> <p><i>Thames:</i></p> <ul style="list-style-type: none"> <li>- 8 Danish seine vessels working out of Thames, more than ever before – landings of these boats cannot be said to have been caught in the Firth of Thames, very often from the vicinity of the Cape, Tiri, and the Barrier.</li> <li>- The actual landings as Thames from the boats that work the old method of set net, and long line, inside of Deadmans Point, sand-spit line is decreasing. These boats are being replaced by more up-to-date boats – seining principally.</li> </ul>	Fisheries report for Auckland (including Coromandel, Mercury Bay, and Manukau) for year ended 31 March 1930 by Auckland inspector C Daniel, M 1 2/12/477, NAW. <i>[Photocopy 25]</i>
1931	- Dab and flounder fishing in the 'Dab Patch' good, though not as productive as last season.	A.E. Hefford, 28 July 1931, Marine Department annual report for 1930-1931, <i>AJHR</i> 1931, H-15.
1931	<ul style="list-style-type: none"> <li>- Early in May 1930, the usual school of dabs came up on the Thames Flats (about a month late). They were very thick and the Thames boats landed large loads right through to the end of August.</li> <li>- Regulation: minimum length 9 inches for dabs and flounder all year round.</li> <li>- Set netting on the Thames Flats is an annual occurrence – fish landed are 95% dabs and 99% female.</li> <li>- The season for flounder and dabs at the dab patch – Big Bay and Western Shore – was good, but not so noticeably as last year; fish not so thick and the pulls did not come up to the standard of last year – about one basket per pull.</li> <li>- The Western Shore grounds – both inside and outside of Whangaparoa – very much better than last year.</li> </ul>	Flounder and Dab Season, 1930-1931 by Auckland inspector C Daniel, M 1 2/12/500, NAW.
1931	<ul style="list-style-type: none"> <li>- Meetings held with whole of fishing industry . . .</li> <li>- Thames men put up a new proposition – that the area between a line from Cabbage (Colville) Bay to Hook's (Kauri Point, N.E. corner of Waiheke) and the Sandspit – Deadman's Point line (the present limit for Danish seiners, at the opening of the Thames Firth) should be kept as a sanctuary for fish and that no nets (except mullet nets) should be allowed to operate in this area. 'The objection to the closure of this area is that it includes the best flounder-fishing grounds in the whole Gulf and is much frequented by the smaller Danish-seining launches from Auckland principally for the sake of the flatfish, but their catches also include a proportion of "mixed" fish such as gurnards and pioke. It was confidently asserted by several Danish seiners that the stock of flounders on these</li> </ul>	A.E. Hefford to Secretary, Marine Department, Report on Meetings at Auckland, 13 and 14 May 1931, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

	grounds has considerably increased in the last three years. The seiners maintain that this increase is due to the destruction, by their operations, of considerable quantities of the natural enemies of flounders, especially dory, dog-fish (pioke) and gurnards. This would doubtless operate to some extent, but how far the present abundance of flatfish in the catches is due to this, or to some more obscure variation in natural increase, it is impossible to say. In the past four years our attention has been concentrated more on the snapper supplies and we have not collected the same amount of statistical data with regard to the flounder fishery, mainly because of our limited staff, but it is a matter which we ought to keep a careful eye upon.'																
1932	<p>- Auckland showed a 19.5% decline in quantity of landings. Operation of trawlers reduced considerably. Danish seiners made up for the reduced operations of the trawlers, so far as snapper and flounder concerned. The flounder and dab fishing prosecuted by Danish-seiners off the entrance to the Thames Firth, off the north coast of Waiheke, and off the western shore, was particularly good – would appear that flatfish supplies have recently increased.</p> <p>- Thames fleet had a fairly successful year, largely due to increased supplies of flounders and dabs. Danish seiners workind on the 'Dab Patch' grounds were responsible for the greater part of the catches. 'This class of fishing, carried on by the larger vessels capable of working at greater distance from port, has now definitely taken precedence of the older method of set-net fishing which was formerly used by all the Thames fishermen.</p>	A.E. Hefford, 'Report on fisheries for the year ended 31 March 1932', 27 August 1932, Marine Department annual report, <i>AJHR</i> 1932-1933, H-15.															
1933	<p>- 'The fish landings in the Auckland District show a further decline not for want of fish to catch, but for want of buyers.'</p> <p>- 'The flounder and dab supplies (both kind being generally marketed under the common name of "flounder") have shown a marked increase on the Auckland market during the last three years, this fishing being specialised in by some of the Danish seiners. The best catches are made in winter and spring. In summer when the flounder leave the Danish seining grounds they afford a harvest for the set-net fishers in the Firth of Thames. Favourable weather and a (comparatively) better market combined to intensify the exploitation of this fishery during the last year.'</p>	A.E. Hefford, Report on fisheries for the year ended 31 March 1933, Marine Department annual report, <i>AJHR</i> 1933, H-15.															
1934	<p>- Flounder fisheries produced a much smaller yield. The following table shows flounders and dabs landed at Auckland in the last four years.</p> <table><tr><td></td><td>1930–31 cwt</td><td>1931–32 cwt</td><td>1932–33 cwt</td><td>1933–34 cwt</td></tr><tr><td>Auckland</td><td>2 549</td><td>4 201</td><td>10 452</td><td>6 607</td></tr><tr><td>Thames</td><td>6 889</td><td>7 228</td><td>6 516</td><td>4 869</td></tr></table> <p>- Notes that these figures would be more useful if the returns were capable of being analysed so as to show the average catches per day's fishing of representative boats. Also notes that the flounder fisheries have been pursued on the same grounds and with the same intensity as during 1931–32 and 1932–33. In regard to 1933–34, states that: 'The fact is that the fish on the grounds were fewer and catches were less. A significant and perhaps ominous feature of the fishing is that the best catches were made in the month of August, which is the height of the spawning-season for dabs and flounders.'</p> <p>- - 'Visits of both steam-trawlers and Danish seiners to inshore grounds fished by local line fishermen have given rise to complaints and protests from various districts. The difficulty is that practically all the best fishing-grounds are comparatively close to the land and must be exploited by the more intensive methods if supplies of fish to the</p>		1930–31 cwt	1931–32 cwt	1932–33 cwt	1933–34 cwt	Auckland	2 549	4 201	10 452	6 607	Thames	6 889	7 228	6 516	4 869	A.E. Hefford, Report on fisheries for the year ended 31 March 1934, Marine Department annual report, <i>AJHR</i> 1934-1935, H-15.
	1930–31 cwt	1931–32 cwt	1932–33 cwt	1933–34 cwt													
Auckland	2 549	4 201	10 452	6 607													
Thames	6 889	7 228	6 516	4 869													

	larger ports are to be maintained. . . . Generally speaking, the Danish-seiners are decidedly the most efficient and productive of all fishing-vessels in the Dominion. In the Auckland vicinity considerable restrictions have been imposed on their operations by closing certain areas to this method of fishing . . . . Unfortunately, a comprehensive appreciation of the situation has been prevented by the lack of statistical information to which reference has already been made. Snapper and flounder on the Auckland fishing-grounds and flounders and other flatfish on the Nelson and Canterbury fishing-grounds are the kinds most sought after and most affected by this method of fishing.																									
1934	<p>- annual report for 1933-34 drew attention to the increased exploitation of flounder fisheries by the Danish seining vessels – gave the following figures in respect of the annual quantities landed in the last 4 years:</p> <table><tr><td></td><td>1930-31 (cwt)</td><td>1931-32 (cwt)</td><td>1932-33 (cwt)</td><td>1933-34 (cwt)</td></tr><tr><td>Auckland</td><td>2 549</td><td>4 201</td><td>10 452</td><td>6 607</td></tr><tr><td>Thames</td><td>6 889</td><td>7 228</td><td>6 516</td><td>4 869</td></tr></table> <p>- totals obtained by adding together the quantities of flounders and dabs purchased from the fishermen by the principal merchants in the two ports; pretty comprehensive – omissions (small amounts sold outside the firms) may be considered negligible</p> <p>- practically all the Auckland figures relate to Danish seiner catches; large proportion of the Thames flounders are caught in set nets</p> <p>- marked decline evident since ‘big’ season of 1932-33</p> <p>- ‘The intensity of the fishing has increased – more vessels, bigger and better equipped. The total catch has diminished and the catch per boat has declined still more than the total catch.’</p> <p>- have discussed with Daniel – believe that there is an immediate necessity for some restriction on this fishery with a view to protecting the shoals of fish that are spawning or about to spawn</p> <p>- ‘These fish – both dabs and flounders – congregate on a well defined area – known to the fishermen as “The Dab Patch” – every winter. Both the fishing operations and the spawning activities have been kept under observation during the last few years. Spawning begins about the end of July and finishes in September, the maximum occurring in August. There seems no doubt but that the intensive catching of dabs and flounders at this time is a very considerable factor in their depletion.’</p> <p>- recommends that Danish seining be prohibited from this area from 15 August till 14 September of this year; south of line from summit of the hill on Rotaro Island to Cow Island (Tuahuia Islet)</p>		1930-31 (cwt)	1931-32 (cwt)	1932-33 (cwt)	1933-34 (cwt)	Auckland	2 549	4 201	10 452	6 607	Thames	6 889	7 228	6 516	4 869	Chief Inspector of Fisheries to Secretary, Marine Department, 26 July 1934, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.									
	1930-31 (cwt)	1931-32 (cwt)	1932-33 (cwt)	1933-34 (cwt)																						
Auckland	2 549	4 201	10 452	6 607																						
Thames	6 889	7 228	6 516	4 869																						
1935	<p>- Increase of fish-landings at Auckland. Table shows landings and details of the two principal commercial fish:</p> <table><tr><td></td><td>1930-31</td><td>1931-32</td><td>1932-33</td><td>1933-34</td><td>1934-35</td></tr><tr><td>Total quantity</td><td>104 098</td><td>83 753</td><td>82 758</td><td>91 512</td><td>102 313</td></tr><tr><td>Snapper</td><td>59 223</td><td>43 102</td><td>49 657</td><td>60 540</td><td>68 540</td></tr><tr><td>Flounder (including dabs)</td><td>2 549</td><td>4 201</td><td>10 452</td><td>6 607</td><td>6 550</td></tr></table> <p>- Notes falling away of flounder.</p> <p>- The seiners which specialize in flounder fishing have operated for the most part in the vicinity of the “Dab Patch”</p>		1930-31	1931-32	1932-33	1933-34	1934-35	Total quantity	104 098	83 753	82 758	91 512	102 313	Snapper	59 223	43 102	49 657	60 540	68 540	Flounder (including dabs)	2 549	4 201	10 452	6 607	6 550	A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, AJHR 1935, H-15.
	1930-31	1931-32	1932-33	1933-34	1934-35																					
Total quantity	104 098	83 753	82 758	91 512	102 313																					
Snapper	59 223	43 102	49 657	60 540	68 540																					
Flounder (including dabs)	2 549	4 201	10 452	6 607	6 550																					

	(about half-way between Ponui and Coromandel). It is clear from the diminished average catch per haul that the stocks on these grounds have not maintained their former abundance, and the question of their due conservation has become a matter of some concern to the Department as well as fishermen.’ Notes the closure of the portion of the Gulf at the entrance to Thames Firth, containing the principal spawning grounds, from 15 August to 16 September.	
1935	<ul style="list-style-type: none"><li>- Responds to question regarding fishing and the vessels that frequent Bay of Plenty waters from Auckland.</li><li>- Defines the Bay: ‘Striking a straight line across the depth from Te Kaha Point to Tauranga Harbour gives an area inside of over 600 square miles of fishable waters, of an average approximate depth of 30 fathoms. Right in the middle of this area, and situated less than 5 miles from the Signal Station at Whakatane entrance, is the only shelter or anchorage in the whole area with winds from N.E to N.W Whale Island.’</li><li>- Points out that while a large proportion of boats shelter at Whale Island (and are seen from Whakatane), it is not the case that all boats working this area do fish close to Whakatane. ‘This is not so at all, as off Torere below Opotiki is by far the most popular area with the Auckland Boats.’</li><li>- Provides figures for quantity of fish landed in Auckland per annum from BoP: snapper – 420 tons; terakihi – 220 tons; flats (mostly dabs) – 50 tons.</li></ul>	Charles Daniel, Senior Inspector of Fisheries, to Chief Inspector of Fisheries, Auckland, 2 April 1935, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.
1936	<div><div><div></div><div>1930–31</div><div>1931–32</div><div>1932–33</div><div>1933–34</div><div>1934–35</div><div>1935–36</div></div><div><div>Total quantity</div><div>26 991</div><div>21 291</div><div>18 078</div><div>17 412</div><div>17 614</div><div>19 134</div></div><div><div>Snapper</div><div>10 811</div><div>10 257</div><div>9 750</div><div>10 429</div><div>11 163</div><div>14 053</div></div><div><div>Flounder (including dabs)</div><div>6 899</div><div>7 228</div><div>6 516</div><div>4 869</div><div>4 769</div><div>3 305</div></div></div> <ul style="list-style-type: none"><li>- Returns for Thames:</li><li>- General trend downwards, particularly with regard to flounders. States that there has been ‘a deterioration of the flounder fisheries which have always been of primary importance to this port.’ While bad weather and jellyfish at certain times hinder Thames fishery, ‘it is considered locally, and apparently with a good deal of justification, that the decline of the Thames fishing industry is due mainly to the development of the Danish-seine method of fishing, which has caused a general diminution in the flounder stocks of the area. Though the Thames Firth (south of the line from Deadman Point to Ponui Passage Light) has been closed to Danish seining since the year 1924, these vessels operate on the lower grounds to which both flounders and dabs migrate, and the result of intensive Danish-seining operations during the last ten years, and especially during the last three years, has been a considerable reduction in the general stock of flatfish in the whole area.’<ul style="list-style-type: none"><li>- In 1934, area closed to Danish seiners was extended for one month, and in 1935 extended for two months (August and September) – to prevent operation on the grounds frequented by flounders and dabs when spawning. Consistent with observations made by E.W. Gilliver, Inspector of Fisheries, Coromandel.</li><li>- In January 1936, regulation came into force, by which the minimum size of the mesh in the cod end of Danish-seines was increased to 5 inches.</li></ul></li></ul>	A.E. Hefford, Report on fisheries for the year ended 31 March 1936, Marine Department annual report, <i>AJHR</i> 1936, H-15.
1937	<ul style="list-style-type: none"><li>- Auckland landings:</li><li>- The flounder total, with which is included the category returned as “mixed flat-fish”, is the lowest for six years. This is partly due to a scarcity of fish, and partly due to increased restrictions on fishing (spawning grounds closed</li></ul>	A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-

	<p>to Danish seiners for two months during spawning).</p> <p>- Thames:</p> <table><tr><th></th><th>1931–32</th><th>1932–33</th><th>1933–34</th><th>1934–35</th><th>1935–36</th><th>1936–37</th></tr><tr><td>Total quantity</td><td>21 291</td><td>18 078</td><td>17 412</td><td>17 614</td><td>19 134</td><td>15 447</td></tr><tr><td>Snapper</td><td>10 257</td><td>9 750</td><td>10 429</td><td>11 163</td><td>14 053</td><td>11 356</td></tr><tr><td>Flounder (including dabs)</td><td>7 228</td><td>6 516</td><td>4 869</td><td>4 769</td><td>3 305</td><td>2 165</td></tr></table> <p>- ‘For the time being, at any rate, Thames has fallen from the relatively more important position it held as a fishing-port in former years. Among the probable causes of this decline may be mentioned the deterioration of the flounder fishing and the disadvantage at which Thames is placed compared with Auckland from the better position of the larger port as an exporting centre and its possession of a large fleet of Danish-seiners, most of which are recently-built vessels.’</p> <p>- Thames fishing grounds ‘maintaining a satisfactory degree of productivity.’ Snapper fishery showing benefit of protection from fishing during spawning season; anticipated that flatfish stocks will improve as a result of recently introduce regulations limiting fishing operations on the dab patch during spawning season.</p>		1931–32	1932–33	1933–34	1934–35	1935–36	1936–37	Total quantity	21 291	18 078	17 412	17 614	19 134	15 447	Snapper	10 257	9 750	10 429	11 163	14 053	11 356	Flounder (including dabs)	7 228	6 516	4 869	4 769	3 305	2 165	1938, H-15.
	1931–32	1932–33	1933–34	1934–35	1935–36	1936–37																								
Total quantity	21 291	18 078	17 412	17 614	19 134	15 447																								
Snapper	10 257	9 750	10 429	11 163	14 053	11 356																								
Flounder (including dabs)	7 228	6 516	4 869	4 769	3 305	2 165																								
1937	<p>- Committee comprised of James Young (M.P.), M.W. Young (Assistant Chief Inspector of Fisheries), and E. Sheed (Investigating Accountant, Department of Industries and Commerce) (p 10). Appointed on 25 February 1937; delegated with powers of a judicial inquiry. Order of reference to inquire into:</p> <p>(1) the condition and prospect of the sea-fishing industry, including any matter relating to exploitation and conservation of fisheries; the catching, landing, distribution, etc of sea fish, shell, and other marine products; and the</p> <p>(2) the scientific evaluation, control, and administration of the sea fisheries.</p> <p>- Methods of fishing – Danish seining – Thames (p 15)</p> <p>- ‘At Thames, where the main supply is drawn from the set-net boats operating on the flats at the head of the Firth, there is naturally strong objection to the operation of the Danish-seiners, especially in the lower reaches of the Firth. The fishermen traced the decline of the inshore Danish-seining to overfishing and to the growth of the modern fleet now operating in the outer Gulf and in the Bay of Plenty. Only the smaller units unfit to work outside are working the inshore grounds now left open.’</p> <p>- stated that the closure of the ‘Dab Patch’ during the spawning season and the Auckland fishermen’s strike in October 1936 let large quantities of fish, particularly snapper, up onto the Thames flats. ‘Had this not been so, the Thames fishermen would have experienced a poor year, as the flounder fishery prior to closure had seriously felt the effect of the seining operations.’</p> <p>- ‘All the fishermen examined agreed that the flounder landings had been declining over a period of years, and all asserted that this decline was coincident with the introduction of and increase in fishing by means of the Danish seine.’</p> <p>- fishermen requested restrictions on Danish seining and complete closure of the ‘Dab Patch’ to this method of fishing (p 16)</p>	‘Report of the Sea Fisheries Investigation Committee’, <i>AJHR</i> , 1937-1938, H-44A. <b>[Photocopy 43]</b>																												

	<ul style="list-style-type: none"><li>- men who had been seining stated that ‘pulls’ were poorer</li><li>- was admitted by one seiner that if one seiner got onto a patch, others came around and they all worked till no more fish left</li><li>- statement of one fishermen seen to be particularly apt: ‘The whole trouble with regard to the seine boats is that we are very restricted as to the water that is suitable for them to work in. They have to hang round the shallow water and round the coast, and it is a very effective method of catching fish, but I think that it is too destructive to the reproducing power of the fish.’</li><li>- Methods of fishing – set-netting – Thames (p 24)<ul style="list-style-type: none"><li>- most common method of fishing used by the Thames fishermen</li><li>- recommend that mesh size be increased to 5 inches</li></ul></li></ul>									
1938	- Thames supplies increased from previous years. Flounder landings improved, but only half of production for 1932-33.	A.E. Hefford, Report on fisheries for the year ended 31 March 1938, Marine Department annual report, <i>AJHR</i> 1938, H-15.								
1940	<ul style="list-style-type: none"><li>- Auckland . . .</li><li>- Notes increase in flounder catch, 88.1% landed by Danish-seiners. Tarakihi catch the lowest since 1935-36, 60.3% taken by steam trawlers.</li></ul>	A.E. Hefford, Report on fisheries for the year ended 31 March 1940, Marine Department annual report, <i>AJHR</i> 1940, H-15.								
1942	<ul style="list-style-type: none"><li>- Auckland: fall in supplies attributable to a decline in Danish-seiner catches. At this port, snapper landings have declined steadily from the 1938-39 total of 107,252 cwt to 87,251 for the 1941-42 year. The relatively greater decline of terakihi landings over the same period from 22,530 cwt to 12,882 cwt is attributed to the absence of steam trawler landings. (Presumably the trawlers were requisitioned for war service.)</li><li>- Thames: landings show a decline in snapper supplies – 11,123 cwt in 1938-39 to 6,941 in 1941-42. This is compensated for by increased supplies of flounder – 6,247 for 1941-42, the highest since 1932-33.</li></ul>	A.E. Hefford, Report on fisheries for the year ended 31 March 1942, Marine Department annual report, <i>AJHR</i> 1942, H-15.								
1946	<p>- ‘Mr Ensor thanked Mr Thorn . . . He had started in the fishing business when he left school 40 years ago and had seen the rise and fall of the industry on previous occasions but had never felt that the position was so black or hopeless for fishermen as a whole as it was at the present time. About 70 fishermen were at present operating in Thames. He had been authorised to speak on behalf of Thames Fisheries Ltd. and Taylor Bros., two Thames firms, in addition to his own, the Thames Co-operative Fisheries, who were very concerned about the position. . . .//They had now reached the stage when they found that boats were being sold away from Thames because it had become uneconomic for them to operate. . . . They could not catch sufficient fish to pay them for their efforts.’</p> <p>- provided supporting papers that gave statistics showing decline:</p> <p style="text-align: center;">Table showing decline in production at Thames Co-operative Fisheries (NZ) Ltd April to July inclusive</p> <table><tr><td></td><td>1944</td><td>1945</td><td>1946</td></tr><tr><td>Snapper</td><td>207 085</td><td>147 689</td><td>106 996</td></tr></table>		1944	1945	1946	Snapper	207 085	147 689	106 996	Notes on a meeting held in office of Mr J Thorn (M.P.) on 14 August 1946, attended by Auckland M.P.s to hear Mr S. Ensor of Thames Co-operative Fisheries on fisheries problems in the Hauraki Gulf, AG W1711 box 2714 2/12/55 part 9, Hauraki Gulf restriction, 1940-1951, NAW.
	1944	1945	1946							
Snapper	207 085	147 689	106 996							



<b>Flounder</b>	67 708	57 397	45 696
<b>Gurnard</b>	37 169	31 342	10 843
<b>Trevalli</b>	18 728	9 6895	10 584
<b>Total</b>	330 690	245 913	174 119

Table showing return of flounder produced by Auckland and Thames over six years

<b>Year</b>	<b>Auckland (cwt)</b>	<b>Thames (cwt)</b>
1940/41	13 379	5 335
1941/42	10 490	6 247
1942/43	5 943	5 788
1943/44	5 808	5 604
1944/45	1 857	4 902
1945	2 110	4 296

- 'Mr Reddish endorsed what Mr. Ensor had said. He would like to say he was the fishermen's representative at the deputation. He had had 33 years' experience as an active fisherman, and could definitely state that he had never seen fish so scarce in all that period as they were today. It was very true, as Mr Ensor had said, that some men had already left the industry, others were ready to follow when employment was offering. Before seine fishing was introduced the net and line fishermen could adequately fill the market, with the one or tow trawlers then operating. They did this without destroying beds or taking any immature fish that would tend to lessen the stocks in the future. The position today was that men were going out on numerous occasions with 16 nets, representing roughly a mile of net, and bringing in on many occasions only four or five fish. This was now the middle of their snapper season but he found there was nothing there to catch. The latest figures they had were very small indeed. They found that when snapper and flounder became scarce there was a ready market for "rough" fish, but they found, too, that these had been skinned out. When seining first commenced in Thames they had from 10 to 12 seine boats. These were recently reduced to two, and the men were just existing by adopting the old method of line fishing till the season came on. They believed that seine boats had had their heyday. As Mr Ensor had said, two or three years ago the writing was on the wall.'

- Reddish also spoke of the problem of poaching in the restricted Thames waters.

1946	<ul style="list-style-type: none"> <li>- states that has approved recommendations made by the Acting Chief Inspector of Fisheries, including closure of the dab patch for five years</li> <li>- states that the proposals will be incorporated into a consolidation of Fishery Regulations being prepared and will be in force by October</li> </ul>	Minister of Marine to Ensor, undated, AG W1711 box 2714 2/12/55 part 9, Hauraki Gulf restriction, 1940-1951, NAW.
1947	<ul style="list-style-type: none"> <li>- Thames: total landings at Thames of 10,824 cwt: <ul style="list-style-type: none"> <li>- notes a significant drop in landings at Thames from 17,245 cwt the previous year; states that a small proportion of the decrease can be accounted for by the fact that no Danish-seine operated from the port during 1946</li> <li>- 9,437 cwt caught by nets, including snapper (3,777 cwt) and flounder (3,591 cwt)</li> </ul> </li> </ul>	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1947, Marine Department annual report, <i>AJHR</i> 1947, H-15.

1952	- 'While it must be admitted that there has not been any spectacular increase in the fish landings at Thames since the "Dab" Patch was closed in May, 1947, the decline of the fishery has been arrested. Once a fishing ground has been depleted short term closures do not always provide complete restoration. // These grounds are being tested from time to time, but there is no indication that the time has yet come when there would be justification for removing the present restriction.'	Minister of Marine to N.Z. Wholesale Fish Merchants' Association Limited, Auckland, despatched 11 July 1952, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.
1959	- re the closure of the Dab Patch - 'This ground was closed in an attempt to arrest the decline in flounder stocks in Hauraki Gulf when Danish seining was the principal method of fishing. The research vessel "Ikateru" has worked the ground experimentally to check any recovery of flounder stocks but as yet no significant recovery is apparent." - encloses record of recent trials and results obtained – five data sheets <i>[Digital Photographs 12A-12E]</i>	Secretary of Marine to Manager, Kia Ora Fish Market, 18 June 1959, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

## S21: Hauraki: Groper (hapuku and bass)

Year	Details	Source
1860s	- (p 1) In 1859, Buchanan (aged 1) went to live with his parents on Great Mercury Island. - (p 9) 'In November the Māoris used to come across from the Mainland nine miles, and catch a lot of Hapuku, some were eighty pounds in weight. These they dried and smoked for winter food, they had no trouble like us running to butchers shops.'	Anon., <i>Ahuahu (Great Mercury Island): Memoirs of Cameron Buchanan, 1859-1873</i> . Mercury Bay Historical Society, Whitianga, 1977.
1881	- (pp 4-5) 'At this time [1890s] Māori were successful fishermen, especially Tenetahi of Ngati-Wai, using the scow <i>Ida</i> . 'Every summer Tenetahi and his crew would sail <i>Ida</i> to the Moko-hinau Islands to fish for hapuku. They would sail back to the Auckland markets with the huge fish cut up and hanging in the rigging to dry.'	P. Titchener, <i>The story of Sanford Ltd. The first 100 years</i> , Auckland, 1981.
1909	- (p 6) 'At Auckland . . . Kahawai, rock-cod, and hapuku have been plentiful, but mullet have been very scarce.'	Marine Department annual report, 12 June 1909, <i>AJHR</i> 1908 H-15.
1915	- Auckland: Inspector Bennett states that the market generally well supplied. (p 16) - trevally, terakihi, john-dory, and hapuku are plentiful on the fishing grounds of the Hauraki Gulf and on the outside grounds - Thames: Inspector reports that fish have been plentiful on the Thames fishing grounds and that good catches have been made – about 40 launches and 90 men employed in catching fish (p 16)	Marine Department annual report for 1914-1915, <i>AJHR</i> 1915 H-15
1915	- Hapuku, gurnard, rock cod, and kingfish plentiful in the Hauraki Gulf.	Annual report of Auckland Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW
1916	- Hapuku – supply has been large and in good demand.	Annual report on fisheries at Auckland by fisheries inspector Jas Bennett, for

		the year ended 31 March 1916, M 1 2/12/115 NAW.
1917	<ul style="list-style-type: none"> <li>- Catches: about 120 dozen a week (about two-thirds snapper; one-third mixed mostly kahawai, trevally, and occasionally hapuku).</li> <li>- Line fishing here is considered very good indeed, but low prices and small market means it will be difficult for the industry to expand.</li> </ul>	Annual report for Tauranga for the year ended 31 March 1917 by Fisheries Inspector A Skinner, M 1 2/12/137 NAW.
1918	<ul style="list-style-type: none"> <li>- Auckland: return shows a large increase in the quantity and value of marketable fish in comparison to the previous year (p 7)</li> <li>- Tauranga: practically no fish caught for the Auckland market; fishing being confined to what is required to supply local market <ul style="list-style-type: none"> <li>- 'The extensive fishing grounds in the Bay of Plenty are capable of great development, as very large supplies of schnapper, terakihi, trevalli, and hapuku can be taken either by trawling or lining.'</li> </ul> </li> </ul>	Marine Department annual report for 1917-1918, <i>AJHR</i> 1918 H-15.
1918	<ul style="list-style-type: none"> <li>- 5 boats engaged in fishing; no trawlers.</li> <li>- 'The greatest number of fish caught in this harbour and outside the Heads are Schnapper, and few mullet, Hapuku, Travalli [sic], Kahwai, and flounder.'</li> <li>- Weight of fish brought in during the year – about 150 tons.</li> </ul>	Annual report for year ended 31 March 1918 for Whangarei by Fisheries Inspector M Stuart, M 1 2/12/163 NAW.
1919	<ul style="list-style-type: none"> <li>- 65 licensed fishing boats; employing about 120 men, mostly line and net fishing.</li> <li>- 5 steam trawlers employed at Auckland, fishing mostly in the Hauraki Gulf, employing 34 men.</li> <li>- 'The supply of fish at Auckland is surely becoming less each year. In my opinion the decrease is owing to the continuous working of the five trawlers in the Gulf.'</li> <li>- 'Most of the fishermen now line fishing at Auckland carry a supply of ice on their boats and stay out until they catch sufficient fish to take to market and they mostly take their catches at the North Side of Great and Little Barrier, Moko Hinau, Mercury Islands, Alderman Islands and the Bay of Plenty. // Those fishing boats are all under seven ton register and are compelled to go to the above fishing grounds owing to the depletion of the waters in the Hauraki Gulf.'</li> <li>- Hapuku: more plentiful in former years owing to the fishermen going further afield for their catches of line fish.</li> </ul>	Annual report for year ended 31 March 1919 for Auckland (incl. Manukau) by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.
1919	<ul style="list-style-type: none"> <li>- Snapper is the principal fish caught here, also hapuku, mullet, trevally, kahawai, rock cod, guard fish, herring, crayfish, moki, and flounder</li> <li>- Have tried to get an estimate of the quantity caught and value, but it is exceedingly hard to get anywhere near the exact amount.</li> </ul>	Annual fisheries report for the year ended 31 March 1919 for Tauranga by Fisheries Inspector A Skinner, M 1 2/12/182 NAW.
1921	<ul style="list-style-type: none"> <li>- Long and hand line fishermen at Auckland are mostly working outside Great Barrier, Little Barrier, Mokohinou, and Mercury and Alderman Islands in the Bay of Plenty; in good weather get good catches of snapper, hapuku, blue cod, kingfish, and other kelp fish.</li> <li>- The line men with their small boats have to go further away 'owing to the Trawlers cleaning out the Gulf'; would be a great advantage to them and would save wasting of fish if a cool store built at Mercury Island.</li> </ul>	Supplementary annual report for Auckland for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.
1923	<ul style="list-style-type: none"> <li>- 'The supply of fish at Auckland has not been so regular as in previous years owing to the trawlers which fetch in the most regular supply having to go farther away to secure payable catches'. Some of the large trawlers have been operating on the west coast, others in the Bay of Plenty. Some of the trawl masters complain that there is a marked</li> </ul>	Annual report for Auckland for year ending 31 March 1923 by Inspector of Fisheries J.P. Bennett, M 1 2/12/269

	<p>difference in the supply there compared with previous years.</p> <ul style="list-style-type: none"> <li>- ‘The trawling grounds in the Hauraki Gulf are becoming fast depleted, so much so that several of the Trawl masters suggest a close season for Schnapper in the Hauraki Gulf as Schnapper have become very scarce.’</li> <li>- As the school snapper is becoming less plentiful in the Auckland fishery each season, suggest a close season. Several trawl masters have suggested this privately owing to the vast destruction of spawning snapper during spawning season. They believe that this is the sole cause of the decrease in the supply from year to year.</li> </ul>	NAW.
1923	<ul style="list-style-type: none"> <li>- Up until a month ago fish fairly plentiful at the Thames, but with the approach of winter fish head to deeper waters, catches become less owing to the methods of the Thames fishermen (set nets).</li> <li>- Some 5 or 6 boats are fishing for line fish – rock cod, hapuku, and snapper – from the Thames and are working as far down the East Coast as Mayor Island in the Bay of Plenty.</li> </ul>	Annual report for Thames for year ending 31 March 1923 by Inspector of Fisheries J.P. Bennett, M 1 2/12/269 NAW.
1928	- Because of a lack of records it is not possible to precisely show that the snapper fishery is in decline (at the time of writing), but it is known to be more and more difficult to catch snapper. Middle aged people can remember when a catch of snapper could be made with a handline in proximity to any beach in Auckland. Similar depletions experienced for blue cod and hapuku, which are not caught by trawl. It is the amount of fish that are extracted, not the method of fishing, which is the important factor.	A.E. Hefford, ‘Report on the fisheries of the Hauraki Gulf with special reference to the Snapper fishery and to the effects of “power-fishing” (trawling and Danish seining)’, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW. <i>[Photocopy 32]</i>
1929	<ul style="list-style-type: none"> <li>- Fishing industry at Whitianga stated to be ‘flourishing, and the number of men and boats employed have increased very considerably within the past two years’.</li> <li>- The fish receiving depots – Thames Fisheries and Taylor Bros – each have about 12 launches supplying the fish caught.</li> <li>- Fish caught: snapper, hapuku, cod, and flounder. Snapper and hapuku being by the far the largest types of fish caught.</li> </ul>	Annual report for year ending 31 March 1929 for Mercury Bay by Inspector of Fisheries, Cannon, M 1 2/12/452 NAW.
1952	- ‘The popular idea that Waihi beach is not a good fishing beach is being disproved by several amateur fishermen who get boats out. During the last two or three months quite big catches have been made. // As an instance of this a newcomer to the beach, using a set line, caught 18 big schnapper on Saturday and on Sunday caught 24. These were all excellent fish, the heaviest weighing 12lb. // The fish were caught at practically no distance from the main part of the beach and within two hours. // Other fishermen have been getting good catches, not only of schnapper and terakihi but also of crayfish. // A professional fisherman on Sunday, November 23, who ventured three miles out, to Petley’s reef, caught eight dozen schnapper and hapuku within a period of four hours.’	<i>Hauraki Plains Gazette</i> , 28 November 1952, extract in AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW

## S22: Hauraki: Mullet

Year	Details	Source
1841	[Page 32] ‘Towards the latter end of January (this month corresponding to our July, but more serene and settled,	Hodgskin, R. <i>A Narrative of Eight</i>

	the thermometer ranging from 72 to 79,) we anchored in a lonely and romantic harbour, called by the natives Ki-ya-hou, situated at the head of the Bay of Mourangee or Mahranga, on the western side of the frith or mouth of the river Thames, the latitude of which is 36d. 28m. 50s. south, long. 174d. 46m. 30s. east, affording excellent shelter and secure anchorage for vessels of any size for a distance of two miles from its entrance. . . . .when we hauled the net we caught abundance of fine <b>mullet</b> , soles, and other flat fish, for the use of our men working in the forests; but we could purchase them so cheap from the natives that they were hardly worth the trouble of catching.'	<i>Months' Sojourn in New Zealand</i> , 1841
1853	... the harbours abound in fish – abound is a poor word for it: they are literally alive with fish. M—— and myself now live almost entirely on them at evry meal; they are delicious, and in great variety. We have a fish here exactly like the salmon, and of as good flavour. On a sunny morning the surface of the harbour is a complete mass of fishy life.	Earp, G.B. (1853). <i>New Zealand: its emigration and goldfields</i> . London: George Routledge and Co. 115 pp.
1872	- (p 49) In the early 1870s, mullet began to be canned at Whangarei. Mullet could be fished in quantity in the east coast of the North Island from North Cape to the Bay of Plenty, concentrated in harbours and tidal estuaries. Mullet was well known in Auckland households – a staple catch for which a specialised form of small sailing craft was developed, known by the 1890s as 'mullet boats'. Fish were caught in nets as they came across shallows in the tide. With a full catch – perhaps 40 dozen – the boat would sail to Auckland.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1885	- (p 113) Julius Vogel was Commissioner of Trade and Customs in 1885 – 'one of the first politicians to realise the value and importance of a NZ fishing industry.' Vogel asked J. McKenzie to write a report on his study into the fishing industry – reported that millions of tons of fish could be caught annually. - (p 113) In 1884 the Department undertook the administration of the Fisheries Conservation Act 1884, passed because commercial fishing practices were said to be recklessly destroying small fish. - (pp 113-114) Fisheries Encouragement Act 1885 passed to promote the establishment of fisheries in NZ and the production of canned and cured fish for export, and the maintenance of fishing populations through setting apart land. An export bonus under the Act helped to create a thriving <b>mullet</b> canning business in North Auckland, for some reason the bonus was abolished by the Govt in 1905. - (p 114)	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1885	'I carefully fished the Firth of Thames, round Cape Colville to Port Charles, Kennedy Bay, and Mercury Bay; found plenty of firm, delicate fish, the snapper being the only large fish that could be got in anything like large quantities. Examined the coast northwards as far as Whangarei Bay; found snapper, <b>mullet</b> , kahawai, and bream of fine quality; but as the weather was so bad I did not devote much attention to this locality, further than to satisfy myself that fish of countless millions frequent the neighbourhood of Great and Little Barrier Isles, and the Firth of Thames.'	Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15, No. 1: J Mackenzie to Julius Vogel, 29 March 1885
1885	Provides details of the 'food fishes of New Zealand', focussing on the following fish, mentioned in the regulations issued under the Conservation of Fisheries Act 1884: hapuku, kahawai, snapper, terakihi, trumpeter, moki, barracouda, horse-mackerel, trevally, kingfish, warehou, mackerel, rock cod (blue cod), gurnard, <b>mullet</b> , butterfish, red-cod, flounder, soles, garfish, herring.	Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15No. 2: Dr Hector to Julius Vogel, 30 May 1885

1886	....there is no New Zealand fish which can be put up in tins fresh so well as the mullet. Its oily and rich nature makes it a general favourite with the public, and many epicures pronounce the fish quite as good as the salmon, and superior to any other smoked or put in tins.	Sherrin, R.A.A. (1886). <i>Handbook of the fishes of New Zealand</i> . Auckland: Wilson and Horton. 307 pp.
1888	Regulations under the Fisheries Conservation Act 1884 and the Fisheries Conservation Amendment Act 1887: - 12: Minimum fish size: Mullet 4 oz	NZG 1888, no. 2, pp 13-14
1895	Order in Council prescribing minimum size or weight at which fish may be taken: <b>mullet</b> 4 oz	New Zealand Gazette, 1895, no. 32, pp 729-739.
1896	On 4 January 1896, Hector interviewed Edward Blake at Whangarei, who has fished mullet for 22 years, the last fifteen in the upper reaches of Whangarei Harbour and River. 'The fish are now harder to get than formerly, but not really scarcer. They are more disturbed. This year they are as plentiful as ever; but years vary very much. . . . Young fish which are supposed to be mullet are first seen coming up the river on fine days in spring time – October and November. They increase rapidly in size when the warm weather comes. Large and small fish run separately; all the fishermen know this, and use different-sized nets. Large fish mostly keep to the deep channels; but on warm days, even in winter, the large fish sometimes come onto the banks. In summer the fish move everywhere, but from March on through the winter either a big haul is taken or none at all, as they are then running in "schools". . . . Shags are the chief enemies of the mullet, as they eat great quantities of the young fish.'	James Hector (1897) Protection of Mullet, AJHR Sess. II. 1897, H-17
1896	On 14 January 1896 Hector interviewed John Munro, Inspector of Fisheries for the Whangarei District. Believes there should be a closed season for mullet when in full ripe roe, but is unsure when this is. Should be a closed for mullet in all waters from the 1 December for three months; all canneries should be shut during this season.	James Hector (1897) Protection of Mullet. AJHR Sess. II. 1897, H-17
1897	Concludes that no closed season for mullet is required and that all restrictions should be withdrawn. - Report includes evidence relating to a number of places; focuses particularly on the Kaipara area, but has some details relevant to places within the Hauraki study area. - Hector records that he visited the Auckland fish market three times in January 1896 and found few mullet for sale. Comments that, as far as he could ascertain, the mullet found in Auckland comes from the Hauraki Gulf, with a small proportion from Helensville.	James Hector (1897) Protection of Mullet, AJHR Sess. II. 1897, H-17
1905	Order in Council has been issued to provide that the mesh of a net or seine is to not be less than 2 and 1/2 inches, except for flounder (4 inches), gar fish (1 inch), herring (1 and ¼ inches) and mullet in the North Island (3 and ¼ inches).	Marine Department annual report, 15 May 1905, AJHR 1905 H-15
1906	Mullet, which is one of the principal fishes in the [Auckland] district, has been scarce, and the Inspector is strongly of opinion that there should be a closed season for this fish.'	Marine Department annual report, 30 May 1906, AJHR 1906, H-15
1907	In the Auckland District .... Mullet have been very scarce. It would appear that the time has now arrived when there should be a close season for this fish.	Marine Department annual report, 25 May 1907, AJHR 1907 H-15
1907	Regulations under the Sea-Fisheries Act 1894. - 1: Close season for mullet from 1 December to 28 February. - 2: Regulation to have effect in all waters of the North Island.	NZG 1907, no. 67, p 2310.
1908	Owing to the scarcity of mullet on the East Coast of the North Island, a close season will be held during the spawning months of December, January, and February in the waters of that coast. The water south of a line between Taruru Point, Thames, and the left bank of the mouth of the Makaka Creek have been excluded from the	Marine Department annual report, 12 June 1908, AJHR 1908 H-15

	area to be closed. 'At Auckland the fish-supply has been equal to the demand. Schnapper, flounders, kahawai, trevalli, and gurnard have been plentiful, but mullet have been exceptionally scarce.'	
1909	'At Auckland during last summer and up to the end of August schnappers were so abundant that the dealers had to limit each boat to a certain number of dozen per week. They are still plentiful in the Hauraki Gulf, but scarce in Tamaki Strait. Kahawai, rock-cod, and hapuku have been plentiful, but <b>mullet</b> have been very scarce.'	Marine Department annual report, 12 June 1909, AJHR 1908 H-15
1910	'..mullet appear to be increasing in numbers [Auckland region] since the close season, but most are small.'	Marine Department annual report for 1909-1910, AJHR 1910 H-15
1911	Supply of mullet [Auckland region] reported to be improving each year – inspector believes that in Hauraki Gulf this is due to the close season	Marine Department annual report for 1910-1911, AJHR 1911 H-15
1912	Inspector Bennett reports mullet as being very scarce in the Hauraki Gulf	Marine Department annual report for 1911-1912, AJHR 1912 H-15
1913	mullet reported to be very scarce	Marine Department annual report for 1912-1913, AJHR 1913 H-15
1914	Fish fairly plentiful during the last year, except mullet. 'Mullet are doomed to extinction if something is not done in the near future to conserve them, I would suggest a close season extending over a term of years.'	Annual report on fishing industry at Auckland for year ending 31 March 1914 by Fisheries Inspector J.P. Bennett, M 1 2/12/35 NAW.
1914	At Auckland fish of all kinds have been plentiful, except mullet – recommend a close season extending over a number of years'	Marine Department annual report for 1913-1914, AJHR 1914 H-15
1915	Mullet becoming scarcer every year, Bennett recommending a close season over a number of years	Marine Department annual report for 1914-1915, AJHR 1915 H-15
1915	'Mullet are becoming more scarce each year and it is my opinion only a matter of a year or two when this beautiful fish will become extinct in the Hauraki Gulf if not given strict protection by declaring a close season extending over a number of years.'	Annual report of Auckland Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW
1916	Mullet – supply very limited owing to scarcity; since the open season declared several boats have been catching a few in the rivers and bays around Auckland.	Annual report on fisheries at Auckland by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.
1916	Return prepared by my shipping clerk after making enquiries from all fish dealers throughout the city. Various kinds of fish caught on the local grounds, giving as near as possible the total weight: mullet 500 tons	Return of Auckland fisheries for the year ended 31 March 1916, Collector of Customs to Secretary, Marine Department, 7 April 1916, M 1 2/12/115 NAW.
1916	various kind of fish caught in local grounds – snapper, mullet, flounder, and a few hapuku - about 70 tons of fish caught during the year - suggests a close season for mullet in December/January	Annual report on fisheries at Whangarei Harbour by M Stuart, Inspector of Fisheries for the year ended 31 March

		1916, M 1 2/12/115 NAW.												
1917	Mullet fairly plentiful.	Annual report for Auckland for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137 NAW.												
1918	<p>Except for mullet and flounder, all other marketable fish were plentiful [Auckland]  Table of fish caught for year ending 31 March 1918 – compiled from returns given in the District Inspectors' reports (p 11)</p> <table border="1"> <thead> <tr> <th>Port</th><th>Kind of Fish Caught</th><th>Total Weight Cwt.</th></tr> </thead> <tbody> <tr> <td>Auckland</td><td>Snapper, <b>mullet</b>, flounder, crayfish, gurnard, trevalli, john dory, kahawai, tarakihi, hapuku, rock cod [blue cod?], butterfish, kingfish, barracouta, garfish</td><td>114 480</td></tr> <tr> <td>Thames</td><td>-</td><td>-</td></tr> <tr> <td>Tauranga</td><td>Snapper, hapuku, <b>mullet</b>, trevalli, kahawai, garfish, flounder</td><td>not supplied</td></tr> </tbody> </table>	Port	Kind of Fish Caught	Total Weight Cwt.	Auckland	Snapper, <b>mullet</b> , flounder, crayfish, gurnard, trevalli, john dory, kahawai, tarakihi, hapuku, rock cod [blue cod?], butterfish, kingfish, barracouta, garfish	114 480	Thames	-	-	Tauranga	Snapper, hapuku, <b>mullet</b> , trevalli, kahawai, garfish, flounder	not supplied	Marine Department annual report for 1917-1918, AJHR 1918 H-15
Port	Kind of Fish Caught	Total Weight Cwt.												
Auckland	Snapper, <b>mullet</b> , flounder, crayfish, gurnard, trevalli, john dory, kahawai, tarakihi, hapuku, rock cod [blue cod?], butterfish, kingfish, barracouta, garfish	114 480												
Thames	-	-												
Tauranga	Snapper, hapuku, <b>mullet</b> , trevalli, kahawai, garfish, flounder	not supplied												
1918	<p>'The greatest number of fish caught in this harbour and outside the Heads are Schnapper, and few mullet, Hapuku, Travalli [sic], Kahwai, and flounder.'</p> <p>- Weight of fish brought in during the year – about 150 tons.</p>	Annual report for year ended 31 March 1918 for Whangarei by Fisheries Inspector M Stuart, M 1 2/12/163 NAW.												
1918	<p>Mullet: scarce.</p> <p>Returns of fishing companies operating in Auckland:  - F Williams: 1004 dozen mullet; 4006 bundles</p>	Annual report for year ended 31 March 1918 for Auckland by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.												
1918	Fish caught on local grounds, weight given as near as possible: mullet 100 tons	Annual fisheries return for year ended 31 March 1918 for the Port of Auckland by Collector of Customs, M 1 2/12/163 NAW.												
1919	<p>Mullet: taken in fairly good quantities.</p> <p>The quantity and value of fish taken and received by the several trawling companies and dealers are as follows:  F. Williams -1570 doz mullet  Municipal Fish Market - 2589 doz (excl. KP) mullet</p>	Annual report for year ended 31 March 1919 for Auckland (incl. Manukau) by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.												
1920	<p>Following quantities of fish caught:  Mullet 7200 dozen</p>	Annual report for Whangarei for year ending 31 March 1920 by Constable M												



		Power, M 1 2/12/207 NAW.
1920	Quantities of Mullet cured (smoked) by different establishments: Thames Fisheries - 9 tons 4 cwt 0 qr 14 lbs Taylor Bros. - 8000 lbs / 2000 fish	Annual report for Thames for year ending 31 March 1920 by Inspector of Fisheries J.P. Bennett, M 1 2/12/207 NAW.
1921	Various kinds of fish caught on the local fishing grounds: snapper, <b>mullet</b> , flounder, hapuku, and trevally. - Total weight of catch: 4467 cwts.	Annual report for Whangarei for year ending 31 March 1921 by Constable M Power, M 1 2/12/224 NAW.
1921	32 licensed fishing boats at Thames; no trawlers. - Approx 70 men engaged in fishing. - Various kinds of fish taken: snapper, <b>mullet</b> , gurnard, john dory, kahawai, trevally, dogfish, and flounder. - Total weight of catch: 410 tons.	Annual report for Thames for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.
1921	Various kinds of fish caught: snapper, flounder, <b>mullet</b> , trevally, tarakihi, kahawai, scorpion, gurnard, parori, blue cod, hapuku, kingfish, creamfish, and mango. - Total weight (as near as possible) of fish brought into Auckland was 3428 tons, including 764 dozen crayfish and 780 lbs of shrimps.	Annual report for Auckland for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.
1922	17 boats engaged in fishing; 30 men employed upon them. - No steam trawlers and motor launches engaged in trawling. - Various kinds of fish caught on the local fishing grounds: snapper, mullet, flounder, hapuku, trevally, etc. - Catch weights: Mullet 2760 doz / 55,200 lbs	Annual report for Whangarei for year ending 31 March 1922 by Constable M Power, M 1 2/12/245 NAW.
1922	Various kinds of fish caught: snapper, flounder, mullet, dogfish, trevally, blue cod, kahawai, gurnard, hapuku, kingfish, bream, herrings, garfish, crayfish, shrimps and whitebait. - Total weight (as near as possible) of fish brought into Auckland was 65,700 cwt.	Annual report for Auckland for year ending 31 March 1922 by Inspector of Fisheries J.P. Bennett, M 1 2/12/245 NAW.
1923	10 boats licensed and engaged in fishing; no trawlers. - 13 men engaged in fishing. - 4 fish curing sheds. - Various kinds of fish caught on the local fishing grounds: snapper, mullet, flounder, hapuku, trevally, etc. - Catch weights: Mullet 74,300 lbs	Annual report for Whangarei for year ending 31 March 1923 by Constable M Power, M 1 2/12/269 NAW.
1924	12 boats licensed and engaged in fishing. - 20 men engaged in fishing. - 3 fish curing sheds. - Catch weights: mullet 300 cwt	Annual report of fish caught and sold within fishing limits of Whangarei River for year ending 31 March 1924 by Constable M Power, M 1 2/12/298 NAW.
1925	Only 2 boats are engaged here in the fishing industry, both used for line fishing only. The owners sell directly to the public. Both boats registered in Auckland. - 4 men employed in fishing.	Report on fishing industry at Devonport by Inspector of Fisheries A.E. Powell, M 1 2/12/330 NAW.

	<ul style="list-style-type: none"> <li>- Kinds of fish caught: snapper, <b>mullet</b>, tarakihi, and gurnard.</li> <li>- Total weight of catch: 240 cwt.</li> <li>- 'So far as I can ascertain these are the only two boats now engaged in line fishing in or about Auckland, line fishing is apparently a thing of the past here and each year it is becoming more difficult to make a living by this mode. Danish seining is now almost universal in the Gulf and is depleting the waters to such an extent that line fishing is out of the question. // The two boats mentioned have now to go a long distance out to obtain a satisfactory catch.'</li> </ul>	
1925	38 fishing boats licensed and engaged in fishing. - No trawlers Kinds of fish caught: flounder, snapper, mullet, gurnard, john dory, trevally. - Total weight of fish brought into Thames: 1185 tons.	Annual report for year ending 31 March 1925 for Thames by Inspector of Fisheries A McDonnell, M 1 2/12/330 NAW.
1925	Kinds of fish caught, about in order taken: snapper, hapuku, trevally, kahawai, flounder, gurnard, rock cod, red cod, moki, trumpeter, kingfish, herring, mullet, garfish. Total weight of catch about 100 tons.	Annual report for year ending 31 March 1925 for Tauranga by Inspector of Fisheries A Skinner, M 1 2/12/330 NAW.
1926	at Thames, flounder below normal, mullet apparently on the decrease (now only one regular mulleting boat out of Auckland)	Annual return/report for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1926 by Inspector of Fisheries C Daniel, M 1 2/12/356 NAW. [Photocopy 17]
1928	Catch for year: Mullet 39 cwt	Annual report for year ending 31 March 1928 for Thames by Inspector of Fisheries A McDonnell, M 1 2/12/413 NAW.
1929	Mullet 400 cwt	Annual return for Whangarei for year ending 31 March 1929 by Inspector of Fisheries, W Fraser, M 1 2/12/452 NAW.
1929	Mullet 149	Annual return for year ending 31 March 1929 for Thames by Inspector of Fisheries, A.E. Powell, M 1 2/12/452 NAW.
1929	compared to previous years, mullet more plentiful	Annual return for year ending 31 March 1929 for Coromandel by Inspector of Fisheries, C.A. Gibbs, M 1 2/12/452 NAW.
1930	Mullet 629 cwt	Return of fishing information and

		statistics for the port of Whangarei for the year ended 31 March 1930 by Whangarei inspector WM Fraser, M 1 2/12/477, NAW.
1930	some 14 'odd boats' – total catch of approximately 35 tons, principally flounder and mullet Coromandel: 3 row boats and 1 launch working during the year: - catch estimate is 2 tons mullet, flounder, snapper	Fisheries report for Auckland (including Coromandel, Mercury Bay, and Manukau) for year ended 31 March 1930 by Auckland inspector C Daniel, M 1 2/12/477, NAW. [Photocopy 25]
1930	row boats engaged in fishing – 4 part-time Mullet 156 cwt	Return of fishing information and statistics for the port of Thames for the year ended 31 March 1930 by Thames inspector JFH Macnamara
1931	row boats engaged in fishing – 1 full-time Mullet 270 cwt	Return of fishing information and statistics for the port of Whangarei for the year ended 31 March 1931 by Whangarei inspector WM Fraser, M 1 2/12/500, NAW.
1944	Petition to the Speaker and members of the House of represented. Signed by 2,511 inhabitants of the Whangarei District, including the Mayor, President of the Trades and Labour Council, Chairman of the Harbour Board, etc. - 'Humbly sheweth: 1. That the inhabitants of the said District, numbering approximately 20,000, are alarmed concerning the effect on their local fisheries of the operation of the Auckland-owned fishing boats using Seine or heavy drag nets. 2. That formerly the shallow waters of the harbours, tidal rivers and creeks of the district abounded with <b>mullet</b> , herring, flounders and parore, which were regularly taken and depended upon as a food by settlers, Māoris and others..... 5. That the scarifying of the bed of the bays and harbours by the repeated dragging thereover of heavily leaded nets has dislodged the mollusc and torn the vegetation out by the roots.... 7. The since the introduction of the heavy drag nets in our Northern waters, operated by both engine and man power, the fish of our inner shallow waters and outer bays, as described above, have practically disappeared.. 9. ....and a request made that use of drag nets in such fisheries be prohibited	Petition of N. Jones and others, undated (forwarded by Clerk of the Public Petitions Committee to Secretary of Marine on 6 September 1944), M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.
1944	Comments on petition by N. Jones and others (see above), responding to each point:  2. States that: 'No doubt this is correct. The same thing could be said of every other harbour and estuary in early times.	A.E. Hefford, Chief Inspector of Fisheries to Secretary, Marine Department, undated, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

1945	These statistics appear to have been collected by Charles Daniel, Chief Inspector of Fisheries, in connection with questions raised about the impact of net fishing at Whitianga. Mullet- Jan: 66 lbs, Feb: 120 lbs, April: 26 lbs	Catch statistics for Mercury Bay, January – April 1945, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.
------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------

### S23: Hauraki: Mussels (Green Lipped)

Year	Details	Source
Unspecified	- (p 60) Shell fish were an important food supply of coast-dwelling tribes, apparent in the great number of shell middens. Quotes from Cook, at Mercury Bay: “Wherever we went, whether upon the hills or in the valleys, the woods or the plains, we saw vast heaps of shells, often many wagon-loads together, some appearing to be very old and others recent.”	Elsdon Best, <i>Fishing Methods and Devices of the Māori</i> , Dominion Museum Bulletin No. 12, Wellington, 1929.
1769	- (p 194) At Mercury Bay, 6 November 1769: ‘I went to a nother part of the Bay to haule the sene but me with as little success as before and the Master did not get above half a Bucket full of shells with the dridges. The Natives brought to the Ship and sold to our people, small Cockles, Clams and Mussels enough for all hands, these are found in great plenty upon the Sand Banks of the River.	J.C. Beaglehole (ed.), <i>The Journals of Captain James Cook: The Voyage of the Endeavour, 1768-1771</i> , Cambridge, 1955.
1901	<ul style="list-style-type: none"> <li>- the steam trawler ‘Doto’ chartered, equipped with trawl nets, one purse seine net, one bottom dredge, and hooks and lines (p 1)</li> <li>- expedition undertaken from February to May 1901, around the coast of the North Island</li> <li>- from Tolaga Bay to Hauraki Gulf little work was done (p 2)</li> <li>- from Tauranga to Cape Colville only one haul was made – the quantity of fish taken at this season was sufficient to warrant its selection as a permanent trawling ground</li> <li>- in and around Hauraki gulf good hauls of marketable fish were made on every occasion</li> <li>- hauls were especially good in the Firth of Thames, where fish appear to be particularly plentiful and of good quality</li> <li>- exhaustive tests were made in all parts of the gulf to Great Barrier Island on one side and along the coast to Whangarei on the other – with suitable bottoms and the hauls sufficiently encouraging except in Motuihi Channel, Whangaparapara Harbour, and the vicinity of Whangrei (though these areas might prove fruitful in different seasons)</li> <li>- notes that proper evaluation would require the areas to be fished at different seasons</li> <li>- best results were obtained in from 5 to 15 fathoms</li> <li>- total hauls of the trawl net were 122</li> <li>- haul numbered 25 was located off the coast from Whangapoua on the east coast of the Coromandel Peninsula (p 5)</li> <li>- the following fish were taken from this haul: crayfish, leather jackets (pp 10-11)</li> </ul>	Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 11 July 1901, <i>AJHR</i> 1901 H-15A <b>[Photocopy 39]</b>

	<ul style="list-style-type: none"> <li>- hauls numbered 26 to 54 were located in the Hauraki Gulf, including the Firth of Thames (pp 5-7)</li> <li>- the following fish were taken from these hauls: common flounder, sole, lemon sole, blue cod, john dory, red gurnard, snapper, crayfish, electric ray, whip ray, dog fish, cat fish, leather jacket, octopus, mussels, shark, stingray, and trevally (pp 10-11)</li> <li>- hauls numbered 55 to 58 were located in Bream Bay (p 7)</li> <li>- the following fish were taken from these hauls: lemon sole, john dory, red gurnard, snapper, dog fish, leather jacket, (pp 10-11)</li> </ul>	
1924	<ul style="list-style-type: none"> <li>- Requests exclusive right to take mussels from a bed in Coromandel Harbour for £20 a year.</li> <li>- 'It is no better than some places in the Gulf but it is sheltered a little in bad weather. // If we are let go on, dredging where we like, we will ruin this bed in about a few years. // I try to keep to one part for a year, it takes three years to go across the bed. // I am working in the same place this year it is about ½ mile long and I have been taken [sic] about 80 sacks a week off it but have not touched where we dredged last year, but some other boat will come out and only want ten sacks and will dredge the place where we leave to grow, and won't give the shells time to settle.'</li> </ul>	J. McNeil, Coromandel, to Captain Daniel, Inspector of Fisheries, Auckland, 10 November 1924, M 1 2/12/350 part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1924	- Encloses McNeil's application, commenting that he observed during a recent trip that 'there is quite an industry in the Gulf waters in mussels and I gather it is capable of considerable expansion.'	Secretary [Mercantile Marine, Auckland?] to Mr Miller, 28 January 1925, M 1 2/12/350 part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1924	- Advises that he is unable to grant an exclusive license over the Coromandel mussel bed.	Minister of Marine to J. McNeil, 10 March 1925, M 1 2/12/350 part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1925	- 'The Mussel beds in the Firth of Thames and Hauraki Gulf are very extensive, and will undoubtedly in time prove a valuable industry. At the present time large quantities are forwarded in the shell to the Auckland market, and also as far north as Whangarei. Considerable quantities are also cured and find a ready market in Auckland & inland towns, and as far south as Gisborne and Napier. Messrs A. McNeil and Company have lately commenced canning at Coromandel, and I understand there is a ready sale for the product.'	Chief Inspector of Fisheries to Secretary, Marine Department, 15 July 1925, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1927	<ul style="list-style-type: none"> <li>- Approximately 800 sacks of mussels gathered by local fishermen</li> <li>- noted that these are taken from Mair Bank at the Harbour entrance</li> <li>- mussels seen only 5 years ago on this bank; originally covered an area of 1 sq mile</li> <li>- have been taken away in such large quantities that the bed is now rapidly depleted</li> <li>- Recommends restrictions on taking and selling of mussels and prohibition of seine or other power nets in Whangarei Harbour and Whangaruru Harbour.</li> </ul>	Annual report for Whangarei for year ending 31 March 1927 by Fisheries Inspector W.M. Fraser, M 1 2/12/388 NAW.
1928	- Boats: vessels engaged in mussel dredging – 2 full-time	Annual report for Whangarei for year ending 31 March 1928 by Fisheries Inspector W.M. Fraser, M 1 2/12/413

		NAW.
1928	- Boats: vessels engaged in mussel dredging – 2 full-time - figures apply to all vessels marked AK and AK boat landings only.	Annual return for Port of Auckland for year ending 31 March 1928 by Inspector of Fisheries C Daniel, M 1 2/12/413 NAW.
1928	- Boats: vessels engaged in mussel dredging – 2 part-time	Annual report for year ending 31 March 1928 for Thames by Inspector of Fisheries Daniel, M 1 2/12/413 NAW.
1929	- Proposes that seven areas at Coromandel (between Rabbit Island in the north and Dead Man's Point in the south) be laid off for leasing as exclusive mussel (dredge) fishing areas. States that the person holding the license is more likely to farm in a methodical way, and in a way that will preserve the asset, rather than 'cleaning it out, and then going elsewhere.' Notes that present system allows anybody with a fishing-boat license to fish commercially for mussels anywhere. - Notes that it will be a condition of any sole right that the lessee must permit Māori to take what mussels and pipi they require for food purposes. - Proposal approved by Minister on 29 April 1929.	Secretary, Marine Department, to Minister of Marine, 26 April 1929, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1929	- Order in Council declaring that mussels shall be subject to the provisions of the Fisheries Act 1908, relating to artificial oyster beds. This allowed areas to be leased for exclusive mussel fishing.	Extract from <i>New Zealand Gazette</i> , no. 4, 23 January 1930, p 155, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1929	- Recommends that before going ahead with the leases, commercial mussel fishers should be required to take out a license and make returns of quantities landed. This would provide a better understanding of the industry and the people actively interested in it. Notes that there is 'a considerable trade' in fresh mussels in the Auckland District, and that more mussels are taken for that purpose than for canning. Notes that leases aimed at canning industry, and that infringement might be a problem.	Hefford, Chief Inspector of Fisheries, to Secretary, Marine Department, 6 June 1930, minute on Secretary to Chief Inspector of Fisheries, 5 February 1930, M 1 2/12/328, part 1, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1931	- Coromandel: - practically the whole of mussels landed from these waters – 1 local boat, 1 Tapu boat, 1 Thames boat, dredging for the past year in the vicinity of Rangapuke Island.	Fisheries report for Auckland for year ended 31 March 1931 by Auckland inspector C Daniel, M 1 2/12/500, NAW. <i>[Photocopy 26]</i>
1928	- Boats: vessels engaged in mussel dredging – 2 full-time.	Annual report for year ending 31 March 1928 for Thames by Inspector of Fisheries A McDonnell, M 1 2/12/413 NAW.
1929	- Boats engaged in mussel dredging – 1 part-time	Annual return for Whangarei for year ending 31 March 1929 by Inspector of

		Fisheries, W Fraser, M 1 2/12/452 NAW.
1929	- Boats engaged in mussel dredging – 1 part time	Annual return for Auckland for year ending 31 March 1929 by Inspector of Fisheries, Charles Daniel, M 1 2/12/452 NAW.
1929	- Boats engaged in mussel dredging – 2 part-time	Annual return for year ending 31 March 1929 for Thames by Inspector of Fisheries, A.E. Powell, M 1 2/12/452 NAW.
1929	- Boats engaged in mussel dredging – 1 whole time	Annual return for year ending 31 March 1929 for Coromandel by Inspector of Fisheries, C.A. Gibbs, M 1 2/12/452 NAW.
1930	- Boats: mussel dredging – 1 boat full-time; 1 boat part-time	Return of fishing information and statistics for the port of Auckland for the year ended 31 March 1930 by Auckland inspector C Daniel, M 1 2/12/477, NAW.
1930	- Boats: mussel dredging – 2 boat part-time	Return of fishing information and statistics for the port of Thames for the year ended 31 March 1930 by Thames inspector JFH Macnamara, M 1 2/12/477, NAW.
1930	- Boats: mussel dredging – 1 boat full-time, 1 boat part-time	Return of fishing information and statistics for the port of Thames for the year ended 31 March 1930 by Auckland inspector C Daniels, M 1 2/12/477, NAW.
1931	- Boats: mussel dredging – 2 boat part-time	Return of fishing information and statistics for the port of Thames for the year ended 31 March 1931 by Thames inspector JFH Macnamara, M 1 2/12/500, NAW.
1931	- Boats: mussel dredging – 2 boat full-time	Return of fishing information and statistics for the port of Thames for the year ended 31 March 1931 by Auckland inspector C Daniel, M 1 2/12/500,

		NAW.
1934	- Boats: mussel dredging – 1 boat full-time; 1 boat part-time	Return of fishing information and statistics for the port of Auckland for the year ended 31 March 1934 by Auckland Inspector of Fisheries, C. Daniel, M 1 2/12/533, NAW.
1934	- Boats: mussel dredging – 1 boat full-time	Return of fishing information and statistics for the port of Coromandel for the year ended 31 March 1934 by fishery officer, E.W. Gillives, M 1 2/12/533, NAW.
1934	- Boats: mussel dredging – 2 boats full-time	Return of fishing information and statistics for the port of Thames for the year ended 31 March 1934 by fishery officer J Macnamara, M 1 2/12/533, NAW.
1938	- Owner of canning factory in Coromandel processing deep sea mussels. - ‘I might mention . . . that these deep sea mussels are very popular in Auckland, and are sold during the greater part of the year in the fish shops here, but at the rate they are being consumed, mussel beds, in my opinion, will be totally depleted within the next 10 years, and I seriously commend to your consideration the advisability of controlling the operations of those interested in the gathering and the sale of mussels in Auckland, by limiting the period in which they may be gathered. . . . I think that they should be conserved for all time, and this could be accomplished if a season, say June, July, August and September in each year, was insisted upon by the Government.’	C.G. Macindoe to Minister of Marine, 8 July 1938, M 1 2/12/328, part 1, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1938	- Comments on Macindoe’s letter, noting that his letter provides no evidence of depletion. - Statistical returns of the average catch per landing at Auckland in 1936-7 (56.14 sacks) and 1937-38 (59.96) do not indicate a trend towards depletion. Notes that these figures are not necessarily significant, perhaps reflecting only market demand.	Hefford, Chief Inspector of Fisheries, to Secretary, Marine Department, 13 July 1938, M 1 2/12/328, part 1, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1938	- Comments on Macindoe’s letter. Rejects claims of depletion as groundless. - States that Hauraki Gulf beds would benefit from increase in consumption. States that many beds cannot be worked because they are matted and congested, and their condition so poor, through lack of food, that they cannot be marketed. - Notes that mussels, like oysters, are subject to fluctuation of their condition – owing to seasonal conditions and weather cycles – that can last for several years.	Charles Daniel, Senior Inspector of Fisheries, to Superintendent, Mercantile Marine, 20 July 1938, M 1 2/12/328, part 1, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1924-1938, NAW.
1944	- Advises that was interviewed the previous day by Mr C.G. Macindoe, Principal of the Hauraki Packing Company, engaged in canning mussels, with factory in Coromandel. Macindoe states that the Company faces the depletion of mussels located at 30 to 40 fathoms, believes that there are two causes:	Minister of Marine to Secretary, Marine, 18 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki



	<ul style="list-style-type: none"> <li>- 1) The method of securing the mussels, using a steel trawl designed like a net, which was dragged behind a boat and then raised by means of a winch. Speed of the boats excessive, causing the destruction of a quantity of mussels. Once the shell breaks, the fish dies. Macindoe estimates that for every ton of mussels taken, possibly two were destroyed.</li> <li>- 2) Mussels taken during the spawning season, approximately 1 November to 1 May, though not actually fit for consumption at this time. Hauraki Packing Company observed a close season – considered that this should be enforced.</li> </ul>	Gulf – leasing of areas, 1942-1949, NAW.
1944	- Commenting on an application for a licence to dredge mussels. States that: ‘There are two firms operating in the dredging of mussels in the Gulf, one from Auckland and one from Thames, and the District inspector is of opinion that ample demand exists for more boats to be so employed.’	Superintendent, Mercantile Marine, to Secretary, Marine Department, 22 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1944	<ul style="list-style-type: none"> <li>- Comments on points raised by Mcindoe (see above). Rejects that excessive dredging speed was an issue of concern; all trawls at half a knot. Also rejects the idea of a closed spawning season, asserting that small mussels would be ‘wiped out’ on first day of dredging.</li> <li>- Notes that Coromandel Harbour mussels are heavily dredged, and asserts that dredging effects the muddy bottom ‘home’ of the mussel. ‘That the beds are being depleted gradually cannot be denied: That something will have to be done about it soon cannot be denied either. Prospect dredging will have to be done on a wider scale’.</li> <li>- Also comments on disappearance of mussel beds as trawling grounds from Tapu to Deadman’s. ‘I would advance a theory on the disappearance of the mussel beds as trawling grounds from Tapu to Deadman’s. I am told that a few dredging over once prolific beds now yield only dead shells and poor conditioned mussels. It has been suggested that as a result of bush felling inland, in recent years, more soil has found its way down to the sea and deposited on these beds, and has no food value for the mussels – in fact it helped to wipe the beds out. They certainly have no commercial value today.’</li> </ul>	E.W. Gilliver, Inspector of Fisheries, to Superintendent, Mercantile Marine, 22 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1944	- Commenting on Macindoe letter: ‘To my mind, several of the smaller [Coromandel] beds have been depleted, but more extensive grounds have been formed and worked accordingly. There is no doubt that the steel trawl destroys a certain number of mussels, but not any way near the way Mr Macindoe explains. . . . There are many extensive beds in the Thames Gulf that have never been worked out, and are very much in need of thinning out . . .’	G. Migan, District Inspector of Fisheries, to Superintendent, Mercantile Marine, 29 August 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1944	<ul style="list-style-type: none"> <li>- Notes that there is agreement ‘that the mussels in and adjacent to Coromandel Harbour have been considerably reduced from their former state of abundance by intensive dredging operations. The general opinion appears to be that there are plentiful supplies in other parts of the Gulf.’</li> <li>- Suggests it might be time to close for a while the Coromandel area which appears to have been over-exploited.</li> <li>- Provides statistics of annual mussel landings for previous ten years:</li> </ul>	Chief Inspector of Fisheries to Mr Miller, Secretary, Marine, 18 September 1944, minute on Secretary to Chief Inspector of Fisheries, 12 September 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

		<b>Year ended 31<sup>st</sup> March</b>	<b>Auckland sacks</b>	<b>Thames sacks</b>	<b>Combined totals</b>		
		1944	11 781	4 939	16 720		
		1943	12 446	7 280	19 726		
		1942	14 162	6 287	20 449		
		1941	12 706	5 382	18 088		
		1940	10 602	6 029	16 631		
		1939	8 072	4 797	12 869		
		1938	6 776	635	7 411		
		1937	7 019	3 396	10 415		
		1936	6 378	3 714	10 092		
		1935	3 542	3 628	7 152		
		1934	3 500	1 388	4 888		
1944	<ul style="list-style-type: none"> <li>- Notes that a license issued to W.S. Burns for the purpose of commercial mussel fishing.</li> <li>- Comments: 'I have very clearly pointed out these mussel beds in the Hauraki Gulf are being rapidly depleted on account of the ravages made of them by vessels trawling. As you are aware, I have suggested that certain areas should be closed and others probably exploited, but the situation is so serious that I feel it is due to the Minister of Marine to act very quickly and get the various interests together, for at the rate we are going these beds . . . will be totally destroyed.'</li> </ul>					C.J. Macindoe to Minister of Marine, 20 December 1944, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.	
1945	<ul style="list-style-type: none"> <li>- Reports on mussel dredging in the Hauraki Gulf.</li> <li>- Notes that spoke to Coromandel Inspector Gilliver while in Auckland and saw the owner of the “Wee Pat” and the shed hands who handle the mussels. ‘I was informed that poor-conditioned mussels have been more in evidence this summer than usual. Skipper G. Gundlock said that when he first began to dredge and handle mussels there was no such thing as a poor mussel. Other evidence points to the conclusion that the conditions in the Hauraki Gulf, and more especially in the Thames Firth waters, have become much less favourable for mussels than was the case in former years. For instance, plenty of mussels of good quality could then be obtained from the beds of Tapu, but nowadays these mussels are no good, presumably because they are undernourished. As to the possible cause of this, the most plausible seems to be that it is connected with the enormous accumulation of silt brought down by the rivers. It was also suggested that cyanide brought down by the creeks from gold-mine workings might have caused some injury to mussels. Light on these questions could only be obtained by making special investigations.’</li> <li>- Explains that ‘poor mussels’ were clearly individuals that had spawned but had not had time to ‘feed up’.</li> <li>- States that in respect of dredging there was no confirmation of Mcindoe’s opinion about excessive speed. The only smashed mussels are caused by bumping on the deck.</li> <li>- Recommends the closure for three years of certain areas in the vicinity of Coromandel for three years, where it is clear that mussels have been overfished and are in need of ‘a spell’. Map provided. Notes that if the closure takes place the industry will have to depend on the beds on the western side of the Gulf; understands these beds to be well stocked, though the mussels are not in such prime quality as those on the Coromandel side.</li> </ul>					Hefford, Chief Inspector of Fisheries and Director of Fisheries Research, to Acting Secretary, 7 March 1945, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.	

1945	- Prohibiting the dredging of mussels from 1 April 1945 to 31 March 1948 in certain Coromandel waters. Two areas described.	Serial Number 1945/45, Sea-Fisheries Regulations 1939, Amendment 17, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1945	- Comments on an application by a Dr Chapman to take mussels for the purpose of manufacturing fowl food and fertiliser: ‘With regard to Dr Chapman’s letter to which he remarks that certain beds have not been worked for 20 years I beg to differ as since I have been stationed here in Coromandel the beds from Tapu down to Coromandel were being worked I should say 12 years to be nearer the mark though I must admit these beds were getting very poor in quality then and mussel boats were steadily working down to Deadman’s Point, in fact they were being forced to come further down on account of the quality of the mussels. These mussel beds have at times been prospected but with the same result, such poor condition as to be unfit for human consumption. // The dredging of these deteriorated mussel beds may have a beneficial effect so far as thinning out these beds, but as to whether it would improve the quality of the mussel would to my mind be a matter of doubt. It is my belief that these mussels have deteriorated in quality as a result of the silt from up the Hauraki Plains as a result of floods – probably due to excessive bush-felling – being deposited on these beds. . . . The mussel beds out of the line of the Thames Firth – Coromandel Harbour Te Kume[?] environs and the beds to the Southeast of Ponui Island have in my opinion escaped this silting, being in a much better condition to the detriment really as it has meant heavy dredging in these areas mentioned. This also applies to the area eastwards of Waiwati[?] Is Huieh[?] (Goat) Island.’	E. Gilliver, Inspector of Fisheries, Coromandel, to Superintendent, Mercantile Marine, 9 August 1945, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1945	- Advises approval of request to undertake exploratory work in regard to the dredging of mussels in the waters south of a line from the north bank of the Tapu River to a point on the coast near Kaiaua.	Secretary, Marine, to Dr Chapman, 4 September 1945, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1947	- Comments on a request (by Naturfood Limited) for a license to dredge for mussels in the Firth of Thames for the production of fertiliser. Believes that this would be acceptable if the license was only for the purpose of taking mussels inside (south) of a line from Tapu to Waimunga Point – would be no possibility of any edible mussels being used for fertiliser. ‘The class of mussel above the . . . line which is fit for market in only about 1%’. - Notes that north of this line two licenses have been operated for some considerable time, ‘and although the heavy landings have not shown any depletion of the beds, I think it would be unwise to grant another license.’	G.R. Migan, District Inspector of Fisheries, to Secretary, Marine Department, 19 November 1947, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1948	- Advises that two companies are to dredge for dead mussels, mud, etc, in the Firth of Thames – (1) south of a line from Haurahi Stream to Tapu (Naturfood Limited), and (2) the area from Haurahi Stream to Orere Point, to be outside 1 mile from the shore and extending a further 2 miles seaward (F.J. McLean).	W.C. Smith, Secretary, to Marine Engineer, Public Works Department, 1 October 1948, M 1 2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.
1948	- ‘That rocks along the Coast were being denuded of mussels which were being taken for commercial purposes,	Newspaper extract, 31 March 1948, M 1

	was reported to the annual meeting of the Thames Coast Progressive Association. // As such action was thought likely to have an adverse effect on fishing, it was decided to bring the matter to the notice of the proper authorities.’					2/12/328, part 2, Mussells – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.	
1957	- Attaches following table of Auckland vessels – presumably those whose owners licensed to catch paua, etc:					District Inspector of Fisheries to Licensing Authority, Marine Department, 2 October 1957, M 1 2/12/425 part 3, Paua, 1950-1961, NAW.	
	Vessel	Landing Port	Crays, Aqualung	Mussels	Paua		Sea Eggs
	Roa	Thames		X			
	Wee Pat	Auckland		X			
	Kon-Tiki	Kaiaua		100 lbs weekly			
	Princess Pat	Kaiaua		30 sacks monthly			
	Lady Olice	Kaiaua		20 sacks weekly			
	Makonui	Kaiaua		20 sacks monthly			
	Kawerau	Piha	X				
	Naiad	Kaiaua		20 sacks monthly			
	Betta Bee	Thames		X			
	Brett II	Auckland	X		56 lbs monthly		2 cwt to 4 cwt weekly
	Tai Awa	Auckland		X			
	Dana	Whangaruru/Whangarei		200 lbs monthly	100 lbs monthly		200 lbs monthly
	Kate	Huia	X		200 lbs weekly		
BJD	Martins Branch, Auckland	X					

## S24: Hauraki: Rock Oysters

Year	Details	Source
Unspecified	- (p 60) Shell fish were an important food supply of coast-dwelling tribes, apparent in the great number of shell middens. Quotes from Cook, at Mercury Bay: “Wherever we went, whether upon the hills or in the valleys, the woods or the plains, we saw vast heaps of shells, often many wagon-loads together, some appearing to be very old and others recent.”	Elsdon Best, <i>Fishing Methods and Devices of the Māori</i> , Dominion Museum Bulletin No. 12, Wellington, 1929.
1769	- (pp 196-197) At Mercury Bay, 11 November 1769: I saw the head of the River . . . both sides of the River were cover'd with the same sort of wood: the sand banks were well store'd with Cockles, and clams and in many places Rock Oysters. - (p 202) Mercury Bay, 15 November 1769: ‘The best anchorage is in a sandy bay which lies just within the south head . . . here it is very convenient Wooding and watering, and in the River are an immense quantity of Oysters and other small shell fish, and this is the only thing it is remarkable fore and hath occasioned my giving it the name of <i>Oyster River</i> [Purangi River].’	J.C. Beaglehole (ed.), <i>The Journals of Captain James Cook: The Voyage of the Endeavour, 1768-1771</i> , Cambridge, 1955.
1831	- (p 100) ‘November 14 [1831]. Light air's all night. In the morning caught a quantity of fish. . . . At five we rounded the north head of the Thames [Kawau Island], and entered a small deep cove [Little Omaha], which was as quiet as a fishpond, with trees on either side growing down to the water's edge; anchored in three fathoms water, which was beautifully clear, with sandy bottom, shewing the fish in great numbers, while the birds were singing most delightfully in the bushes. We went on shore to stretch our legs, which was a great relief. All soon at work cutting wood, gathering oysters, and shooting birds.’	Carleton, H. <i>The Life of Henry Williams</i> , [Vol. I.], 1874. [Early New Zealand Books]
1833	- (page ) [25 December 1833] ‘In the evening entered the more than pretty little cove of Omaha, which is well sheltered except from the east. The rocks here were covered with oysters, and so also the branches of the trees which dip in the water.’	Wilson, J. A. <i>Missionary Life and Work in New Zealand</i> , 1889. [Early New Zealand Books]
1835	- (page 25) ‘Between the Bay of Islands and about thirty miles south of it are three harbours . . . . There is also a small but snug harbour, called Wangari . . . . [New Paragraph] The entrance to the frith of the Thames [actually Kawau channel] is rendered dangerous, in a few instances, by small rocks showing themselves a few feet above the surface of the water, and not readily distinguished at night. The Bay of Mahurangi, on the western side of the frith, is deep; has several rivers running into it; is studded with several small islands; and has a fine harbour, named, by the natives of the place, Kaihu. . . . [New Paragraph] With the exception of the Bay of Islands, none of these ports are generally known, as no charts or descriptions of them have hitherto been published. A few Europeans, expressly trading to some of them, are the only civilized people perfectly acquainted with them. All the ports abound in fish and oysters.’	Yate, William. <i>An Account Of New Zealand</i> [2nd ed.], 1835. [Early New Zealand Books]
1841	- (page 84) ‘There are not many anchorages in the Thames, and but three places which can be considered harbours: the one called Coromandel harbour . . . . The shores are all very rocky and covered with trees, but the cliffs are not in general high, and are always very rugged; those at the water's edge are covered with oysters in a most extraordinary manner; generally they are more than a foot thick, and very good; other shell-fish are also abundant, particularly Cockles--of these I have seen more than a man could [Page 85] carry collected by one woman during	Bidwill, J. <i>Rambles in New Zealand</i> , 1841, [Capper facsimile, 1974]. [Early New Zealand Books]

	the space of a tide; Scallops are also tolerably abundant, and are most delicious eating.’	
c.1850	Māori canoes from the Hauraki Gulf landed in Auckland to trade, their cargo including fish and oysters.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 20.
1853	[Page 179, footnote] ‘In three months, in 1853, there visited Auckland alone (but Auckland is the chief seat of the native trade) 442 canoes, navigated by 1592 men and 590 women, bringing produce to the value of nearly £4000’. Included 5 ½ tons of fish and 18 kits of oysters	Hursthouse, C. <i>New Zealand, or Zealandia, the Britain of the South</i> [Vol.I.], 1857
1850s	- ‘Oysters were picked from the islands of the Hauraki Gulf to the Coromandel Peninsular, from the bays on the western side of Coromandel, and from rocky shores nearer Auckland. It required little capital; all that was needed was a small boat . . . and a spade to strip the oysters from the rocks. Many oyster pickers were Māori.’ [Auckland town the only one for which the Māori food trade was recorded in detail – see, for example, Auckland Provincial Government Gazette and <i>AJHR</i> 1865 E-12.]	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 31.
1856	- In the September quarter of 1856, 579 baskets of oysters were landed at Auckland, mostly brought by Ngati Paoa.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 21.
1871	- An ‘immense number’ of kits of oysters landed on the Auckland wharf.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 31.
1883	- Alfred Cadman, MHR, wrote to the Colonial Secretary, stating that oysters in the Coromandel were ‘being destroyed in a wholesale manner’.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 36.
1884	- Fisheries Conservation Act 1884 ‘enabled some urgently-needed regulations to be made for the protection of the local fisheries.’ Order in Council issued on 27 March 1885 provides for close seasons for various kinds of oysters, the minimum size of fish and oysters to be taken, the minimum size of nets to be used, etc.	Marine Department annual report, 28 May 1885, <i>AJHR</i> 1885 H-13.
1884 and 1886	- Fisheries Conservation Act 1884 provided closed season for rock oysters from 1 December to 31 March. However, there were loopholes in this and an 1886 ban on the export of rock oysters, .	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 36-39.
1885	- During the year to 31 December 1885, 1,057,760 dozen rock oysters exported.	Marine Department annual report, 1 June 1886, <i>AJHR</i> 1886 H-24.
1886	- Under regulations issued under the Fisheries Conservation Act 1884, the oyster beds at Whangarei, the Hauraki Gulf, and the coastline between Bream Head and north of the Bay of Islands were closed for three years. The use of spades for stripping rocks was banned, with a 2 inch blade being the largest tool allowed.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 40.
1886	- Oyster beds closed at Whangarei, the Hauraki Gulf, and Harbours between Bream Head and a point just north of the Bay of Islands for a period of three years – owing to the reckless way that the beds have been worked. - Order in Council made to prohibit the export of oysters of rock oysters.	Marine Department annual report, 1 June 1886, <i>AJHR</i> 1886 H-24.
1887	- During the year, Orders in Council issued to regulate the apparatus with which rock oysters can be taken and to extend the close season for oysters in the Hauraki Gulf. - Exportation of rock oysters prohibited, but there is a question as to what is included in that definition.	Marine Department annual report, 17 May 1887, <i>AJHR</i> 1887 H-4.

1888	- Close season for oysters in the Coromandel extended.	Marine Department annual report, 27 July 1888, <i>AJHR</i> 1888 H-19
1889	- Oyster beds in Coromandel, Hauraki Gulf, and Bay of Islands to remain closed. (p 3)	Marine Department annual report, 13 June 1889, <i>AJHR</i> 1889 H-31
1880s to 1907	- From 1880s to 1907, the management of North Island oyster beds was difficult, even after ban on export. As soon as closed beds were opened, they were stripped – attempts to get some balance in the ferocity of the picking failed.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 42.
1890	- Oyster beds at Coromandel and in the Hauraki Gulf opened. Calls for legislation to preserve oysters, particularly the rock oyster. Notes that as soon as closed beds are reopened, they are rushed. (p 4)	Marine Department annual report, 21 May 1890, <i>AJHR</i> 1890 H-18
1891	- ‘I must draw the attention of the Government to the desirability of legislating with the view of preventing the entire destruction of oysters, a state of affairs which will, should not the taking of oysters be restricted, not take a very long time to come about.’ (p 3)	Marine Department annual report, 1 June 1891, <i>AJHR</i> 1891 H-30
1892	- Oyster exports from ports in the North Island (Auckland, Russell, and Wellington) amounted to 1,077,480 dozen. ‘So large a drain on the oyster beds of the colony will, I am afraid, before long almost deplete them.’ (p 3)	Marine Department annual report, 2 August 1892, <i>AJHR</i> 1892 H-29
1893	- Comments that it would be desirable to be able to lease (and have greater control) over existing oyster beds. ‘At present when a bed is opened, if it is at all accessible, it is at one rushed, and oysters almost completely destroyed.’ (p 3) - Oyster exports from the North Island totalled only 430,610 dozen, believed to be because of exports from Queensland to NSW.	Marine Department annual report, 7 August 1893, <i>AJHR</i> 1893 H-31
1895	- The beds in the Auckland district were being worked out and have, with the exception of those on Great Barrier Island, been closed. (p 3)	Marine Department annual report, 30 June 1895, <i>AJHR</i> 1895 H-29
1895	- Exported from Auckland (including Devonport, Manukau, Waiheke Island, Waipu, Whangarei, Thames, Coromandel, Tairua and Mercury Bay): 4,001 cwt of fish; 1,164,540 dozen oysters.	Fish and Oysters Exported – 1 April 1892 to 31 March 1895, Department of Trade and Customs, 1 August 1895, <i>AJHR</i> 1895 H-21
1895	- For the three years up to 31 March 1895, 17.5 million rock oysters exported to Australia.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 40. [ <i>AJHR</i> 1895 H-21]
1896	- Hauraki and Whangarei beds have remained closed as the oysters not yet fit to be taken. (p 3)	Marine Department annual report, 30 May 1896, <i>AJHR</i> 1896 H-15
1897	- Hauraki and Whangarei beds have remained closed – not sufficiently recuperated for picking. (p 3)	Marine Department annual report, 31 May 1897, <i>AJHR</i> 1897 H-15
1897	- (p 118) In 1897, J.P. Bennet of Waiheke Island was appointed an inspector of fisheries to protect the Hauraki beds – his appointment had a ‘beneficial affect’.	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.
1898	- Beds in the Tauranga fishery have been closed for the present season. (p 3) - The Hauraki Gulf and Great Barrier Island beds, closed for some time, have been opened ‘as the rest which they	Marine Department annual report, 30 April 1898, <i>AJHR</i> 1898 H-15

	have had has enabled them to become replenished’.	
1898	James Bennett, Fisheries Inspector, to Collector of Customs, 5 August 1898: ‘During the last week I have been around the oyster beds of the Hauraki Gulf and after the most careful examination, I find the beds on the eastern side of the gulf, in a most deplorable condition, so much so that I would not think of picking any oysters from any of them. From the Waikawau Creek as far north as Paparoa which includes Manaia, Te Kuna, Coromandel, and the adjacent Islands, the oyster beds have been utterly ruined by pickers opening the oysters and leaving the bottom shell still adhereing[sic] to the rocks. Almost all the inhabitants of Coromandel or their friends are owners of small boats, and those who are not owners, mostly hire a watermans boat of a Sunday and go pleasuring and destroying oysters. // If this is not checked, by the end of the present season there will be scarcely a live oyster to be found in or near Coromandel Harbour, or upon the beds near it.’	M 1 2/7/45, part 1, Oysters – rock, shore, drift, mangrove – export, 1886-1915, NAW.
1899	Extract NZ Gazette 13 April 1899: Order in Council prohibiting the export of oysters by whatever name they are known.	M 1 2/7/45, part 1, Oysters – rock, shore, drift, mangrove – export, 1886-1915, NAW.
1899	- Beds in the Hauraki Gulf are open, ‘as their condition is good’. (p 2)	Marine Department annual report, 8 May 1899, <i>AJHR</i> 1899 H-15
1900	- Beds in the Hauraki Gulf require a rest and have been closed this year. (p 3)	Marine Department annual report, 2 July 1900, <i>AJHR</i> H-15
1901	- Hauraki Gulf beds closed, requiring further rest before picking. (p 2) - Tauranga fishery declared open. - ‘In view of the way in which the beds are depleted in many places soon after they are opened, the question of restricting the quantity of oysters that may be taken by each licensed picker will have to be considered at an early date’.	Marine Department annual report, 13 September 1901, <i>AJHR</i> H-15
1902	- Decided to keep the Hauraki Oyster beds closed during the present season, as they have not yet recovered from the way in which they were depleted when last open; anticipated that they will be able to be opened for picking next season. - Tauranga beds open. (p 3) - It is found that in parts of the Hauraki Gulf rocks that have been denuded of oysters are becoming covered in barnacles and coral. The closing of the beds will not remedy this as the oyster spat will not fix to the coral. Need to clear these rocks before the spatting season – suggest that the only way that this can be done is by leasing the foreshore in sections for oyster culture.	Marine Department annual report, 1 July 1902, <i>AJHR</i> 1902 H-15
1903	- Oyster beds in the Hauraki Gulf remain closed – still recovering from the depletion that took place when they were last open. Tauranga beds open. (p 2)	Marine Department annual report, 28 May 1903, <i>AJHR</i> 1903 H-15
1904	- Sea-fisheries Amendment Act provides for rock oyster open season to be 1 May to 31 October each year (rather than 1 April to 30 November). - Act also provides for leasing of beds to adjacent owner or occupiers, which should help to prevent overpicking. - Ayson has inspected Hauraki beds and found they are recovering well from overpicking when they were last opened. - Tauranga beds open.	Marine Department annual report, 31 May 1904, <i>AJHR</i> 1904, H-15



1905	<ul style="list-style-type: none"> <li>- Not been possible to lease oyster beds in Hauraki Gulf – difficulty with regulations. (p 50)</li> <li>- Decided to open beds fit for picking – those from Gull Point (near Auckland) and Bream Tail (southern point of Whangarei Bay).</li> <li>- Tauranga beds open.</li> </ul>	Marine Department annual report, 15 May 1905, <i>AJHR</i> 1905 H-15
1906	<ul style="list-style-type: none"> <li>- Regulations for fish and oysters to be consolidated. (p 4)</li> <li>- Oyster beds between Gull Point and Bream Tail, in the Auckland Fishery, furnished sufficient oysters to meet demand. (p 6)</li> <li>- Ayson, Chief Inspector of Fisheries, has inspected oyster beds: <ul style="list-style-type: none"> <li>- beds now open between Mullet Point (north of Mahurangi) and Wanga Point (on Whangaparua Peninsula), and between Cape Colville and Hautapu Point on the Coromandel Peninsula</li> <li>- good supply on Rangitoto Island (closed); Great Barrier bed recovering</li> <li>- the closing of most beds in the Hauraki Gulf during the last few years has enabled them to recover</li> </ul> </li> <li>- Inspector Bennet states that the beds on Waiheke, Ponui, Rangitoto, and Pakiho Islands, and on part of Motutapu, are in better condition than they have been during the last 25 years</li> <li>- Should be considerable further improvement in the near future – Ayson observed an unusually large number of young oysters from this season's spawning.</li> </ul>	Marine Department annual report, 30 May 1906, <i>AJHR</i> 1906, H-15
1907	<ul style="list-style-type: none"> <li>- Regulations for fish and oysters have been consolidated. (p 5)</li> <li>- Has been decided to open only a portion of the oyster beds in the Auckland fishery. Some beds opened last year have been so denuded of oysters that it will take many years to recover. Seems impossible under the present system to prevent overpicking of beds – only option appears to be for the Dept to takeover the picking. (p 7)</li> </ul>	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15
1907	Sea Fisheries Amendment Act 1907 saw the Marine Department take control of the North Island oyster beds – the operation of picking and selling to retailers.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 43.
1908	<ul style="list-style-type: none"> <li>- New system underway for rock oysters – the Marine Department is to pick and sell the North Island rock oysters under the authority given by the Sea-fisheries Act Amendment Act 1907. (p 6)</li> <li>- 'Under the new system the picking will be so carried out that the beds can be worked every season, which will give a regular supply of oysters.'</li> <li>- All beds in the North Island presently closed, except beds on Waiheke Island and Great Barrier Island, and at Kerikeri and the Bay of Islands.</li> <li>- 'Spat was very prolific on the beds in the Hauraki Gulf and the Bay of Islands last season, and the rocks are now covered with young oysters.'</li> </ul>	Marine Department annual report, 12 June 1908, <i>AJHR</i> 1908 H-15
1908	<ul style="list-style-type: none"> <li>- Oyster were obtained from Waiheke, Ponui, and Sandspit Islands, Great Barrier Island, and the Bay of Islands. (p 6)</li> <li>- 11,005 sacks were sold. [Annual report relates to picking carried out during previous year.]</li> <li>- 'There is no doubt that the new system conduces to the preservation of the oyster-beds, as oysters of marketable size only are taken off the rocks, and sufficient are left to enable the beds to be picked each year.'</li> <li>- Some beds have not yet recovered from the depletion caused by previous pickings. Where the old system led to the complete stripping of oysters, it is advisable that the Department should plant oysters in these places.</li> </ul>	Marine Department annual report, 12 June 1909, <i>AJHR</i> 1908 H-15

1909	<ul style="list-style-type: none"> <li>- 7,934 sacks of oysters picked by the Department from Hauraki Gulf, Great Barrier Island, and Bay of Islands. (p 6)</li> <li>- Department made a profit and will be able to replant parts of the beds that were ruined before the Department undertook the picking.</li> <li>- Beds in the Hauraki Gulf, Bay of Islands, Whangarei Harbour, and Kaipara Harbour to be rested this year – have not properly recovered from depletion under the old system. But there are large numbers of oysters 3 yrs and under – after this year there will be sufficient to enable them to be picked and sold every season.</li> </ul>	Marine Department annual report for 1909-1910, <i>AJHR</i> 1910 H-15
1910	<ul style="list-style-type: none"> <li>- No picking during the 1910 season.</li> </ul>	Statement of sacks of oysters picked, gross revenue, and net profit, 1908-1926, M 1 2/7/6, NAW.
1911	<ul style="list-style-type: none"> <li>- Oyster beds in Hauraki Gulf and the Bay of Islands have been opened – estimated between 4 and 5 thousand sacks will be available. (p 7)</li> <li>- Last year the Dept planted some oyster beds in the Hauraki Gulf that had been overpicked – advisable to increase the supply.</li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1911 H-15
1911	<ul style="list-style-type: none"> <li>- 4,782 sacks picked from the oyster beds worked by the Department – picked between 1 May and 31 July (though legal season extends to 31 October – did not want to overpick). (p 7)</li> <li>- 2,421 sacks from the Bay of Islands; 2,351 from the Hauraki Gulf beds (p 12)</li> <li>- Profit from the sale of oysters being used to replant the beds that were destroyed by overpicking. (p 7)</li> <li>- during last two years replanting on the Coromandel coast at Huieh, Kepuki, Rabbit, Green Islands, Kirita Bay, south shore of Coromandel Harbour, and from Coromandel South Head to Manaia Head</li> <li>- recommends the continuance of replanting other depleted areas</li> </ul>	Marine Department annual report for 1911-1912, <i>AJHR</i> 1912 H-15
1912	<ul style="list-style-type: none"> <li>- 7,728 sacks picked from 1 May to 31 October in the Hauraki Gulf and Bay of Islands. (p 6)</li> <li>- Areas replanted on Rabbit and Long Islands, and at Kikowhakariri and Coromandel</li> <li>- Beds steadily improving beds all over the Gulf. (p 10)</li> <li>- last year the beds picked were off Kawau Island, Mahurangi, Waiwera Island, and Whangaparaoa - 4,298 sacks taken</li> <li>- ‘As an indication of the great improvement which has taken place in the condition of the oyster-beds in the Hauraki Gulf it may be stated that only about half the available beds were picked last season, and these supplied all the oysters required; the rest of the beds, though ready to pick, were not required, and will yield a very large supply of the oysters of the finest quality this season.’</li> <li>- ‘The replanting done by the Department on the Coromandel coast and islands in the Thames Gulf is already affecting an improvement in the beds in these places.’</li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15
1913	<ul style="list-style-type: none"> <li>- Rock oysters</li> <li>- ‘Thirty years ago the rock-oyster beds extended from the Bay of Plenty to the North Cape on the east coast – i.e., all the sheltered rocky foreshore along this extent of coast-line was covered with oysters; and on the west coast, in all the estuaries from Cape Maria van Diemen to Kawhia.’</li> <li>- were considered inexhaustible, but this idea false – section after section of the coast had to be closed to allow the beds to recuperate</li> </ul>	Reports on Fisheries of New Zealand, by Chief Inspector of Fisheries, L.F. Ayson, 10 June 1913, <i>AJHR</i> 1913 H-15B

	<ul style="list-style-type: none"> <li>- in 1908 the Dept took over the picking: 'From the commencement it has proved a great success; there has been a steady improvement in the beds everywhere; section after sections of the foreshore which was depleted under the old system of licensed picking has again become productive, and in a very short time the whole of the one-time oyster-producing foreshore will once more produce oysters in abundance.'</li> <li>- still great possibilities for extending the oyster beds along the coast from Bay of Plenty of the North Cape, by replanting and better protection</li> </ul>	
1913	<ul style="list-style-type: none"> <li>- 9,069 sacks of rock oysters taken during open season, beds in healthy condition. (pp 6-7)</li> <li>- Replanting at Rabbit and Long Islands and the coast between Kikowhakariri Bay and Coromandel Harbour, also at Port Fitzroy, Great Barrier, and in the Hauraki Gulf between Kirita Bay and Tapu and at Manaia and Te Kuma Bays and adjacent Islands.</li> </ul>	Marine Department annual report for 1913-1914, <i>AJHR</i> 1914 H-15
1914	<ul style="list-style-type: none"> <li>- Oysters: <ul style="list-style-type: none"> <li>- beds in the Hauraki Gulf are generally doing well – estimate the following number of sacks may be taken: Waiheke (1000), Ponui (800), Southern Sub Division (700), Rangitoto (500), Mahurangi (700), Whangapora (500).</li> <li>- beds around the north side of Coromandel Harbour, north side of Beasons, Waihou Island, from Kikowhakariri to Cabbage Bay, and several other islands on the Coromandel side are looking exceedingly well and in a few years will yield a fair supply for market</li> <li>- beds in the Coromandel want more protection than I am able to give them</li> </ul> </li> </ul>	Annual report on fishing industry at Auckland for year ending 31 March 1914 by Fisheries Inspector J.P. Bennett, M 1 2/12/35 NAW.
1914	<ul style="list-style-type: none"> <li>- 8,361 sacks of rock oyster picked from Hauraki Gulf and Bay of Islands (p 7)</li> <li>- 4,042 sacks taken from Hauraki Gulf and Great Barrier oyster beds – Waiheke Island (2049), Mahurangi (791), Maeritai [Maraetai?] (750), Rangitoto (350), and Tiritiri Island (102) (p 16)</li> <li>- Beds in 'first-rate condition' and are being extended every year by replanting (p 16)</li> <li>- replanted beds in the Coromandel and islands of the Thames Gulf recovering well</li> <li>- more replanting work done on several of the islands and valuable work in extending beds also done on Pakihi Island and Port Fitzroy Harbour, Great Barrier</li> </ul>	Marine Department annual report for 1914-1915, <i>AJHR</i> 1915 H-15
1915	<ul style="list-style-type: none"> <li>- Oysters: <ul style="list-style-type: none"> <li>- good work at improving beds at Rabbit and Long Islands off Cabbage Bay, Great Barrier; and at Pahiki Island a fine artificial reef has been made moving rocks from above the oyster line to their present position</li> </ul> </li> </ul>	Annual report of Auckland Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW
1915	<ul style="list-style-type: none"> <li>- Advises that oyster beds at Putiki Bay, Waiheke Island, being considerably damaged by earth and rock being deposited upon them in the formation of a road; about four chains of bed partly smothered. Stated to be part of the best Waiheke beds.</li> </ul>	James Bennett to Collector of Customs, Auckland, 12 August 1915, AG W1711 box 3 2/7/67, Oysters – Waiheke destruction of by depositing soil on beds, 1915-1916, NAW.
	<ul style="list-style-type: none"> <li>- Advises that with the Crown Solicitor he had made satisfactory arrangements with the offenders for the protection of the beds.</li> </ul>	Collector of Customs, Auckland, to Secretary, Marine Department, 14 January 1916, AG W1711 box 3 2/7/67, Oysters – Waiheke destruction of by

		depositing soil on beds, 1915-1916, NAW.
1915	<ul style="list-style-type: none"> <li>- 9,396 sacks of rock oyster picked from Hauraki Gulf and Bay of Islands (p 4)</li> <li>- 'The beds replanted on the Coromandel coast since 1909 and islands in the Thames Gulf are improving very well.' (p 11)</li> </ul>	Marine Department annual report for 1915-1916, <i>AJHR</i> 1916 H-15
1915	- 9395 sacks of oysters taken; includes all oysters from the Auckland Province (including those collected from Hokianga and Russell).	Return of Auckland fisheries for the year ended 31 March 1916, Collector of Customs to Secretary, Marine Department, 7 April 1916, M 1 2/12/115 NAW.
1916	<ul style="list-style-type: none"> <li>- 4,232 sacks of rock oysters picked from Hauraki Gulf. (p 15)</li> <li>- On account of poor fixing of sprats, oyster beds everywhere have had to be carefully nursed, with every care that the quantity picked does not exceed the number of young oysters coming on. (p 16).</li> <li>- Valuable work has been done in the Bay of Islands and Great Barrier by removing 'high-water' rock down to the mid-tide oyster line.</li> </ul>	Marine Department annual report for 1916-1917, <i>AJHR</i> 1917 H-15
1916	<ul style="list-style-type: none"> <li>- Oysters picked last season from the Auckland beds – total of 4233 sacks: Waiheke Island (1057); Ponui Island (793); Cabbage Bay (343); Pahiki Island (108); Wairoa Point (124); Maraetai (107); Rangitoto (343); Mahurangi (471); Wade (277); Port Fitzroy (513); Motutapu (103);</li> <li>- Auckland oysters have generally 'not spawned to any extent'; care taken not to overpick.</li> <li>- Beds in the Coromandel District are coming on very well; will be in a fit state for picking on some parts in a year or two.</li> </ul>	Annual report for Auckland for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137 NAW.
1917	<ul style="list-style-type: none"> <li>- 3,569 sacks of rock oysters picked from Hauraki Gulf; 510 from Great Barrier. (p 8)</li> <li>- 'The replanted beds on the Coromandel coast and the islands in the Thames Gulf are improving very satisfactorily.'</li> </ul>	Marine Department annual report for 1917-1918, <i>AJHR</i> 1918 H-15
1917	- Oysters: 3569 sacks from Auckland; 510 sacks from Great Barrier.	Annual fisheries return for year ended 31 March 1918 for the Port of Auckland by Collector of Customs, M 1 2/12/163 NAW.
1918	<ul style="list-style-type: none"> <li>- Oysters – supply from the various beds for 1918 will be approximately a total of 5200 sacks: Ponui Island (1700); Waiheke (1000); Mahurangi (1000); Pahiki and South Shore (500); Barrier (500); Cabbage Bay and Coromandel (if weather fine) (500).</li> <li>- The beds in the Hauraki Gulf have not spawned to any extent; a fair spawning at Mahurangi in places.</li> </ul>	Annual report for year ended 31 March 1918 for Auckland by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.
1918	<ul style="list-style-type: none"> <li>- 5,065 sacks of rock oysters picked from Hauraki Gulf; 517 from Great Barrier. (p 13)</li> <li>- Has been a poor fixing of spat on many beds – a large extent of beds will therefore have to be lightly picked. (p 11)</li> <li>- Demand increasing – the Dept will endeavour to extend the beds by replanting and will protect the beds where oysters exist. (p 12)</li> </ul>	Marine Department annual report for 1918-1919, <i>AJHR</i> 1919 H-15.
1919	- Oysters – the quantity that will be taken this year from the Auckland beds, approximately a total of 3900 sacks:	Annual report for year ended 31 March

	<p>Ponui Island (1500); Waiheke (1000); Rangitoto (300); Fitzroy (500); Tiri (200); Rakino (500); South Shore (200).</p> <p>- 'The oyster beds in Auckland Fishery have not recovered after picking under the system adopted by the Marine Department, as they did under the system of picking the beds previous to 1908. If a crop of oysters are to be obtained the bed must be prepared for the young brood.'</p> <p>- Variable fixing of young oysters. Some beds in better condition than others.</p>	1919 for Auckland (incl. Manukau) by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.
1919	<p>- Picking of oysters began on 1 May as usual, but halted on when the pickers ceased work on the beds at Rangitoto. Season closed at the end of July. Quantity picked (in sacks): Hauraki Gulf (4232); Great Barrier (540).</p> <p>- 'Valuable work has been done since 1909 in the Hauraki Gulf and Bay of Islands by planting depleted areas with oyster-rock taken from other beds, and by shifting high-water oyster rocks down to and below half-tide, but there is a limit to the work which can be done in this way, and the time has come when more scientific methods must be adopted for the purpose of extending the beds and increasing oyster supply.' Notes that the northern rock oyster (<i>Ostrea cucullata</i>) is identical with the oyster cultivated in New South Wales and Queensland, really a sub-tropical species, at its southern limits.</p>	Marine Department annual report for 1919-1920, <i>AJHR</i> 1920 H-15.
1920	<p>- Quantity of oysters picked: 3739 sacks picked from Hauraki Gulf, Great Barrier, and Kaipara beds.</p> <p>- 'For the purpose of extending the beds oyster-cultivation work on a more extensive scale than in any previous season was carried out during the months of January, February, and March. The method which I have recommended the Department to adopt is the building of hollow rock walls in well-sheltered and otherwise suitable bays. These walls are built principally of clean rock obtained at and above high-water mark, and they extend from near the top of the oyster line down to water. This method is the most economical, besides being permanent. Last summer six men were employed on this work at Bay of Islands and Whangarei, four at Tekumu Bay, Coromandel coast, and four at Port Fitzroy. At Bay of Island 3,606 yards of walls were built, 394 at Whangarei, 733 at Coromandel, and 566 at Port Fitzroy . . . // There is a yearly shrinkage, from several causes, in the extent of our natural rock-oyster beds, and the continual increase in the number of people who frequent the shores of the Hauraki gulf and Bay of Islands causes a considerable yearly shrinkage in the quantity of oysters which can be taken from the beds for the market. At no time during the last twenty years has the supply of oysters been sufficient for market requirements, and on account of the increase in population of late years it is safe to say that the market at the present time could absorb three times the quantity which can be obtained from the present beds. The necessity of extending the beds by artificial methods is thus apparent.'</p>	Marine Department annual report for 1920-1921, <i>AJHR</i> 1921-1922 H-15.
1920	<p>- Received 2948 sacks from the Hauraki Gulf, 300 sacks from Great Barrier Island.</p>	J.H. Letcher, Manager of Government Oyster Depot, to Secretary, Marine, 15 October 1920, M 1 2/7/109 part 1, Oysters – picking and sale during 1920 season, 1920-1921.
1920	<p>- 2971 sacks of oysters taken from the Hauraki Gulf during 1920.</p> <p>- Oyster beds are in places showing a fair amount of young oysters – Ponui Is, north side of Waiheke and Waiheke passage, Rakino, west side of Motutapu, Rangitoto, and the Coromandel shore.</p> <p>- Mahurangi fishery (including Matakana, Mahurangi, and several small islands) seem to recover slowly.</p> <p>- Suggests new method of picking and season opening put forward to June 1<sup>st</sup>.</p>	Supplementary annual report for Auckland for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.

1920	- Oysters: has been a very fair spawning in some parts of the Auckland Oyster Fishery, viz. Ponui, Rakino, parts of Waiheke, also at Mahurangi – beds may now be more closely picked of mature oysters where they are replaced by spat.	Annual report for Auckland for year ending 31 March 1920 by J.P Bennett, M 1 2/12/207 NAW.
1920	- Oyster beds stated to be looking ‘very good’.	Annual report for Whangarei for year ending 31 March 1920 by Constable M Power, M 1 2/12/207 NAW.
1920	- Oysters: 2200 feet of rock wall built for oyster culture at Te Kouma Harbour near Coromandel; 1700 feet at Port Fitzroy, Great Barrier Island.	Annual report for Thames for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.
1921	- Quantity of oysters picked: 3537 sacks picked from Hauraki Gulf; 590 from Great Barrier. Beds picked in the Hauraki Gulf – Whangaparoa, Mahurangi, Matakana, Ponui, Beeson’s Island (Coromandel), and Great Barrier. - Work of extending the beds continued during the summer months – 1640 yards built at Te Kumu Bay, Coromandel. - Poor fixing of - This season some of the beds closed on the Coromandel coast for over 20 years and replanted by the Department will be opened.	Marine Department annual report for 1921-1922, <i>AJHR</i> 1922 H-15.
1922	- Received 228 sacks from Whangarei, 402 sacks from Great Barrier Island, 3491 sacks from various portions of the Auckland beds. - Notes that received oysters from Whangarei for the first time.	J.H. Letcher, Manager of Government Oyster Depot, to Secretary, Marine, 27 October 1922, M 1 2/7/122 part 1, Oysters – picking and sale during 1922 season, 1922-1922.
1922	- Beds picked in the Hauraki Gulf – Waiheke (part), Ponui, Pakihi, Motutapu Islands, and part of the Cabbage Bay section of Coromandel Coast. Total oysters picked: 7323 sacks (includes beds at Bay of Islands, etc, which are outside the Hauraki study area.) - ‘During the last five years there has been a very great increase in the number and size of pleasure launches in Auckland, in the number of public picnics, summer boardinghouses, and summer residences, and this all means a tremendous increase in the number of people who roam about the gulf and live in the vicinity of the oyster-beds, and consequently a yearly increase in the quantity of oysters which are poached every year. At Ostend and some other parts of Waiheke Island, where summer and weekend villages have come into existence during the last few years, the beds are fast being depleted. The question of providing additional staff for inspection and protective work is at present receiving attention.’	Marine Department annual report for 1922-1923, <i>AJHR</i> 1923 H-15.
1922	- 3893 sacks of oysters received at depot.	Annual report for Auckland for year ending 31 March 1923 by Inspector of Fisheries J.P. Bennett, M 1 2/12/269 NAW.
1922	- Oysters – parts of the beds in the Auckland oyster fishery are looking very well; recommends that the Department, when picking a bed, should remove all the oysters to allow new brood to take.	Annual report for Auckland for year ending 31 March 1922 by Inspector of

		Fisheries J.P. Bennett, M 1 2/12/245 NAW.
1922	- Oyster beds inspected and found in very good condition; practically no poaching.	Annual report for Whangarei for year ending 31 March 1922 by Constable M Power, M 1 2/12/245 NAW.
1922	- 1640 yards of rock wall built at Te Kouma Harbour for oysters to attach.	Annual report for Thames for year ending 31 March 1922 by Inspector of Fisheries J.P. Bennett, M 1 2/12/245 NAW.
1923	- Received 111 sacks from Whangarei, 4324 from different portions of the Auckland beds.	J.H. Letcher, Manager of Government Oyster Depot, to Superintendent, Mercantile Marine, 4 October 1923, M 1 2/7/129 part 1, Oysters – picking and sale during 1923 season, 1923-1924.
1923	<ul style="list-style-type: none"> <li>- Beds picked in the Hauraki Gulf – Waiheke (part), Ponui, Pkihi, Motutapu and Rakino Islands, part of the Coromandel and Cabbage Bay sections.</li> <li>- Great Barrier beds not picked. These beds limited in extent and gone over continuously for many seasons. Inspection made of the beds at Port Fitzroy and Port Abercrombie by Chief Inspector of Fisheries and Hauraki Inspector – beds found to be in ‘splendid condition’. Local Great Barrier Inspector reports that the beds in better condition than at any time during the last 15 years.</li> <li>- Beds in the Hauraki Gulf generally described to be in ‘splendid condition’. Fixing of oyster spat more erratic than further north; any areas that are too severely picked take a good many years to recover.</li> <li>- 740 yards of rock walls built in sheltered parts of Brown’s and Putiki Bays, Waiheke Island. Material brought over from Rangitoto Island.</li> <li>- Many oysters showing up on the walls built on Te Kumu Bay, Coromandel, and in a short time there is every chance of their being well covered.</li> <li>- ‘The difficulty of protecting oyster-beds from poaching, particularly in the Hauraki Gulf, is more keenly realized year by year as the population of the City of Auckland and district increases.’ More inspectors have been appointed; number of poaching convictions has increased.</li> </ul>	Marine Department annual report for 1923-1924, <i>AJHR</i> 1924 H-15.
1924	<ul style="list-style-type: none"> <li>- Quantity picked: 4,346 sacks from Hauraki Gulf and Great Barrier; 323 sacks from Coromandel.</li> <li>- Beds picked in the Hauraki Gulf – part of Ponui, Waiheke, Pakihi, Brown’s, Rangitoto, Motutapu and Rakino Islands, part of Mahurangi and the south coast, Coromandel, Great Barrier.</li> </ul>	Marine Department annual report for 1924-1925, <i>AJHR</i> 1925 H-15.
1924	<ul style="list-style-type: none"> <li>- Oyster beds left fit for further picking of a similar amount.</li> <li>- Walls at Putiki and Browns Bay now have a good fixing of oysters on them. Good fixing also at Te Kouma and generally along the islands on the Coromandel shore.</li> </ul>	Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1925 by Inspector of Fisheries C Daniel, M 1 2/12/330 NAW.
1924	Correspondence regarding a request for a Māori oyster reserve:	M 1 2/7/148 part 1, Oysters – Native

	<p>Minister of Marine to Secretary, Marine, 23 October 1924: Advises that spoke to Mrs Rihitoto Nicholls regarding an application to have certain oyster beds reserved for herself and her tribe – beds on the coast some 5 miles north of Paeroa. Nicholls claimed that the beds were in their natural state and that the members of the tribe had been in the habit of picking them for many years past. [Unclear if reserve granted.]</p> <p>Ayson, Chief Inspector of Fisheries, to Secretary, Marine, 29 October 1924: notes that the beds replanted by the Department on the Coromandel coast since 1910 extend from Kirita Bay north to Hautapu Point, and all the islands off the coast from Dead Man's Point to Rabbit Island.</p>	reserves – Hauraki Gulf and Coromandel Peninsula, 1918-1938.
1925	- Quantity picked: 8,297 sacks – includes oysters taken from outside the Hauraki study area.	Marine Department annual report for 1925-1926, <i>AJHR</i> 1926 H-15.
1925	<p>- Received 131 sacks from Whangarei, 555 sacks from Coromandel, 3142 sacks from Auckland beds, 592 from Great Barrier Island, 257 from Coromandel.</p> <p>- Notes satisfaction that the Whangarei beds are again becoming productive.</p>	J.H. Letcher, Manager of Government Oyster Depot, to Superintendent, Mercantile Marine, 7 October 1925, M 1 2/7/151 part 1, Oysters – picking and sale during 1923 season, 1925-1927.
1925	- Oyster season: poor fixing, attributed to bad weather, noting that oysters at Auckland are at the southern extent of their limits.	Annual return/report for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1926 by Inspector of Fisheries C Daniel, M 1 2/12/356 NAW.
1925	- '... the Department for some years has been engaged in development work. Under its protection the rock-oyster beds of the north have been saved from the imminent danger of absolute depletion to which they had been bought by the almost unregulated and unrestricted depletion of former times. Since 1908 steps have been taken to increase the supplies by the creation of artificial beds and the replanting of depleted beds. There are now encouraging indications that the construction of "oyster walls" on suitable foreshores, which has been carried on at relatively small expense, will prove a most profitable investment in the near future. This work is still going on, and it is the ambition of the Department not merely to restore the natural beds to something like their old-time productivity, but also to multiply the normal natural yield by growing oysters where formerly there were none.'	Marine Department annual report for 1925-1926, <i>AJHR</i> 1926 H-15.
1925	<p>- Quotes from a report by J Letcher, Manager of the oyster depot, concerning the quantity of oysters in a sack (for audit purposes).</p> <p>- States that it is difficult to determine an average standard per sack owing to variety of factors (including wetness of sack, stitching of sack, sacks being torn).</p> <p>- It appears that there are two sack sizes, respectively containing an average of 16 and 18 gallon parcels per sack.</p> <p>- Details that gallon parcels contain 5 dozen average size oysters.</p> <p>- [Later Marine Department reports note that the oyster sacks each contain three bushals – see 1936.]</p>	Superintendent, Mercantile Marine, to Secretary, Marine, 4 December 1925, M 1 2/7/155, Oysters – number of obtained in a sack, NAW.
1926	- Received 94 sacks from Whangarei, 1989 sacks from Auckland beds, 398 sacks from Great Barrier Island, 257 sacks from Coromandel.	J.H. Letcher, Manager of Government Oyster Depot, to Superintendent,



	- Notes that it was decided to cease picking at Coromandel, Waiheke, and Great Barrier because oysters considered in poor condition. These beds previously produced the best oysters procurable.	Mercantile Marine, 4 October 1923, M 1 2/7/129 part 1, Oysters – picking and sale during 1923 season, 1923-1924.
1926	Plan from original drawing of Charles Daniel showing the number of sacks taken from Auckland beds, including Coromandel. Could get photo of this for illustrations?	M 1 2/7/157 part 1, Oysters – picking and sale during 1926 season, 1926-1927.
1926	- Oysters: 6771 sacks picked from the different beds (including some outside the Hauraki study area); all beds left in good condition. During summer, cultivation work done on the following beds: Waiheke, Ponui, Coromandel, Great Barrier, Whangarei, Rangitoto, Mahurangi, Wairoa Point, Kawau and Bay of Islands.	F.P. Flinn, Senior Inspector of Fisheries, Auckland to A.E. Hefford, Chief Inspector of Fisheries, Wellington, 22 June 1927, M 1 2/12/388 NAW.
1927	- The 1927 rock oyster season less than satisfactory. - Quantity of oysters picked (sacks): Takatu to Gull Point (338); Tamaki (117); Coromandel Coast (223); Kawau Island (189); Rakino Island (228); Rangitoto Island (454); Motutapu Island (316); Waiheke Island (153); Ponui Island (211); Pakihi Island (21); Great Barrier Island (571). - Between October 1927 and February 1928, work undertaken to: 1) move oyster-bearing rock down to the tide-zone of most favourable growth; and 2) kill ‘borers’. - ‘The “borer” is a species of gastropod mollusc having the scientific name of <i>Thais scobina</i> , which resembles a small whelk.’ Bores into the shell to gain access to contents; thin shelled oysters of one or two years most vulnerable. ‘In some places whole beds of oysters have been devastated.’	Marine Department annual report for 1927-1928, <i>AJHR</i> 1928 H-15.
1927	- Oysters: oysters in the southern part of the district suffered a severe set back through lack of nourishment resulting from weather conditions over last three summers; should be back to normal by next season.	Annual return/report for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1927 by Inspector of Fisheries C Daniel, M 1 2/12/388 NAW.
1927	- Coromandel oyster beds better now than they have been for many years.	Annual report on Coromandel District for the year ending 31 March 1927 by Assistant Inspector of Fisheries M 1 2/12/388 NAW.
1928	- Quantity of oysters picked (sacks): Hauraki Gulf (1435) [Takatu to Gull Point (252); Kawau Island (74); Rakino Island (97); Motutapu Island (133); Waiheke Island (418); Ponui Island (409); Pakihi and Pakatoa (52)]; Coromandel (231); and Great Barrier Island (523). - Further work undertaken to destroy borer and move oyster rock down to the most suitable tidal zone.	Marine Department annual report for 1928-1929, <i>AJHR</i> 1929 H-15.
1928	- Picking started on 27 June 1928, finished on 19 October 1928. - A total of 5544 sacks taken – Russell (2143), Whangarei (244), Kaipara (968), Gulf (1435), Coromandel (231), and Great Barrier (523). - All beds lightly picked – will yield an increase of 400 or 500 sacks this year. - Marked improvement of all beds, except Ponui and Coromandel, where very few young oysters appear to fix.	Report on work carried out in connection with the oyster fisheries by F.P. Flinn, 20 May 1929, M 1 2/12/452, NAW.

	<p>Have unsuccessfully tried putting down clean rock and transporting brood oysters.</p> <p>- Notes good results from work destroying borer.</p>	
1929	<p>- Quantity of oysters picked (sacks): Hauraki Gulf (2009) [Takatu to Gull Point (433); South Shore, Tamaki Strait (42), Kawau Island (65); Rakino Island (162); Rangitoto (258); Motutapu Island (221); Motuihi (9); Waiheke Island (470); Ponui Island (333); Pakatoa and Rotorua (16)]; Coromandel (341); Great Barrier Island (91); Whangarei (309).</p> <p>- 'There has been so little spawning among the oysters on the beds of the Hauraki Gulf and the Bay of Islands during the summer 1929-30 that it may be said that for practical purposes reproduction has failed to take place.'</p> <p>- Further work undertaken to destroy borer and move oyster rock down to the most suitable tidal zone. Borer continues to take a 'great toll' on young oysters.</p>	Marine Department annual report for 1929-1930, <i>AJHR</i> 1930 H-15.
1930	<p>- Quantity of oysters picked (sacks): Hauraki Gulf (1109) [Takatu to Gull Point (437); South Shore, Tamaki Strait (70), Kawau Island (20); Motutapu Island (202); Motuihi (99); Waiheke Island (58); Ponui Island (156); Pakihi (53) Crusoe (14)]; Coromandel (309); Great Barrier Island (576).</p> <p>- Beds lightly picked in view of the fact that spatting has been deficient in recent years.</p> <p>- Further work undertaken to destroy borer. Effects of this work over the past three years very apparent, but the quantities are still great on the Coromandel beds.</p>	Marine Department annual report for 1930-1931, <i>AJHR</i> 1931 H-15.
1930	<p>- Commenced picking on 11 June, finished on 17 September; 45 men employed.</p> <p>- Total sacks picked: 5,215.</p> <p>- Gulf and Coromandel beds very lightly picked owing to the scarcity of spat and young oysters – do not get sufficient spat to replace the mature one each season. Temperature changes in the Gulf during summer is doubtless the cause of the problem.</p> <p>- Mahurangi, Kawau, Whangarei, Russell and Kaipara are all well stocked with different aged oysters and a satisfactory fixing of spat takes place each summer.</p> <p>- No heavy fixing at Motutapu, Rakino, Waiheke, Ponui and Coromandel; slightly better at Great Barrier.</p> <p>- Rangitoto is easily the best stocked – good showing of different aged oysters from 1 to 6 years.</p> <p>- Cultivation:</p> <ul style="list-style-type: none"> <li>- most work confined to borer destruction on sections that required most urgent attention</li> <li>- put down 725 yards of new rock, built 148 yards of new walls, cleaned off 560 yards of old shell; recommends moving down further rock from high-tide mark to oyster growing area</li> </ul>	Annual report on rock oyster beds for the year ended 31 March 1931 by JP Harris, senior inspector of fisheries, M 1 2/12/500, NAW.
1930	- Newspaper advertisement from 1930 announcing the opening of the oyster season, showing plate of oysters, beer bottles, with the claim that oysters are muscle building. Could get a photo of this for illustrations?	M 1 2/7/190 part 1, Oysters – picking and sale during 1930 season, 1930-1932, NAW.
1931	- Quantity of oysters picked (sacks): Hauraki Gulf (1282) [Takatu to Gull Point (35); Rakino (157); Rangitoto (168); Motutapu (167); Waiheke (624), Ponui Island (131), Noises (22)]; Coromandel (257); Great Barrier Island (390); Whangarei (144).	Marine Department annual report for 1931-1932, <i>AJHR</i> 1932 H-15.
1932	<p>- Quantity of oysters picked (sacks): Hauraki Gulf (1560) [Takatu to Gull Point (87); Rakino (153); Motutapu (98); Waiheke (1031), Ponui Island (169)]; Coromandel (377); Great Barrier Island (310); Whangarei (107).</p> <p>- Work undertaken to bring rock down to favourable tidal zone, to clean rocks of dead shell, and to destroy borer</p>	Marine Department annual report for 1932-1933, <i>AJHR</i> 1933 H-15.

	and pupu.	
1933	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1802) [Takatu to Gull Point (192); Tamaki Strait, South Shore (56); Kawau (144); Rakino (168); Rangitoto (385); Motutapu (117); Brown's Island (24); Motuihi (28); Waiheke (555), Ponui Island (133)]; Coromandel (300); Whangarei (not picked).</li> <li>- Work shifting rock down has ceased. Instead, small stones transferred from the consistently reproductive stocks on Bon Accord, Kawau, and Mahurangi Harbour to the scantily stocked beaches in the Coromandel Peninsula. Work also carried out to clear dead shell from rock, and to destroy borer and pupu.</li> </ul>	Marine Department annual report for 1933-1934, <i>AJHR</i> 1934-1935 H-15.
1933	<ul style="list-style-type: none"> <li>- 300 sacks of oysters picked.</li> </ul>	Annual report on fish landings at Coromandel for the year ended 31 March 1934 by fishery officer, E.W. Gilliver, M 1 2/12/533, NAW.
1934	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1729) [Takatu to Gull Point (250); Tamaki Strait, South Shore (75); Kawau and nearby islands (158); Rangitoto (142); Motutapu (110); Brown's Island (62); Motuihi (43); Waiheke (539); Ponui Island (311); Pakihi (28); Crusoe (11)]; Coromandel (350); Great Barrier (414); Whangarei (195).</li> <li>- Work again carried out on rock clearing and pest destruction.</li> </ul>	Marine Department annual report for 1934-1935, <i>AJHR</i> 1935 H-15.
1935	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (914) [Takatu to Gull Point (72); Kawau (48); Rakino (60); Motutapu (120); Waiheke (578); Ponui (36)]; Coromandel (300); Great Barrier (404); Whangarei (219).</li> <li>- Work again carried out on rock clearing and pest destruction.</li> <li>- 'What has been conveniently termed "oyster cultivation" has been carried on by the Department since 1911; but of the oyster marketed annually, only a small proportion have been derived from "cultivation work" that has consisted of creating new oyster-beds on ground that did not previously contain oysters.'</li> </ul>	Marine Department annual report for 1935-1936, <i>AJHR</i> 1936 H-15.
1936	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1583) [Takatu to Gull Point (138); Kawau (120); Rakino (89); Rangitoto (368); Motutapu (122); Waiheke (353); Ponui (365); The Noises (7); Crusoe's Island (21)]; Coromandel (403); Great Barrier (500); Whangarei (not picked). Notes that each sack contains three bushels.</li> <li>- Notes that since 1922, oyster beds at Whangarei have been picked for two years, then left for one. Beds not picked in 1936; reported to be in a disappointing condition, and this expected to prevail until an inspector is appointed, which will allow for protection and cultivation work.</li> <li>- Work again carried out on rock clearing and pest destruction.</li> <li>- Transplantation experiment has continued, whereby oysters bred at Bon Accord, Kawau (where oyster growth is on a more generous scale than average) are planted on the Coromandel side of the Gulf (where oyster spawning is sparse and precarious, but individual growth is good. This year 190 posts encrusted with young Kawau oysters were transplanted to the Coromandel area and 300 new posts of a similar kind were erected on Kawau beaches.</li> </ul>	Marine Department annual report for 1936-1937, <i>AJHR</i> 1937-1938 H-15.
1937	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1657) [Takatu to Gull Point (44); South Shore (50); Kawau (136); Rakino (72); Ponui (216); Waiheke (852); Rangitoto (133); Motutapu (110); Brown's Island (2); Motuihi (30); Tamaki River (12)]; Coromandel (326); Great Barrier (259); Whangarei (131). Notes that each sack contains three bushels.</li> <li>- Work again carried out on rock clearing and pest destruction.</li> </ul>	Marine Department annual report for 1937-1938, <i>AJHR</i> 1938 H-15.

1938	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1586) [Takatu to Gull Point (147); South Shore and Tamaki River (20); Kawau (66); Rakino (130); Rangitoto (191); Motutapu (28); Brown's Island (8); Motuihu (40); Waiheke (643); Ponui (279); Noises Islands (10); Crusoe's Island (24)]; Coromandel (348); Great Barrier (337); Whangarei (75).</li> <li>- Work again carried out on rock clearing and pest destruction.</li> <li>- Gradual improvement of the beds is continuing. Conservative picking, combined with cultivation and maintenance work, is now showing in the satisfactory condition of the beds in the various places.</li> </ul>	Marine Department annual report for 1938-1939, <i>AJHR</i> 1939 H-15.
1939	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1927) [Mahurangi (146); Waiheke (700); Crusoe Island (68); Brown's Island (57); Motutapu (14); Rangitoto (171); Rakino (35); Ponui (539); Pakihi (42); South Shore (1530)]; Coromandel (456); Great Barrier (300); Whangarei (125).</li> <li>- Work again carried out on rock clearing and pest destruction. Cultivation work included the erection of concrete posts at Coromandel.</li> <li>- Condition of oysters especially good, particularly those from the Hauraki Gulf and the Bay of Islands.</li> </ul>	Marine Department annual report for 1939-1940, <i>AJHR</i> 1940 H-15.
1940	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1876) [Tamaki Strait (19); Tamaki Point (114); Motuihu (55); Rakino (196); Rangitoto (112); Motutapu (145); Brown's Island (60); Crusoe Island (50); Ponui (398); Waiheke (711); Pakihi (16)]; Coromandel (590); Great Barrier (300); Whangarei (126).</li> <li>- Work again carried out on rock clearing and pest destruction.</li> <li>- Notes that total production for the season (from all areas – including those outside the Hauraki study area) was 5782 sacks. Compares well with average for 1930-39 decade (4605 sacks), but below the average for the 1920-29 decade (6717 sacks), when it is now considered that the beds were overpicked.</li> </ul>	Marine Department annual report for 1940-1941, <i>AJHR</i> 1941 H-15.
1941	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1599) [Ponui (509); Pakihi (802); Pakatoa (184); Waiheke (307); Rakino (18); South Shore, Tamaki Strait (72); Motutapu (139); Motuihu (280); Noises (8)]; Coromandel (600); Great Barrier (400); Whangarei (131).</li> <li>- Work again carried out on rock clearing and pest destruction. Oyster bearing concrete posts transported to Coromandel from Kawau Island.</li> </ul>	Marine Department annual report for 1941-1942, <i>AJHR</i> 1942 H-15.
1942	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1601) [Takatu to Gull Point (122); Motutapu (86); Rotorua Island (206); Pakihi Island (19); Waiheke (752); Ponui (416)]; Coromandel (600); Great Barrier (251); Whangarei (110).</li> <li>- Cultivation work carried out on a reduced scale owing to the availability of labour.</li> </ul>	Marine Department annual report for 1942-1943, <i>AJHR</i> 1943 H-15.
1943	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1601) [Mahurangi (275); Rakino (83); Tamaki Strait (223); Motutapu (41); Waiheke (574); Ponui (245); Pakihi (19); Pakatoa (60)]; Coromandel (650); Whangarei (127).</li> <li>- Work undertaken on clearing and shifting rock and pest destruction.</li> <li>- Notes difficulty of scarcity of skilled pickers.</li> </ul>	Marine Department annual report for 1943-1944, <i>AJHR</i> 1944 H-15.
1944	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1636) [Tamaki Strait (198); Rakino (170); Motutapu (19); Waiheke (412); Ponui (716); Pakatoa (24); Noises (97)]; Coromandel (650); Great Barrier (198); Whangarei (133).</li> <li>- Work undertaken on clearing rock and pest destruction.</li> <li>- Notes difficulty of scarcity of skilled pickers.</li> </ul>	Marine Department annual report for 1944-1945, <i>AJHR</i> 1945 H-15.
1945	<ul style="list-style-type: none"> <li>- Quantity of oysters picked (sacks): Hauraki Gulf (1479) [Motutapu (97); Waiheke (719); Ponui (408); Pakihi</li> </ul>	Marine Department annual report for

	(118); Rotorua (120); Pakatoa (17)]; Coromandel (650); Great Barrier (242); Whangarei (195). - Work undertaken on clearing rock and pest destruction. - Notes difficulty of scarcity of skilled pickers.	1945-1946, <i>AJHR</i> 1946 H-15.
1946	- Quantity of oysters picked (sacks): Hauraki Gulf (1326) [Waiheke (786); Ponui (358); Rotorua (121); Pakatoa (15); Rangitoto (46)]; Coromandel (500); Great Barrier (242); Whangarei (212). - Work undertaken on clearing rock and pest destruction.	Marine Department annual report for 1946-1947, <i>AJHR</i> 1947 H-15.
1947	- Quantity of oysters picked (sacks): Hauraki Gulf (1987) [Brown's Island (133); Motutapu (116); Waiheke (351); Ponui (455); Rotorua (147); Pakatoa (95); Rangitoto (610); Pakihi Island (17); South Shore (63)]; Coromandel (370); Great Barrier (328); Whangarei (210). - Work undertaken on clearing and shifting rock and pest destruction.	Marine Department annual report for 1947-1948, <i>AJHR</i> 1948 H-15.
1948	- Quantity of oysters picked (sacks): Hauraki Gulf (1536) [Ponui (627); Waiheke (592); Rakino Island (95); Takatu to Gull Point (94), Crusoe Island (49); Noises Islands (42); Motutapu (25); Pakatoa Island (12)]; Coromandel (368); Great Barrier (240); Whangarei (226). - Work undertaken on clearing rock and pest destruction.	Marine Department annual report for 1948-1949, <i>AJHR</i> 1949 H-15.
1949	- Quantity of oysters picked (sacks): Hauraki Gulf (742) [Tamaki Strait (40); Ponui Island (478); Pakahi Island (41); Waiheke Island (183)]; Coromandel (450); Great Barrier (202); Whangarei (230). - Work undertaken on clearing rock and pest destruction.	Marine Department annual report for 1949-1950, <i>AJHR</i> 1950 H-15.

## S25: Hauraki: Snapper

Year	Details	Source				
Unspecified (pre European)	<div>- (pp 62-63) Relative abundance of fish caught by pre-European Māori:</div> <table><tr><th>Fish Family</th><th>Percent</th></tr><tr><td>Snapper</td><td>15.8</td></tr></table> <div>[Fish below 1% of catch not noted. Figures vary by area, so in the north, for example, snapper would have ranked 1st. Snapper are represented in 54 archaeological sites as far south as Fiordland. In the north they would often represent close to 100% of the total fish composition.]</div> <div>- (p 74) Māori name for snapper is Tamure. The most similar species in the tropical pacific is <i>Monotaxis grandoculis</i>, known in the islands as Mu. The name Tamure, however, is traceable as far back as central east polynesia (northern Cook Islands) to where it is given to Lethrinids (Emperors). Despite being from a different family, these fish are similar in body form to sparids.</div> <div>- (p 75) Snapper are prone to producing pronounced exostoses (bony growths), particularly on the supraoccipital crest. They are known as tilly bones. Māori often carved or used them as pendants.</div>	Fish Family	Percent	Snapper	15.8	F. Leach, <i>Fishing in Pre-European New Zealand</i> , Wellington, 2006.
Fish Family	Percent					
Snapper	15.8					

	<ul style="list-style-type: none"> <li>- (p 77) Using Annala 1994 calculates that 91% of SNA1 (Coromandel to North Cape) fishery is lost (from virgin to present).</li> <li>- (pp 78-80) Archaeological evidence suggests that the avg. size of snapper from middens was ~133mm longer and 2.2kg heavier than modern day trawl caught snapper lengths and weights.</li> <li>- (p 164) Regional abundance: snapper form 74% of the MNI in north island sites indicating they were the dominant fish captured by Māori in this area. Also an important catch in upper sth island/cook straight where many different fish were caught by Māori, but unimportant in the sth where baracoutta were dominant.</li> <li>- (p 247) Compared to other fish commonly eaten by Māori, snapper contain high levels of protein, and energy and medium levels of oil. Māori could not survive on fish alone as not enough carbohydrate is contained. In the north crops such as kumara were used. Energy can also be obtained from fat/oil and for this purpose sea mammals, sharks livers (school shark fishery), mutton birds, freshwater eels and later pigs were important. Snapper has 5g oil/100g available, the majority in the head and frame (hence the importance to eat the whole fish).</li> <li>- (pp 259-260) In the north fish were an important part of the meat diet, probably forming ~35%. This percentage decreased to the south as Moa and marine mammal became more important.</li> <li>- (pp 261-273) Isotope work on human bone shows that the percentage of fish consumed was usually high, but varied depending on where the people lived (i.e. inland or south vs north).</li> <li>- (p 277) Northland population size = 15,000 Māori Each requiring 2150 calories/day</li> <li>- (p 278) Isotope work on human bones from other areas suggests ~22% of diet was from fish. 48% of this fish diet was probably snapper (although I argue much higher).</li> <li>- (p 279) Various calculations for energy content, mean body weight of snapper and percent of body eaten. Estimate 46 snapper each per year and a total of 1919 +/-1612 tonne harvested by Northland Māori (per individual). Problems with these calculations: includes . . . 0.48 used as overall proportion of fish caught that was snapper even though this is the lowest from all the northland midden work.</li> <li>- (p 280) Since the above take is smaller than current MSY Leach concludes that Māori could not have had a significant impact on snapper biomass in northland.</li> </ul>	
Unspecified (pre European)	<ul style="list-style-type: none"> <li>- A comparison of snapper size frequency distributions from northern archeological sites with good snapper remains (Galatea Bay, Ponui Island; Cross Creek, Coromandel; and Houhora being the northeastern sites) vs. modern trawl survey results. Snapper finds in archeological sites are especially high in the north (i.e. by far the most numerous species in middens) and decline in importance to the south. Sites in the north that have low proportions of snapper remains are suggested to have been winter occupation sites (i.e. harder to catch snapper when the occupants were present). There is a possibility that excavator selection (i.e. only taking the larger bones) may have been a problem in these excavations.</li> <li>- Snapper lengths are calculated from regressions on measurements taken from cranial bones. The lengths are then converted to weights.</li> <li>- Modern trawl surveys had a mean fork length of 240-290mm, while archaeological samples averaged 400-540mm. The much larger size of archeological snapper is due to selectivity of Māori for larger fish and the stock depletion in post-European era.</li> </ul>	F. Leach, F.; J. Davidson, 'Pre-European catches of snapper ( <i>Pagrus auratus</i> ) in northern New Zealand', <i>Journal of Archaeological Science</i> , vol. 27, 2000, pp 509-522.
1769	- (p 438) Bream Bay, 24 November 1769: 'At night we came to an anchor in a small open bay; our fishing lines	J.C. Beaglehole, <i>The Endeavour Journal</i>

	were tried and we soon caught a large number of fish which were called by the seamen Sea bream, as many as I believe the ships company could eat in 2 days.' (Beaglehole suggests that this fish was tarakihi (p 438, footnote 3), but it might have been snapper.)	<i>of Joseph Banks, 1768-1771</i> , vol. 1, Sydney, Australia, 1963.
1819	- (p 222) 'Sept. 3d [1819], Sunday. Fine, wind S. S. E. and moderate. Weighed at daylight, and stood out of Prince Regent's Channel between the islands of Moto-tappa and Moto-eehee: this passage bore north of Moto-corea, and the soundings through it were from ten to sixteen fathoms. At nine, having cleared all the islands, and being in the great channel between Point Rodney and Cape Colville, altered course to N. W. and by N. At ten the wind became very light, and at twelve it fell calm. We now threw out our fishing lines, and in a short time caught as much snapper (many of which weighed from twelve to fourteen pounds) as we could possibly make use of in several days.'	Cruise, R. <i>Journal of a Ten Months' Residence in New Zealand</i> [2nd ed.], 1819 [Capper 1974]. [Early New Zealand Books]
1864	- (pp 2-4) Albert Sanford began life in NZ in 1864. He bought the <i>Foam</i> , a pilot cutter, that he used to fish for snapper with. He would then hot smoke the fat fish out the back of his Devonport home. In 1870 Sanford moved closer to the snapper grounds and moved to Pakatoa Island. He set up a fish curing plant, but the product was not successful as the large Firth of Thames snapper were not fat due to over competition with the abundance of other snapper. He then moved to Rakino Island in 1873, where the abundance of good quality snapper saw him do well. He bought an Auckland premises on Federal St in 1881, then expanded into a site on Cnr Customs St West and Albert St in 1894.	P. Titchener, <i>The story of Sanford Ltd. The first 100 years</i> , Auckland, 1981.
c.1865	- (p 1) In 1859, Buchanan (aged 1) went to live with his parents on Great Mercury Island. - (p 5) Buchanan describes helping his father build a fish wall across a small bay at the front of the family house. The wall would trap fish inside as the tide receded, leaving them on the sand to be picked up. It was built about 10 feet high across the bay, allowing two feet of water over the top at high tide. When the wall had been built just two feet high, sixty snapper (of all sizes) were found inside one morning. - (p 5) To secure fish prices, he tried to form a cooperative with these other fishers, but was rejected, so bought and sold on the catch of these other fishers to some extent. 1904 becomes a limited liability company with shares distributed among the family.	Anon., <i>Ahuahu (Great Mercury Island): Memoirs of Cameron Buchanan, 1859-1873</i> . Mercury Bay Historical Society, Whitianga, 1977.
1872	- By 1872, two coastal fishing stations established north of Whangarei, employing about 100 men and operating 21 vessels – focussed on snapper.	Johnson, p 27. [Auckland Provincial Council, Report of Local Industries Committee, Session XXVIII 1872, A-14.]
1885	- Provides details of a brief assessment of New Zealand's fish stocks and the potential for commercial exploitation. - 'I carefully fished the Firth of Thames, round Cape Colville to Port Charles, Kennedy Bay, and Mercury Bay; found plenty of firm, delicate fish, the snapper being the only large fish that could be got in anything like large quantities. Examined the coast northwards as far as Whangarei Bay; found snapper, mullet, kahawai, and bream of fine quality; but as the weather was so bad I did not devote much attention to this locality, further than to satisfy myself that fish of countless millions frequent the neighbourhood of Great and Little Barrier Isles, and the Firth of Thames.' (p 2)	Papers Relating to the Development of Colonial Industries: Fisheries, <i>AJHR</i> 1885 H-15, No. 1: J Mackenzie to Julius Vogel, 29 March 1885.
1890s	- Writing in regard to trawling in Hauraki Gulf when calls were being made for removal of restrictions. - States that arrived in Auckland in 1890; joined the Auckland Fishing Club, consisting of almost 20 members –	James Moir to Ayson, Inspector of Fisheries, undated [c. 1915], M 1

	<p>chartered a steamer every Saturday afternoon. ‘Results were good from some time, averaging from 106 to 1109 schnapper. By and by the catches dwindled until both our club and the Newmarket Club gave it up as useless, not being able to get any fish. // Gradually the fish got scarcer until almost no fish could be caught inside Tiri. One year I spent six weeks at the Kawau – total catch, 36 schnapper.</p> <p>- Believes that the decline was the result of trawling, noting that it coincided with the time that the trawler was operating.</p> <p>- Trawler ‘Minnie Casey’ worked for several years, stopped trawling in 1907. States that she trawled over every part of the Gulf, frequently being quite close in to Waiheke, Motuhihi, Kawau, Rangitoto, etc.</p>	2/12/55 part 1 NAW.
1899	- 1899, the small steam trawler Minnie Casey began fishing with a bean trawl in Hauraki Gulf. Immediate outcry from amateur and commercial line and net fishermen. A 1900 (1000 signature) petition alleged diminution of snapper by destructive trawling. 1902, ban on trawling in most of the Gulf. 1904, <i>Minnie Casey</i> stopped trawling altogether.	L.J. Paul, ‘The commercial fishery for snapper . . .’, Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1900	Sanford continued to rely largely on the supply of fish, snapper in particular, from the huge fleet of small fishing boats. Their catches were often so large that fish merchants limited the amount they would take.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 74. <b>[AJHR 1907 H15, p 3.]</b>
1900	In Auckland, Albert Sanford bought the steamer <i>Minnie Casey</i> in 1900 and had it fitted out for trawling. The ship was sold after trawling restrictions introduced in the Hauraki Gulf in 1906.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 76.
1900	<p>- (pp 16-17) Fishing grounds of the Hauraki fleet of fishing vessels:</p> <p>- Line and set nets vessels that made up the commercial fleet in the early 20<sup>th</sup> century worked mainly in the sheltered south-western Gulf (around Kawau, Tiritiri Matangi, and Waiheke Islands) and in the Firth of Thames. The same methods were used by amateur fishermen, and there was probably little difference between the two groups.</p> <p>-The first steam trawlers (1899-1904 and 1915 onwards) soon restricted to working the outer Gulf, larger vessels making longer voyages to the Bay of Plenty, East Cape, and west Auckland. By about 1930 their effort was divided fairly evenly between the outer Gulf and the BoP/East Coast region, with a few trips to the west coast.</p> <p>- (p 18) Commercial fishing developed slowly in the late 19<sup>th</sup> century – main methods for catching snapper being hand-lining, set netting, and beach seining, most in the sheltered south-western Gulf.</p> <p>- Fisheries inspectors reported early 1900s that supply was equal to demand. In fact 1906-1910 seasonal limits imposed to prevent oversupply. In 1908 also concern for depletion of snapper in Tamaki Strait.</p>	L.J. Paul, ‘The commercial fishery for snapper . . .’, Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1901	<p>- the steam trawler ‘Doto’ chartered, equipped with trawl nets, one purse seine net, one bottom dredge, and hooks and lines (p 1)</p> <p>- expedition undertaken from February to May 1901, around the coast of the North Island</p> <p>- from Tolaga Bay to Hauraki Gulf little work was done (p 2)</p> <p>- from Tauranga to Cape Colville only one haul was made – the quantity of fish taken at this season was sufficient to warrant its selection as a permanent trawling ground</p>	Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 11 July 1901, <i>AJHR</i> 1901 H-15A <b>[Photocopy 39]</b>



	<ul style="list-style-type: none"> <li>- in and around Hauraki gulf good hauls of marketable fish were made on every occasion</li> <li>- hauls were especially good in the Firth of Thames, where fish appear to be particularly plentiful and of good quality</li> <li>- exhaustive tests were made in all parts of the gulf to Great Barrier Island on one side and along the coast to Whangarei on the other – with suitable bottoms and the hauls sufficiently encouraging except in Motuihi Channel, Whangaparapara Harbour, and the vicinity of Whangarei (though these areas might prove fruitful in different seasons)</li> <li>- notes that proper evaluation would require the areas to be fished at different seasons</li> <li>- best results were obtained in from 5 to 15 fathoms</li> <li>- total hauls of the trawl net were 122</li> <li>- haul numbered 25 was located off the coast from Whangapoua on the east coast of the Coromandel Peninsula (p 5) <ul style="list-style-type: none"> <li>- the following fish were taken from this haul: crayfish, leather jackets (pp 10-11)</li> </ul> </li> <li>- hauls numbered 26 to 54 were located in the Hauraki Gulf, including the Firth of Thames (pp 5-7) <ul style="list-style-type: none"> <li>- the following fish were taken from these hauls: common flounder, sole, lemon sole, blue cod, john dory, red gurnard, snapper, crayfish, electric ray, whip ray, dog fish, cat fish, leather jacket, octopus, mussels, shark, stingray, and trevally (pp 10-11)</li> </ul> </li> <li>- hauls numbered 55 to 58 were located in Bream Bay (p 7) <ul style="list-style-type: none"> <li>- the following fish were taken from these hauls: lemon sole, john dory, red gurnard, snapper, dog fish, leather jacket, (pp 10-11)</li> </ul> </li> </ul>	
1904	<ul style="list-style-type: none"> <li>- From 1 July 1904, all fishing boats had to be registered and marked with a licence number and landing port. All owners of licensed boats were to provide the Marine Department with details of all fish caught. Reporting was carried out by Fisheries Inspectors in a generalised fashion.</li> <li>- At 31 December 1904, Auckland had 197 licensed vessels. Snapper were so plentiful that merchants were imposing limits. Kahawai, trevally, gurnard and flounder were abundant, but mullet were scarce.</li> </ul>	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 80-81
1905	- (p 7) Trawler Minnie Casey stopped operating in 1905 due to govt restrictions on trawling (after lobbying by other commercial fishermen who did not like power fishing). ‘She was set up by Albert Sanford as a beam trawler towing a net along the sea bed attached by wires to two great beams rigged at right angles extending one each side of the ship to keep the net spread. The conventional trawl boards of today were not used. She would not only have been the first trawler to work out of Auckland but also the first powered vessel to catch fish in the Hauraki Gulf. This drew determined opposition from all other commercial fishermen of the day who were catching their fish either by line or set net.’	P. Titchener, <i>The story of Sanford Ltd. The first 100 years</i> , Auckland, 1981.
1906	<ul style="list-style-type: none"> <li>- Reports received from Inspectors of Fisheries . . .</li> <li>- ‘At Auckland schnapper, which is the principal fish caught, has been plentiful’. (p 5)</li> </ul>	Marine Department annual report, 30 May 1906, <i>AJHR</i> 1906, H-15
1907	<ul style="list-style-type: none"> <li>- Reports received from Inspectors of Fisheries . . .</li> <li>- ‘In the Auckland District the supply of fish has been generally equal to the demand. Schnapper have been plentiful – in fact, they have been so plentiful since October last that dealers have had to limit the quantities taken from fishermen. . . . There is now a good deal of fishing done in Tauranga, and there is a fish-curing establishment</li> </ul>	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15

	at that place. There are five such establishments at Auckland, and one at Kawau Island.’ (p 6)	
1907	<ul style="list-style-type: none"> <li>- report on the fishing and deep-sea trawling cruise of the <i>Nora Niven</i>, chartered by the Government from June to September 1907 (p 1)</li> <li>- object of cruise was to test the ocean-floor off the east coast from Stewart Island to the Bay of Plenty and around the Chatham Islands; ascertain trawling grounds exist outside those already known and worked; ascertain what fish-life exists out to 100 fathoms; to look for offshore banks</li> <li>- used otter trawl nets; spread of 120 ft (footrope) and 80 ft (head-line)</li> <li>- owing to time constraints, difficult to thoroughly test each section or to go very far off to test off-shore banks</li> <li>- 106 hauls made, range from 4 to 120 fathoms (p 2)</li> <li>- just four of these hauls were carried out in the Hauraki area being examined here; these hauls were made in the western Bay of Plenty in August 1907</li> </ul> <p><i>Summarised report on the section of coast from East Cape to Auckland</i> (p 5)</p> <ul style="list-style-type: none"> <li>- two hauls made north-west of Tauranga in from 9 to 21 fathoms, but in this season the catch of snapper was poor compared with the same depth further east <ul style="list-style-type: none"> <li>- a few soles, John-dory, and gurnard also taken here</li> <li>- probable that good results would be had in different season</li> </ul> </li> <li>- two hauls also made to the west of Mayor Island in 33 to 50 fathoms, results poor <ul style="list-style-type: none"> <li>- net smelled unpleasant and was slimy when lifted – the nature of the bottom possibly explaining the scarcity of fish</li> </ul> </li> </ul>	Interim Report on Experimental Trawling, by L.F. Ayson, Chief Inspector of Fisheries, 12 November 1907, <i>AJHR</i> 1907 H-15B. <b>[Photocopy 41]</b> – <i>provides details of each trawl and map</i>
1907	- (p 8) Sanford had a factory in Thames and in 1907 Tauranga. (p 9) At this stage the company was dependent on supplies from small yachts and launches making day trips with set nets and lines. Mullet boats were used. (pp 9-10) Three steam trawlers were purchased in 1915 and began otter trawling for the first time in this area. Expertise in this new method came with Capt. Axel G. Nilsson and his mate (later Capt.) James Holt of the <i>Countess</i> and later the <i>James Cosgrove</i> .	P. Titchener, <i>The story of Sanford Ltd. The first 100 years</i> , Auckland, 1981.
1907	- In 1907, the trawl line moved in, but trawling didn’t begin again until 1915 (4 steam trawlers). The large quantities of cheap fish made line and net fishing less profitable and their numbers went down, but recovered after the market restabilised.	L.J. Paul, ‘The commercial fishery for snapper . . .’, Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1908	<ul style="list-style-type: none"> <li>- (p 6) ‘At Auckland the fish-supply has been equal to the demand. Schnapper, flounders, kahawai, trevalli, and gurnard have been plentiful, but mullet have been exceptionally scarce. <ul style="list-style-type: none"> <li>- 75 fishing boats, employing 160 men, fishing out of Auckland</li> <li>- 2 fish curing plants in Auckland, 1 at Kawau, 1 at Great Barrier Island</li> </ul> </li> <li>- ‘At the Thames . . . Most of the fish are taken in nets, and the principal kinds caught are flounders and schnapper. The supply has generally been equal to demand, and during last summer flounders were taken in such large quantities that the demand was exceeded.’ <ul style="list-style-type: none"> <li>- 2 fish curing plants in Thames, 1 fish freezing chamber</li> </ul> </li> </ul>	Marine Department annual report, 12 June 1908, <i>AJHR</i> 1908 H-15.

1908	<ul style="list-style-type: none"> <li>- Details the result of the second charter of the <i>Nora Niven</i> for three months from September 1907. (p 1) Expedition included part of the east coast of the North Island from Hauraki Gulf to the North Cape</li> <li>- 146 trawls made in total</li> <li>- 'The greatest quantity and variety of market-fish were taken inside of the 30-fathom line. In this respect the cruise corresponded with the other trawling experiments made round the coast of New Zealand.' (p 2)</li> <li>- 'For some distance outside the trawling limits in the Hauraki Gulf good bottom was found, and some large hauls of fish made. From outside of Flat Rock to the North Cape the bottom proved unreliable. In places considerable area of sand bottom were found then, unexpectedly, rocky bottom would be encountered. In working this section the nets and gear were frequently damaged. From Tiri Tiri Island to the North Cape fish-life is abundant, and, notwithstanding the uncertain nature of the bottom and damage to the gear, some very good hauls of fish were made.'</li> <li>- 12 trawls carried out in the Hauraki Gulf (numbers 172-182, and 193) in October 1907.</li> </ul>	Report on Experimental Trawling, by the Chief Inspector of Fisheries, 13 July 1908, <i>AJHR</i> 1908 H-15B. <b>[Photocopy 42]</b>
1909	<ul style="list-style-type: none"> <li>- (p 6) 'At Auckland during last summer and up to the end of August schnappers were so abundant that the dealers had to limit each boat to a certain number of dozen per week. They are still plentiful in the Hauraki Gulf, but scarce in Tamaki Strait.'</li> <li>- At Thames, 38 boats employing 80 men; flounder and schnapper usually taken – good supplies.</li> </ul>	Marine Department annual report, 12 June 1909, <i>AJHR</i> 1908 H-15.
1910	<ul style="list-style-type: none"> <li>- (p 6) Report of local inspector: <ul style="list-style-type: none"> <li>- the supply of snapper more than met demand (during the summer months the boats were limited by dealers to less than half time)</li> <li>- 187 boats, employing 325 men, engaged in the fishing industry in Auckland and Manukau</li> </ul> </li> </ul>	Marine Department annual report for 1909-1910, <i>AJHR</i> 1910 H-15.
1911	<ul style="list-style-type: none"> <li>- Report of inspectors of fishing in Auckland: (p 8) <ul style="list-style-type: none"> <li>- fish plentiful and market fully supplied</li> <li>- in the Auckland and Thames districts flounders have been plentiful</li> </ul> </li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1911 H-15
1912	<ul style="list-style-type: none"> <li>- In Auckland fish have been fairly plentiful, market well supplied. (p 12) <ul style="list-style-type: none"> <li>- complaints have been made about the scarcity of snapper on some of the grounds most easily reached, but all the boats that worked well out are reported to have made large catches.</li> </ul> </li> </ul>	Marine Department annual report for 1911-1912, <i>AJHR</i> 1912 H-15.
1912	<ul style="list-style-type: none"> <li>- 1912, longline introduced and its increased efficiency removed worries of depletion temporarily.</li> </ul>	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1913	<ul style="list-style-type: none"> <li>- In the Hauraki Gulf and Thames: (p 10) <ul style="list-style-type: none"> <li>- snapper – the 'principal market fish' reported by Inspector Bennett to have been fairly plentiful</li> <li>- 'A system of long-lining for schnappers and other hook-and-line fish has now been adopted by a number of Hauraki Gulf fishermen, and it is a great improvement on the single hand-lines generally used.'</li> </ul> </li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15.
1914	<ul style="list-style-type: none"> <li>- 'Schnapper has been plentiful since October after which month the school fish arrive in the Hauraki Gulf; but previous to Oct fishing fishermen had to proceed to Great Barrier, Mercury Bay, and north of Little Barrier to obtain a fair catch. // The Hauraki Gulf is becoming more depleted of Schnapper each year and it is my opinion</li> </ul>	Annual report on fishing industry at Auckland for year ending 31 March 1914 by Fisheries Inspector J.P.

	Auckland will have to draw on the west coast for a supply before two years; it is my opinion that the long line system of fishing now extensively practised in the Hauraki Gulf will in that time deplete it to such an extent that a close season for Schnapper will be nesisary [sic].’	Bennett, M 1 2/12/35 NAW. <b>[Photocopy 6]</b>
1914	<ul style="list-style-type: none"> <li>- About 40 registered boats, employing about 100 men.</li> <li>- Snapper has been very plentiful at Thames during the last 2 months, very scarce last winter.</li> </ul>	Annual report on fishing industry at Thames for year ending 31 March 1914 by Fisheries Inspector J.P. Bennett, M 1 2/12/35 NAW.
1915	<ul style="list-style-type: none"> <li>- ‘Schnapper in the inland waters of the Hauraki Gulf is decreasing in quantity which can only be expected considering the large number of long line fishermen, and the large number of private yachts and launches which continuously fish there.’</li> <li>- snapper in abundance at the outer end of the Hauraki Gulf – near the Little Barrier, Mokohinau, Hen and Chickens, off Mangawhai</li> </ul>	Annual report of Auckland Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW
1915	<ul style="list-style-type: none"> <li>- snapper taken mostly with nets has been plentiful; ‘in some cases enormous catches have been made’</li> <li>- snapper and flounder the principal fish taken at Thames, where 40 boats and 90 men employed</li> </ul>	Annual report for Thames by Inspector of Fisheries, Jas. Bennett, for the year ending 31 March 1915, M 1 2/12/73 NAW
1915	<ul style="list-style-type: none"> <li>- ‘After an interval of 12 years, trawling operations in the Hauraki Gulf have been resumed, and supplies of fresh fish are being delivered in such quantity that the retail prices have been reduced to half those current a few weeks ago. // One steam trawler has been making daily trips to the city, bringing supplies of schnappers and other edible fish that are not measured by bundles, but by tons’.</li> <li>- Many fishermen and launches rendered idle – cannot compete with a trawl extending 120ft wide and 20ft deep.</li> <li>- Sanford: states that until a few years ago, trawling was permitted in the Gulf, but the recent alteration of regulations has made it possible to employ modern methods within 20 miles of the city.</li> </ul>	Extract from the <i>N.Z. Herald</i> , 13 October 1915, M 1 2/12/55 part 1 NAW.
1915	- (p 14) Interpretation of catch graphs: From 1915, snapper landings were predominantly caught by steam trawlers up to 1925. From this stage Danish seiners brought in most of the catch, with net and line boats making up another ~1/3. From 1940-1950 net and line catches diminished. About 1950 motor trawlers took over as the dominant catcher, with net and line and Danish seiners making up another third between them.	L.J. Paul, ‘The commercial fishery for snapper . . .’, Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1916	<ul style="list-style-type: none"> <li>- Snapper: <ul style="list-style-type: none"> <li>- supply has been plentiful, the trawlers operating at Auckland ‘are bringing in immense quantities’</li> <li>- in addition to the 4 trawlers, about 70 boats employing approximately 140 men are (except for one boat) taking their catch by means of a long line – ‘now the principal method of taking snapper at Auckland’.</li> </ul> </li> </ul>	Annual report on fisheries at Auckland by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.
1916	<ul style="list-style-type: none"> <li>- Snapper and flounder the principal fish taken.</li> <li>- Snapper – taken in fair quantities by lines and nets.</li> </ul>	Annual report on fisheries at Thames by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.
1916	- (pp 90-91) In 1916 the steam trawler Muriel found the BOP teeming with snapper, but all inside the restricted 3-mile limit around Tauranga.	P. Titchener, <i>The story of Sanford Ltd. The first 100 years</i> , Auckland, 1981.

1917	<ul style="list-style-type: none"> <li>- Snapper: 'Since the advent of the trawlers in the Auckland waters the market has been supplied with enormous quantities of Schnapper'.</li> <li>- 'Since the trawlers now numbering five started at Auckland the local fishermen have had to cease work owing to the enormous catches of the trawlers and the reduction in the price of fish'. Most fishermen now working on the trawlers or in the fish sheds.</li> </ul>	Annual report for Auckland for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137 NAW.
1917	<ul style="list-style-type: none"> <li>- Supply of fish has been fully met during past year.</li> <li>- 25 licensed fishing boats, employing about 50 men, mostly employed in net fishing.</li> <li>- Fish taken is most flounder and snapper.</li> <li>- Fish are taken from the Hauraki Gulf as far north as Kirita, but seldom past Waikawau Creek as the water to the north is too deep to be worked by hand nets. North of this to the trawling limit lie some 20 by 15 miles of the best possible area for trawling, which has not been fished for the last 16 years and which at the present time is teaming with fish, as proved by the enormous quantity of fish taken in a short time by the trawler Murial (222 baskets) when seized trawling within the restricted zone.</li> </ul>	Annual report for Thames for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137 NAW.
1917	<ul style="list-style-type: none"> <li>- Catches: about 120 dozen a week (about two-thirds snapper; one-third mixed mostly kahawai, trevally, and occasionally hapuku).</li> <li>- Line fishing here is considered very good indeed, but low prices and small market means it will be difficult for the industry to expand.</li> </ul>	Annual report for Tauranga for the year ended 31 March 1917 by Fisheries Inspector A Skinner, M 1 2/12/137 NAW.
1917	<ul style="list-style-type: none"> <li>- Report on the question of whether the trawling limits in the Hauraki Gulf should be removed. Argues that they should remain.</li> <li>- '... I do not think this is necessary, for the immense quantities of Schnapper, Tarakehi, John Dory etc. which are brought in from the trawling grounds which are within such easy reach of the Auckland market, and supplemented by the catches from line and net fishermen at Thames and other ports, it would certainly seem that there is no occasion to remove the restrictions on account of supplying the public with these fish in large quantities and at a reasonable price'.</li> <li>- Claims that it is well known that snapper outside the prohibited area are of a better size; suggests that the prohibited area is a nursery ground for small fish.</li> <li>- The large municipal trawler 'Simplon' has lately been working from Cape Colville to Cuvier Island, and to the west of Canoe Rock and Little Barrier, bringing in the largest and best conditioned snapper seen in the Auckland market for some time.</li> </ul>	Chief Inspector of Fisheries to the Secretary, Marine Department, 20 March 1917, M 1 2/12/55 part 1 NAW.
1918	<ul style="list-style-type: none"> <li>- Auckland: return shows a large increase in the quantity and value of marketable fish in comparison to the previous year (p 7) <ul style="list-style-type: none"> <li>- number of hook and line boats fishing during the year has shown a marked increase</li> </ul> </li> <li>- Thames: fish usually caught by the net and hook and line fishermen at Thames plentiful</li> <li>- Tauranga: practically no fish caught for the Auckland market; fishing being confined to what is required to supply local market <ul style="list-style-type: none"> <li>- 'The extensive fishing grounds in the Bay of Plenty are capable of great development, as very large supplies of schnapper, terakihi, trevalli, and hapuku can be taken either by trawling or lining.'</li> </ul> </li> </ul>	Marine Department annual report for 1917-1918, <i>AJHR</i> 1918 H-15.
1918	<ul style="list-style-type: none"> <li>- States that has spent a good deal of time during the previous year 'testing the Auckland Fisheries at all parts of</li> </ul>	Annual report for year ended 31 March

	the Hauraki Gulf'. Believes that snapper has become more scarce owing to the trawlers operating too close inshore. Thinks it will be necessary to extend trawling limits to the old line from Cape Colville to Point Rodney in order to preserve the breeding grounds and lessen the destruction of undersized snapper; otherwise the supply from the Hauraki Gulf will be exhausted.	1918 for Thames by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.
1918	<ul style="list-style-type: none"> <li>- States that fish supply not equal to previous year owing to trawlers operating over the same area year to year, and the City Council's large trawler being used for other purposes.</li> <li>- Comments on different species: <ul style="list-style-type: none"> <li>- Snapper: fairly plentiful, though 'has not been taken in such enormous quantities by the trawlers as previously'.</li> </ul> </li> <li>- Notes that a number of fishing boats have again started fishing as prices for snapper has advanced to 'the old time price'.</li> <li>- Suggests that the trawling limit be changed from present line (from Matakana River to the southernmost point of Tiri) to from Shearers Rock Buoy to the most eastern point of Kawau Island or Port Rodney. States that this will: <ul style="list-style-type: none"> <li>- keep trawlers out of the inland water west of Kawau (a nursery for small and undersized fish)</li> <li>- lessen the work of detecting illegal trawling amongst the numerous islands in the vicinity of Kawau Island</li> <li>- keep trawlers out of Omaha Bight, also a breeding ground and nursery for young snapper (have received verbal complaints by fishermen at Leigh of trawlers operating right into the Omaha Beach)</li> </ul> </li> </ul>	Annual report for year ended 31 March 1918 for Auckland by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.
1918	<ul style="list-style-type: none"> <li>- 5 boats engaged in fishing; no trawlers.</li> <li>- 'The greatest number of fish caught in this harbour and outside the Heads are Schnapper, and few mullet, Hapuku, Travalli [sic], Kahwai, and flounder.'</li> <li>- Weight of fish brought in during the year – about 150 tons.</li> </ul>	Annual report for year ended 31 March 1918 for Whangarei by Fisheries Inspector M Stuart, M 1 2/12/163 NAW.
1918	- Visited Sanfords and found considerable quantities of undersized snapper. Measured the trawl net on the 'Murial' and found it to be under regulation size, ie 3¾ inches at the cod end and 4 inches in the wings.	Report of Jas Bennet relative to undersized snapper found at Sanfords, 6 December 1918, M 1 2/12/55 part 2 NAW.
1919	- The Department is frequently urged to reduce the area within which trawling is prohibited in the Hauraki Gulf, but line fishermen have always opposed, claiming it would interfere with their fishing and fish breeding grounds – inquiry into this and other matters has been held – report will be forthcoming. (p 7) [See below]	Marine Department annual report for 1918-1919, <i>AJHR</i> 1919 H-15.
1919	<ul style="list-style-type: none"> <li>- Supply at Thames has been good – all fish such as snapper, flounder, and gurnard taken in large quantities.</li> <li>- 'The Thames fishing industry is developing of late and will in very few years become one of Auckland's greatest industries and will necessitate all trawling being prohibited with the Hauraki Gulf and reserve the Gulf solely for line and net fishermen only.'</li> </ul>	Annual report for year ended 31 March 1919 for Thames by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.
1919	<ul style="list-style-type: none"> <li>- 65 licensed fishing boats; employing about 120 men, mostly line and net fishing.</li> <li>- 5 steam trawlers employed at Auckland, fishing mostly in the Hauraki Gulf, employing 34 men.</li> <li>- 'The supply of fish at Auckland is surely becoming less each year. In my opinion the decrease is owing to the continuous working of the five trawlers in the Gulf.'</li> <li>- 'Most of the fishermen now line fishing at Auckland carry a supply of ice on their boats and stay out until they catch sufficient fish to take to market and they mostly take their catches at the North Side of Great and Little</li> </ul>	Annual report for year ended 31 March 1919 for Auckland (incl. Manukau) by Fisheries Inspector J.P. Bennett, M 1 2/12/182 NAW.

	Barrier, Moko Hinau, Mercury Islands, Alderman Islands and the Bay of Plenty. // Those fishing boats are all under seven ton register and are compelled to go to the above fishing grounds owing to the depletion of the waters in the Hauraki Gulf.’ - Snapper: those taken by trawlers poor quality; those taken by line men excellent quality; ‘Becoming very scarce in Auckland waters.’	
1919	- Snapper is the principal fish caught here, also hapuku, mullet, trevally, kahawai, rock cod, guard fish, herring, crayfish, moki, and flounder - Have tried to get an estimate of the quantity caught and value, but it is exceedingly hard to get anywhere near the exact amount.	Annual fisheries report for the year ended 31 March 1919 for Tauranga by Fisheries Inspector A Skinner, M 1 2/12/182 NAW.
1919	- Sat at Auckland, Thames, Helensville. - Deals with trawling restrictions and other matters. - Notes that trawling presently prohibited from a line starting at Matakana and extending from there to the southernmost point of Tiritiri, and from that point to Cabbage Bay. - ‘The evidence shows fairly conclusively that fish cannot now be caught in the gulf by the line and net fishermen with the same ease with which they were caught many years ago; but the evidence also shows that this great difficulty in catching the fish was noticeable even before the advent of the trawler, and the evidence that the trawlers have had any great part in producing the state of affairs is far from conclusive. Undoubtedly, however, the trawlers have had some part in bringing it about, and if in trawling well up into the gulf the greater part of their catches consists of moderate sized fish, it follows that more fish will be destroyed than if the same weight of larger fish were taken. If, as seems quite clear, the shallower waters of the bays and inlets are inhabited by small fish, it is to be expected that trawling waters anywhere in their vicinity will lead to the catches containing a considerable proportion of smaller, even if not undersized, fish.’ - Recommended that the line be fixed from Mahurangi Heads to Shearer Rock, off the north-east point of Tiritiri, and thence to Cabbage Bay. [See NZG of 8 February 1920]  [See Hauraki archival notes for details of the (considerable) evidence provided by the witnesses to the Commission.]	AJHR 1919 H-28, ‘Fisheries Commission’.
1920	- Records evidence presented to inquiry being conducted by Ayson and A. Petersen regarding the trawling limits in the Bay of Plenty. - Evidence of Alex Leslie: ‘Mr Alex Leslie said he had been fishing here nine or ten years ago and followed it up till 1914. He knew the Coast from Town Point to Whangamata as well as anyone. Off Whangamata he had got as many as 60 dozen. [Probably referring to snapper.] The average used to be about 25 to 30 dozen. Since he had been back from the war he had been out a fair number of times trying the old grounds but had had no luck at all. . . . All his big catches used to be between Bowentown and Whangamata. When he was fishing before he noticed that the fish always took off about August. The weather conditions affected the fishing. Since he returned he found a big decrease in the fishing.’	Extract from Bay of Plenty Times, 10 August 1920, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.
1920	- 12 years experience trawling; first trip to BoP about 12 months ago, been there about 5 or 6 times. Believes that present limits in BoP should be removed, except a small limit off Tauranga.	A.G. Nilsson [Master of the municipal trawler, “Simplon”] to Chief Inspector

	<ul style="list-style-type: none"> <li>- States that the best class of fish have been caught close-in, particularly snapper and terakihi. On one occasion, caught 820 baskets in 2 days fishing, equal to about 25 tons. Two-thirds of the catch was big snapper. Best depths for fishing from 25 to 30 fathoms.</li> <li>- Believes that large quantities of flat fish might also be taken in the present limits were removed.</li> <li>- Argues that the supply of fish in the Hauraki Gulf does not appear to have been affected by trawling. (States that in three days last year, about November, we took 940 baskets – equal to 28 tons – in 2½ days fishing.)</li> <li>- States that trawling in deep water in BoP (40 to 100 fathoms), catches were small and fish in poor condition.</li> </ul>	of Fisheries, 30 August 1920, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.
1920	<p><i>Evidence of Mr Sanford:</i></p> <ul style="list-style-type: none"> <li>- all five of his trawlers have gone down to Bay of Plenty at intervals</li> <li>- ‘Our boats get exceptionally good catches in the Bay of Plenty, especially in about the 20 fathom mark, and even closer.’</li> <li>- ‘They [snapper] have become scarce outside Tiri, but it is not an unusual thing for fish to become scarce in any particular spot. When I was a boy we used to go further afield than Tiri for fish, at certain times of the year. It is only a matter of the fish clearing out. I suppose the climatic and other conditions – supply of food etc. – affect them.’</li> </ul>	Enquiry held by Mr Ayson and Mr Petersen at Auckland, 13 August 1920, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.
1920	- Recommends the existing trawling limits be removed. Comments that trawling is the most up-to-date method of catching fish; that it is always opposed by local line and net fishermen when first introduced to an area; and that it does not appear to have any effect on the quantity of fish.	Report of L.F. Ayson and A Petersen [Hawkes Bay Inspector] on the question of trawling limits in the Bay of Plenty, no date, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.
1920	Order in Council revoking existing restrictions and prohibiting trawling in a portion of Bay of Plenty (around Tauranga).	NZG 1921, no. 23, 3 March 1921, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.
1920	<ul style="list-style-type: none"> <li>- Trawling limits were lifted some time ago, and the trawler from Auckland made some good hauls, but owing to agitation by local fishermen and their friends the restrictions were once again gazetted.</li> <li>- Various kinds of fish caught: snapper, hapuku, trevally, kahawai, rock cod, garfish, herring, moki, king fish, flounder, crayfish, and mullet. Snapper the main catch.</li> <li>- Difficult to get details from fishermen as to catch; exception is Lynman and Cox, engaged at Sanfords Fish Works – there estimate is about 40 cwt of fish caught and sold.</li> </ul>	Annual report for Tauranga for year ending 31 March 1920 by Inspector of Fisheries A Skinner, M 1 2/12/207 NAW.
1920	- (pp 19-20) About 1920, renewed complaints about depletion of snapper in the Gulf. Medium trawlers were replaced with larger ones (capable of working more distant grounds) and the otter trawl method was also modified at this time.	L.J. Paul, ‘The commercial fishery for snapper . . .’, Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1921	<ul style="list-style-type: none"> <li>- Fish supply plentiful as several trawlers working the Bay of Plenty and when weather good taking good catches of snapper, tarakihi, and gurnard.</li> <li>- Smaller trawlers working about the Gulf mostly obtain moderate catches.</li> <li>- Long and hand line fishermen at Auckland are mostly working outside Great Barrier, Little Barrier, Mokohinou,</li> </ul>	Supplementary annual report for Auckland for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.



	<p>and Mercury and Alderman Islands in the Bay of Plenty; in good weather get good catches of snapper, hapuku, blue cod, kingfish, and other kelp fish.</p> <ul style="list-style-type: none"> <li>- The line men with their small boats have to go further away 'owing to the Trawlers cleaning out the Gulf'; would be a great advantage to them and would save wasting of fish if a cool store built at Mercury Island.</li> <li>- 'Inside Cape Colville and Little Barrier fish have become so scarce that fishermen cannot make a living within that area.'</li> </ul>	
1922	<p>- 'Fish especially snapper are owing to the steam trawlers operating in the Hauraki Gulf becoming more scarce each year, and if the reduction continues as at present, line fishing in the Gulf will absolutely cease altogether. I therefore consider the Department should extend the trawling limits outside the Hauraki Gulf, and put the trawlers on the same footing as the small fishing boats who have had to obtain their catches beyond the Hauraki Gulf for the last three years.'</p>	Annual report for Auckland for year ending 31 March 1922 by Inspector of Fisheries J.P. Bennett, M 1 2/12/245 NAW.
1923	<ul style="list-style-type: none"> <li>- Up until a month ago fish fairly plentiful at the Thames, but with the approach of winter fish head to deeper waters, catches become less owing to the methods of the Thames fishermen (set nets).</li> <li>- Some 5 or 6 boats are fishing for line fish – rock cod, hapuku, and snapper – from the Thames and are working as far down the East Coast as Mayor Island in the Bay of Plenty.</li> </ul>	Annual report for Thames for year ending 31 March 1923 by Inspector of Fisheries J.P. Bennett, M 1 2/12/269 NAW.
1923	<ul style="list-style-type: none"> <li>- Wishes to draw to the attention of the Minister 'the alarming decrease in the catches of fish (particularly schnapper) by private parties during the last few years.'</li> <li>- 'It is an indisputable fact that in past years there were numerous fishing grounds in the Gulf which yielded a plentiful catch to line fishers at any state of the tide. To-day there is practically nothing to be caught at even the most favourable state of the tide. // The accumulated evidence of amateur fishermen (of whom there are thousands both within and without yachting circles) establishes conclusively that last season on account of the small catches fishing in the gulf was scarcely worth while and this season so far it is useless. It is unnecessary to emphasise that this is a serious matter.'</li> </ul>	J.B. Johnston, Chairman Auckland Yacht and Motor Boat Association, to Minister of Marine, 22 November 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.
1923	<ul style="list-style-type: none"> <li>- on morning of 23 November, "Countess" demonstrated Danish seine; Minister of Marine on board</li> <li>- 'After a two hours' run, when in the main channel between Howick and Waiheke, the vessel dropped anchor and the seine-net was cast, about two miles from the Waiheke coast. It was blowing stiffly from the north, and there was a roughish sea, and generally speaking it was far from a propitious day for a good catch. // The seine-net does not begin to gather in the fish until it is about 600 fathoms from the ship, and as the steam winch hauls in the net ropes, continues its work until it is about 200 fathoms away, the mouth of the net being then closed up. As the winch draws up the net the two ropes pass to the coiling mechanism, which is operated from the winch by a chain drive, and the ropes are evenly coiled away. // The first haul yielded some ten baskets of fish, mostly schnapper, with a few travillis, John Dories, stingarees, a dog fish, and some mussels. The second cast brought seven baskets of fish, again mostly schnapper but this time a shark about five feet long was hauled in. The shark, like the stingarees, was promptly dumped over the rail. The catch was not a good one, but having regard to the weather was deemed to be as good as could be expected. The net used has a 4in mesh, and it was noted that the fish on deck contained no small specimens.'</li> </ul>	<i>New Zealand Herald</i> , 24 November 1923, M 1 2/12/55 part 4, Trawling – Hauraki Gulf, NAW.
1923	<ul style="list-style-type: none"> <li>- (p 20) Danish seining was also introduced late 1923 and many steam trawlers and oil engine launches were converted to seiners. They caught enough fish to oversupply the market. January 1924, seining restrictions applied</li> </ul>	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research

	<p>to the Firth. This did not deter adoption of this fishing method.</p> <p>- (p 21) By end of 1924, 22 seiners working, this number increased to over 30 by the end of the decade, mostly 10-12m launches. Continuing opposition to seining in the Gulf – blamed for continuing depletion of snapper stock and seen to be too intensive a method for harbours and narrow channels. In 1926, inshore grounds at Tamaki Strait and the reported Kawau-Tiritiri Matangi Islands spawning ground closed from November to January. This saw several of the smaller boats return to long-lining, especially during spring when good catches could be made on the spawning grounds.</p>	Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <i>[Photocopy 37]</i>
1923	<p>- (p 17) Early 1920s a new method of catching fish was introduced. ‘This was the beginning of the Danish seining which proved to be a most efficient method of catching snapper and responsible for the taking of many thousands of tons of fish from the Hauraki Gulf over a period of 50 odd years.’</p> <p>1924, trawlers <i>Countess</i>, <i>Baroona</i>, <i>Kahu</i> were converted to seiners. (pp 18-19) Jack and Andy Andreason of the Faroe Islands had introduced the method, which was quickly taken up by Eddie Mansfield fishing out of the <i>Ruby</i> for Sanford. (p 19) Initially there were no restrictions on the method and there was a bonanza as large trawlers were converted to seiners. Govt. was pressured by net and line fishers and private fishers and seining was forced out to where it became uneconomic for these large boats.</p>	P. Titchener, <i>The story of Sanford Ltd. The first 100 years</i> , Auckland, 1981.
1924	- Remarkably good year for fish, snapper particularly. About September, the seine net was introduced into these waters and taken up by 2 or 3 vessels, and onward to February brought in very big hauls of flounder, dabs, and sole, which found a very good market locally. Several trawlers laid up during the schooling season and right through the summer owing to little demand for snapper. Seine net becoming very popular in this area.	Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1924 by Inspector of Fisheries C Daniel, M 1 2/12/298 NAW.
1924	- ‘I have been directed to draw your attention to the rapid destruction of the valuable fisheries of the Hauraki Gulf. // In the year 1913 two old trawlers commenced trawling operations in the northern end of the gulf, these vessels were very successful and obtained large quantities of fish. // At the same time there were a large number of line and net boats fishing from Auckland, Thames, and Coromandel, and they, also, were very successful. It was a common sight on spring tides to see as many as two thousand dozen Schnapper landed on the Thames wharf, as the result of one tide’s fishing by about thirty netting boats. // The number of trawlers have gradually increased till today there are seven or eight up-to-date trawlers fishing in the Hauraki Gulf, and I think it is safe to say that there combined catches do not exceed those of the two obsolete vessels operating in 1913. // The result of a large number of vessels trawling in the gulf was to exhaust the supply of fish in the area in which they were working, and to break up the schools of fish that were moving up towards the head of the gulf, so that Schnapper have become very scarce, and there is very seldom more than one hundred dozen Schnapper landed in Thames, in any one day from the netting boats. // Most of the line fishermen from Auckland have had to leave their homes, and seek a market for their fish in Thames, and other places. // The trawler owners, finding they could no longer fish successfully outside the trawling limits, equipped their vessels with purse seine nets, and the limit for this class of fishing has been fixed on a line from Deadman’s Point to Ponui Point light. (Mr Ayson, “Inspector of Fisheries”, advocated that no restrictions of any kind should be placed on the purse seine). // These vessels working right in the breeding grounds of the fish, will surely result in the ultimate destruction of the fishing industry of the Thames.’	V Doddrell, Secretary, Thames Fishermen’s Union, Thames, to Minister of Marine, 5 April 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.

1924	- 'I have been directed to again draw your attention to the rapid destruction of the Hauraki Gulf Fisheries. All that area inside the present purse seine limit, right up to the Thames, has been absolutely cleaned out of the ordinary school schnapper. The purse seine boats are working right in the breeding grounds and destroy the young fish that usually school & move up the Firth of Thames.'	V Doddrell, Secretary, Thames Fishermen's Union, Thames, to Minister of Marine, 1 September 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.
1924	- 'As an old boating man with considerable experience on the waters of the Hauraki Gulf, I desire to associate myself with a protest of the Auckland Yacht and Motor Boat Association and other bodies, against the present species of trawling in the Hauraki Gulf [purse seine fishing]. I am satisfied that this system of fishing is having a most injurious effect upon the fishing grounds of the Gulf. // From personal experience I am able to say that the schnapper no longer exists in the Hauraki Gulf so far as ordinary line fishing is concerned. There can be no doubt that the trawling is having a most destructive effect on the breeding grounds.'	C.J. Parr (Minister of Education) to Minister of Marine, 16 September 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.
1924	- Advocates the prohibition of trawlers in the Hauraki Gulf and that purse seine netting be restricted to a three mile limit. - 'Between Cabbage Bay and Cape Colville was once a wonderful fishing area; it is now absolutely cleaned out owing to trawling operations. At Onetangi, Waiheke, there used to be great fishing grounds, but ask any of the residents, and they will tell you, whereas, formerly plenty of fish could be caught, now, after the trawler has worked right up to the wharf, and in shallow waters, as it does, not a fish can be caught for weeks afterwards – every fish in the Bay has been cleaned up. // Last year, on the east side of Ponui Island, the line fishermen were getting plenty of fish, month after month, then came along a steam trawler and completely cleaned the place out in a few days. // When the trawlers and seine net bring up, as they do, thousands of undersized fish, they are left on heaps on the deck of the vessel, and the majority are dead before they are thrown back into the sea.'	Pamphlet by Ruby E. Watson, no date, enclosed with Watson to Minister of Marine, 16 September 1924, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.
1925	- 5 steamers belonging to Sanfords and 1 belonging to Munroe Bros converted back from Danish seiners to trawlers – claims that this is because they believed the area they fished in had been 'played . . . out' as far as quantity and size of fish. Emphasises that the size of snapper very small over last 6 months. - Small seiners now getting reasonable catches, but fish small. 'These Seine boats are now getting very few flats and dabs, and places where 18 months ago almost hundreds of tons of flats were got, not a scale could be got today.' - Believes that seining might be scaring the bigger fish out of the Gulf, with the seine boats catching quite a lot of the smaller fish. Claims that this, in time, 'can only result in one thing'. - After the school fish broke up, say during February and March, some of the trawlers not bringing in sufficient fish to pay for coal. Later went further into the Bay of Plenty and are now doing much better on the tarakihi grounds there. Gulf deserted of trawlers for this 3 months. - Something should be done to stop the seiners from sweeping out all the smooth and sheltered places in the Gulf where for years the small snapper have for years fed and grown undisturbed. Now being combed out and the small fish marketed.	Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1925 by Inspector of Fisheries C Daniel, M 1 2/12/330 NAW. <i>[Photocopy 15]</i>
1925	- Mr H. Jensen, President of the Fishermen's Union; engaged in fishing in the Gulf for 7 years, previously in the North Sea. - at present was using a purse seine	Notes on a meeting at Thames between the Minister of Marine and fishermen regarding purse seining in the Hauraki

	<p>- 'Fish in the Gulf was not so plentiful now as in years past. A marked decrease had taken place since purse seine fishing commenced. Where it was possible to catch 100 dozen before, they could hardly get 10 dozen now.'</p> <p>- Mr W. Raddish; 40 years experience in the Hauraki Gulf.</p> <p>- 'In the early days they received 9d. A dozen for schnapper, but that was because they were extremely plentiful. At that time schnapper were found as far up as Turua. He used a 5 inch mesh set net and fish were not destroyed with such a large mesh. He had not seen one small fish in the net. About 9 years ago he was compelled to go to the deep waters to fish, but even there the line fishermen were unable to obtain such large hauls as previously. Where they used to catch hundreds of dozens they were only able to get ten dozen, and that was with a mile of gear. In using such a length of gear they placed an anchor between each set net. . . . The shortage of fish had been more noticeable since trawling in the Gulf commenced, and he was satisfied that that was the cause of the scarcity.'</p> <p>- 'During the War Mr Sandford asked to be allowed to catch 12oz. Schnapper so as to supply the public, and the granting of that request had also caused a shortage in the Gulf. He urged that the industry be protected by increasing the weight to 16 ozs.'</p> <p>- Mr C.A. Hayward; 20 years experience in fishing industry (8 years at fishing, 20 years as Manager of Sanfords)</p> <p>- stated that there were 20 seine boats operating from Thames, with 20 men employed</p> <p>- 'Two thirds of the Gulf, or at least one-half, could not be worked with the hand or side net. At present the fish were being obtained on the Western side where it was impossible to catch fish with a hand net. Hand nets had to be operated on the Thames side of the mud flats. He would recommend that the limits be decreased and that the size of the boats be limited to 7 tons. There was a law to prohibit nets being allowed to go dry. Representations were made to the late Hon. Mr McGowan and the result was that they were allowed to let them go dry. He had in consequence seen hundreds of flounders die in the sun. He believed that if the flats were closed for a few months the flounders would rapidly come back. They were allowed to take Dabs up to 8 inches, the opinion being that they did not grow very large. He had seen Dabs as large as flounders. . . . He had seen just as many fish destroyed under the old as under the new methods of fishing.'</p> <p>- Mr H. Hayward; fishing in the Gulf for about 25 to 30 years.</p> <p>- 'At first he was opposed to purse seining, but later on discovered that it did not kill as many small fish as the hand nets. His net had a mesh of 4¾ inches. At first he used a smaller one. Even as long ago as 25 years the nets they used had meshes of from 3¾ to 4½ inches. The bed of the Gulf was dragged just as much with a hand net as with a seine net. There were 5 seine boats besides the two used by himself and his brothers. With a small cod end it was only natural that some undersized fish would be caught. His biggest catch for one haul was just over two tons. He had had as much as four tons in one trip.</p>	Gulf, 14 January 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.
1925	- 'I have the honour to call your attention to the fact that owing to the operations of the trawlers, seine netting, in this neighbourhood, it is impossible to catch fish here now. The Māoris living here ask me to help them as they depend largely on fish for food, and now have to buy meat which is very dear now. I myself have been out repeatedly to try for fish, but on the last seven times have not had a bite. The Māoris have given up trying.'	Captain G. Humphreys Davies, "Freshwater", Via Clevedon, to the Prime Minister, received 16 June 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.
1925	- re: restrictions on Danish seine net fishing in Hauraki Gulf	L.F. Ayson, Chief Inspector of

	<ul style="list-style-type: none"> <li>- notes that if seine boats shut out of the bays, would have to work in the open Gulf and therefore would only be able to work 2 or 3 days a week</li> <li>- boarded Mansfield and Jensen's seining boats, which were working off Waimate Island</li> <li>- 'When we boarded Mansfield's boat he had just finished his third haul for the day – his total catch amounted to fully three tons. The size of the fish would average well over one pound in weight. There were very few down to the regulation size of three-quarters of a pound. // Jensen had made two hauls for two tons of fish. The average size of his fish was similar to Mansfield's.'</li> <li>- no proof that the seine boats are depleting the supplies of snapper; supply of fish subject to seasonal fluctuation</li> <li>- believe that there should be no further restriction with regard to the area closed for Danish seining, but recommend a larger mesh should be enforced – not less than 4½ inches in the wings and cod end, not less than 3 inches in the bosom and throttle</li> </ul>	Fisheries, to Secretary, Marine Department, 22 July 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.
1925	<ul style="list-style-type: none"> <li>- reporting on meetings with Thames set net fishermen and Danish seine men on 13 October 1925</li> <li>- set net men objected to Danish seining, saying that was depleting the supply of fish and ruining feeding and breeding grounds</li> <li>- 'When asked if they were getting satisfactory catches at the present time, and whether their catches were on a limit, the answer was that their catches were at present equal to what they were two years ago, and for the last three months all the boats were limited to a catch of 25 doz. schnapper per man per trip. The statement made that the seining boats brought in a poorer class of schnapper than the set net boats was not borne out by the inspection which inspector Flinn and myself made at the freezing works next morning, as there was practically no difference in the average size of the fish.'</li> <li>- Danish seining men had no grievance – satisfied with the present limit on their catches and never had any difficulty in meeting this limit. Stated that their catches were equal to that of the previous year; consider snapper as plentiful now as it was 12 months ago.</li> </ul>	Ayson to Secretary, Marine, 23 October 1925, M 1 2/12/55 part 5, Trawling – Hauraki Gulf, NAW.
1925	- 'Will you kindly let me know . . . are fishing boats allowed to use a small trawl of seine net inside of a line from Bream Head to Bream Tail and right up to the shores of the Ruakaka and Waipu Beaches. I have been living here for the last four years and go to the beach fishing with a line for Schnapper on an average twice a week, and it was no trouble to catch five or six in an hour or so. But now the fishing boats have appeared on the scene it is impossible to catch a Schnapper, if you stayed there fishing for a week, one cannot even get a bite. Last summer the fishing boats started here and now they have started again. Their method is this: they come here in the day-time and anchor over three miles out and stop there till about Ten P.M. and then come right in to within a hundred yards or so off the shore and they are gone by daylight and I am perfectly sure that fishing boats using hand line and long line for Schnapper would not thin out the fish like they have done. I can get the name of fifty people who are of the same opinion, trawling and seine netting.'	P.A. Nordstrand to unnamed recipient, 18 October 1925, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.
1925	<ul style="list-style-type: none"> <li>- Have enquired into matters raised in Nordstrand's letter (see above).</li> <li>- 'I have to inform you that I have just returned from Whangarei and while there interviewed the fish dealers and fishermen from that Port. They informed me that there certainly was a scarcity of fish between Rodney Point and Tutukaka compared with other seasons. // I questioned the fishermen closely who are out almost every day, and they assured me that only once in every few weeks had they seen a trawler working inside that line. Early last winter two Seine boats had worked there for two days but had not returned up to the present time. // I asked the</li> </ul>	J.P. Flinn to Superintendent, Mercantile Marine, 29 November 1926, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

	fishermen if they considered the scarcity of schnapper was due to trawling operations carried on outside, and they all agreed that there was not sufficient trawling or seining done to make so great a difference compared with other years and further there were no School fish coming in this season as in former years.'	
1926	<p>- Comment:</p> <ul style="list-style-type: none"> <li>- fair supply of fish through the year</li> <li>- supply of snapper not good from June to November</li> <li>- school fish first noticed about 15 November; describes movements of school; break up of school around end of January and dispersal universally over the Gulf</li> <li>- since break-up of school, seine boats able to bring in all they could dispose of, trawling vessels had to go elsewhere (some worked the Bay of Plenty waters, others the north coast, one also believed to be about North Cape and Three Kings Islands)</li> <li>- 5 trawlers in the district now (2 seiners converted to school fish to work the school fish)</li> <li>- 29 boats fitted with Danish seining gear; 5 or 6 often laid up, but generally do very well and can bring in as much as disposed of during the summer months – will regularly bring in 3 full loads per week of the choicest snapper (though during winter often usual to take 4 days to get a load, and then a poorer and smaller fish)</li> <li>- could say that this seasons spawning would be outstanding judging by the amount of spent snapper</li> <li>- places mentioned in last years report (the sheltered waters inside Waiheke Island, where hundreds of tons of snapper taken in the first year the seiners operated) have never recovered; nor has Big Bay (outside Waiheke Island), where three years ago as much as much as 7 tons of flounder, dabs, and gurnard taken in 36 hours without lifting the anchor</li> <li>- notes that the season catch is greater than previous years, though cannot say how much of this is snapper</li> <li>- believes that snapper is on the decrease and the catches and consumption of inferior fish is on the increase</li> <li>- at Thames, flounder below normal, mullet apparently on the decrease (now only one regular mulleting boat out of Auckland)</li> <li>- expresses the opinion that: <ul style="list-style-type: none"> <li>- further sheltered waters should be closed to the Danish seine boats to enable young snapper to feed and grow undisturbed</li> <li>- should be a close season for snapper in the area in which they are accustomed to spawn in the Hauraki Gulf from 1 December to 31 January (believes this would 'meet with the approval of every fair-minded practical fishermen in the district')</li> </ul> </li> <li>- notes slight increase in the fish brought in at Thames, but comments that the figures 'do not count for much as in both years I understand that the boats engaged in the catching could have brought in twice as much fish, if it were not for the limit placed on the quantity each boat may dispose of to the Merchants they deal with'</li> <li>- 'I am of the opinion that very little is known about our fisheries especially about Schnapper.'</li> <li>- 'In collecting figures for these returns it is very hard to set anything like accurate figures even from Merchants Wholesale Keeping books, and I am afraid that some very wild guessing is done.'</li> </ul>	Annual return/report for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1926 by Inspector of Fisheries C Daniel, M 1 2/12/356 NAW. <i>[Photocopy 17]</i>
1926	- In 1926, following Ayson's retirement, Arthur Hefford was appointed as his replacement, with the title 'Fisheries	David Johnson, <i>Hooked: The Story of</i>

	<p>Expert'. Hefford wanted to make decisions based on hard facts about the size of fish stocks. His arrival coincided with the expansion of fishing. Trawling and Danish seining, combined with oil engines which replaced the last sailing vessels, brought a great increase in catches.</p> <ul style="list-style-type: none"> <li>- Hefford was concerned about maintaining numbers of fish, particularly in the Hauraki Gulf snapper fishery. He had no past statistics to work on but was certain that 'considerable depletion has taken place' (see <i>AJHR</i> H15 1928). He gave logbooks to skippers of vessels in the Hauraki Gulf so that catches could be recorded. There was no way of checking that accuracy of the recording and sometimes the logbooks were ignored.</li> </ul>	<i>the New Zealand Fishing Industry</i> , Wellington, 2004, p 112.
1926	<ul style="list-style-type: none"> <li>- Lengthy: see Hauraki notes for 1920s. Recommends greater net mesh for Danish seine and a close season for snapper in part of the Gulf in January and February.</li> </ul>	A.G. Hefford to Secretary, Marine Department, 23 April 1926, M 1 2/12/55 part 6, Hauraki Gulf – Trawling, 1926-1928, NAW.
1927	<ul style="list-style-type: none"> <li>- 'Our records in the past have given only annual totals of quantity of fish landed . . . without reference to separate kinds of fish or the time employed and the number of kind of vessels actually engaged in the fishing. Such records can throw little or no light upon the condition of the fisheries or the progress of the industry.' With regard to the Hauraki Gulf fisheries – skippers of all classes of fishing vessels at Auckland and Thames have been provided with log books in which to enter details of kind and quantities of fish caught.</li> <li>- Reports that the task of obtaining measurements of snapper caught by fishing vessels has continued – catches measured make up a total of over 25,000 fish. 'It is believed that the data so obtained will yield a reliable representation of the size composition of the snapper stocks in the waters fished. Their significance would be better shown if similar measurement data were available from former years, when the fisheries were nearer their virginal condition.' Proposed to obtain similar data from other grounds as soon as resources available.</li> <li>- 'For the past two years the conditions of the Hauraki Gulf fisheries has been a subject of considerable controversy between parties practicing different methods of fishing. By far the greater proportion of fish landed of late years has been caught either by the trawl or the Danish seine, and these fishermen, and more particularly amateur fishermen, who now find that it is very difficult to catch fish in places where formerly it was present in abundance. It is suggested that depletion is due to "power" fishing – i.e., to the operations of the aforesaid trawlers and Danish-seiners. In the absence of definite statistics it was difficult to judge the true position or to say precisely how the fishing conditions in 1926 compared with those in, say, 1923; but on gathering evidence from whatever sources were available there was no avoiding the conclusion that considerable depletion had taken place.'</li> <li>- 'As a measure to diminish the danger of overfishing, special regulations were brought in during the spring of 1926 . . . ' <ul style="list-style-type: none"> <li>- net fishing by trawl, Danish seine, or any other method prohibited in that part of the Gulf that includes the chief spawning grounds of snapper from 15 November to end of January (spawning season)</li> <li>- area where Danish seining completely prohibited extended to include the whole of Coromandel Harbour and Tamaki Strait</li> <li>- mesh at the cod end of the Danish seine enlarged to 4½ inches to reduce capture of small fish</li> </ul> </li> <li>- 'The effect of this closure of the schooling-grounds to power fishing-vessels was to induce the trawlers to go farther afield for their catches. Some of the Danish-seine boats stopped working entirely and their crews devoted themselves to the old method of line fishing for snapper, and in most cases made fairly good catches on the</li> </ul>	A.E. Hefford, 26 July 1927, Marine Department annual report for 1926-1927, <i>AJHR</i> 1927, H-15.

	<p>schooling-grounds. Others continued to fish outside the restricted area. The result of the restriction was to save very considerable quantities of fish which would otherwise have been destroyed before they had time to shed their spawn . . .’</p> <ul style="list-style-type: none"> <li>- Present conditions of the snapper-fishery in the gulf are such that I have no hesitation in recommending an extension of the closure from 15 November to 15 February and that the closed area be extended to a line from Cape Rodney to Cape Colville. Further recommends that: <ul style="list-style-type: none"> <li>- the area in which trawling is entirely prohibited be extended to include the greater part of the Hauraki Gulf</li> <li>- the waters of the Tamaki Straits, Whangarei Harbour, Whangaroa Harbour, and Kaipara Harbour be closed to Danish-seining (states that Danish-seining not so destructive to undersized fish as trawling, but that it is too intensive for narrow waters)</li> </ul> </li> <li>- Also recommends that the Department should undertake Danish-seining investigations in all parts of the Hauraki Gulf to determine the degree of productivity of the fishing grounds and the exact nature of the catches made by this method of fishing.</li> </ul>	
1927	<ul style="list-style-type: none"> <li>- Comments on declining snapper catch: ‘It is quite obvious that fish are becoming less plentiful in the Gulf each year. October 1915 I was transferred to Russell and was stationed there ten years, and it is alarming to note the scarcity of all kinds of fish in the Gulf now as compared with the years 1912, 1913, and 1914, before I left here. In my opinion the operating of trawl and Danish seine nets have been mainly the cause of this, also catching huge quantities of Schnapper during the months they school to spawn. // At Bay of Islands and northwards where very little trawling or Danish Seine netting has been done the fish are almost if not quite as plentiful as in former years.’</li> </ul>	F.P. Flinn, Senior Inspector of Fisheries, Auckland to A.E. Hefford, Chief Inspector of Fisheries, Wellington, 22 June 1927, M 1 2/12/388 NAW.
1927	<ul style="list-style-type: none"> <li>- Comment (see copy for further details): <ul style="list-style-type: none"> <li>- the supply of fish has been irregular and patchy owing principally to three reasons: 1) the weather, 2) the shortage of fish, and 3) the closing of the schooling season</li> <li>- notes that the waters close around Auckland are becoming poorer for snapper, the Tamaki Straits, both sides of Paheki Island, and around Waiheke generally – all ‘thoroughly thrashed’ by the Danish seine boats since the introduction of that method of fishing at Auckland; these boats today taking their catch from much further afield, running as far north as Whangaruru, south to Opotiki (one boat last year taking several loads of 30 to 50 baskets of mixed flats – mostly sole – from the Bay of Plenty)</li> <li>- comments on outer part of the Gulf and movements of the trawlers; believes it is hard to show a great falling off in catches of snapper, though fluctuations</li> <li>- notes that the close season for school fish was from 15 November to 31 January; states that the regulation was well observed and that there was no discontent amongst the fishermen ‘everyone of them taking for granted that the right thing was being done’</li> <li>- large quantities of snapper brought in by the trawlers and seiners after the restriction lifted</li> <li>- trawlers have not done well this year, apart from closed schooling season; only catches these fish get that are worth mentioning is the tarakihi, brought in from the Bay of Plenty grounds – slowly but surely taking the place of snapper in the Auckland markets</li> <li>- expresses opinion that fish generally, snapper in particular, is becoming less plentiful each year and harder to catch; comments that new methods of fishing take a heavier toll with each development – describes each of the methods (see copy for details)</li> </ul> </li> </ul>	Annual return/report for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1927 by Inspector of Fisheries C Daniel, M 1 2/12/388 NAW. <b>[Photocopy 19]</b>



	- states that restriction came to late; much more required, for years, before anything like the stock of fish of 10 years ago returns to the Hauraki Gulf	
1928	<p>- The adoption of a new form of trawl (the Vigneron-Dahl pattern), which under certain conditions possesses greater catching-power than the ordinary otter trawl, has also apparently enabled the Auckland steam trawlers to land increase supplies of fish.'</p> <p>- Motor launches operating Danish seine also had better fish owing to an increased quantity of snapper on the grounds they exploit. These grounds of relatively limited extent, until more light shed on immigration of fish, it is advisable to pursue a policy of protection of the more confined grounds. 'Danish seining, under the present regulations as to mesh of the net, cannot result in undue destruction of the fish, but it is a method so efficient in its catching power that its concentration beyond a certain limit on relatively confined areas must inevitably result in the rapid depletion of the resident stock of fish.' Continuance of the policy of limiting Danish seiners is therefore favourable, but not in favour of banishing them from the Gulf as that would mean the extinction of the Auckland Danish seining fleet.</p> <p>- 'It may be recalled that the Danish seining method of fishing was begun on the Auckland fishing grounds late in 1923. Until 1926-27 . . . it was confined to the fisheries of the Hauraki Gulf, though some of the launches occasionally voyaged beyond the Hauraki Gulf to the north and round the land to the Bay of Plenty. Such ventures were especially stimulated by the unsatisfactory fishing on the Hauraki Gulf grounds in the year 1926-27.'</p> <p>- 'Danish seining is an excellent method of fishing, and by its use a small launch with a crew of two or three men can, under favourable weather conditions, make catches which compare favourably with those made by a trawling-vessel of much greater tonnage and carrying twice or thrice the crew. Moreover, it is not so destructive of undersized fish as the trawl. Though many small fish were no doubt taken in the small meshed seines which were formerly in use . . . The very efficiency of the Danish seine, however, makes its use highly undesirable in such restricted waters as harbours, sounds, and small bays, and it was for this reason that further regulations prohibiting this method of fishing in such areas have been recommended and made.'</p> <p>- Snapper investigations in Hauraki Gulf:</p> <p>- Inquiry into snapper fishery commenced in the Hauraki Gulf at the end of 1925, when measurements and other observations made of the catches of commercial vessels. Along with a special study on spawning snapper and the pelagic eggs, this shed light on the problems involved.</p> <p>- 'The investigation has provided information of value to the administration of the fishery, both from the practical aspect, with regard to the productivity of the grounds and the catching-power of the Danish seine, and from the biological aspect, in relation to the stock of fish which inhabits the fishing-grounds of the Hauraki Gulf. But further information needed on the life-history and occurrence of snapper – would be useful to have data from other months and to undertake tagging to assess migration.</p>	A.E. Hefford, 29 June 1928, Marine Department annual report for 1927-1928, <i>AJHR</i> 1928, H-15.
1928	- (p 21) In 1928, there were renewed claims from Thames fishermen that seining in the Gulf was depleting the stocks of snapper and flounder in the Firth. 1929, most of the inner and central gulf was closed to seiners >50 ft. This came at a time when the seiner fleet was still increasing in number and in size of vessels, extending operations to outer Gulf, Bay of Plenty, and east Northland. Many 10-15m diesel powered vessels built to replace the older and uneconomic converted launches.	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1928	States that supply of snapper has improved and attributes this to continued restriction on taking of schooling fish	Annual report for Auckland District

	from 15 November. Regarding landing statistics for Auckland and Thames, notes that ‘although they are not absolutely accurate they are as near as can be got, and are all based on the same method of calculation and deduction’.	(including Coromandel, Mercury Bay and Manakau) for year ending 31 March 1928 by Inspector of Fisheries C Daniel, M 1 2/12/413 NAW. <b>[Photocopy 21]</b>
1928	- Some 18 boats engaged in fishing, ranging from a 36 ft launch to a 14 ft dinghy. . . . One or two of the boats have bait net that are hauled by hand and are really hand seine nets. Sometimes quite a lot of snapper taken with these nets; mesh not smaller than 4½ inches.	Annual report on Mercury Bay for the year ending 31 March 1928 by Inspector of Fisheries Daniel M 1 2/12/413 NAW.
1928	- ‘On visit of Minister of Public Works to this district March 31 <sup>st</sup> the commercial fishermen of this bay brought before Minister question of establishing trawling limits as in Hauraki Gulf this has doubtless been referred to you . . . we undersigned fishermen resident at and working from Mercury Bay hereby respectfully petition you to have included in limits asked for prohibition on power seine netting which is simply trawling on smaller scale and very destructive young fish some of our men fish inner bay from dinghies this being only means livelihood an Auckland launch now dragging inner bay with power seine nets . . . middle island to Fly Bay and in two weeks has taken 8 tons of fish seriously depleting supply dingy fishermen also disturbing what we know is breeding grounds schnapper if this practise allowed continue will result same condition as now obtains at Thames where industry has for small fishermen such as ourselves been practically ruined we should be grateful if you will take immediate steps have trawling limited asked for gazetted and power seine nets.	H Gordon, representing all boats fishing from Mercury Bay, to Minister of Marine (telegram), 14 May 1928, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.
1928	- Order in Council prohibiting use of purse seine for fishing in Mercury Bay within a straight line drawn from the southern end of Karanga Island to the north-easternmost point of Te Tui (Mahurangi) Island, thence by a straight line to Heriheri-tauru.	Extract <i>NZ Gazette</i> , no. 45, 31 May 1928, p 1748, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.
1928	- prohibiting trawling in Mercury Bay, within same area as for purse seining (see above)	Order in Council, signed 22 May 1928, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.
1928	This report contains much valuable information and provides a good summary of development of ‘power fishing’ in the Hauraki Gulf. - Brief notes . . . - Because of a lack of records it is not possible to precisely show that the snapper fishery is in decline (at the time of writing), but it is known to be more and more difficult to catch snapper. Middle aged people can remember when a catch of snapper could be made with a handline in proximity to any beach in Auckland. Similar depletions experienced for blue cod and hapuku, which are not caught by trawl. It is the amount of fish that are extracted, not the method of fishing, which is the important factor. - Hefford suggests that the stock of snapper in the Hauraki Gulf is probably on the brink of or already in a large decline where extractions are higher than production and stock size is decreasing as a result. Opponents of fishery restrictions have said snapper need to be caught to save themselves from cannibalism and that snapper while proponents of restrictions said that snapper keep down the numbers of young sharks. - Over 70% of fish supplied to Auckland is from trawlers (avg. monthly returns for snapper are 3.5 times that of	A.E. Hefford, ‘Report on the fisheries of the Hauraki Gulf with special reference to the Snapper fishery and to the effects of “power-fishing” (trawling and Danish seining)’, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW. <b>[Photocopy 32]</b>

	<p>seiners and 27 times that of net and line fishermen).</p> <p>- Replenishment of the gulf cannot be achieved if boats of such catching power are allowed to fish in the mouth of the gulf and intercept the inward migrants for the purpose of spawning. The various recommendations extending bans on net fishing and requiring better fishery data from log books.</p>	
1929	<p>- New regulations made on 9 April 1929 in connection with trawling and Danish seining in the Hauraki Gulf – further areas added. ‘The object was to prevent overfishing of the nearer and more confined grounds, leaving the stocks thereon to be fished for by the older and less intensive methods. The new regulations have not entirely had the effect of settling the controversy which had been stirred up over this question. They go too far for some and not far enough for others. Their aim was to put a check on the overfishing of the local grounds without unduly penalising the numerous fishermen engaged in these methods of fishing or interfering too much with the steady supply of fish to the markets.’</p>	A.E. Hefford, 18 July 1929, Marine Department annual report for 1928-1929, <i>AJHR</i> 1929, H-15.
1929	<p>- Fishing industry at Whitianga stated to be ‘flourishing, and the number of men and boats employed have increased very considerably within the past two years’.</p> <p>- The fish receiving depots – Thames Fisheries and Taylor Bros – each have about 12 launches supplying the fish caught.</p> <p>- Fish caught: snapper, hapuku, cod, and flounder. Snapper and hapuku being by the far the largest types of fish caught.</p>	Annual report for year ending 31 March 1929 for Mercury Bay by Inspector of Fisheries, Cannon, M 1 2/12/452 NAW.
1929	<p>- Comments on request of Mercury Bay fishermen re extending the prohibited area for trawling and Danish seining:</p> <p>- ‘The question . . . is more than a local problem. If we can prohibit established methods of fishing for the benefit or safeguarding of the local fishermen on one part of the Coast there is no reason why the policy should not be extended generally to all parts of the Dominion. This would mean practically the annihilation of the trawling and Danish seining industries. These methods were introduced and have been carried on for some years with the approval and encouragement of the Government. It would now appear that the Government showed some lack of caution and a degree of over-optimism arising out of the assumption that the Dominion possessed more extensive fishing resources than was actually the case; but to this day we possess no proper information as to the extent and productivity of the fishing grounds. We merely know in general that the bulk of fish landed, whether taken by trawl, seine, set-net or line fishing, is caught at no great distance from land.’</p>	A.E. Hefford, Chief Inspector of Fisheries, to Secretary, Marine Department, 9 April 1929, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.
1929	<p>- (p 22) First exports of snapper in 1929. Exports rose rapidly from 1931 to 1936 due to depletion of Australian trawling grounds and a lack of domestic demand creating surplus. Overcapitalisation resulted to take advantage of the export market and domestic prices were raised to cover this, while at the same time periodic price cutting occurred. Fish quality improved at this time due to exports often being as fillets. (pp 22-23) The industry was fragmented and the oversupply of Australia saw buyers able to bargain with individual exporters resulting in lower prices. (P 24) Despite the poorly controlled exporting, Auckland snapper catches increased (partially due to Danish seining taking favour). There was an intense competition for the local market and difficult export trade, so prices fell to the point where fishermen struck in 1936 and got higher prices. This necessitated control of exports at a higher price through one company. The higher prices encouraged more fishing, and stockpiles of unsold fish built up. (p 25) In the late 30's a report suggested that exports were a big problem and they should be discouraged.</p>	L.J. Paul, ‘The commercial fishery for snapper . . .’, Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>

	Despite increased landings exports did fall, due to this lack of encouragement and decreased profitability.	
1930	- Snapper supplies generally satisfactory except when weather prevented boats from getting to the grounds.	A.E. Hefford, 8 August 1930, Marine Department annual report for 1929-1930, <i>AJHR</i> 1930, H-15.
1930s	- Larger Danish seiners started working further afield in the 1930s, mainly inshore BoP grounds. - In the 1930s and 1940s the outer Gulf and Bay of Plenty remained the main trawling and seining grounds, larger vessels (mainly steam trawlers) also working the East Cape area for tarakihi. Some grounds in east Northland and along Ninety Mile Beach also worked.	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1931	- (pp 21-22) From 1931 the depression reduced demand and prices of fish. Many unemployed people took up fishing to provide food and some money. (p 22) This made it more difficult for commercial fishers, esp. steam trawlers to make profit and the no. of operating steam trawlers was reduced from 4 to 1. Landings subsequently dropped in 1931 and 1932 and many seiners sold their boats. The industry began to recover from 1934.	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1931	- Steam trawlers divided operations between the lower Hauraki Gulf, off Great Barrier, the Bay of Plenty and the west coast. - Fishing in the Hauraki Gulf 'fairly consistently good'; some of the Danish seine catches approaching quantities seen in earlier times. During the snapper schooling season several of the Danish seiners took to long-line fishing with good results, though the fish caught were of a bigger size than is in most demand in Auckland.	A.E. Hefford, 28 July 1931, Marine Department annual report for 1930-1931, <i>AJHR</i> 1931, H-15.
1931	- Meetings held with whole of fishing industry . . . - 'With regard to the meeting with the Yachtsmen . . . all that was said amounts to this, that the snapper fishing along all the coasts of the Hauraki Gulf frequented by fishermen has greatly deteriorated. The index of this deterioration is the catch of snapper by line fishing in recent years, and especially in the last year, compared with many years ago. . . There is no doubt, I think, as to the correctness of their facts – the increased difficulty of catching fish on the line in inshore waters. I do not however endorse their conclusions as to the causes of the deteriorated fishing. I conclude that it is a matter of sheer abstraction of fish from the area so that there are considerably fewer snapper roaming about these areas and what there are are better fed fish and therefore for that reason not so easily caught by a baited hook. // There is ample evidence that in former years a certain proportion, varying from year to year, of the snapper caught in the Hauraki Gulf consisted of undernourished fish which were rejected by the dealers as "spents", while in the last year or two the snapper have been invariably of excellent condition – well fed. That this has something to do with the failure of line fishing is borne out by the fact that in places where long lines have been laid and taken practically nothing, a haul of the Danish seine taken immediately after has produced a respectable catch. This greater efficiency of the seine as a fish-catching instrument is at once an advantage to the fishermen and a menace to the conservation of stocks unless it is subject to restrictions.' - 'The fact that the Danish seiners are going further afield for their catches is a matter which causes concern to me and my colleagues. It suggests a shrinkage of the general snapper population of the Gulf and is quite as ominous a sign as the diminution of the amateur fishermen's catches. I say the signs are ominous but I cannot form the definite conclusion that a continuance of the present conditions with no increased restrictions will inevitably lead to	A.E. Hefford to Secretary, Marine Department, Report on Meetings at Auckland, 13 and 14 May 1931, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.

the gradual and ultimately permanent deterioration of the Hauraki Gulf snapper fisheries in the sense that more fish will be taken each year than can be replenished by natural propagation [sic] and growth.'

- 'So far as our statistics of snapper landing show there has been no appreciable diminution in the catch of snapper by Danish seiners in the four years 1927-1928, to 1930-1931.'

Year	Average number of vessels whose landings the figures are derived	Total quantity of snapper landed (lbs)	Average catch per month per vessel (lbs)
1927-1928	4.25	420 734	8 250
1928-1929	10.9	1 437 496	11 058
1929-1930	10.0	1 061 825	8 923
1930-1931	11.7	1 416 167	10 115

- Figures for line fishing boats – this fishing has for the most part been intermittent and it is not possible to get satisfactory data. The averages quoted below have been worked out from only one boat.

Year	Total snapper landed (lbs)	Average catch per month (lbs)
1927-28	54 059	4 505
1928-29	insufficient data	—
1929-30	140 740	12 795
1930-31	188 065	15 672
1931-32	147 517	12 293

- Notes that the returns show no appreciable diminution during the last two years and indeed show that an intensively worked line boat can land as much snapper as a seiner, and indeed more than the average of all the seiners.

- Details of steam trawler landings. Noted that 'it is a very incomplete picture of the whole business.'

Year	Average number of trawlers landing each month	Total quantity of snapper landed (lbs)	Average catch per month per vessel (lbs)
1927-1928	2.83	2 468 500	72 603
1928-1929	1.6	2 290 880	114 544
1929-1930	3.58	3 846 080	89 433
1930-1931	3.75	3 455 040	76 779
1931-1932	2.25	1 416 480	52 268

- 'The following are the conclusions I arrive at from a present day contemplation of the whole position:

	<p>1) That the stock of snapper in the Gulf apparently shows no certain signs of improvement but rather a diminution so far as the inshore grounds are concerned.</p> <p>2) It cannot be said that the evidence available definitely indicates depletion in the sense that the sum total of snapper available in the region of the Hauraki Gulf is being abstracted from, by fishing operations, at a greater rate than it can be replenished by natural propagation of the species.</p> <p>It is highly desirable that no time should be lost in obtaining proper evidence on this point by definite scientific investigations.'</p> <p>- States that 'it would appear to be expedient to add to restrictions on Danish seining in small bays and coastal areas both for the protection of the smaller fish which usually frequent these parts and also to give the local dinghy fishermen some further protection from the wholesale scooping up of inshore fish by the power-boats.'</p>	
1932	<p>- commenting on proposal to introduce new regulations</p> <p>- 'My own idea of the position as regards snapper is that they are not so plentiful in the Gulf and the inner waters thereof as they were say 5 years ago. Though as far as it is possible to ascertain there is no noticeable shortage in any year or period of a year, excepting that of March and April each year after the schoolers disperse, which is usual. // The landings for several years show that there are not so many snapper taken, but no stock can be taken of this for several reasons. Firstly, that the landings for all fish for the past three years have been wholly controlled by the demand, and as the demand has decreased, so has the landings. Secondly, since the depression has been noticeable, there has been a much larger demand for inferior fishes, which meet the requirements and the reduced purses better, and consequently pioke and gurnard, both fresh and smoked, have increased in the markets. Thirdly, for fully three years flounder and dabs have been so plentiful that the price for them is almost down to half what it was five years ago, and this to a big extent has lessened the demand for snapper. . . . // Anyhow, I am satisfied that the snapper fishing as a whole to-day is no more intensive than it was five years ago, while I should judge that the intensity of the flounder fishing had doubled itself in the same period. Furthermore, we have not had in the last five years a shortage of snapper at any time, excepting through bad weather and the period before mentioned, after the schooling snapper have dispersed. // It is a fact that many placed in the Hauraki Gulf that were fished very profitably for snapper, 6, 7, and 8 years ago, are not worth shooting over with the Seine or the long, or hand lines to-day. But the majority of these places are what could be termed inshore or partially enclosed waters. Regarding these places, this is quite understandable as far as the hook fishing is concerned, because in former years when these places were good, a large percentage of the snapper were poor and under-nourished and would take the bait readily; but regarding the shortage of Seined fish in these places, I can suggest three possible reasons that may be the cause of the absence of fish now. One is that the continual disturbance with the Seine Nets has caused them to seek undisturbed and wider waters to avoid being caught. Two, that the continual and intensive fishing has fished the whole generation out, young and all, and new generations of young fry have not come to these waters excepting by accident as their forebears knew nothing of them, and instinctively, the fry return to the haunts of the parent. Three, perhaps the food in these areas has given out for some unknown reason. I think myself that the second suggestion is the correct thing. . . . // I think Mr Hefford, all our troubles about the Hauraki Gulf and snapper were made long before you and I knew anything about it, and the mistake was made in allowing either trawling or seining in, unrestricted, when they should have been kept out first and let in by degrees, as circumstances</p>	<p>Charles Daniel, Auckland Inspector of Fisheries, to Chief Inspector of Fisheries, Wellington, 15 July 1932, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.</p>

	warranted it later. Our hands would not be tied then as they are now. Anyhow I don't think there is much to worry about.'	
1932	- 'Thames fishermen working the launch Hairini at the head of the Hauraki Gulf, made a record haul of snapper one day recently. Immediately the net was set and the pull sarterd, the fishermen were surprised to see the ropes come to the top. When the net was drawn to the boat the bag was completely filled with snapper, and when taken on board the launch they filled 80 baskets, each containing 100lb of fish. This is considered a record pull, the fishermen engaged in the industry never having heard of such a quantity in a single pull.'	Extract from <i>Dominion</i> , 4 August 1932, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.
1932	- Auckland showed a 19.5% decline in quantity of landings. Operation of trawlers reduced considerably. Danish seiners made up for the reduced operations of the trawlers, so far as snapper and flounder concerned. 'Snapper supplies, though usually more than sufficient to meet the market demand, do not appear in such promising light since for the best catches it was necessary to exploit grounds further afield.'	A.E. Hefford, 'Report on fisheries for the year ended 31 March 1932', 27 August 1932, Marine Department annual report, <i>AJHR</i> 1932-1933, H-15.
1933	- 'The fish landings in the Auckland District show a further decline not for want of fish to catch, but for want of buyers.' - Danish seiners had a successful year, but fished with less than maximum intensity. 'One of these vessels made the biggest catch of snapper yet recorded for one haul of the Danish seine – 174 baskets, or about 13,900 lb. weight of fish. This was made in the month of June not far from the Ruakaka Bar. (The average catch of a Danish seiner during the year would probably not exceed three baskets per haul.) - 'At the beginning of the year vigorous representations were made by yachtsmen and amateur fishermen concerning the impoverished condition of the snapper line-fishing grounds as compared with the abundance of former years. There was a good deal of truth in their contentions. It must be admitted that in the past there was within easy reach of Auckland what may perhaps be described as a local superfluity of snapper, when an extraordinary number of these fish could be caught in a short time by any one who could put a bait on a hook. But whether the present-day conditions, when snapper fishing in the neighbourhood of Auckland is much more of a game of chance, as well as of skill, than it used to be, represent a state of snapper depletion in the strict economic sense – whether human exploitation is taking away faster than nature can reproduce – is not a question that can be answered in the affirmative on the basis of the evidence available. However, after discussing the question at a conference of representatives of all classes of professional fishermen and fish-traders at Auckland on the 13 <sup>th</sup> May, 1932, followed by a conference with experienced amateur fishermen on the following day, it was decided to close more of the inshore waters of the Hauraki Gulf to Danish seining, with the object mainly of protecting known nursery grounds – though big snapper are also to be caught in these inshore waters – and also of conserving the stock of snapper on the small-boat fishermen's grounds. Regulations giving effect to this decision were made on the 14 <sup>th</sup> November 1932.'	A.E. Hefford, Report on fisheries for the year ended 31 March 1933, Marine Department annual report, <i>AJHR</i> 1933, H-15.
1934	- Total quantity of fish landed at Auckland showed an increase – 91,512 cwt. Snapper and terakihi landings increased appreciably. Increased yield of snapper to some extent connected with the greater range of the Danish seining vessels and the exploitation of new grounds, aided by generally favourable weather. - 'Visits of both steam-trawlers and Danish seiners to inshore grounds fished by local line fishermen have given rise to complaints and protests from various districts. The difficulty is that practically all the best fishing-grounds are comparatively close to the land and must be exploited by the more intensive methods if supplies of fish to the	A.E. Hefford, Report on fisheries for the year ended 31 March 1934, Marine Department annual report, <i>AJHR</i> 1934-1935, H-15.

	larger ports are to be maintained. . . . Generally speaking, the Danish-seiners are decidedly the most efficient and productive of all fishing-vessels in the Dominion. In the Auckland vicinity considerable restrictions have been imposed on their operations by closing certain areas to this method of fishing . . . . Unfortunately, a comprehensive appreciation of the situation has been prevented by the lack of statistical information to which reference has already been made. Snapper and flounder on the Auckland fishing-grounds and flounders and other flatfish on the Nelson and Canterbury fishing-grounds are the kinds most sought after and most affected by this method of fishing.	
1934	- Snapper schooling season 1933: reproductive season for snapper in the Hauraki Gulf 'as good as ever, in spite of what the fishermen may say to the contrary'. - Fishing at Thames has been steady throughout the year, both for snapper and flounder.	Report on Auckland fisheries for the year ended 31 March 1934, by Auckland Inspector of Fisheries, C Daniels, M 1 2/12/533, NAW. <i>[Photocopy 27]</i>
1934	- concerned at the targeting of snapper; exported to Australia – 'Auckland waters are being thrashed for snapper' - notes that the fleet is increasing rapidly – 'all the new vessels are large, high-powered semi diesel engine boats, costing up to £3,000.0.0d complete and equipped' - notes many of the 'former largest vessels are now equipped with crude oil engines of various makes and power' - states that there is no need to close any further areas against Danish seiners proper – notes that the only place open to them in bad weather is Kawau Bay - notes that only one 'V.D. trawler' has operated out of Auckland in the last two years, and very rarely seen working in the Gulf	Chas Daniel, Senior Inspector of Fisheries, to Chief Inspector of Fisheries, 17 July 1934, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.
1934	- Petitions all worded the same: draw attention to the 'very serious depletion of schnapper, which is being caused by the unrestricted operations of seine-boats which are fishing close inshore in this area.' All fishing carried out from rowing boats, using hand lines; boats have to go a long distance out. Fishing necessary for local people to augment incomes and food supplies. Requests that large boats be forced to operate a fair distance from the shore, leaving inshore grounds to the line fishermen.	Four petitions to the Chief Inspector of Fisheries – Mataora, Tairoa, Whangamata, and Waihi Beach, undated, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.
1934	- Comments on four petitions (see above): 'It is the old story of objections being raised by the small inshore fishermen, amateur fishermen for most part, against the incursions of commercial fishing vessels of high efficiency. . . . There is certainly need for action in this district as in many others in order that we may obtain some real information as to the condition of the fish stocks, the incidence of fishing operations of different kinds and the results of such operations. . . . It will be necessary to visit the district and make enquiries, but as I have so frequently pointed out before, it is not in this way that we can ever hope to provide a rational administration of fisheries. We need a much more comprehensive understanding of the factors involved than can ever be obtained from representations of this kind or from casual visits for discussion and so-called inspection. Until we are able to keep in much better touch with the condition of the fisheries and with the productive (or destructive) effects of fishery operations by means of a proper system of fishery statistics we cannot clear up the obscurity of such problems as these and if the study of the problem points to the necessity of prescribing restrictions on the fishing we should still fail in our purpose unless we have the means of enforcing such restrictions.'	A.E. Hefford, Chief Inspector of Fisheries, to Secretary, Marine, 27 April 1934, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945.
1935	- Increase of fish-landings at Auckland. - Comments on increase of number and size and power of the fleet of Danish seining vessels. 'The more distant	A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine



	grounds, especially those in the outer part of the Hauraki Gulf, between Cape Colville and Great Barrier Island, and in the Bay of Plenty, have been increasingly exploited. These distant grounds have been the source from which the extra supplies of snapper have been derived. The nearer grounds in the Hauraki Gulf have yielded but moderate catches on the average. - Thames maintained its position regarding quantities landed.	Department annual report, <i>AJHR</i> 1935, H-15.																												
1935	- ‘Time goes on, and though fishing is usually pretty hard from early in February till about April, we have just passed through probably the hardest, or poorest summer I can remember for a long time. Danish seining in the Hauraki Gulf, also the coast North, and down to the Bay of Plenty was extremely poor, compared with former years. The landings do not appear to be very poor, but when the fishing power expended is considered, they are very poor indeed.’ - suggests a number of changes, including excluding trawlers and large Danish seiners (who tow net) from the Gulf	Daniel to Chief Inspector of Fisheries, 17 May 1935, M 1 2/12/55 part 8, Hauraki Gulf – restrictions, 1932-1939, NAW.																												
1935	- Responds to question regarding fishing and the vessels that frequent Bay of Plenty waters from Auckland. - Defines the Bay: ‘Striking a straight line across the depth from Te Kaha Point to Tauranga Harbour gives an area inside of over 600 square miles of fishable waters, of an average approximate depth of 30 fathoms. Right in the middle of this area, and situated less than 5 miles from the Signal Station at Whakatane entrance, is the only shelter or anchorage in the whole area with winds from N.E to N.W Whale Island.’ - Points out that while a large proportion of boats shelter at Whale Island (and are seen from Whakatane), it is not the case that all boats working this area do fish close to Whakatane. ‘This is not so at all, as off Torere below Opotiki is by far the most popular area with the Auckland Boats.’ - Provides figures for quantity of fish landed in Auckland per annum from BoP: snapper – 420 tons; terakihi – 220 tons; flats (mostly dabs) – 50 tons.	Charles Daniel, Senior Inspector of Fisheries, to Chief Inspector of Fisheries, Auckland, 2 April 1935, M 1 2/12/116 part 2, Trawling – Bay of Plenty, 1935-1940, NAW.																												
1935	- ‘The difficulty of catching trawlers and other boats engaged in illegal fishing was stressed by the Hon. J.G. Cobbe, Minister of Marine, in Parliament last week. Now, from Bream Head to Rodney Point, the usual fishing area, which includes valuable feeding grounds is practically ruined owing to the operations of fishing boats using seine nets. The seaweed which is the natural protection for the shellfish is being swept loose by the seine nets, and the grounds are being left bare. This results in the destruction of the shellfish on which the schnapper feed. I have been fishing here for over thirty years, but there is no living for a line fisherman here now. My estimate is that, it [sic] the seine netting is allowed to continue, less than two years will be the limit of their operations also.’	Fred Fanich, Mangawhai, letter in <i>Northern Advocate</i> , 10 October 1935, extract in M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.																												
1936	- Marked increase of fish-landings at Auckland. Table shows landings and details of the two principal commercial fish: <table><tr><td></td><td>1930–31</td><td>1931–32</td><td>1932–33</td><td>1933–34</td><td>1934–35</td><td>1935–36</td></tr><tr><td>Total quantity</td><td>104 098</td><td>83 753</td><td>82 758</td><td>91 512</td><td>102 313</td><td>129 209</td></tr><tr><td>Snapper</td><td>59 223</td><td>43 102</td><td>49 657</td><td>60 540</td><td>68 540</td><td>88 374</td></tr><tr><td>Flounder (including dabs)</td><td>2 549</td><td>4 201</td><td>10 452</td><td>6 607</td><td>6 550</td><td>7 560</td></tr></table> - Second highest landings on record, exceeded only by the total for 1927-28, which was 134,040 cwt. Four steam trawlers were working in that year. In 1935-36, there were three steam trawlers engaged: 2 during 10 months and 1		1930–31	1931–32	1932–33	1933–34	1934–35	1935–36	Total quantity	104 098	83 753	82 758	91 512	102 313	129 209	Snapper	59 223	43 102	49 657	60 540	68 540	88 374	Flounder (including dabs)	2 549	4 201	10 452	6 607	6 550	7 560	A.E. Hefford, Report on fisheries for the year ended 31 March 1936, Marine Department annual report, <i>AJHR</i> 1936, H-15.
	1930–31	1931–32	1932–33	1933–34	1934–35	1935–36																								
Total quantity	104 098	83 753	82 758	91 512	102 313	129 209																								
Snapper	59 223	43 102	49 657	60 540	68 540	88 374																								
Flounder (including dabs)	2 549	4 201	10 452	6 607	6 550	7 560																								

	<p>during 7 months. Outer grounds of the Hauraki Gulf were worked in every month except June, Bay of Plenty visited every month except November; West Coast grounds visited by an Auckland trawler during five months of the year.</p> <p>- There has also been a further increase in Danish seining operations – eight new boats of greater tonnage and superior to older boats of this type, having entered the industry. ‘These vessels now operate beyond the confines of the Hauraki Gulf to an increasing extent. The old type of benzene-engined fishing launch working with lines and set nets is a very small factor in contributing to Auckland’s fish supplies at the present time.’</p> <p>- Returns for Thames:</p> <table><tr><td></td><td><b>1930–31</b></td><td><b>1931–32</b></td><td><b>1932–33</b></td><td><b>1933–34</b></td><td><b>1934–35</b></td><td><b>1935–36</b></td></tr><tr><td>Total quantity</td><td>26 991</td><td>21 291</td><td>18 078</td><td>17 412</td><td>17 614</td><td>19 134</td></tr><tr><td>Snapper</td><td>10 811</td><td>10 257</td><td>9 750</td><td>10 429</td><td>11 163</td><td>14 053</td></tr><tr><td>Flounder (including dabs)</td><td>6 899</td><td>7 228</td><td>6 516</td><td>4 869</td><td>4 769</td><td>3 305</td></tr></table> <p>- General trend downwards, particularly with regard to flounders.</p> <p>- ‘The restricted areas available for Danish-seine fishing in the Hauraki Gulf and the increased numbers and power of the vessels using this method of fishing have led to an augmented exploitation of the fishing-grounds in the Bay of Plenty, from where substantial catches have been brought to the Auckland markets. In consequence of this there have been many protests from residents along the coast of the Bay of Plenty who complain that the inshore fishing-grounds have been impoverished. The coastal grounds between Takatu Point and Bream Head to the north have been the field of similar actions and reactions. To what extent these complaints would justify measures of restriction that would increase the difficulties with which the Auckland fishermen pursue their calling is a question which cannot be decided with any confidence on the basis of the evidence at present available. The problem is not merely that of preserving for the row-boat fishermen the good and easy fishing that he enjoyed in former years . . . but rather that of conserving the stock of fish to be available without diminishing returns for commercial purposes in the future.’ In any assessment, the Department requires better information about the fish and the impact of fishing methods. Except for snapper and flounder fisheries of the Hauraki Gulf, about which a certain practical knowledge has been gained, and to a lesser extent the flounder fishery of Tasman Bay, ‘the exploitation of our sea fisheries has been going on without any real surveillance on the part of the Department that is responsible for their conservation.’</p>		<b>1930–31</b>	<b>1931–32</b>	<b>1932–33</b>	<b>1933–34</b>	<b>1934–35</b>	<b>1935–36</b>	Total quantity	26 991	21 291	18 078	17 412	17 614	19 134	Snapper	10 811	10 257	9 750	10 429	11 163	14 053	Flounder (including dabs)	6 899	7 228	6 516	4 869	4 769	3 305	
	<b>1930–31</b>	<b>1931–32</b>	<b>1932–33</b>	<b>1933–34</b>	<b>1934–35</b>	<b>1935–36</b>																								
Total quantity	26 991	21 291	18 078	17 412	17 614	19 134																								
Snapper	10 811	10 257	9 750	10 429	11 163	14 053																								
Flounder (including dabs)	6 899	7 228	6 516	4 869	4 769	3 305																								
1937	<p>- Auckland:</p> <table><tr><td></td><td><b>1931–32</b></td><td><b>1932–33</b></td><td><b>1933–34</b></td><td><b>1934–35</b></td><td><b>1935–36</b></td><td><b>1936–37</b></td></tr><tr><td>Total quantity</td><td>83 753</td><td>82 758</td><td>91 512</td><td>102 313</td><td>129 209</td><td>159 371</td></tr><tr><td>Snapper</td><td>43 102</td><td>49 657</td><td>60 540</td><td>68 540</td><td>88 374</td><td>112 656</td></tr><tr><td>Flounder (including dabs)</td><td>4 201</td><td>10 452</td><td>6 607</td><td>6 550</td><td>7 560</td><td>3 743</td></tr></table> <p>- Total landings for snapper the highest recorded for any one year. The flounder total, with which is included the</p>		<b>1931–32</b>	<b>1932–33</b>	<b>1933–34</b>	<b>1934–35</b>	<b>1935–36</b>	<b>1936–37</b>	Total quantity	83 753	82 758	91 512	102 313	129 209	159 371	Snapper	43 102	49 657	60 540	68 540	88 374	112 656	Flounder (including dabs)	4 201	10 452	6 607	6 550	7 560	3 743	A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-1938, H-15.
	<b>1931–32</b>	<b>1932–33</b>	<b>1933–34</b>	<b>1934–35</b>	<b>1935–36</b>	<b>1936–37</b>																								
Total quantity	83 753	82 758	91 512	102 313	129 209	159 371																								
Snapper	43 102	49 657	60 540	68 540	88 374	112 656																								
Flounder (including dabs)	4 201	10 452	6 607	6 550	7 560	3 743																								

	<p>category returned as “mixed flat-fish”, is the lowest for six years. This is partly due to a scarcity of fish, and partly due to increased restrictions on fishing (spawning grounds closed to Danish seiners for two months during spawning).</p> <ul style="list-style-type: none"> <li>- Two steam trawlers were in full-time operation and one part-time – made 117 landings, an increase of 22 on previous year. Trawler voyages divided between the outer grounds of Hauraki Gulf and the Bay of Plenty in the proportion of about 3 to 2, with seven landings from the West Coast.</li> <li>- Trawl-caught fish represented 34 percent of the total landings at Auckland, Danish-seined fish 61 percent, line-fishing 2.4 percent, and net-fishing 2.2 percent.</li> <li>- Thames received supplies from two Danish-seiners this year; 19 launches operated with set-nets only; 9 used both nets and lines; 1 engaged in line fishing only.</li> <li>- ‘For the time being, at any rate, Thames has fallen from the relatively more important position it held as a fishing-port in former years. Among the probable causes of this decline may be mentioned the deterioration of the flounder fishing and the disadvantage at which Thames is placed compared with Auckland from the better position of the larger port as an exporting centre and its possession of a large fleet of Danish-seiners, most of which are recently-built vessels.’</li> <li>- Thames fishing grounds ‘maintaining a satisfactory degree of productivity.’ Snapper fishery showing benefit of protection from fishing during spawning season; anticipated that flatfish stocks will improve as a result of recently introduce regulations limiting fishing operations on the dab patch during spawning season.</li> </ul>	
1937	<ul style="list-style-type: none"> <li>- Committee comprised of James Young (M.P.), M.W. Young (Assistant Chief Inspector of Fisheries), and E. Sheed (Investigating Accountant, Department of Industries and Commerce) (p 10). Appointed on 25 February 1937; delegated with powers of a judicial inquiry. Order of reference to inquire into: <ul style="list-style-type: none"> <li>(1) the condition and prospect of the sea-fishing industry, including any matter relating to exploitation and conservation of fisheries; the catching, landing, distribution, etc of sea fish, shell, and other marine products; and the</li> <li>(2) the scientific evaluation, control, and administration of the sea fisheries.</li> </ul> </li> <li>- Methods of fishing – Danish seining – Auckland (p 17) <ul style="list-style-type: none"> <li>- notes proportion of catch from Danish seiners for year ending 31 March 1937 – 61% from D-s, 34% from trawlers, 5% from line and net-fishing vessels</li> <li>- states that are 32 full-time D-s boats, 12 part-time</li> <li>- details that of these 44 vessels, 12 are large and modern of high power and capable of fishing a wide range of coast (mainly work in BoP and other distant grounds)</li> <li>- of the remaining vessels, 9 are modern boats, a little smaller, but capable of a wide range if required</li> <li>- approximately half the seine boats are modern vessels that are in no way comparable to the small, under-powered boat in use about 10 years ago</li> <li>- notes that 10 years ago nearly all the boats were on limits restricting the amount of volume of fish they were allowed to land</li> <li>- ‘Various references in the annual reports of the Marine Department show the catches which were taken by the other boats on the inshore grounds, and the gradual increase in the efficiency of the Danish-seiners and the extension of their operations to fishing grounds very far distant from their base.’ - ‘Another witness, one</li> </ul> </li> </ul>	<p>‘Report of the Sea Fisheries Investigation Committee’, <i>AJHR</i>, 1937-1938, H-44A. <b>[Photocopy 43]</b></p>

	<p>of the pioneers of this method of fishing in Auckland, stated that he realized that if unrestricted seining were allowed the fish stocks would soon be exhausted.’ (p 19)</p> <ul style="list-style-type: none"> <li>- Another witness stated that snapper stocks were definitely going down, the fish now being plentiful for only four months a year</li> <li>- recommend further restrictions in the Hauraki Gulf and provisions regarding the licensing of new and replacement vessels</li> </ul> <p>- Methods of fishing – Danish seining – Whangarei (p 20)</p> <ul style="list-style-type: none"> <li>- protests against the operation of the Auckland Danish seining fleet</li> <li>- evidence affirmed that Danish seining had so depleted the fishing grounds as to make it impossible for local fishermen to earn a living</li> <li>- local fleet has declined progressively; value of catch has also declined</li> <li>- ‘Fish is now so scarce that the line boats can no longer make a living.’</li> <li>- Similar evidence tendered from Waipu.</li> </ul> <p>- Methods of fishing – line-fishing (set-lines and long lines) – Mercury Bay and Tauranga (p 29)</p> <ul style="list-style-type: none"> <li>- long-line fishing is carried on at Mercury Bay and Waihi Beach</li> <li>- see copy for details of line, hooks, etc</li> <li>- re Mercury Bay notes that the principal fish is snapper, but that there has been a considerable decline in landings in the last seven years</li> </ul> <p>- Methods of fishing – line-fishing (set-lines and long lines) – Auckland (p 29)</p> <ul style="list-style-type: none"> <li>- very few vessels use long lines – depletion of the inshore grounds and the large quantities of fish caught by the Danish-seine boats has made it unprofitable to operate long-line boats</li> </ul> <p>- Methods of fishing – hand-lining – Whakatane, Tauranga, Cape Colville (p 31)</p> <ul style="list-style-type: none"> <li>- ‘Hand-lines are only used in the summer period in the Whakatane and Tauranga districts, but the grounds are now so depleted that their operation yields a meagre return for the labours of the men employed.’</li> </ul>	
1938	<p>- (p 25) By 1938 there were 49 seiners and recovery from depression saw landing rise up to this point. (pp 25-26) Steam trawlers were now less economic and had manning problems and their catches declined in the late 30's, and stopped when they were commissioned by the Navy in 1939. Catches fell to a low in 1942 (due to the loss of the steam trawlers and a general decline in catches). Seining supported most of the catch during the war as net and line boats dwindled after the depression and the part-timers got other jobs.</p>	L.J. Paul, ‘The commercial fishery for snapper . . .’, Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1940	<p>- Auckland . . .</p> <p>- Notes increase in flounder catch, 88.1% landed by Danish-seiners. Tarakihi catch the lowest since 1935-36, 60.3% taken by steam trawlers.</p>	A.E. Hefford, Report on fisheries for the year ended 31 March 1940, Marine Department annual report, <i>AJHR</i> 1940, H-15.
1942	<p>- Auckland: fall in supplies attributable to a decline in Danish-seiner catches. At this port, snapper landings have declined steadily from the 1938-39 total of 107,252 cwt to 87,251 for the 1941-42 year. The relatively greater decline of terakihi landings over the same period from 22,530 cwt to 12,882 cwt is attributed to the absence of steam trawler landings. (Presumably the trawlers were requisitioned for war service.)</p> <p>- Thames: landings show a decline in snapper supplies – 11,123 cwt in 1938-39 to 6,941 in 1941-42. This is compensated for by increased supplies of flounder – 6,247 for 1941-42, the highest since 1932-33.</p>	A.E. Hefford, Report on fisheries for the year ended 31 March 1942, Marine Department annual report, <i>AJHR</i> 1942, H-15.

1942	<p>- 'The statistical data are unfortunately not available in such a form that we can sort out from the fish landed in Auckland what proportion has been derived from the Bay of Plenty. Taking snapper alone, the total quantity of this fish brought to the Auckland markets in the last five years amounted to 23,000 tons. We shall not be far out if we conclude at least one third of this was caught in the Bay of Plenty: that is, over 7,600 tons or an average of 1,500 tons or more yearly, or about 125 tons monthly.'</p>	A.H. Hefford to Secretary, Marine, 29 November 1942, report on petition 16/1942, M 1 2/12/116 part 3, Trawling – Bay of Plenty, NAW.
1944	<p>- Auckland landings have declined by 1.6%; Thames increase 66.8%.</p> <p>- 'The very interesting question as to why landings have increased or decreased, as the case may be, is one that cannot be answered simply or briefly; the results are usually due to various factors. In the case of Thames the number of vessels and fishermen engaged has declined, but the quantities of fish caught have been appreciably augmented. The marked increase has been in landings of snapper – from 5,125 cwt to 9,911 cwt. In some cases losses of fishing-time through the difficulty of making replacements and repairs under wartime conditions have had a substantial effect in reducing supplies. The most significant light is thrown on the figures representing fish catches when they can be correlated with the time spent in actual fishing. So far as possible, data on this factor have been collected, but the task of working them up cannot be undertaken at present.'</p>	A.E. Hefford, Report on fisheries for the year ended 31 March 1944, Marine Department annual report, <i>AJHR</i> 1944, H-15.
1945	<p>- Auckland: after being without steam-trawler supplies during recent years, the fishing fleet has been augmented by the return of one of the larger steam-trawlers, which have made five landings during the last two months of the year, bringing in 1,929 cwt of fish (about 50% snapper, 25% terakihi). 94.9% of landings at Auckland by Danish seiners (about 74% snapper, 16% terakihi). Catches by line fishermen have decreased.</p>	A.E. Hefford, Report on fisheries for the year ended 31 March 1945, Marine Department annual report, <i>AJHR</i> 1945, H-15.
1946	<p>- Auckland: total of 122,789 cwt of wet fish landed at Auckland</p> <ul style="list-style-type: none"> <li>- 97,608 cwt landed by Danish-seine boats, including snapper (72,179 cwt) and tarakihi (15,515 cwt)</li> <li>- 19,553 cwt landed by steam-trawlers, including snapper (8,063 cwt), terakihi (8,103 cwt), and trevally (1,035 cwt)</li> <li>- motor line-fishing boats landed 2,493 cwt, compared to 1,409 for the previous year</li> <li>- netting boats landed 3,092 cwt, compared to 2,303 cwt for previous year</li> </ul> <p>- Substantial increase in the total amount landed mainly due to the operation of the steam-trawlers, absent after some years of naval service.</p>	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1946, Marine Department annual report, <i>AJHR</i> 1946, H-15.
1946	<p>- 'Mr Ensor thanked Mr Thorn . . . He had started in the fishing business when he left school 40 years ago and had seen the rise and fall of the industry on previous occasions but had never felt that the position was so black or hopeless for fishermen as a whole as it was at the present time. About 70 fishermen were at present operating in Thames. He had been authorised to speak on behalf of Thames Fisheries Ltd. and Taylor Bros., two Thames firms, in addition to his own, the Thames Co-operative Fisheries, who were very concerned about the position. . . //They had now reached the stage when they found that boats were being sold away from Thames because it had become uneconomic for them to operate. . . They could not catch sufficient fish to pay them for their efforts.'</p> <p>- provided supporting papers that gave statistics showing decline:</p> <p style="text-align: center;">Table showing decline in production at Thames Co-operative Fisheries (NZ) Ltd April to July inclusive</p>	Notes on a meeting held in office of Mr J Thorn (M.P.) on 14 August 1946, attended by Auckland M.P.s to hear Mr S. Ensor of Thames Co-operative Fisheries on fisheries problems in the Hauraki Gulf, AG W1711 box 2714 2/12/55 part 9, Hauraki Gulf restriction, 1940-1951, NAW.

	1944	1945	1946
<b>Snapper</b>	207 085	147 689	106 996
<b>Flounder</b>	67 708	57 397	45 696
<b>Gurnard</b>	37 169	31 342	10 843
<b>Trevalli</b>	18 728	9 6895	10 584
<b>Total</b>	330 690	245 913	174 119

Table showing return of flounder produced by Auckland and Thames over six years

Year	Auckland (cwt)	Thames (cwt)
1940/41	13 379	5 335
1941/42	10 490	6 247
1942/43	5 943	5 788
1943/44	5 808	5 604
1944/45	1 857	4 902
1945	2 110	4 296

- 'Mr Reddish endorsed what Mr. Ensor had said. He would like to say he was the fishermen's representative at the deputation. He had had 33 years' experience as an active fisherman, and could definitely state that he had never seen fish so scarce in all that period as they were today. It was very true, as Mr Ensor had said, that some men had already left the industry, others were ready to follow when employment was offering. Before seine fishing was introduced the net and line fishermen could adequately fill the market, with the one or tow trawlers then operating. They did this without destroying beds or taking any immature fish that would tend to lessen the stocks in the future. The position today was that men were going out on numerous occasions with 16 nets, representing roughly a mile of net, and bringing in on many occasions only four or five fish. This was now the middle of their snapper season but he found there was nothing there to catch. The latest figures they had were very small indeed. They found that when snapper and flounder became scarce there was a ready market for "rough" fish, but they found, too, that these had been skinned out. When seining first commenced in Thames they had from 10 to 12 seine boats. These were recently reduced to two, and the men were just existing by adopting the old method of line fishing till the season came on. They believed that seine boats had had their heyday. As Mr Ensor had said, two or three years ago the writing was on the wall.'

- Reddish also spoke of the problem of poaching in the restricted Thames waters.

1946 - (p 27) As the steam trawlers returned, catches increased to a peak in 1946-48. Following this, increased costs and manning problems and decreased catch per effort reduced their profitability and they ceased operation in 1952. All fishing methods had decreased catch per effort for snapper from 1948 onwards and in 1953 snapper landings were at their lowest since 1932. 'This decline was a major event in the fishery . . . and stimulated increased research on Hauraki Gulf and west coast snapper.' (pp 27-28) Between 1948 and 1952 many seiners converted to motor trawlers (for many possible reasons of which we are not sure which was most important). This forced them further out into the gulf and the composition of the catch changed (more tarakihi, less snapper). (p 29) Notes that the

L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. *[Photocopy 37]*

	<p>'Dab Patch' (flounder) at the entrance to the Firth of Thames closed in 1948, perhaps explaining a temporary increase in the snapper catch of full-time seiners.</p>	
1947	<ul style="list-style-type: none"> <li>- Auckland: total of 141,406 cwt of wet fish landed at Auckland, substantial increase largely due to the full-time fishing of an additional trawler: <ul style="list-style-type: none"> <li>- 36,964 cwt landed by steam-trawlers, including snapper (20,440 cwt), tarakihi (10,688 cwt), and gurnard (1,529 cwt)</li> <li>- 96,990 cwt landed by Danish-seine boats, including snapper (70,964 cwt) and tarakihi (17,014 cwt)</li> <li>- motor line-fishing boats landed 3,097 cwt</li> <li>- netting boats landed 4,125 cwt</li> </ul> </li> <li>- Thames: total landings at Thames of 10,824 cwt: <ul style="list-style-type: none"> <li>- notes a significant drop in landings at Thames from 17,245 cwt the previous year; states that a small proportion of the decrease can be accounted for by the fact that no Danish-seine operated from the port during 1946</li> <li>- 9,437 cwt caught by nets, including snapper (3,777 cwt) and flounder (3,591 cwt)</li> </ul> </li> </ul>	<p>M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1947, Marine Department annual report, <i>AJHR</i> 1947, H-15.</p>
1950s	<ul style="list-style-type: none"> <li>- (pp 16-17) Conversion of most seiners to trawlers about 1950 put more effort on the outer Gulf and BoP grounds. From 1952, Auckland based trawlers permitted to land at Manukau, allowing the exploitation of the West Auckland grounds south of Ninety Mile, occasionally as far south as New Plymouth.</li> <li>- Major trend in early 1950s saw increased fishing by larger Auckland trawlers on the East Cape tarakihi grounds – gradually declined late 50s/early 60s. A 1964 survey of 180 trawlers trips (Feb-June) showed 60% confined to Hauraki Gulf, 25% Bay of Plenty, 15% to Northland and Ninety Mile Beach area.</li> </ul>	<p>L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b></p>
1950s	<ul style="list-style-type: none"> <li>- (p 30) Reid (1969) reviewed a diary scheme from the 50's and said "Total landings of snapper for all ports in the Auckland district, for the period 1948 to 1952, fell from 130 000 cwt to 75 000 cwt despite increased fishing effort directed towards snapper and more distant grounds being worked. The fall-off in snapper catches and the changed catch composition caused great concern for the future of the snapper fishery".</li> <li>- (p 30) 'In short, therefore, about 1950 there was a decline in the total quantity of the fish landed into Auckland owing to the loss of the steam trawlers and a rapid decline in the number of Danish seiners, which converted to trawling or long-lining or transferred to other ports. There was a resultant general shortage of snapper in Auckland . . .'. The shortage of snapper ~1950 and the limited trawling allowed in the Gulf lead to exploitation of areas further afield. Tarakihi fishing around East Cape became popular – 'emphasis given to tarakihi fishing in the fifties is clearly one of the reasons for the fairly slow recovery of the Auckland snapper landings.'</li> <li>- (p 30) In 1952, new rules meant that boats could land their catch in different port to boat registration, so west coast fishery begins with large increases in 1953 and 54 as grounds are first exploited. Seining data at this time shows a recovery of catch per effort of snapper during the 50's.</li> </ul>	<p>L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b></p>
1952	<ul style="list-style-type: none"> <li>- 'The popular idea that Waihi beach is not a good fishing beach is being disproved by several amateur fishermen who get boats out. During the last two or three months quite big catches have been made. // As an instance of this a newcomer to the beach, using a set line, caught 18 big schnapper on Saturday and on Sunday caught 24. These were all excellent fish, the heaviest weighing 12lb. // The fish were caught at practically no distance from the main part of the beach and within two hours. // Other fishermen have been getting good catches, not only of</li> </ul>	<p><i>Hauraki Plains Gazette</i>, 28 November 1952, extract in AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW</p>

	<p>schnapper and terakihi but also of crayfish. // A professional fisherman on Sunday, November 23, who ventured three miles out, to Petley's reef, caught eight dozen schnapper and hapuku within a period of four hours.'</p>	
1953	<p>- Large hauls of snapper off Waihi Beach. One local resident on 21 June caught 100 snapper off Waihi Beach, from boat, using long line. Another on 27 June caught 'no less than' 192 snapper. People buy direct from the boats in the weekends.</p> <p>- 'The local fishing industry is developing, and now several fishermen operate from the beach from 14-footers and outboards.'</p>	<p>Newapaper extract (newspaper unknown), no date (likely August 1953), AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW</p>
1953	<p>- 'The activities of trawlers off Waihi Beach were causing concern to local fishermen, it was stated at the meeting of the Waihi Chamber of Commerce . . . // Mr R. Brewer, who raised the subject, said there was at present quite a thriving fishing industry at the beach, with about six or eight fishermen there. Every two or three weeks the trawlers came to the beach and set their seine nets in action, covering a sweep of two miles. They swept every inch of sea and it was found for two or three weeks after that there was not a single fish to be caught within two or three miles of the beach.'</p>	<p>Newapaper extract (newspaper unknown), 20 August 1953, AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW</p>
1954	<p>- states that for several years commercial fishing vessels – both Danish seiners and trawlers – have been dumping a growing proportion of their catch at sea because it is small (though not necessarily undersized); proportion of dumped fish 'grown to a percentage which causes concern'</p> <p>- 'This influx of an age group of snapper in to the fishing grounds over the past 3 to 5 years, more so than in previous years, can be accounted for in one of three ways:-</p> <ol style="list-style-type: none"> <li>(1) The fishing is so intense that the fish has no chance of growing.</li> <li>(2) No chance of escapement from the nets.</li> <li>(3) This state of affairs offers definite proof that the total closure of certain parts of the Hauraki Gulf has been to the advantage of fish stocks in that they suffer much less molestation.</li> </ol> <p>- It is accepted by the fishermen, (and they should know,) that outside the lines of prohibition the fish catch is a smaller fish, I refer to snapper, than that taken inside the line of prohibition. This has also been proven to be reasonably accurate by [research vessel] "Ikateres" work in water prohibited to trawling. Line snapper from inside the Danish seining line in general is a bigger class of fish than that taken by the Danish seine perhaps only 2-3 miles further out in the Gulf.'</p> <p>- suggests that mesh of trawl and seine nets be increased; notes that this will have an impact on the escapement of Tarakihi</p> <p>- 'Those skippers of Auckland trawlers working on Tarakihi from Bay of Plenty to Gable End Foreland are quite ready to admit that the terakihi fishing is now not what it used to be in the waters they fished so successfully in previous years.'</p> <p>- notes that in the past undersized fish caught in Danish seine nets had a good chance of survival</p> <p>- '. . . but with the present conditions the changing of many Danish seiners to trawling, the escapement of undersized fish and those not wanted by the trade, is nil as at least 90% of the catch when lifted aboard is already dead, when caught by the trawl method. // The amounts of small fish (undersized) vary from time to time. Often 20% of the catch is rejected, not because it is undersized but because of the lack of demand for fish between 10-11- to 12 inches. The trade does not want it because of the handling of it, cleaning and gutting etc.'</p>	<p>E.G. Gilliver, District Inspector of Fisheries to Secretary, Marine Department, 17 September 1954, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.</p>



1958	<ul style="list-style-type: none"> <li>- refers to a letter from Waitemata County Council, calling for a prohibition on commercial fishing in certain inshore waters</li> <li>- refers to existing restrictions and attached plans <i>[Digital Photographs 11A-F]</i></li> <li>- recommends that this be refused; points out that the Fisheries Act only provides for regulation to ensure conservation, not to favour a certain community</li> <li>- refers to following statistics from 1957: <ul style="list-style-type: none"> <li>- of 174 boats licensed for Auckland proper (Cape Rodney to Orere Point), 64 caught 97.12% of the catch</li> <li>- there are 43 powered net boats: <ul style="list-style-type: none"> <li>2 Danish seine 44 B.H.P. or under</li> <li>8 Danish seine over 44 B.H.P. up to and including 66 B.H.P.</li> <li>4 Danish seine over 66 B.H.P.</li> <li>49 Motor trawlers</li> </ul> </li> <li>- 43 powered net vessels caught 88.25% of the total Auckland catch; smaller line and net vessels caught only 11.75% of the total catch</li> <li>- 'Although records in this direction are of necessity incomplete, since no constant returns or references are available, it would appear that amateur or pleasure fishermen are able to catch plenty of fish.' Mentions article in <i>NZ Herald</i> on 24 March, reporting that an amateur fishing party caught some 3,000 snapper, an average catch of 70 per person exclusive of other species such as trevally, kahawai, and kingfish.</li> </ul> </li> </ul>	Acting Secretary for Marine to the Minister of Marine, 28 May 1958, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.
1960s	<ul style="list-style-type: none"> <li>- (p 31) During the 60's snapper landings slowly rose, probably as good catches of tarakihi off East Cape declined and boats returned to traditional snapper areas. Theoretically possible to detect changes in the relative amount of fishing time spent on different grounds by comparing catch and effort figures. In the Hauraki Gulf snapper industry</li> <li>- (p 31) The industry was de-licenced in 1963, so many net and line boats gave up as there was no future incentive to hold out. Later part time commercial fishing became popular.</li> <li>- (p 31) 1968 saw large increases in snapper catch, mostly from seiners and especially in the school season (e.g. spring seine landings were 158% higher than 1967). (P 32) Partially due to a new type of seine net with larger opening. Trawling also had increased catch per effort and so did long lines. Suggests an increase in snapper abundance in the late 60's (first noticed in 1967 by trawlers in outer gulf, and then by seiners in central gulf in 1968).</li> <li>- (p 33) Exports: mostly to Australia until 1968. Price and amount exported had not really increased until this time due to high competition from other places. New markets opened at this time (USA and Japan) and exports 3.5 times and price went up 6 fold. Extending our territorial waters also reduced amount Japan could catch themselves and demand for high quality, whole small t'ai snapper for ceremonial purposes.</li> </ul>	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <i>[Photocopy 37]</i>
1971	<ul style="list-style-type: none"> <li>- (p 11) In 1971 snapper was 1/3 of all New Zealand's wetfish landings and has nearly always ranked first in wetfish landings. In 1971 snapper was second only to the rock lobster in terms of monetary value. Most snapper landings are from the northern part of New Zealand (specifically the Hauraki Gulf and then the west coast fishery).</li> </ul>	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <i>[Photocopy 37]</i>
1977	<ul style="list-style-type: none"> <li>- Fishing intensity for snapper on the various grounds varies with season, time of day, and weather. Efforts</li> </ul>	L.J. Paul, 'The commercial fishery for

	<p>concentrate on snapper in late winter / early spring, as snapper concentrate in the central Gulf before spawning.</p> <ul style="list-style-type: none"> <li>- Most daylight trawling is done on the inshore grounds where the water is turbid, and most night trawling on the off-shore grounds, where the water is clear. Inshore grounds yield snapper, trevally, and red gurnard; offshore grounds tarakihi and large snapper. Large snapper also caught in inshore grounds near harbour entrances, particularly when conditions are turbid after rough weather.</li> <li>- Danish seining is mainly confined to the sheltered waters of the Gulf, especially near Kawau, Tiritiri Matangi, and Waiheke Islands, Colville Bay, and the northern end of the Firth of Thames.</li> <li>- Long line fishing for snapper generally undertaken by small boats in the in-shore waters of the Gulf closed to seining and by some larger launches along the western coast of GB Island.</li> <li>- Set net fishing is done in shallow water around the margin of the Firth of Thames and in harbours and sheltered bay around the whole of the Gulf.</li> </ul>	<p>snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b></p>
1970s, 1980s, and 1990s	<ul style="list-style-type: none"> <li>- The snapper fishery developed in the 1800's and expanded in the 1970's and peaked with the introduction of pair trawling in 1978 at 18000 t (~10500 t of which was from SNA1). Pair trawling accounted for up to 74% of the catch in some areas at this time. In the 1980's an increasing proportion of the SNA 1 catch was taken for the Japanese iki market. By the mid 1980's catches had declined to 8500-9000 t and some stocks showed signs of overfishing with the fishery being more dependent on recruiting year classes. QMS was introduced in all fish stocks in 1986. However, TACC were increased for SNA 1 and 8 until the early 1990's. In 1992 the TACC was decreased in SNA1 and 8 and then a further decrease in 1997 for SNA1 (to 4500 t) occurred followed by a decrease in SNA 8 in 2005. (landings data from fishing returns and and quota management reports).</li> <li>- From 1960 to 1977 Japanese vessels also landed large quantities of snapper. It is assumed that for SNA1 these catches reached a peak of 2202 t.</li> <li>- SNA1 non-commercial take set at 2600 t. Tag ratio and diary surveys have been used to estimate recreational catch. 1985: SNA1 1600, Hauraki Gulf 830; 1994 SNA1 2857; 1996: SNA1 2324; 2000: SNA1 6242, Hauraki Gulf 2632; 2001: SNA1 6738, Hauraki Gulf 3507. But these estimates were found to have many biases and are inaccurate. The SNA1 stock assessment took the average of some of these studies and assumed the Hauraki Gulf recreational take was 1706 t.</li> <li>- Hauraki Gulf Biomass estimates from tagging programmes in 1985 and 1994 estimated the snapper stock was ~22000 t for each survey. Biomass was predicted to be higher than this before the two tagging programmes and a recovery has been predicted since then. This still puts biomass slightly below BMSY, but recovery is predicted and should see it exceed BMSY in the next 20 years.</li> </ul>	<p>Ministry of Fisheries, Science Groups, 'Report from the Fisheries Assessment Plenary, May 2006 stock assessments and yield estimates', 2006.</p>
1982	<ul style="list-style-type: none"> <li>- Danish seine boats believe the fishery is on the verge of collapse, with poor catches over the last 3 seasons. Despite this good bags are still possible (enough to fill the holds of &gt; 1 boat). Seine boat numbers are down. Most seiners also admit to fishing over the line.</li> <li>- Pair trawlers are viewed as being too efficient, catching whole schools and damaging the seabed. There is mention of line boats following the pair trawlers and getting good catches after horse mussels were broken up by the nets.</li> <li>- Ministry spokesperson of the time denies that pair trawling damages the bottom and that the tracks can be barely detected by skin divers. An example of deliberate damage to the coral patch (in Tasman Bay) by trawling heavy gear to break up the bottom and make it fishable was cited.</li> </ul>	<p>Leith, D., 'Auckland commercial fishermen and the Hauraki Gulf snapper fishery', Working Papers in Comparative Sociology, University of Auckland Department of Sociology, 1982.</p>

	<p>Many fishermen suggest closing during the spawning season.</p> <ul style="list-style-type: none"> <li>- There is a general bad feeling towards MAF and FIB scientists. They disagree with many of the scientific methods, and that scientists investigate things of their own interest (not practical importance). For example, why do the scientists disagree with what seems very evident, i.e. that there are two stocks in the Gulf, school fish and residents.</li> </ul>	
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

## S26: Hauraki: Tarakihi

Year	Details	Source
1769	- (p 438) Bream Bay, 24 November 1769: 'At night we came to an anchor in a small open bay; our fishing lines were tried and we soon caught a large number of fish which were called by the seamen Sea bream, as many as I believe the ship's company could eat in 2 days.' (Beaglehole suggests that this fish was tarakihi (p 438, footnote 3), but it might have been snapper.)	J.C. Beaglehole, <i>The Endeavour Journal of Joseph Banks, 1768-1771</i> , vol. 1, Sydney, Australia, 1963.
1915	- trevally, tarakihi, john-dory, and hapuku are plentiful on the fishing grounds of the Hauraki Gulf and on the outside grounds (p 16)	Marine Department annual report for 1914-1915, <i>AJHR</i> 1915 H-15
1916	- 'Red Cod, Tarakihi, and Moki have been more plentiful this year owing [sic?] to the Trawlers operating here.'	Annual report on fisheries at Auckland by fisheries inspector Jas Bennett, for the year ended 31 March 1916, M 1 2/12/115 NAW.
1917	<ul style="list-style-type: none"> <li>- States that Auckland market has been well supplied; provides comments on catch in respect of snapper, flounder, trevally, tarakihi, moki, gurnard, trigger fish, and mullet.</li> <li>- Tarakihi and Moki both stated to have been scarce before the trawlers started, but now put on the market in fairly large quantities. Some Moki weighing over 20 lbs.</li> </ul>	Annual report for Auckland for the year ended 31 March 1917 by Fisheries Inspector Jas Bennett, M 1 2/12/137 NAW.
1918	- (p 7) 'The extensive fishing grounds in the Bay of Plenty are capable of great development, as very large supplies of schnapper, tarakihi, trevalli, and hapuku can be taken either by trawling or lining.'	Marine Department annual report for 1917-1918, <i>AJHR</i> 1918 H-15
1918	<ul style="list-style-type: none"> <li>- Comments on different species:</li> <li>- Tarakihi: not so plentiful as last year.</li> </ul>	Annual report for year ended 31 March 1918 for Auckland by Fisheries Inspector J.P. Bennett, M 1 2/12/163 NAW.
1920	<ul style="list-style-type: none"> <li>- 12 years experience trawling; first trip to BoP about 12 months ago, been there about 5 or 6 times. Believes that present limits in BoP should be removed, except a small limit off Tauranga.</li> <li>- States that the best class of fish have been caught close-in, particularly snapper and tarakihi. On one occasion, caught 820 baskets in 2 days fishing, equal to about 25 tons. Two-thirds of the catch was big snapper. Best depths for fishing from 25 to 30 fathoms.</li> <li>- Believes that large quantities of flat fish might also be taken in the present limits were removed.</li> <li>- Argues that the supply of fish in the Hauraki Gulf does not appear to have been affected by trawling. (States that in three days last year, about November, we took 940 baskets – equal to 28 tons – in 2½ days fishing.)</li> </ul>	A.G. Nilsson [Master of the municipal trawler, "Simplon"] to Chief Inspector of Fisheries, 30 August 1920, M 1 2/12/116 part 1, Trawling – Bay of Plenty, 1906-1934, NAW.

	- States that trawling in deep water in BoP (40 to 100 fathoms), catches were small and fish in poor condition.	
1921	- Fish supply plentiful as several trawlers working the Bay of Plenty and when weather good taking good catches of snapper, tarakihi, and gurnard.	Supplementary annual report for Auckland for year ending 31 March 1921 by Inspector of Fisheries J.P. Bennett, M 1 2/12/224 NAW.
1925	- After the school fish broke up, say during February and March, some of the trawlers not bringing in sufficient fish to pay for coal. Later went further into the Bay of Plenty and are now doing much better on the tarakihi grounds there. Gulf deserted of trawlers for this 3 months.	Annual return for Auckland (including Thames, Coromandel, and Manukau) for year ending 31 March 1925 by Inspector of Fisheries C Daniel, M 1 2/12/330 NAW. <i>[Photocopy 15]</i>
1929	- Diminished landings for Auckland, deficit in the landings from steam trawlers, tarakihi being noticeably less abundant on the market.	A.E. Hefford, 18 July 1929, Marine Department annual report for 1928-1929, <i>AJHR</i> 1929, H-15.
1931	- report appears to have been prepared by Sanfords - comments on impact of April 1929 regulations - 'As a result of the above restrictions our trawlers were then forced out to areas where fishing operations are quite unproductive. . . . The only other Fishing Ground left us is the Bay of Plenty, yielding chiefly Terakihi, and even this area has proved unremunerative for some time back. // Most of our trawlers now work the Bay of Plenty grounds, proceeding right round East Cape as far South as Tokomaru Bay.'	Report on restrictions of trawling areas in Hauraki Gulf, no date, M 1 2/12/55 part 7, Hauraki Gulf – restrictions, 1928-1931, NAW.
1935	- Increase of fish-landings at Auckland. - Two trawlers operated – equivalent to one trawler working for 13 months. The trawling grounds most visited were those of Bay of Plenty and those off East Cape. Landings consisted of fewer snapper and rather more tarakihi than in the preceding year.	A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, <i>AJHR</i> 1935, H-15.
1940	- Auckland . . . - Notes increase in flounder catch, 88.1% landed by Danish-seiners. Tarakihi catch the lowest since 1935-36, 60.3% taken by steam trawlers.	A.E. Hefford, Report on fisheries for the year ended 31 March 1940, Marine Department annual report, <i>AJHR</i> 1940, H-15.
1942	- Auckland: fall in supplies attributable to a decline in Danish-seiner catches. At this port, snapper landings have declined steadily from the 1938-39 total of 107,252 cwt to 87,251 for the 1941-42 year. The relatively greater decline of tarakihi landings over the same period from 22,530 cwt to 12,882 cwt is attributed to the absence of steam trawler landings. (Presumably the trawlers were requisitioned for war service.)	A.E. Hefford, Report on fisheries for the year ended 31 March 1942, Marine Department annual report, <i>AJHR</i> 1942, H-15.
1945	- Auckland: after being without steam-trawler supplies during recent years, the fishing fleet has been augmented by the return of one of the larger steam-trawlers, which have made five landings during the last two months of the year, bringing in 1,929 cwt of fish (about 50% snapper, 25% tarakihi). 94.9% of landings at Auckland by Danish seiners (about 74% snapper, 16% tarakihi). Catches by line fishermen have decreased.	A.E. Hefford, Report on fisheries for the year ended 31 March 1945, Marine Department annual report, <i>AJHR</i> 1945, H-15.
1946	- Auckland: total of 122,789 cwt of wet fish landed at Auckland - 97,608 cwt landed by Danish-seine boats, including snapper (72,179 cwt) and tarakihi (15,515 cwt)	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the

	<ul style="list-style-type: none"> <li>- 19,553 cwt landed by steam-trawlers, including snapper (8,063 cwt), terakihi (8,103 cwt), and trevally (1,035 cwt)</li> <li>- motor line-fishing boats landed 2,493 cwt, compared to 1,409 for the previous year</li> <li>- netting boats landed 3,092 cwt, compared to 2,303 cwt for previous year</li> <li>- Substantial increase in the total amount landed mainly due to the operation of the steam-trawlers, absent after some years of naval service.</li> </ul>	year ended 31 March 1946, Marine Department annual report, <i>AJHR</i> 1946, H-15.
1946-48	- (pp 27-28) Between 1948 and 1952 many seiners converted to motor trawlers (for many possible reasons of which we are not sure which was most important). This forced them further out into the gulf and the composition of the catch changed (more tarakihi, less snapper). (p 29) Notes that the 'Dab Patch' (flounder) at the entrance to the Firth of Thames closed in 1948, perhaps explaining a temporary increase in the snapper catch of full-time seiners.	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1947	<ul style="list-style-type: none"> <li>- Auckland: total of 141,406 cwt of wet fish landed at Auckland, substantial increase largely due to the full-time fishing of an additional trawler:</li> <li>- 36,964 cwt landed by steam-trawlers, including snapper (20,440 cwt), terakihi (10,688 cwt), and gurnard (1,529 cwt)</li> <li>- 96,990 cwt landed by Danish-seine boats, including snapper (70,964 cwt) and tarakihi (17,014 cwt)</li> </ul>	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1947, Marine Department annual report, <i>AJHR</i> 1947, H-15.
1950s	- (pp 16-17) Major trend in early 1950s saw increased fishing by larger Auckland trawlers on the East Cape tarakihi grounds – gradually declined late 50s/early 60s. A 1964 survey of 180 trawlers trips (Feb-June) showed 60% confined to Hauraki Gulf, 25% Bay of Plenty, 15% to Northland and Ninety Mile Beach area.	L.J. Paul, 'The commercial fishery for snapper . . .', Fisheries Research Division, Ministry of Agriculture and Fisheries, Wellington, 1977. <b>[Photocopy 37]</b>
1952	- 'The popular idea that Waihi beach is not a good fishing beach is being disproved by several amateur fishermen who get boats out. During the last two or three months quite big catches have been made. // As an instance of this a newcomer to the beach, using a set line, caught 18 big schnapper on Saturday and on Sunday caught 24. These were all excellent fish, the heaviest weighing 12lb. // The fish were caught at practically no distance from the main part of the beach and within two hours. // Other fishermen have been getting good catches, not only of schnapper and tarakihi but also of crayfish. // A professional fisherman on Sunday, November 23, who ventured three miles out, to Petley's reef, caught eight dozen schnapper and hapuku within a period of four hours.'	<i>Hauraki Plains Gazette</i> , 28 November 1952, extract in AG W1711 box 2714 2/12/116 part 4, Trawling – Bay of Plenty, 1951-1963, NAW
1954	<ul style="list-style-type: none"> <li>- states that for several years commercial fishing vessels – both Danish seiners and trawlers – have been dumping a growing proportion of their catch at sea because it is small (though not necessarily undersized); proportion of dumped fish 'grown to a percentage which causes concern'</li> <li>- 'This influx of an age group of snapper in to the fishing grounds over the past 3 to 5 years, more so than in previous years, can be accounted for in one of three ways:-</li> <li>(1) The fishing is so intense that the fish has no chance of growing.</li> <li>(2) No chance of escapement from the nets.</li> <li>(3) This state of affairs offers definite proof that the total closure of certain parts of the Hauraki Gulf has been to the advantage of fish stocks in that they suffer much less molestation.</li> <li>- suggests that mesh of trawl and seine nets be increased; notes that this will have an impact on the escapement of</li> </ul>	E.G. Gilliver, District Inspector of Fisheries to Secretary, Marine Department, 17 September 1954, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

	<p>Tarakihi</p> <p>- ‘Those skippers of Auckland trawlers working on Tarakihi from Bay of Plenty to Gable End Foreland are quite ready to admit that the terakihi fishing is now not what it used to be in the waters they fished so successfully in previous years.’</p>	
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

## S27: Otago: General accounts of fish and fishing

Year	Details	Source
1835	(p 109) On the 14 <sup>th</sup> February the Joseph Weller sailed from the southern part of New Zealand [almost certainly from OtagoHarbour where the Weller brothers had established a whaling station at Otakou near the heads] with 1.5 tons whalebone, 31 casks saltfish, 65 seal skins, 4000 dried fish and a cask of sundries...	McNab, R. (1913). The old whaling days: a history of southern New Zealand from 1830 to 1840. Golden Press, Auckland.
1840	- (p 41) 3 <sup>rd</sup> April 1840: On leaving Otago Harbour – ‘Once we were on the open sea again, our men threw lines into the water and caught an enormous quantity of fish.’ [Sailed north] ‘Every day the crew caught such a lot of fish on their lines, that very soon the men themselves were tired of them.’	Olive. Wright, <i>The voyage of the Astrolabe – 1840</i> , Wellington, Wellington, 1955.
	- (p 22) In 1862, Māori landed ‘an enormous quantity’ of crayfish on the [Dunedin?] jetty, from the heads beyond Otakou, later collecting more.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1860s	- (pp 48-9) Oysters being harvested from Blueskin Bay – sold in the Dunedin market, people unable to tell the difference between Stewart Island and Blueskin Bay oysters. Around this time there were calls to protect the bed.	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts</i> , Waitati, 2007.
1860s	Example of Otago fisherman in 1860s: Richard Lewis, who had his fishing ketch delivered from Victoria to Otago in 1862. He began by catching hapuku and blue cod between Moeraki and Cape Saunders. Around 1870 he switched to seine fishing for flounder and red cod in Otago Harbour.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 24.
1860s	A fish-curing factory established at Port Chalmers, processing a wide range of species including barracouta, hapuku, cod, gemfish, and ling.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 25.
1860s and 1873	From the early 1860s, using small rowboats and sail-assisted dinghies, Moeraki fishermen began fishing for the wider North Otago market. Dried and smoked fish were sent as far afield as Oamaru. An 1873 report, noted that	McLean, Gavin, <i>Moeraki</i> , Otago Heritage Books, Dunedin, 1986, p 56.

	blue cod, red cod, groper, perch, and crayfish were being taken to Oamaru.	
1868	First trawling in New Zealand undertaken in Otago Harbour in <i>Redcliffe</i> , which began by towing between Port Chalmers and Otago Heads, catching a variety of fish including trumpeter, flounder, crayfish, skate, and sharks. In two later expeditions, the trawl catch also included hapuku, sole, ling, and cod. <i>Redcliffe</i> experiment did not last owing to wear and tear on gear.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 23.
1868	In 1868, a tsunami from an earthquake in South America shifted so much sand in Blueskin Bay that the beds were nearly covered.	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts</i> , Waitati, 2007.
1869	<ul style="list-style-type: none"> <li>- notes that the evidence 'is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.'</li> <li>- three regular fisheries at work: Otago Heads (Harbour and 'outside'), Moeraki, and Molyneux Bay</li> <li>- these fisheries are worked all year around, though seasonal fluctuation</li> <li>- estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux</li> <li>- Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux</li> <li>- the number of boats working the coast about 30</li> <li>- fishing inside the harbour is carried on all year, each boat working about six tides a week</li> <li>- outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March</li> <li>- the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads</li> <li>- each boat usually uses one net besides lines – the number of nets estimated to be about 20</li> <li>- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.</li> <li>- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon</li> <li>- crayfish are also 'caught in large numbers'</li> <li>- information based on principally on that provided by fishermen themselves</li> <li>- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast</li> </ul>	Report of the commissioners for the province of Otago, No. 2 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.
1870s	<ul style="list-style-type: none"> <li>- States that Dr Hector had noted that sprats had been found in Foveaux Strait and near Wellington.</li> <li>- Details that the sprat was remembered by a fishmonger to be in the Dunedin market in 1874. Since this time, Arthur is unaware of any siting of the sprat until seen in the year of his writing (1882), when it appeared in large numbers for a short time at Oamaru, close inshore, for about a fortnight. States that the shoals did not visit</li> </ul>	W. Arthur, 'Notes on the New Zealand Sprat', <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 15, 1882, pp 203-209.

	<p>Moeraki Bay or Otago Harbour.</p> <ul style="list-style-type: none"> <li>- Quotes a letter from a Mr Stoddart, who stated that for years prior to 1875, when he lived near Moeraki, the sprat visited the reefs regularly from March till May in incredible numbers, disappearing with the approach of cold weather. Stoddart said that the red cod caught on the reefs were stuffed full of sprats.</li> <li>- Quotes a further letter from Mr Stoddart, who states that a Captain Liddle (a Moeraki fisherman who had fished the area for some 15 years) stated that every year sprats were in any quantities around the reefs a mile from the shore, appearing about January, but most plentiful in March and April, on two occasions coming ashore in dense masses.</li> <li>- Quotes a letter from a Mr Cosgrove, who states that a shoal of sprats makes its appearance on the east coast of Otago in November, remaining until the end of March. States that, when first seen, the shoal is usually travelling southward. Muttonbirds follow the shoal in vast numbers – has observed several square acres of water black with them. Cosgrove states that Mr W. Robertson, landowner at Sandfly Bay, has observed shoals passing the bay every year since he settled there in 1860. Cosgrove describes scene when shoals preyed upon by larger fish, birds, and seals – ‘baffles description’. States that he is uncertain how sprats could be caught offshore, but states that inshore they could be caught in great quantities with hand nets, or even lifted out of the shoal with a shovel.</li> </ul>	
	<ul style="list-style-type: none"> <li>- (p 23) In 1868, first trawling in New Zealand undertaken in Otago Harbour in <i>Redcliffe</i>, which began by towing between Port Chalmers and Otago Heads, catching a variety of fish including trumpeter, flounder, crayfish, skate, and sharks. In two later expeditions, the trawl catch also included hapuku, sole, ling, and cod. <i>Redcliffe</i> experiment did not last owing to wear and tear on gear.</li> <li>- (p 23) A 1869 commission reported on state of fishing in New Zealand – provincial commissioners providing information.</li> <li>- (p 24) Example of Otago fisherman in 1860s: Richard Lewis, who had his fishing ketch delivered from Victoria to Otago in 1862. He began by catching hapuku and blue cod between Moeraki and Cape Saunders. Around 1870 he switched to seine fishing for flounder and red cod in Otago Harbour.</li> <li>- (p 24) Example of Otago fisherman around 1870: Edward Williams. Williams and a mate fished off a six metre whaling boat with lines off the nuggets and sometimes further south, catching blue cod and hapuku.</li> <li>- (p 25) In the 1860s, a fish-curing factory established at Port Chalmers, processing a wide range of species including barracouta, hapuku, cod, gemfish, and ling.</li> <li>- (pp 28-29) In 1872, Innes opened a canning factory at Otago [Port Chalmers?], canning barracouta, flounder, and</li> </ul>	<p>Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i>, completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.</p>



	<p>moki.</p> <p>- (p 32) In 1861 a vessel carrying Stewart Island oysters berthed at Dunedin. Prior to this, a small bed in Otago Harbour had met Dunedin's demand.</p> <p>- (p 32) By 1865, any oyster beds in Otago Harbour where oysters were in shallow water were soon depleted.</p> <p>- (p 33) Around 1870, an oyster bed was discovered in Halfmoon Bay. In the 1873-74 season, eight cutters worked the bed, on a good day harvesting 500 dozen, though the average was much less. [Under the Oyster Fisheries Act 1866, oysters were not to be taken from November to March.]</p> <p>- (p 34) By 1877, the oyster bed at Halfmoon Bay was suffering from overfishing and closed until February 1879 at the request of the fisherman.</p> <p>- (p 34) By 1884, Otago Harbour oyster beds had run out and silt from the upper harbour channel had buried the beds.</p> <p>- (p 36) Fisheries Conservation Act 1884 declared closed season for mud oysters from 1 October to 31 January.</p> <p>- (pp 36-39) Fisheries Conservation Act 1884 declared closed season for rock oysters from 1 December to 31 March. A loophole in this and an 1886 ban on the export of rock oysters was not closed until 1891.</p> <p>- (p 40) For the three years up to 31 March 1895, nearly 5 million oysters exported from Bluff and a few more from Dunedin. For the three years up to 31 March 1895, 17.5 million rock oysters exported to Australia. [AJHR 1895 H-21]</p> <p>- (p 45) The New Zealand Deep Sea Fishing Company, operating out of Port Chalmers, briefly trawled with a steamer before winding up. In November 1882, the ship landed its first major catch: 300-400 sole and four large baskets of skate, groper and gurnard.</p> <p>- (p 55) In Septemeber 1877, James Macandrew, member for Dunedin, commented on wastage of fish resource. In the House of Representatives, he drew attention to the 'wanton destruction of fish which has taken place in the waters of Dunedin and in other parts . . . Ground fish, such as flounders and soles, were being rapidly exterminated.'</p>		
1886	<p>Anchovy</p> <p>Barracouta</p>	<p>- (p 9) Anchovy was found at the mouth of the River Thames and called by the Māori there korowhawha.</p> <p>- (p 12) 'In the early years of the Otago settlement, when the colonists depended solely</p>	<p>R.A.A. Sherrin, <i>A Handbook of New Zealand Fishes</i>, Wilson and Horton, Auckland, 1886.</p>

		on the Māoris for the supply of fish, it [Barracouta] was extensively used.’ - Found in abundance from Cape Colville to Great Barrier Island and around towards Tairua Bay.	
	Boar Fish	- (p 13) ‘. . . caught occasionally at the Thames.’	
	Butterfish	- (p 14) ‘Large quantities are caught in Foveaux Strait, and sold in Invercargill. They are found in places along the coast where kelp grows. The Dunedin supply, which is rare, comes from the Moeraki district, the scarcity being without doubt from their being only accidentally caught.’ - (p 15) ‘Although not abundant in the North, the butter fish is found at Kawau, where Sir G. Grey considers there are two varieties.’	
	Blue cod	- (pp 15-16) ‘Abundant all around New Zealand; not found elsewhere. . . . In the neighbourhood of rocks, in from 10 to 15 fathoms of water, is the best fishing-ground for the rock-cod [blue cod], but they are also caught inside harbours, and even far up the Sounds of the West Coast’. ‘They are abundant around the Barrier and Kawau, but are not fished for.’ ‘Around portions of Stewart Island they are found in very large numbers . . . . The sea, looking through its clear pellucid water, appears quite literally to swarm with them.’	
	Red cod	- (p 16) ‘They are very plentiful about the Bluff. . . . Only found in New Zealand. It was described by Mr Thompson [date?] as the most plentiful of all the finny visitors (to Otago), and is caught both inside and outside the Otago Heads. It is in the finest condition during the winter months, when pretty large takes of good-sized specimens are got from the outside fishery, those caught by the Seine net in the harbour, being as a rule, smaller. It was found in the Dunedin market 197 days in the twelve months, on an average for three years . . . . It is by no means a frequent visitor in the northern fish markets.’	
	Whiting	- (p 17) ‘Mr Thompson [?] says they are occasionally found in the Dunedin market.’	
	Flounder	- (p 21) ‘The patiki is very common in the shallow bays and tidal estuaries on every part of the coast . . . . They are very abundant at the Thames’.	
	Sole	- (p 22) ‘Of Dunedin, Mr Thompson writes: “Soles are somewhat rare in our market, and are most plentiful in spring. Two varieties appear to be caught here, differing but slightly from each other; were thirty days in the market last year, and twenty this year. If trawling were introduced in suitable localities along the coast, the fish would be more plentiful.”’	
	Turbot	- (p 26) ‘They are sometimes seen in the Auckland market.’ - (p 28) Captain Hutton in the <i>Transactions of the New Zealand Institute</i> , vol. viii, p 215, quoted as noting that the turbot ( <i>ammotretis rostratus</i> ) is non uncommon in the Dunedin market.	
	Frost fist	- (pp 30-31) ‘It is most commonly found cast up after cold frosty nights on sandy	

		beaches that are exposed to the long roll of the ocean swell, and is not in this country obtained by any kind of fishing.’ Cites Thompson, writing in 1877 from Dunedin, that frost fish had been scarce until the middle of July. Writing again in 1878, Thomson noted that large numbers found in June and July. The fish were taken near Purakanui, from the beaches west of the Heads and to the north, particularly about Moeraki.	
	Garfish	- (p 34) Notes that the name is applied to both the skipper and the ihi or half beak. States that the former is rare in New Zealand waters, while the half beak ‘is common all round New Zealand and is the ordinary gar fish that is so highly appreciated, especially in Auckland and Dunedin.’ Refers to Mr Thomson’s records, which note gar fish to be most plentiful in Dunedin during the months of October and November, when in some years they are stated to be remarkably abundant – large shoals being in the lower harbour for several days together, when they are caught in nets.	
	Granite Fish (Kehei)	- (p 36) Refers to Mr Thompson, who records that the granite fish is only occasionally bought to the Dunedin market. Thomson states that it is sent up from Port Molyneux – caught near The Nuggets.	
	Gurnard	- (p 37) ‘It is rarely seen in the Dunedin market.’ - ‘The red gurnard, or kumukumu, is very abundant during the summer months in the harbours of the North’.	
	Haddock	- (p 38) Thomson recorded in 1878 that Haddock was caught occasionally in Otago, but with seldom more than 2 or 3 caught at a time.	
	King Fish (Haku)	- (p 40) Thompson stated in 1877 that king fish only occasionally visited the Otago coast. In 1878, he recorded that no king fish visited the coast. - ‘In the Auckland district they are not as plentiful as kahawai or schnapper, but they are to be caught outside if fished for’.	
	John Dory	- (p 40) ‘They are not plentiful in Auckland or in any other known place, but they are sometimes caught in the Thames about midsummer, with other fish in the net. They were often obtained by the Auckland Trawling Company, that died prematurely. Found all round the coast of the North Island, but not in large quantities.’	
	Hapuku	- (pp 40-42) States that hapuku feed around exposed rocky capes and islands that rise to 20 to 50 fathoms water, with patches of sandy bottom – Hapuku can be obtained between November and May on nearly every part of the New Zealand coast where these conditions prevail. Cites a Captain Fairchild, who states that, among other places, hapuku can be caught ‘in any quantity’ in the Hauraki Gulf and the Bay of Plenty. Also refers to a Mr Wilson, who states that hapuku can be found in abundance in the Hauraki Gulf.	
	Horse Mackerel	- (p 46) Latin name: trachurus trachurus. Stated to be ‘seldom caught in the New Zealand waters.’	
	Kahawai	- (pp 50-51) ‘Abundant all round the coasts, and in the mouths of rivers.’	

		<p>- 'It is not a frequent visitor to the Dunedin fish market.'</p> <p>- 'It is found in the Bay of Plenty in January and February'.</p>	
	Mullet (Kanae) <i>Mugil perusii</i>	<p>- (p 52) 'The grey-mullet is a very familiar fish to residents in the northern part of Colony, where it forms a staple article of food among the Natives at certain seasons, and is one of the commonest fish sold in Auckland. . . . The kanae frequents the tidal rivers, going out to sea in summer and returning in the winter in immense numbers. They are captured generally with nets, but they also take the bait. The Natives frequently capture them on still, moonlight nights, by paddling their canoes close to the banks of the streams; the fish are startled by the beat of the paddle, and, leaping up, fall into the canoe.'</p> <p>- (p 65) Notes that in Dunedin the makawhiti (<i>agonostome forsteri</i>) is known as the mullet.</p>	
	Leather Jacket	- (p 59) Sherrin notes that in Dunedin <i>agriopus leucopoceilus</i> is commonly referred to as the leather jacket, while in Auckland <i>monacanthus convexirostris</i> is called by this name. Notes that Mr Thompson states that the fish is seldom eaten. 'The leather jacket is not known in the Auckland market, but is common enough outside the harbour, at the Barriers, Whangarei, the Bay of Islands, and other places on the coast.'	
	Ling	- (p 60) 'It is unknown in the Auckland market, but is occasionally caught on the coast to the north of Auckland.' (p 59) Refers to a Mr Fairchild, who has written that Ling are found in great quantities in Otago waters.	
	Mackerel (Tawatawa)	- (p 61) 'In the north of Auckland the Natives make great preparations for fishing tawatawa at the time of new moon during summer, and capture immense numbers. When in season, mackerel are often found between Cape Colville and the Great Barrier, and small shoals have been seen in Auckland Harbour. They are said to be abundant late in the spring about Whangarei and the Bay of Islands.'	
	Makawhiti <i>Agonostoma Forsteri</i>	- (p 65) Referred to in Dunedin as the mullet (and elsewhere as the sea-mullet). Refers to Dr Hector, who identifies it to be a common fish, obtained at all seasons of the year by fishing from wharves in the harbours. 'In Dunedin Harbour they are caught sometimes in immense numbers.' Stated to be 'very common in Auckalnd waters.'	
	Maomao	- (p 67) Refers to Dr Hector, stating that it is a common fish near the East Cape and Bay of Islands for a few weeks in autumn and is very much esteemed as food by Māori. States that Māori claim that it is found in abundance in places about Tauranga Heads, all around the Bay of Plenty to Cape Colville. Also said to be found around 'both the Barriers, Tairua, and the Slippers.'	
	Moki	- (p 68) They are abundant at Stewart Island, from whence the Dunedin fish market has been largely supplied. . . . Mr Thompson, of Dunedin, says: "This fish used to be seen very seldom in our market, but the superior knowledge of our fishermen of late has been rewarded by a plentiful supply."	

	Parrot Fish <i>Labrichthys psittacula</i>	- (p 70) ‘Very little is generally known about the species called in Dunedin the parrot fish. Mr Thompson found it, in 1877, in the Dunedin market fourteen days during the year.’	
	Pilchard or Sadine <i>Clupea sagax</i>	- (p 72) Described by Hector (‘Edible Fishes of New Zealand’, in F.W. Hutton, <i>Fishes of New Zealand</i> , 1872) as the true representative of the herring kind in these seas. - ‘They are very abundant in the Auckland waters, Mr Wilson states, and especially so at the Thames, which he considers one of the best fishing places in the Colony. They come in large shoals, he says, but no attempts have been made to catch them.’ - Visits the east coast of Otago every year in February and March, and when the schools migrate they extend as far as the eye can sea – very densely packed, if large boats and suitable nets were employed thousands of tons would be caught. ‘They appear only occasionally in the Dunedin market.’	
	Porae	- (p 80) Found at Ngunguru Bay, the Bay of Islands, and Auckland in October.	
	Red Mullet	- (p 81) Occasionally caught at the Great Barrier.	
	Sand Eel <i>Gonorrhynchus Greyi</i>	- (p 85) ‘It was never plentiful, and was found in the Dunedin fish market on an average of only forty days in the year.’ This statistic probably refers to the records kept by Thompson in the late 1870s.	
	Snapper	- (p 85) Quotes Dr Hector, who states that a few snapper have been caught off Moeraki. Hector notes that the fish in the Dunedin market that goes by the name snapper is the terakihi. - Quotes Dr Hector, who states that there are few fish better known in the northern parts of New Zealand than the Snapper. Quotes evidence given by Mr McLeod before the Auckland Fisheries Commission of 1870. McLeod stated that in the previous January he had taken 1,900 snapper in one haul in a seine net. Sherrin states that some few years previously Māori at Maketu reportedly caught a haul of 20 tons.	
	Skate	- (p 90) Refers to one of Mr Thompson’s papers of the Dunedin fish market, which state that the skate is not often brought to market, but is not scarce – details that it was in the market 13 days one year and 15 days the following year. (Thompson’s papers appear to have been written in the late 1870s.)	
	Spotty <i>Labrichthys bothrycosmus</i>	- (p 92) Thompson stated in 1877 that spotty were very plentiful and brought to Dunedin in large numbers. It was in the market 128 days as against 14 days the previous year. In 1878, Thompson stated that the spotty was a regular seine fish and was in the market 154 days.	
	Sprat	- (p 94) Quotes an 1882 article written by W. Arthur ( <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 15, 1882, pp. 203-208). ‘Sprats are called kupai by the Natives at the Thames.’	
	Sword Fish	- (p 96) States that a specimen was stranded at Shelly Beach, Auckland, in January 1875, since which its capture and discovery has been comparatively frequent on our	

		coast.	
	Tarakihi	- (p 98) Refers to Dr Hector, who states that Tarakihi is a very common fish in the markets (doesn't specify which market). Refers to a Captain Fairchild, who states that tarakihi are chiefly caught about Cook Strait and the Bay of Plenty. Another source states that they are found only on certain grounds 'out at sea'.	
	Trevally <i>Caranx Georgianus</i>	- (p 99) Refers to Dr Hector, who states that trevally is a highly esteemed fish and very common in every part of the Colony during the summer months. Hector notes that the fish known as trevally in the Dunedin market is a different fish, allied to the Warehou. States that Thompson detailed the Trevally to be a constant visitor to the Dunedin fish market during the three years he recorded the fish supply in Dunedin (1876-1878?), being found there 110 days in the year. - Hector notes that in Auckland the trevally is sometimes also called the yellow tail, a name that appears to also be used for the king fish. Refers to Captain Fairchild, who states that trevally are comparatively plentiful all around the North Island and said to be particularly abundant above Kawau and the Barriers.	
	Trumpeter	- (p 100) Refers to Dr Hector, who states that the Trumpeter is abundant, but extremely local in its habits, feeding on a sandy bottom in 25 to 35 fathoms water, preferring banks or shoals. Hector details Trumpeter is caught with a hook, and if the proper fishing ground is found, a large haul can be obtained. The areas that they frequent are limited. It is rarely seen in any market except Dunedin. Refers to Thompson, who recorded that in the late 1870s trumpeter were never plentiful in the Dunedin market, a few being brought at only irregular intervals – the average being only 29 days a year for three years. Sherrin notes that Sir George Grey states Trumpeter is to be found in the vicinity of Kawau.	
	Wairepo <i>Trygon thalassia</i>	- (p 103) Refers to Dr Hector, who states that the ray family is not much appreciated for food as they perhaps should be and, though not uncommon, are hardly ever brought to market, at least in Wellington. Sherrin details the size of a Wairepo caught off Kawau in 1880.	
	Warehou <i>Neptonemus Brama</i>	- (pp 104-105) Refers to Dr Hector, who states that the 'sea-bream' is deservedly prized by Māori. The largest specimens are seen in the north during the winter. It cannot be considered a common fish, especially in the South and according to Māori, it is very irregular in its visits to the coasts. Hector observes that in the Dunedin market, during autumn months, a closely allied species ( <i>Platystethus Huttoni</i> ) passes for trevally, but are very small.	
	Whale Feed	- (pp 113-114) Sherrin quotes evidence given by a Mr Leggatt in 1869 to the New Zealand Fishery Commission. Leggatt stated that there was a small crustacean resembling a shrimp, usually known as 'whale feed', which frequented the Otago coast in enormous quantities. Leggatt stated that it often extends as far as the eye can see	

		and may be 'shovelled' into a boat by means of hand nets. He considered that the supply was inexhaustible and might be used as a fertiliser.	
	Hammer Headed Shark	- (p 116) States that this species seems to be confined to northern portions of the Auckland Provincial District. Notes that several specimens have been caught in Auckland Harbour and that it is not infrequently seen in the Hauraki Gulf.	
	Tiger Shark <i>Lamna glauca</i>	- (p 116) States that this species 'is considered to be the Mako of the Moaris', found mainly about Mayor Island and prized for its teeth, though not often caught. Details that the occupiers of Mayor Island, Ngaiterangi, did almost all their trade with the sharks's teeth.	
1862	<p>- (p 61) 1890s: 'New Zealand's major fishery remained the sea from Dunedin south to Foveaux Strait and Stewart Island.' Auckland fishery second behind Dunedin as New Zealand's largest.</p> <p>- (p 61) In 1899, the Otago Trawling Company chartered out the <i>Napier</i>, equipped with an otter trawl. Trawling was revolutionised by the introduction of otter boards, located at the mouth of the net, which helped to keep the net open as it was towed. Previously, the net was kept open by the natural buoyancy of the beam attached to the top edge of the net opening.</p> <p>- (p 66) Otago Trawling Company began successfully trawling with a steamer.</p> <p>- (p 70) In 1900, the Marine Department's Chief Inspector of Fisheries, L.F. Ayson, took a trawler around parts of New Zealand to find suitable trawling grounds for commercial fishing.</p> <p>- (p 72) The seine-net fisherman of Otago Harbour complained that the two trawlers operated by the Otago Trawling Company were injuring the fish supply, destroying the fish feed and preventing small fish from coming into the Harbour. These claims were rejected by the Company.</p> <p>- (p 76) L.F. Ayson, Chief Inspector of Fisheries, oversaw another experimental trawling to test new technology in the <i>Nora Niven</i>. [See report in AJHR 1907 H-15]</p> <p>- (p 78) 'Around 1900 a fourth major technological change – the oil engine – was added to trawl nets, steam power and ice.' Oil engines initially installed on small craft and were not powerful enough for trawling, which continued to be carried out by steam-powered vessels.</p> <p>- (pp 80-81) From 1 July 1904, all fishing boats had to be registered and marked with a licence number and landing port. All owners of licensed boats were to provide the Marine Department with details of all fish caught. Reporting was carried out by Fisheries Inspectors in a generalised fashion.</p>		Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.

	<p>- (p 81) At 31 December 1904, there were 140 boats licensed between Oamaru and Chaslands, south of Dunedin – 59 with oil engines. From the ports around Foveaux Strait – Bluff, Invercargill, Stewart Island and Riverton – 60 vessels, many with oil engines, line-fished for blue cod. Cod were caught by hand lines from small boats. The two of three men on board handled two lines with 5, 6 or 7 hooks. As one line was being fished the other was being baited.</p> <p>- (pp 84-85) James H. Pomery, Invercargill fish dealer, wrote to the Marine Minister, concerned about cod stocks. He suggested that the minimum weight be doubled to one pound. At the time cod as small as four ounces were being taken for market and large numbers were being used for bait. In 1912, the minimum size was raised to one pound. Response to this culminated in the Blue Cod Commission. (AJHR 1912 H-15B)</p> <p>- (p 93) In a 1914 letter to Dunedin MP G.M. Thomson, Rev. Dr S.T. Nevill noted that blue cod was no longer plentiful in the area.</p> <p>- (p 118) The 1937 Sea Fisheries Investigation Commission looked into ‘the condition and prospect of the sea-fishing industry of New Zealand, including . . . any matter relating to the exploitation and conservation of our sea fisheries.’ [see AJHR 1937-38 H44A]</p> <p>- (pp 118-120) At the time of the report, the Marine Department had been gathering statistics of fish landings for nearly 20 years. Ayson’s summaries were based on annual reports from his inspectors. Hefford had introduced logbooks to skippers, but skippers were still notoriously unreliable. Logbooks were not completed, often the wrong species was entered, and there was a thriving cash economy.</p> <p>- (pp 138-139) In 1946 Hefford retired; replaced by M.W. Young as Chief Inspector of Fisheries. . . . The Marine Department had limited resources. It still had no means of measuring what it should be controlling other than by analysis of incomplete statistics grudgingly supplied by fishermen.</p> <p>- (p 140) In Dunedin, Irvine and Stephenson canned crayfish. In 1919, Ayson described their activities as being ‘in a small way’.</p> <p>- (p 141) Crayfish made subject to the provisions of the Fisheries Act 1908 in November 1923. The Act already controlled fishing for wetfish and oysters. [Sections 21 and 22 – relating to the granting of exclusive licenses.]</p> <p>- (p 142) In 1927 the second crayfish cannery in New Zealand established by A.H. Mackrell in Bluff.</p> <p>- (pp 142-144) Sudden interest in exporting frozen tails in 1933. Vessels loading at Port Chalmers, Dunedin, took 1100 cases of tails. Port Chalmers fishing vessels discarded their trawl gear and began cray potting. One boat brought in a ton a day on two successive days. Another took three tons over a weekend.</p>	
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--



	<p>- (p 144) In 1936, as the Depression dragged on, crayfish exporters had difficulty selling their product. Most of their supplies came from north of Dunedin, mainly from Karitane. Crayfish caught on that coast were small, ideal for canning. In 1936-37, 82 tons of Crayfish were reported to have been landed at Moeraki and Karitane. Three years later the figure was 88 tons. Hefford had little faith in the statistics, noting that about a quarter should be added.</p> <p>- (p 145) In 1938, A size limit of 9 inches was set for North Island landings and 8 inches for South Island landings. Females carrying eggs were not to be taken and eggs were not to be stripped from them. In 1940 all restrictions were removed.</p> <p>- (p 146) In 1945, landings of more than 100 tons of crayfish were reported nationally. This statistic provided by the New Zealand Wholesale Fish Merchant Association.</p> <p>- (p 146) In 1947, a size limit for crayfish of 8 inches was imposed for both the North and South Islands.</p> <p>- (p 148) Reported national crayfish landings: 900 tons in 1947, 1336 tons in 1948, and 1838 tons in 1949. Wellington remained the main crayfish port, followed by Karitane, Picton, Kaikoura, Auckland, and Gisborne. There were significant landings in the far north, on the Coromandel Peninsula, at Akaroa, and at Moeraki. There were practically none south of the Taieri mouth or on the west coast of the South Island.</p> <p>- (p 148) In 1948, new size limit of 9 inches, except in Otago where smaller fishes could be taken, but not sold outside Otago.</p> <p>- (p 150) Official figures for crayfishing in 1950 recorded 2624 tons landed. Because of tailing at sea there was an element of guesswork involved in calculating this figure. Also, much of the crayfish landed for local consumption was not recorded.</p> <p>- (pp 150-151) In 1952, as export volumes continued to expand, concern was expressed about the sustainability of the crayfish industry. In November 1952, the minimum size was increased from 9 to 10 inches, except in Otago, where fisherman were still free to catch what they could so long as any crayfish under the size set for other areas was sold in the province. The taking of berried females was prohibited.</p> <p>- (pp 152-153) There was concern about the fouling of grounds by dumping large quantities of cray bodies over the side. Crayfisherman complained about careless dumping by other fishermen. A ban on tailing was introduced in the early 1950s to slow down the fishery.</p> <p>- (pp 153) The 1952 landings of 3264 tons were enough to raise concern, but by 1956 landings had doubled to 6430 tons, more than half of which was landed at Stewart Island and Bluff. This was the peak of crayfish landings.</p>	
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p>- (p 158) By 1947 there were 125 full-time motor- trawlers nationally. Engines were becoming more powerful and the post-war vessels were substantially larger than those built 10 years previously. In the 1930s most trawlers built were about 12 metres long and drew about 1.5 metres. The post-war generation were 14 to 18 metres long and drew between 1.8 and 2.1 metres.</p> <p>- (pp 158-159) By 1951, the number of Danish seiners had almost halved owing to conversion to trawling. The small vessels had some advantages over steam trawlers, requiring less crew and being cheaper to run.</p>	
1872	<p><i>Hapuku</i>- see <i>Appendix 14</i></p> <p><i>Trumpeter</i> - (pp 107-8) ‘Whether fresh or smoked, the Trumpeter always commands a good price, yet it is rarely seen on the market, except in Dunedin.’</p> <p><i>Barracouta</i> – see <i>Appendix 10</i></p> <p><i>Gar Fish</i> - (p 118) Common all round New Zealand and highly appreciated, especially in Auckland (where it is known as piper) and Dunedin, where they are more frequently seen than elsewhere – sold for about 2s to 3s per dozen. Length is about 12 inches.</p> <p><i>Pilchard or Sardine</i> - (p 119) Reported to visit the east coast of Otago every year in February and March. ‘On the last occasion it was observed that the shoal was migrating southwards, and extended as far as the eye could reach, followed by a multitude of Gulls, Mutton Birds, Barracoota, and Porpoises. So densely packed were they that by dipping a pitcher in the sea “it would contain half fish, so that if larger boats and suitable nets were employed thousands of tons could be caught.”[<i>Otago Daily Times</i>]</p> <p><i>Sharks</i> - (p 120) ‘The Māoris are large consumers of Sharks, or Mango as they term them, or various species, but chiefly the Smooth-hound (<i>Mustellus antarcticus</i>), Dog fish of two species (<i>Scyllium laticeps</i> and <i>Acanthias vulgaris</i>), and the Tope (<i>Galeus carnis</i>). All of these may be seen at certain seasons at any Māori settlement by the sea side, hanging on poles to dry in thousands, and rendering the neighbourhood extremely unpleasant.’</p>	Captain F.W. Hutton and J. Hector, <i>Fishes of New Zealand – Catalogue With Diagnoses of the Species and Notes on the Edible Fishes</i> , Wellington, NZ, 1872.
1875	<p>Some oysters survived, harvesting recommenced in 1875.</p> <p>- Oysters began to again be harvested at Blueskin Bay, brought calls for management of the bed to prevent ‘wholesale destruction’.</p>	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts</i> , Waitati, 2007.

1879	- (p 30) Fishing industry at The Nuggets established after arrival of a Mr Arthur in 1879, who began fishing to feed his family. His first boat was a 14 foot row boat; caught groper and carted them to Kaitangata, where they were sold for two pence per pound. (p 31)	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
1880	- (p 50) The 'wanton destruction' of oysters by some residents at Blueskin Bay was brought to public attention again in January 1880. Horsed drawn dredges were being used, backed into 'the creek', crushing many oysters in the process. The offenders subsequently appeared in the Port Chalmers court.	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts</i> , Waitati, 2007.
1882	In September 1882, it was claimed that 'over 20 tons' of oysters had been taken that season. - Several Waitati settlers made a living out of selling oysters, cockles, mullet, and flounders.	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts</i> , Waitati, 2007.
1885	- Provides details of a brief assessment of New Zealand's fish stocks and the potential for commercial exploitation. - States that from Martins Bay (South Westland) he 'commenced to meet with fish in such numerous shoals that from there to off Oamaru, inshore and offshore, I believe millions of tons of fish could be caught yearly. . . . Chaslands Mistake, on the mainland, commands splendid moki fishing grounds, and also blue-cod, rock[red?]-cod, and trumpeter fishing. And here I began to meet with the barracouda in large numbers, and found them all the way northwards to off Oamaru; but off Cape Saunders and Otago Heads seems to be a central gathering ground for countless millions of these fish for several months in the year. . . . Two men fishing, and one man rowing the boat, will often catch from thirty to forty dozen fish in two or three hours.' (p 2) - 'Ling and groper in great quantities I found from off Chaslands Mistake to off Timaru. Those fish are sometimes found inshore, but to get them in any quantity they must be fished for offshore. Otago Harbour commands most extensive and valuable barracouta, groper, ling, rock-cod, and crayfish fishing, and with proper fishing-smacks Otago Harbour could also command the blue-cod fishing.'	Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15. <i>No. 1: J Mackenzie to Julius Vogel, 29 March 1885.</i>
1898	- (p 7) Fishing outside the Harbour not greatly practised until the arrival of motor engines. This occurred about 1898, when the tug boat <i>Plucky</i> carried out successful trawling trials outside the Heads. These were apparently successful. F.J. Sullivan soon had two steam trawlers, <i>Express</i> and <i>Napier</i> operating, which respectively worked the Otago waters until 1935 and 1926.	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
1900	- (p 3) 'Inside' fishermen were fishermen who worked inside the Harbour, using nets to catch mostly flounder, maybe mullet and butterfish. They used rowing boats about 16 to 20 feet long, fine lined with hour-glass sterns to make rowing easier.	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
Early 1900s	- (p 7) The turn of the century also saw the introduction of small 'oil' engines to the fishing fleet. These were mostly small, single cylinder, 5, 6, or 7 cylinder engines, which ran on a fuel called benzene. These engines were very reliable. 'With assured and reliable motive power, allied to very seaworthy-designed vessels, fishermen now	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no

	<p>ventured well outside the Heads and soon discovered various fishing grounds up and down the coast, where groper, cod, and other species congregated. Many of these grounds were named after their finders such as McDonald's (North Reef), Tonnage's patch, McIntosh's reef, Jim Dow's patch (Little South reef), Jim Dow's reef, Middendorf, Thomson patches.'</p> <p>- (p 8) The boats were manned usually by two men, setting on each side long lines with hooks, which had to be launched and retrieved by hand. Later, the 'long-line' was introduced, with 100 to 300 hooks, buoyed with floats at each end, and the 'dan' line – 7 to 20 hooks, with a grapnel at bottom and buoy at top, left in place for 1 to 3 hours.</p>	other details, 1984.
1902	<p>- Inquiry into the complaint by fisherman at Port Chalmers that trawling is affecting their interests and request that they should not be allowed to work within a certain distance of shore. Inquiry held at Port Chalmers on 14 and 15 November 1902.</p> <p>- Notes that there has been an unusual scarcity of fish in the last winter and spring – believes that trawling not the cause and looks to other factors, such as unusual weather. Points out that there has also been a scarcity of fish at other places, where there are no trawlers operating.</p> <p>- Notes that two trawlers working out of Port Chalmers – the 'Express' and 'Napier', owned by F.J. Sullivan.</p> <p>- Did not believe that the line and seine net fisherman had bought any proof to substantiate their claims that trawling was destroying fish-feed on the bottom and driving fish away.</p> <p>- Trawler owner and men working on the trawler stated that they generally work outside of the area where the small boats go and that they get quite a different class of fish from what the small boats get.</p> <p>- Fish mongers stated that the trawlers gave a more plentiful supply and more varied. Stated that the small-boat men cannot supply what is needed all year round and that in winter the market was almost entirely supplied by the trawlers.</p> <p><i>Evidence of F.J Sullivan, trawler owner</i></p> <p>- At the moment trawlers are working about eight miles off land and cannot get fish in less than 30 fathoms of water. Fish have confined themselves to deep water this season. Would be wrong to prevent trawlers from coming inshore. (p 2)</p> <p>- Notes that 14 men employed on the two trawlers, which are the largest boats in the country.</p> <p>- Have been able to catch fish in all weathers, when other fisherman could not venture out. (p 3)</p> <p><i>Evidence of Captain Ryffell of the trawler 'Express'</i></p> <p>- Employed for 12 months; usually trawl in 20 or 30 fathoms of water; never make a point of trawling in shallow water; keep on the same ground for 8 or 9 miles from 'the Point'(?]. (p 3)</p> <p>- Mostly catching large tarakihi, moki, soles, and kingfish; in deeper water always catching kingfish and ling.</p> <p>- The following fish that are caught by the trawlers, but not the fishermen: moki, terakihi, and sole. Conversely, the small-boat men catch barracouta and groper.</p> <p><i>Evidence of Frank Keenan, outside fisherman</i></p>	Report of Inspector of Fisheries on Trawling at Port Chalmers, 18 December 1902, <i>AJHR</i> 1903 H-15B.

<ul style="list-style-type: none"> <li>- States that outside fishing ground extends from Cape Saunders to Shag Point. (p 4)</li> <li>- Fishes 10 miles from Otago Heads, catching by line fishing groper, red cod, ling, barracouta, and kingfish.</li> <li>- Claims that trawlers injuring fishing. Has been fishing for 10 years; fish terribly scarce the last 2 or 3 years. Now have to go much further than in other years, and the supply is shorter. Used to be able to get plenty of fish near Otago Heads.</li> <li>- Believes that trawling over the ground where the fish feed is disturbing the fish.</li> </ul> <p><i>Evidence of John Malcolm, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has fished locally for 25 years and has observed a marked decline in the last four years. (p 3)</li> <li>- 'Many years ago the boats used to keep the market more than supplied, and they have done it all along. They were limited very often to perhaps two dozen a day. They could take in perhaps thirty or forty barracouta, and two dozen groper.'</li> <li>- Details that there are 27 outside boats and craft, with two or three men on each.</li> <li>- States that there are over 200 'seine men'. [Seems that seine netting was done within the harbour, while the outside fishermen used lines.]</li> </ul> <p><i>Evidence of Edward Nelson, inside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has been fishing locally for 18 years, seine fishing all that time from the Port to the Heads. Has only once seen a season as bad – some 20 years ago. (p 4)</li> <li>- States that since trawling has started inside fishermen rarely get sole, used to get 6 or 8 dozen. Has also been a decline in flounder over the last 10 years.</li> <li>- Number of seine fishermen the same as 15 years ago.</li> <li>- Believes that greater mesh size of trawl net would limit the destruction of small fish.</li> </ul> <p><i>Evidence of John H Tunnage</i></p> <ul style="list-style-type: none"> <li>- Sullivan employs four boats [all trawlers?]; outside there are five cutters (average size about 15 tons) and 31 small boats; inside a total of 32 three man boats. (p 5)</li> </ul> <p><i>Evidence of W.G. Robertson, wholesale fish merchant</i></p> <ul style="list-style-type: none"> <li>- 'Since we have had the trawlers here the supply has very much increased, and undoubtedly so has the demand.' (p 5)</li> <li>- States that trawlers and fishermen catch different fish.</li> <li>- Notes that for several years past we have had no moki or sprats, which were formerly very plentiful; red cod also dropped off.</li> <li>- Small boats catch most of their fish from Jan to May, when shoal fish appear and come close in shore, sometimes right up harbour.</li> <li>- Notes that trawlers continue to work in rough weather; the line-men cannot work in such weather, except in the three cutters (though even these cannot work several days after rains owing to fish not being able to see the bait). (p 6)</li> </ul>	
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p><i>Evidence of W Stewart, fishmonger, Princes Street</i></p> <ul style="list-style-type: none"> <li>- Has been in business for 16 years, observes that there has been a poor supply of fish over the last few years. (p 6)</li> <li>- ‘We should have had nothing at all if it had not been for the trawlers.’</li> <li>- Notes that trawlers catch fish that are not usually taken by the small boat fishermen, principally the terakihi.</li> <li>- Comments that flounders ‘seem to be going out of existence altogether.’</li> </ul> <p><i>Evidence of H Kenton, master of the trawler “Napier”</i></p> <ul style="list-style-type: none"> <li>- Many of the varieties of fish caught by trawl are not caught by the line and seine net men. Barracouta and groper are not caught in the trawl because the frequent the rocky bottom, which cannot be trawled. (p 6)</li> <li>- States it would be detrimental to trawling if a three mile limit was imposed from the shore. Sometimes fish more plentiful inshore than in deep water, and if weather rough need to fish closer to land.</li> <li>- States that he does not believe the supply of flounder is going down. (p 7)</li> </ul> <p><i>Evidence of Francis Hewitt, mate of the trawler “Napier”</i></p> <ul style="list-style-type: none"> <li>- Formerly worked as a small boat fisherman and fish curer. States that in winter the flounder always ‘go off’ and that the only thing the seine men have to live on is red cod. ‘Five years ago we were catching nothing but red-cod, and it was owing to that that Mr Sullivan took up the trawling business.’ (p 7)</li> </ul>	
1907	<ul style="list-style-type: none"> <li>- report on the fishing and deep-sea trawling cruise of the <i>Nora Niven</i>, chartered by the Government from June to September 1907 (p 1)</li> <li>- object of cruise was to test the ocean-floor off the east coast from Stewart Island to the Bay of Plenty and around the Chatham Islands; ascertain trawling grounds exist outside those already known and worked; ascertain what fish-life exists out to 100 fathoms; to look for offshore banks</li> <li>- used otter trawl nets; spread of 120 ft (footrope) and 80 ft (head-line)</li> <li>- owing to time constraints, difficult to thoroughly test each section or to go very far off to test off-shore banks</li> <li>- 106 hauls made, range from 4 to 120 fathoms (p 2)</li> <li>- notes that seasonal differences in fish numbers not established by trawl</li> </ul> <p><i>Summarised report on the section of coast from Stewart Island to Otago Heads</i> (p 3)</p> <ul style="list-style-type: none"> <li>- good results in Molyneaux Bay in regard to bottom and fish numbers <ul style="list-style-type: none"> <li>- sandy bottom indicate good sole and flounder grounds</li> <li>- three hauls, with large quantities of red-cod, dogfish, and elephant-fish</li> </ul> </li> <li>- from Molyneaux Bay to Cape Saunders a considerable extent of good trawling bottom and a fair supply of market-fish taken, though a large extent of hard shingle bottom</li> <li>- from Cape Saunders to about 18 miles north of Otago Heads good bottom was found <ul style="list-style-type: none"> <li>- tarakihi the main fish taken from 25 to 60 fathoms</li> </ul> </li> <li>- ‘The best trawling-grounds off the Otago coast extend from Cape Saunders to some distance west and north of Otago Heads, extend from inshore out to about 30 fathoms. These grounds have been considerably worked by Mr. Sullivan’s trawlers from Port Chalmers.’</li> </ul>	Interim Report on Experimental Trawling, by L.F. Ayson, Chief Inspector of Fisheries, 12 November 1907, <i>AJHR</i> 1907 H-15B. <b>[Photocopy 40]</b>

	<p><i>Otago to Lyttelton</i> (p 4)</p> <ul style="list-style-type: none"> <li>- trawlers from Port Chalmers presently engaged in working the fishing grounds off Otago Heads and in Blueskin Bay – no attempt was made to test these well known grounds</li> <li>- thirty hauls made between Otago and Lyttelton – almost every haul between Otago and Akaroa inside of about 40 fathoms disclosed the presence of a great variety of fish</li> <li>- foul ground exists to a distance of nine miles, perhaps more off Moeraki and London Bluff – this bottom unsuitable for trawling, though fish appear to be plentiful <ul style="list-style-type: none"> <li>- at present is being worked by line fishermen from Moeraki, with blue cod and hapuku being the main fish taken</li> </ul> </li> </ul>	
1909	- (p 3) The Otago (later Port Chalmers') Fishermen's Co-operative Society formed in 1909 to represent the interests of fishermen working outside the Harbour.	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
1909	<p>- 'In Otago and Canterbury there has been an improvement in the industry. Fishing operations have been carried out along the whole of the coast-line, with good results.' (p 7)</p> <ul style="list-style-type: none"> <li>- from Waikouaiti to the Catlins River there has been continued improvement</li> <li>- considerable improvements have been made to the Otago fleets – another steam trawler has been procured; sixteen ordinary boats fitted with oil engines and the latest appliances have been launched</li> <li>- 43 fish curing and preserving plants, from which £7000 worth has been exported as well as amount for local consumption</li> <li>- freezing chambers being erected</li> <li>- main fish taken are kingfish, groper (hapuku), trevalli, tarakihi, schnapper, trumpeter, moki, barracouta, blue cod and flounder</li> </ul>	Marine Department annual report, 12 June 1909, <i>AJHR</i> 1908 H-15.
1919	- 'We the undersigned members of the above Society, petition you to introduce a three mile limit from point to point Moeraki to Cape Saunders, similar to that appertaining to the British Isles, Auckland and other ports of the Dominion. // Prior to the trawlers commencing operations, flat fish (flounders and soles) used to go outside the heads into deeper water to spawn, and return again unmolested to the harbours, where Seine fishermen caught them in large quantities. The same applies to groper, kingfish, cod, ling and so on which came close in shore and were easily caught in plenty. Since the trawlers started without a limit, the flat fish which usually go outside the heads into the bays to spawn are caught, while full of spawn, and as time has elapsed the want of a limit has caused the fish to grow scarcer and still scarcer, which will continue until the precautions that were take[n] in the British Isles to preserve the fish close in shore is manifested. // The trawls of the trawlers, which are dragged for hours also kill millions of small fish and spawn, and drive groper, kingfish etc. miles off into deeper water, which prior to trawling let it again be mentioned were caught close in shore.'	Petition by The Otago Fisherman's Society Limited, October 1919, to the Minister of Marine, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.
1920	- (p 9) By about 1920, there was roughly a dozen small, motor vessels fishing out of Port Chalmers, described as 'line' boats. This number remained the same until the late 1940s.	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no

		other details, 1984.
1914-1918	During WWI, only three boats fishing regularly at The Nuggets, numbers increasing after the war. (p 32)	During WWI, only three boats fishing regularly at The Nuggets, numbers increasing after the war. (p 32)
1928	<p>- Reports on a meeting with fishermen at Port Chalmers on 15 November: 'I found them less unanimous about the closure of the North Reef ground – or any restriction at all – than I had been led to expect. But they were all agreed as to the deterioration of the fishing. They hesitated to recommend any restriction on fishing because they feared it might handicap them &amp; the line fishermen of Port Chalmers) as individuals &amp; as a community in competition with others. There was a general feeling that any restrictive regulation would have to be general, not local: in which I am inclined to agree. They would not at this stage pass any formal resolution but agreed to talk the question over among themselves &amp; arrange for a conference at a later date. // It would appear that there will be difficulty in getting them all to think alike or some of them to think at all.'</p> <p>- File records no further action taken in respect of the proposed closed season for groper on the North Reef.</p>	Ayson to Secretary, Marine Department, minute on Superintendent, Mercantile Marine, Dunedin, to Secretary, Marine Department, 30 November 1928, M 1 2/12/295, Groper, 1914-1938, NAW.
1931	The first large trawler visited The Nuggets from Port Chalmers in 1931. (p 32) Boat size also increased at The Nuggets.	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
	- (p 9) It was not until the 1930s that cool or frozen space became available, and the export trade developed. The late 1930s also saw the introduction of marine diesel machinery – this meant that boats became larger and went further afield.	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
1930 February	- Details include . . . 'The Taieri Mouth fishermen sent in fair catches of groper on a few occasions, but on account of their having to work a treacherous bar, a good deal of time has been lost during the month. Several of the Port Chalmers fishermen are working at Taieri Mouth at present, but have averaged very low wages during the month. The Puketeraki fishermen report a decided scarcity of line fish, and to make a living at all, have found it necessary to set nets with a view to catching moki and greenbone. Several of these men have also moved to Taieri Mouth owing to the scarcity of fish on their own grounds. The Nuggets fishermen also report a great scarcity of all line fish for this time of the year, and several of these men have been compelled to seek other employment until conditions improve.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1930, M 1 2/12/2 part 1, NAW.
1930 March	- Details include . . . 'The majority of line fishermen are at the present time using long lines for catching groper and ling, good catches of which were brought in on these boats. The Taieri boats have sent in large catches of groper and a few kingfish, and some of the smaller boats working closer inshore secured fair catches of blue cod and groper.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1930, M 1 2/12/2 part 1, NAW.
1930 July	- Details include . . . 'The trawling boats have been more fortunate, and have taken fair hauls of soles and flounders; also large quantities of red cod. . . . The majority of these fish were taken from the grounds off	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to



	Wickcliffe Bay. There has not been such a large number of flounders taken from these grounds for a number of years.'	Secretary, Marine Department, 31 July 1930, M 1 2/12/2 part 1, NAW.
1930 September	- Details include . . . Poor weather; line fishermen only able to get out about seven days during the month. A number of these men preferred to stay inside the Harbour hooking small red cod. - A bad month for the trawling fleet; small catches of flat fish from the Otago grounds. 'One of them brought back one large catch of 39 cases of flatfish. The other one working at a different time did not meet with much success. . . . Very few round fish were taken by the trawlers.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1930, M 1 2/12/2 part 1, NAW.
1930 October	- Details include . . . 'The seine fishermen are experiencing a very bad time. The water in the harbour is very dirty and the fishing grounds covered with a slimy weed. Very few flounders are being taken from the Harbour.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1930, M 1 2/12/2 part 1, NAW.
1930 December	- Details include . . . 'Whale feed have not yet made their appearance inside the Harbour. This is a very bad sign of course, as they are usually thick about the first week in November, and the fish always follow them in.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1930, M 1 2/12/2 part 1, NAW.
1931 January	- Details include . . . Seine fishermen have taken fair hauls of flounders.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1931, M 1 2/12/2 part 1, NAW.
1930-34	[Graham worked for many years as a marine biologist at the Marine Fisheries Investigation Station, Portobello, Otago. In <i>A Treasury</i> , Graham refers largely to past observations during his time at the Research Station. Most of his observations, unsurprisingly, relate to Otago.]  - (p 39) 'It is . . . of paramount importance that the harvesting of the sea should receive the attention of both scientific and commercial men before an irreparable injury is done to such a valuable asset. I do not wish to spread the impression that our fishing industry is being exploited, but I do suggest that commercial fishing should be more methodically and scientifically controlled than at present. We have had enormous quantities of edible fishes from our inshore waters but in some instances certain species are being demanded by the public to the detriment of the future of those particular fishes, which may in time become less common than at present. This was evident to me in 1930-1934. - Notes that there was a 'certain amount' of fisheries research carried out in the first of the 20thC. However, this research of a limited nature – compares it with the amount of research undertaken for the agricultural sector. - (p 40) 'The foundations of a proper harvesting of the sea lie at the door of both the scientist and the commercial man, one being of little use without the other.' - (p41) 'Even though the sea is teeming with life, it is quite possible to fish out a certain fish. This may seem incredible to some people, but during 1930-34 one of the most popular fish on the market, the Groper, was slowly and surely being depleted by nothing more or less than overfishing. Unless some restriction is placed either on the	David H. Graham, <i>A Treasury of New Zealand Fishes</i> , second edition, A.H. and A.W. Reed, Wellington, 1956. [First published in 1953.]

	<p>number caught, or on their being caught during the spawning season, they will gradually become less abundant. The same can be said for Blue Cod. This is not a scientific theory but is recognised by line fishermen who live by their catches’.</p>	
1930-1934	<p><i>Hagfish (Tuere)</i>  - (p 51) Hagfish were found everywhere in and around Otago Harbour, outside Otago Heads down to 120 fathoms, and over any type of bottom. Frequency occasional and sporadic, but one fisherman claimed to have hooked 9 in one day. More caught in Blueskin Bay than any other place off Otago Heads.</p> <p><i>Lamprey (Korokoro)</i>  - (p 62) From 1930-33, seine fishermen at the Kaik (Otago Heads) would catch from three to four Lampreys each month during the spring.</p> <p><i>Carpet Shark (Pekapeka)</i>  - (pp 67-8) Favoured localities in Otago are Cape Saunders, The Kaik, North Reef, and especially Brinn’s Point – exclusively a ground fish. They were common, now rare, in Otago Harbour. Have little or no food value. No great number was ever caught by line or trawl fishermen.</p> <p><i>Smoothhound Dogfish (Manga)</i>  - (p 72) Common throughout NZ, found throughout Otago Harbour and outside the Otago Heads (esp Blueskin Bay).</p> <p><i>Elephant Fish (Reperepe)</i>  - (pp 85-86) Found and caught chiefly outside Otago Heads, in 20 to 30 fathoms, also in 5 to 15 fathoms in Blueskin Bay. At one time they were plentiful in Otago Harbour during the summer months, but in 1930-1934 only occasional small runs entered and did not stay for long.  - (p 86) Elephant fish had a greater economic value during World War I than in 1930-34, when few people would knowingly buy it under any circumstances.</p> <p><i>Skate (Whai)</i>  - (p 98) Have been caught on handlines, inside and outside Otago Harbour. Large numbers caught in 1930-34 by Marine Station trawlers outside the Otago Heads. Graham recalls seeing them so plentiful in the trawl net as to make it almost impossible to haul it on board. Seine fishermen in Otago Harbour also caught them, but threw them back ‘owing to the fastidiousness of the general public at the time’.</p> <p><i>Silverside or Snodgall</i>  - (p 122) Found both inside and outside Otago Harbour, mostly in tidal areas – came into Harbour October, remaining until May. In 1924, large numbers were taken right up to the wharves and harbour basin. In 1925, in Lower Portobello, 800 to 1000 dozen often taken in one seine net. A seine boat 16 feet in length has been loaded</p>	<p>David H. Graham, <i>A Treasury of New Zealand Fishes</i>, second edition, A.H. and A.W. Reed, Wellington, 1956. [First published in 1953.]</p>

<p>to the gunwale. A favourite fish with the public and sell readily on the market.</p> <ul style="list-style-type: none"> <li>- It was a common occurrence for seiners to catch at least 80 dozen in every seine net haul in 1916, more often 100 dozen.</li> <li>- (pp 122-123) 'Then when road construction round the bays began, Silversides left the Otago Harbour. This, together with Harbour dredging, did not suit them and they have not been as numerous since then, though fair hauls were taken by us in 1930-33.'</li> </ul> <p><i>Garfish or Piper (Takeke)</i></p> <ul style="list-style-type: none"> <li>- (p 158) Garfish were found in and outside the Otago Harbour from surface to at least 22 fathoms. They were very abundant in 1930-33 and in fine weather from 400-1000 might be taken in one haul with a seine net taken with a garfish bunt.</li> <li>- At one time, Garfish appeared regularly on the Dunedin market for a great part of the year, but later (1930-33) only occasional boxes of Garfish were seen there. The reason for this is that fishermen did not have the nets or knowledge where to locate them, but they are extremely plentiful, easily caught, and a favourite with the public.</li> </ul> <p><i>Hake or Whiting</i></p> <ul style="list-style-type: none"> <li>- (p 165) 'In 1900 Hake were abundant off the Otago Heads and as many as four dozen or more could be caught in one shoot of the trawl. Then they became quite scarce until 1931, when they were again caught in the trawl and by line fishing.'</li> <li>- No record of Hake being caught in northern waters.</li> </ul> <p><i>Red Cod (Hoka) –see Appendix 15</i></p> <p><i>Flatfish – see Appendix 13</i></p> <p><i>Warehou</i></p> <ul style="list-style-type: none"> <li>- (p 218) Notes that small Warehou up to 12 inches were called Trevally in Otago.</li> <li>- (pp 218-219) 'Warehou, which are caught from Oamaru to Invercargill, were more abundant in Otago Harbour than elsewhere. At times they set inside Otago Heads in enormous numbers and large numbers were caught in seine nets. . . . I have here a record from Mr Sid Broadley who said that it was no uncommon occurrence when he was seining at the locality to secure anything from three hundred to five hundred dozen Warehou in one haul. // Unfortunately these Warehou visitations were not as frequent or as large as in former times, but at the same time I consider I am safe in saying that if there had been a market for Warehou in keeping with the supply they could have been caught in abundance. These remarks apply to 1930-34.'</li> <li>- (p 219) Warehou more abundant north of Otago Heads. Will appear in some localities for several seasons, then will miss a year.</li> <li>- (p 220) More Warehou caught in seine nets than any other method. Few caught by trawlers. Caught by hook and line only in harbours. 'Not only have Warehou decreased in number but the average size is likewise decreased. At one time the average size was seventeen inches and the maximum twenty-four inches. In 1930-33 the maximum</li> </ul>	
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p>was sixteen inches and the average ten inches.’</p> <p><i>Bream</i></p> <ul style="list-style-type: none"> <li>- (p 222) Uncommon before deep sea fishing came into practice, but became common once line fishermen began fishing from the reefs of Otago Heads. Principal localities in Otago were North Reef (16 miles north-east of the Otago Heads), South Reef, and The Rock, in from 30-150 fathoms, and from Taieri Mouth in 40 fathoms.</li> <li>- The first bream caught in NZ was said to have been hooked off Otago Heads in 100 fathoms in 1911.</li> <li>- Often seen on the Dunedin fish market, visited by Graham everyday in 1934.</li> </ul> <p><i>Groper (Hapuku and Bass Groper or Moeone) – see Appendix 14</i></p> <p><i>Trumpeter (Kohikohi)</i></p> <ul style="list-style-type: none"> <li>- (p 258) Found up and down the coast, but more especially south of Otago Heads. At one time caught in Otago Harbour, but no record of any being caught there since 1925.</li> <li>- ‘Trumpeter were [1930s] much less abundant than in former times and no great numbers were caught close to Otago Heads. The public frequently wonder why certain fish become more scarce than in former years. The reason for this fish becoming scarce was that it is such a good biter. Any fish that bites readily is sure to become reduced in numbers when all line fishermen fish for it. Practical experience shows that whenever a new rocky bottom fishing ground is located, the Trumpeter is sure to be found and it will be the first fish to become scarce from the locality.’</li> </ul> <p><i>Greenbone/Butterfish/Kelp Salmon/Kelpie (Marari)</i></p> <ul style="list-style-type: none"> <li>- (p 262) Greenbone found throughout New Zealand. At one time ‘considerable numbers’ were sold in the fish markets of Auckland and Wellington from January to October. Those seen on the Dunedin market mostly from Moeraki, where caught on the kelp-infested rocks. As a constant visitor to the Dunedin fish market in 1930-34, observed that Greenbone not much in demand, mainly because of a prejudice against their appearance and green bones.</li> <li>- (p 267) Greenbone are not a profitable fish to catch commercially – hard to catch many and rocky environment a risk to nets.</li> </ul> <p><i>Blue Cod (Rawaru) – see Appendix 11</i></p> <p><i>Māori Chief</i></p> <ul style="list-style-type: none"> <li>- (p 296) No definite season for the Māori Chief – from 1 to 6 may be seen on any day in the Dunedin fish market.</li> </ul> <p><i>Barracouta (Manga)- see Appendix 10</i></p> <p><i>Ling (Hokarari)</i></p> <ul style="list-style-type: none"> <li>- (p 337) Ling found everywhere throughout the Otago waters, inside the Otago Harbour, outside the Otago Heads,</li> </ul>	
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p>in shallow waters and down to at least 150 fathoms.</p> <ul style="list-style-type: none"> <li>- (pp 337-338) Suggests that might have become more scarce: ‘At one time catches of three to four dozen off Cape Saunders, Papanui Inlet, Pipikariti Point, Taiaroa Head and other parts of the coast were not an uncommon occurrence, but in 1930-33 one might fish all day and not catch one Ling or perhaps might hook one or two. When long-line fishing first came into vogue, these fish were too numerous and more of a nuisance than an asset. First, because the fish were not wanted on account of the poor prices ruling compared with that of Groper; second, on account of the time wasted in hauling the fish to the surface and thereby possibly missing the catching of more valuable fish.’</li> <li>- (p 338) At this time (date? – refers to when ling were being caught on long lines?), ling began to be salted or smoked at Port Chalmers and exported to Australia. A local demand set in for ling in this condition, but it did not continue. Questions why NZ cannot export more ling in significant quantities.</li> <li>- Ling usually caught on line, and frequently caught in trawl nets while trawling was done outside Otago Harbour.</li> <li>- Fishermen of long experience state that ling is more abundant on the ‘banks’, the higher parts of the ocean floor.</li> <li>- ‘They were more numerous prior to 1930 and from then on till 1934 the decrease was noticeable. Tet they were not fished then to any great extent. At one time they were so valueless as to cause long-line fishermen to cut them away, that is to say, drop them off the hook without taking the fish on board . . .’</li> <li>- (p 339) Highest price paid for Ling was during WWI when very few fish were on the market and one Ling, weighing 20 pound, brought 18 shillings and sold in small pieces with potato chips.</li> </ul> <p><i>Red Gurnard (Kumukumu)</i></p> <ul style="list-style-type: none"> <li>- (p 361) Red Gurnard appeared in Otago Harbour in the summer months and were caught in seine nets. Appeared in the vicinity of Otago Heads almost every month of the year, but more abundant during the summer. Mostly caught by trawlers up and down the Otago coast while trawling for flat and round fish – might be caught on the bottom with flounders or with surface shoal fish. As many as three cases of Gurnard were caught by one trawler in the course of a day (1930-33). Those caught by seine netting were generally smaller than those caught outside the Otago Heads. Not known to be caught on hook in Otago, though they are in other parts of NZ. Caught at various depths, from tidal to at least 20 fathoms. They prefer sandy bottoms and are not usually found near rocky situations.</li> </ul>	
1937	<ul style="list-style-type: none"> <li>- Methods of fishing – line-fishing (dan lines and windy buoys) – Otago and South Canterbury (p 27) <ul style="list-style-type: none"> <li>- at Port Chalmers, Oamaru, Moeraki, and off Taieri Mouth dan lines are the most common type of gear, very little hand-lining been done</li> <li>- lines are suspended from drums to which flags are attached to indicate their position</li> <li>- dan lines are responsible for a large proportion of landings in this area; almost the sole method of fishing used at Oamaru; significant at Port Chalmers</li> <li>- the main fish landed is groper, but also large quantities of less valuable ling; other fish such as red cod and barracouta could be landed in greater quantities if there was a market for these fish</li> </ul> </li> <li>- Methods of fishing – hand-lining – Otago and South Canterbury (p 30) <ul style="list-style-type: none"> <li>- ‘This method of fishing is used throughout the Otago and South Canterbury districts, but the fisheries have</li> </ul> </li> </ul>	‘Report of the Sea Fisheries Investigation Committee’, <i>AJHR</i> , 1937-1938, H-44A.

	declined to such an extent that it is becoming practically impossible for the men to make a fair living by the use of hand-lines only, and they are used mainly as an auxiliary method of fishing either while waiting for the set gear to be picked up or when weather conditions make it unadvisable to use set or dan lines.'	
1948	<p>- 'A claim that the livelihood of fishermen at Taieri Mouth was being affected by the inroads of Port Chalmers boats, which had destroyed 10 years' work on the part of the Taieri Mouth fishermen, and the operations of a "large steam trawler" between Otago and Oamaru had depleted the fishing grounds of groper and had a harmful effect on private boats operating from Oamaru, Moeraki and Karitane was made to the Daily Times in the week-end by a man who has been fishing at Taieri Mouth for many years. // "About 20 years ago two boats went to Taieri Mouth to look for fresh fishing grounds", he said. "They became established, and in time about 11 boats were operating from Taieri Mouth. No trawling had been done there before, and the fishing grounds were found to be good. Six cases of fish were caught for a tow lasting an hour and a-half, boats with low-powered engines being used. There was no export market at the time and, in order to preserve the grounds and regulate the supplies of fish to the market, the fishermen did one tow a day. // The Port Chalmers boats heard about the grounds, however" he continued, "and they worked them continuously until the fish became seriously depleted. Eventually, Port Chalmers fishermen did not gain by trawling off Taieri Mouth, and they went away. After that the Taieri Mouth fishermen got about two cases of fish from a two-hour tow."</p> <p>- "It took 10 years for us to build up the grounds," he said, "and in the past two years, when the fish have been better than ever, the Port Chalmers boats have begun to visit the grounds again. All through the summer they worked round the clock, and catches of up 100 cases have been known to go back to Port Chalmers."</p> <p>- "The export of fish has not been of benefit to the public of Otago. It has been a means for the outlet of surplus fish, and the fishermen have 'threshed' it to such an extent that the grounds are becoming depleted."</p>	Article entitled: "Fishing Grounds – Excessive Trawling – Effect on Taieri Mouth Fleet", extract from <i>Otago Daily Times</i> , 12 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.

## S28: Otago: Barracouta

Year	Details	Source
Unspecified	<p>- (pp 46-47) The following notes on the taking of sea fish contributed by a South Island Māori:</p> <p>With regard to the taking of sea-fish, <i>hapuku</i>, barracouta, and others by the Māori folk of the tribes Ngai-Tahu and Ngati-Mamoe, let us commence with the <i>hapuku</i>. Fishing-canoes began to go out to the <i>hapuku</i> fishing-grounds in the sixth month (November or December). The larger canoes would contain thirty men, more or less, and the small canoes a lesser number. The large and small canoes would go out together to the fishing [grounds]; the larger vessels proceeded to the more distant fishing-grounds . . . The <i>hapuku</i> fishing ceased in the Maruaroa season [about June], the month when Orion appeared well above the horizon; at that time the tail of the <i>hapuku</i> becomes red, so in the latter days of June the fishing ceases.</p>	Elsdon Best, <i>Fishing Methods and Devices of the Māori</i> , Dominion Museum Bulletin No. 12, Wellington, 1929.

Unspecified (pre European)	<p>- (pp 62-63) Relative abundance of fish caught by pre-European Māori:</p> <table><tr><th>Fish Family</th><th>Percent</th></tr><tr><td>Barracouta etc</td><td>25.1</td></tr></table> <p>[Figures vary by area, so in the north, for example, snapper would have ranked 1st.]</p> <p>- (p 64) Barracouta – common Māori name is manga. (p 65) ‘The most common lure used by pre-European Māori was known as <i>pohau mangā</i> and consisted of a piece of wood with a single bone point, often made from the jaw-bone of a dog, set into the end. These lures may seem primitive, but were perfectly effective. When metal came to New Zealand . . . in the 18<sup>th</sup> and 19<sup>th</sup> centuries, the bone point was replaced with a bent nail.’</p> <p>- According to Best (E. Best, <i>Fishing Methods and Devices of the Māori</i>, Dominion Museum 12, Government Printer, Wellington, repaginated reprint of 1929 edition, p 51), Māori recognised three kinds of barracouta: <i>mangā ripo</i> (a deep sea fish), <i>mangā</i> (not eaten), and <i>mangā ahuone</i> (the one commonly taken). No longer possible to identify precisely what these terms refer to – possibly different age grades, shoals turning up at different seasons.</p> <p>- (p 66) Best (1977, pp 54-55) provides a translation of an account from a South Island Māori about barracouta fishing (see above).</p> <p>- (pp 67-69) Barracouta bones occur in 96 sites in the Fishbone Database. Primarily found in Cook Strait and Otago sites, but also north of Tauranga, quite a few sites show barracouta occurring in reasonable numbers.</p> <p>- (pp 69-70) Archaeological site at Long Beach, Otago, includes barracouta bones. Unclear when the Long Beach people were taking barracouta – likely to have been during the great surface migration during the summer months when they fed inshore.</p> <p>- (p 164) Regional abundance: snapper unimportant in the south where baracoutta were dominant.</p> <p>- (p 208) ‘Of the species which are most abundant in archaeological sites, barraouta is not likely to have been much affected by the advent of Polynesians. As discussed . . . barracouta is highly seasonal in its appearance in inshore shallow waters. (P 209) At Long Beach (Otago site) mean fork length decreased by 20 mm over time.</p>	Fish Family	Percent	Barracouta etc	25.1	F. Leach, <i>Fishing in Pre-European New Zealand</i> , Wellington, 2006.
Fish Family	Percent					
Barracouta etc	25.1					
Unspecified	‘In the early years of the Otago settlement, when the colonists depended solely on the Māoris for the supply of fish, it [Barracouta] was extensively used.’	R.A.A. Sherrin, <i>A Handbook of New Zealand Fishes</i> , Wilson and Horton, Auckland, 1886, p 12.				
1860s	A fish-curing factory established at Port Chalmers, processing a wide range of species including barracouta, hapuku, cod, gemfish, and ling.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 25.				
1869	<p>- notes that the evidence ‘is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.’</p> <p>- three regular fisheries at work: Otago Heads (Harbour and ‘outside’), Moeraki, and Molyneux Bay</p> <p>- these fisheries are worked all year around, though seasonal fluctuation</p> <p>- estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux</p>	Report of the commissioners for the province of Otago, No. 2 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.				

	<ul style="list-style-type: none"><li>- Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux</li><li>- the number of boats working the coast about 30</li><li>- fishing inside the harbour is carried on all year, each boat working about six tides a week</li><li>- outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March</li><li>- the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads</li><li>- each boat usually uses one net besides lines – the number of nets estimated to be about 20</li><li>- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.</li><li>- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon</li><li>- crayfish are also ‘caught in large numbers’</li><li>- information based on principally on that provided by fishermen themselves</li><li>- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast</li></ul>	
1869	<i>George Henry Sherwood (fisherman) examined by Mr Burns</i> <ul style="list-style-type: none"><li>- groper, ling, barracouta, red cod, and skate found within a short distance of Otago Heads</li><li>- blue cod and trumpeter very plentiful off Cape Saunders</li><li>- crayfish at Purakinui and Blueskin Heads</li></ul>	Evidence obtained from Molyneux Bay, No. 3 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.
1872	Innes opened a canning factory at Otago [Port Chalmers?], canning barracouta, flounder, and moki.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 28-29.
1876	<div><div><div>Species</div><div></div></div><div><div></div><div>Number of days in market</div></div><div><div></div><div></div><div>A</div><div>S</div><div>O</div><div>N</div><div>D</div><div>J</div><div>F</div><div>M</div><div>A</div><div>M</div><div>J</div><div>J</div><div>Total</div></div><div><div>Barracouta</div><div>Thyrsites atun</div><div>-</div><div>1</div><div>1</div><div>18</div><div>15</div><div>20</div><div>11</div><div>11</div><div>3</div><div>9</div><div>13</div><div>4</div><div>106</div></div></div> <div><ul style="list-style-type: none"><li>- Survey of fish for sale in Dunedin carried out to establish when the ordinary food fishes were in season. Noted down the various sorts of fish exposed for sale in the window of the fishmongers’ shops, as well as by occasional enquiries elsewhere – work began on 1 August 1875, ended 31 July 1876.</li><li>- Barracouta: not in such large supply as in former years; suggests this is a result of reduced demand, not from a falling off of fish – other fish in better supply as people generally in better circumstances and more able to purchase superior quality.</li><li>- September: crayfish abundant: on the 27<sup>th</sup> two barracouta brought to market – curious that odd barracouta are</li></ul></div>	P. Thomson, ‘Fish and their seasons’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 9, 1876, pp 484-490.



	<p>caught now and then in winter time while cod or groper fishing outside, generally when the hook is just about reaching the bottom.</p> <ul style="list-style-type: none"><li>- October: changeable weather – no fish on the market for 8 days; barracouta arrived in force on 30<sup>th</sup>.</li><li>- At the present time (July 1876) and for some months, there have been 32 boats, employing about 80 men, in the fishing trade in Otago Harbour.<ul style="list-style-type: none"><li>- in the net fishing in the Harbour, 16 boats regularly employed, worked by 36 men, most boats having only two men as crew</li><li>- in the outside or deep-water branch, 17 boats are engaged, with over 40 men as crew</li><li>- most of the seining boats work nearly every tide, while the outside boats are more dependent on the weather and the state of the sea – sometimes there are long spells of idleness</li></ul></li></ul>																																																								
1872	<p><i>Barracoota</i></p> <ul style="list-style-type: none"><li>- (p 109) Obtained at all seasons, but abound in the spring and autumn. Caught easily with a short piece of red wood that has a nail driven through it for a hook. ‘This rude tackle is passed rapidly through the water alongside the canoe or boat by a short line and rod, and is eagerly grasped by the fish, which is then jerked inboard.’ The usual length of the barracoota is three feet, weight 5lbs.</li><li>- (p 110) ‘In the early days of the Otago settlement, when the colonists depended solely on the Māoris for the supply of fish, it was very extensively used. It dries well, and is thus preserved in large quantities by the natives.’</li></ul>	Captain F.W. Hutton and J. Hector, <i>Fishes of New Zealand – Catalogue With Diagnoses of the Species and Notes on the Edible Fishes</i> , Wellington, NZ, 1872.																																																							
1877	<p>- Survey of fish for sale in Dunedin – information obtained in the same way as previously – taking notes of the various fishes exposed for sale in town, in boats at the jetties, enquiries at Port Chalmers, etc.</p> <table><tr><th>Species</th><th colspan="12">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td>Manga/Barracouta</td><td>-</td><td>-</td><td>13</td><td>24</td><td>13</td><td>16</td><td>17</td><td>13</td><td>6</td><td>12</td><td>9</td><td>-</td><td>123</td></tr><tr><td><i>Thyrsites atun</i></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> <ul style="list-style-type: none"><li>- Barracouta: season began on 17 October – were plentiful in the open water all along the coast.</li><li>- During the year, 8 boats, employing 24 men have been employed in fishing outside the Heads; 12 boats, employing 24 men have been engaged in the seine fishing in Otago Harbour and the adjoining inlets. A new boat of 14 tons recently launched at Port Chalmers for fishing outside the Heads.</li><li>- Complaints continue to be made about small fish.</li><li>- Observes that the supply has been much more steady than during last year, in part due to the ‘pretty regular’ shipments sent up from the Bluff. One or two ‘welled boats’ also working the waters adjacent to Otago Heads, bringing in moki, trumpeter, and other fishes, and thus keeping the market supplied with what used to considered rare or scarce fishes. With the exception of ling and sole, all the other items on the table show a large increase on last year’s returns.</li><li>- ‘There is one mode of fishing which has as yet received hardly a fair trial in our waters. I refer to trawling – a method which is largely employed in the seas adjacent to the British coasts.’</li></ul>	Species	Number of days in market													A	S	O	N	D	J	F	M	A	M	J	J	Total	Manga/Barracouta	-	-	13	24	13	16	17	13	6	12	9	-	123	<i>Thyrsites atun</i>														P. Thomson, ‘The Dunedin Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 10, 1877, pp 324-330.
Species	Number of days in market																																																								
	A	S	O	N	D	J	F	M	A	M	J	J	Total																																												
Manga/Barracouta	-	-	13	24	13	16	17	13	6	12	9	-	123																																												
<i>Thyrsites atun</i>																																																									
1878	<p>- Observations from 1 August 1877 to 31 July 1878, ‘taken day by day from the different shops in town, as well as</p>	P. Thomson, ‘Our Fish Supply’,																																																							

	<p>by inquiries at the jetties, Port Chalmers, etc’:</p> <table><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Mangu/Barracouta</b> <i>Thyrsites atun</i></td><td>-</td><td>-</td><td>2</td><td>24</td><td>16</td><td>18</td><td>7</td><td>14</td><td>16</td><td>11</td><td>1</td><td>-</td><td>109</td></tr></table> <p>- Barracouta: made its appearance on 29 October, when a solitary specimen caught, followed by abundance on 31 October.</p> <p>- Outside the Heads, 9 whale boats and 2 cutters are engaged in fishing, employing about 30 men. In the Harbour (or seining branch) there are 16 boats and about 40 men engaged in fishing. Two smoke-houses at Port Chalmers, with four men to each.</p>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Mangu/Barracouta</b> <i>Thyrsites atun</i>	-	-	2	24	16	18	7	14	16	11	1	-	109	<p><i>Transactions and Proceedings of the New Zealand Institute</i>, vol. 11, 1878, pp 380-386.</p>
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Mangu/Barracouta</b> <i>Thyrsites atun</i>	-	-	2	24	16	18	7	14	16	11	1	-	109																															
1885	<p>- Provides details of a brief assessment of New Zealand’s fish stocks and the potential for commercial exploitation.</p> <p>- States that from Martins Bay (South Westland) he ‘commenced to meet with fish in such numerous shoals that from there to off Oamaru, inshore and offshore, I believe millions of tons of fish could be caught yearly. . . . Chaslands Mistake, on the mainland, commands splendid moki fishing grounds, and also blue-cod, rock-cod, and trumpeter fishing. And here I began to meet with the barracouda in large numbers, and found them all the way northwards to off Oamaru; but off Cape Saunders and Otago Heads seems to be a central gathering ground for countless millions o f these fish for several months in the year. . . . Two men fishing, and one man rowing the boat, will often catch from thirty to forty dozen fish in two or three hours.’ (p 2)</p> <p>- ‘Ling and groper in great quantities I found from off Chaslands Mistake to off Timaru. Those fish are sometimes found inshore, but to get them in any quantity they must be fished for offshore. Otago Harbour commands most extensive and valuable barracouta, groper, ling, rock-cod, and crayfish fishing, and with proper fishing-smacks Otago Harbour could also command the blue-cod fishing.’</p>	<p>Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15.</p> <p><i>No. 1: J Mackenzie to Julius Vogel, 29 March 1885.</i></p>																																										
1900	<p>- the steam trawler ‘Doto’ chartered, fitted with an otter trawl (p 1)</p> <p>- expedition undertaken during autumn and winter months of 1900</p> <p>- hauls numbered 54 to 67 were located off the coast between Moeraki and Cape Saunders (pp 7-8)</p> <p>- ling, barracouta, red cod included among the fish taken in these hauls (p 14)</p>	<p>Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 23 July 1900, AJHR 1900 H15A.</p> <p><b>[Photocopy 38]</b></p>																																										
1902	<p>- Inquiry into the complaint by fisherman at Port Chalmers that trawling is affecting their interests and request that they should not be allowed to work within a certain distance of shore. Inquiry held at Port Chalmers on 14 and 15 November 1902.</p> <p>- Notes that there has been an unusual scarcity of fish in the last winter and spring – believes that trawling not the cause and looks to other factors, such as unusual weather. Points out that there has also been a scarcity of fish at other places, where there are no trawlers operating.</p> <p>- Notes that two trawlers working out of Port Chalmers – the ‘Express’ and ‘Napier’, owned by F.J. Sullivan.</p> <p>- Did not believe that the line and seine net fisherman had bought any proof to substantiate their claims that trawling was destroying fish-feed on the bottom and driving fish away.</p> <p>- Trawler owner and men working on the trawler stated that they generally work outside of the area where the small</p>	<p>Report of Inspector of Fisheries on Trawling at Port Chalmers, 18 December 1902, AJHR 1903 H-15B.</p>																																										

	<p>boats go and that they get quite a different class of fish from what the small boats get.</p> <ul style="list-style-type: none"> <li>- Fish mongers stated that the trawlers gave a more plentiful supply and more varied. Stated that the small-boat men cannot supply what is needed all year round and that in winter the market was almost entirely supplied by the trawlers.</li> </ul> <p><i>Evidence of F.J Sullivan, trawler owner</i></p> <ul style="list-style-type: none"> <li>- At the moment trawlers are working about eight miles off land and cannot get fish in less than 30 fathoms of water. Fish have confined themselves to deep water this season. Would be wrong to prevent trawlers from coming inshore. (p 2)</li> <li>- Notes that 14 men employed on the two trawlers, which are the largest boats in the country.</li> <li>- Have been able to catch fish in all weathers, when other fisherman could not venture out. (p 3)</li> </ul> <p><i>Evidence of Captain Ryffell of the trawler 'Express'</i></p> <ul style="list-style-type: none"> <li>- Employed for 12 months; usually trawl in 20 or 30 fathoms of water; never make a point of trawling in shallow water; keep on the same ground for 8 or 9 miles from 'the Point'(?]. (p 3)</li> <li>- Mostly catching large tarakihi, moki, soles, and kingfish; in deeper water always catching kingfish and ling.</li> <li>- The following fish that are caught by the trawlers, but not the fishermen: moki, terakihi, and sole. Conversely, the small-boat men catch barracouta and groper.</li> </ul> <p><i>Evidence of Frank Keenan, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that outside fishing ground extends from Cape Saunders to Shag Point. (p 4)</li> <li>- Fishes 10 miles from Otago Heads, catching by line fishing groper, red cod, ling, barracouta, and kingfish.</li> <li>- Claims that trawlers injuring fishing. Has been fishing for 10 years; fish terribly scarce the last 2 or 3 years. Now have to go much further than in other years, and the supply is shorter. Used to be able to get plenty of fish near Otago Heads.</li> <li>- Believes that trawling over the ground where the fish feed is disturbing the fish.</li> </ul> <p><i>Evidence of John Malcolm, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has fished locally for 25 years and has observed a marked decline in the last four years. (p 3)</li> <li>- 'Many years ago the boats used to keep the market more than supplied, and they have done it all along. They were limited very often to perhaps two dozen a day. They could take in perhaps thirty or forty barracouta, and two dozen groper.'</li> <li>- Details that there are 27 outside boats and craft, with two or three men on each.</li> <li>- States that there are over 200 'seine men'. [Seems that seine netting was done within the harbour, while the outside fishermen used lines.]</li> </ul> <p><i>Evidence of Edward Nelson, inside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has been fishing locally for 18 years, seine fishing all that time from the Port to the Heads. Has only once seen a season as bad – some 20 years ago. (p 4)</li> </ul>	
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<ul style="list-style-type: none"> <li>- States that since trawling has started inside fishermen rarely get sole, used to get 6 or 8 dozen. Has also been a decline in flounder over the last 10 years.</li> <li>- Number of seine fishermen the same as 15 years ago.</li> <li>- Believes that greater mesh size of trawl net would limit the destruction of small fish.</li> </ul> <p><i>Evidence of John H Tunnage</i></p> <ul style="list-style-type: none"> <li>- Sullivan employs four boats [all trawlers?]; outside there are five cutters (average size about 15 tons) and 31 small boats; inside a total of 32 three man boats. (p 5)</li> </ul> <p><i>Evidence of W.G. Robertson, wholesale fish merchant</i></p> <ul style="list-style-type: none"> <li>- ‘Since we have had the trawlers here the supply has very much increased, and undoubtedly so has the demand.’ (p 5)</li> <li>- States that trawlers and fishermen catch different fish.</li> <li>- Notes that for several years past we have had no moki or sprats, which were formerly very plentiful; red cod also dropped off.</li> <li>- Small boats catch most of their fish from Jan to May, when shoal fish appear and come close in shore, sometimes right up harbour.</li> <li>- Notes that trawlers continue to work in rough weather; the line-men cannot work in such weather, except in the three cutters (though even these cannot work several days after rains owing to fish not being able to see the bait). (p 6)</li> </ul> <p><i>Evidence of W Stewart, fishmonger, Princes Street</i></p> <ul style="list-style-type: none"> <li>- Has been in business for 16 years, observes that there has been a poor supply of fish over the last few years. (p 6)</li> <li>- ‘We should have had nothing at all if it had not been for the trawlers.’</li> <li>- Notes that trawlers catch fish that are not usually taken by the small boat fishermen, principally the terakihi.</li> <li>- Comments that flounders ‘seem to be going out of existence altogether.’</li> </ul> <p><i>Evidence of H Kenton, master of the trawler “Napier”</i></p> <ul style="list-style-type: none"> <li>- Many of the varieties of fish caught by trawl are not caught by the line and seine net men. Barracouta and groper are not caught in the trawl because the frequent the rocky bottom, which cannot be trawled. (p 6)</li> <li>- States it would be detrimental to trawling if a three mile limit was imposed from the shore. Sometimes fish more plentiful inshore than in deep water, and if weather rough need to fish closer to land.</li> <li>- States that he does not believe the supply of flounder is going down. (p 7)</li> </ul> <p><i>Evidence of Francis Hewitt, mate of the trawler “Napier”</i></p> <ul style="list-style-type: none"> <li>- Formerly worked as a small boat fisherman and fish curer. States that in winter the flounder always ‘go off’ and that the only thing the seine men have to live on is red cod. ‘Five years ago we were catching nothing but red-cod, and it was owing to that that Mr Sullivan took up the trawling business.’ (p 7)</li> </ul>	
1907	- ‘The Inspector at Dunedin reports that in all old-known fishing-placs the catches have been good. In all shallow	Marine Department annual report, 25

	bays flounders and small fish are obtained in large quantities, and groper, kingfish, schnapper, barracouta, blue and red cod, terakihi, trevalli, and moki are found along the coast from Oamaru to Chaslands.' (p 6)	May 1907, <i>AJHR</i> 1907 H-15.
1907	<ul style="list-style-type: none"> <li>- report on the fishing and deep-sea trawling cruise of the <i>Nora Niven</i>, chartered by the Government from June to September 1907 (p 1)</li> <li>- object of cruise was to test the ocean-floor off the east coast from Stewart Island to the Bay of Plenty and around the Chatham Islands; ascertain trawling grounds exist outside those already known and worked; ascertain what fish-life exists out to 100 fathoms; to look for offshore banks</li> <li>- used otter trawl nets; spread of 120 ft (footrope) and 80 ft (head-line)</li> <li>- owing to time constraints, difficult to thoroughly test each section or to go very far off to test off-shore banks</li> <li>- 106 hauls made, range from 4 to 120 fathoms (p 2)</li> <li>- notes that seasonal differences in fish numbers not established by trawl</li> </ul> <p><i>Summarised report on the section of coast from Stewart Island to Otago Heads</i> (p 3)</p> <ul style="list-style-type: none"> <li>- no mention of barracouta</li> </ul> <p><i>Otago to Lyttelton</i> (p 4)</p> <ul style="list-style-type: none"> <li>- no mention of barracouta</li> </ul>	Interim Report on Experimental Trawling, by L.F. Ayson, Chief Inspector of Fisheries, 12 November 1907, <i>AJHR</i> 1907 H-15B. [ <i>Photocopy 40</i> ]
1910	<ul style="list-style-type: none"> <li>- Report of local inspector for the Otago and Canterbury districts: <ul style="list-style-type: none"> <li>- reports a depression in the industry caused mainly by the scarcity of fish</li> <li>- owing to new class of boats and gear, many parts of the coast formally untouched have been visited, and, as a consequence, a better variety of fish has been taken</li> <li>- groper, trevally, terakihi, snapper, moki, and barracouta have been taken, 'though some of them have disappeared from their old haunts'</li> </ul> </li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1910 H-15.
1913	<ul style="list-style-type: none"> <li>- Otago District: (p 11) <ul style="list-style-type: none"> <li>- from information gathered from fishermen along the coast, the quantity of fish landed about the same as last year</li> </ul> </li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15.
1913 October	<ul style="list-style-type: none"> <li>- 'Barracouta have been caught in large quantities close inshore.'</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1913, M 1 2/12/2 part 1, NAW.
1914	<ul style="list-style-type: none"> <li>- Dunedin – catches as good as those made in previous year <ul style="list-style-type: none"> <li>- good hauls of barracouta made within a few mile of Otago Heads</li> </ul> </li> <li>- Nuggets – the season has been a poor one and the boats have had to go farther away <ul style="list-style-type: none"> <li>- groper, ling, and barracouta have been the principal fish taken</li> </ul> </li> </ul>	Marine Department annual report for 1913-1914, <i>AJHR</i> 1914 H-15.
1914 January	<ul style="list-style-type: none"> <li>- Barracouta taken in large quantities near Cape Saunders.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1914, M 1 2/12/2 part 1,

		NAW.
1914 April	<ul style="list-style-type: none"> <li>- Weather unsettled, strong NE winds; consequently the linemen not able to go out regular to the fishing grounds. When weather favourable, good hauls of soles, red cod, flounders caught in the trawls.</li> <li>- Line men have had a variable month – except barracouta, round fish have not been too plentiful.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 May 1914, M 1 2/12/2 part 1, NAW.
1914 November	<ul style="list-style-type: none"> <li>- Barracouta now being caught in large numbers inshore.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 November 1914, M 1 2/12/2 part 1, NAW.
1914 December	<ul style="list-style-type: none"> <li>- More bad weather, restricting fishing. Also states that ‘prevailing low temperature also appeared to drive fish away from the shallow coastal waters’.</li> <li>- Barracouta are now becoming scarce, though caught in large numbers at the beginning of the month.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 January 1915, M 1 2/12/2 part 1, NAW.
1915	<ul style="list-style-type: none"> <li>- October to December poor weather; but otherwise favourable, with good catches from linemen and trawlers.</li> <li>- Groper, ling, kingfish, red cod plentiful; barracouta, moki, tarakihi, trumpeter somewhat scarce; supply of blue cod poor, though a few good catches have been made to the south of Cape Saunders.</li> </ul>	Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.
1915 March	<ul style="list-style-type: none"> <li>- Barracouta are being taken in large numbers close inshore.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 March 1915, M 1 2/12/2 part 1, NAW.
1915 July	<ul style="list-style-type: none"> <li>- Kingfish and Barracouta now becoming very scarce.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 August 1915, M 1 2/12/2 part 1, NAW.
1916	<ul style="list-style-type: none"> <li>- 3 steam trawlers and 3 smaller craft driven by oil . . .</li> <li>- Other fish taken – groper, ling, bream, kingfish, barracouta (caught in quantity by line men within a few miles of Otago Heads), moki, and tarakihi.</li> <li>- Nuggets – good hauls of groper and kingfish from the end of October; supply of blue cod not good; barracouta and red cod off the coast in large numbers, but very few caught (owing to cartage freights).</li> <li>- Tautuku – fishermen report no scarcity of fish; groper, kingfish, and barracouta plentiful; little fishing during the summer months owing to hot weather.</li> </ul>	Annual report on Otago fisheries by inspector of fisheries, W Adams, for year ended 31 March 1916, M 1 2/12/115 NAW.
1916 February	<ul style="list-style-type: none"> <li>- Trawlers continue to take good hauls of soles &amp; red-cod. Barracouta reported to be very plentiful, but little demand.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 February 1916, M 1 2/12/2 part 1, NAW.
1916 April	<ul style="list-style-type: none"> <li>- Trawlers taking good hauls of flat fish and small numbers of moki, tarakihi, and ling. Barracouta still being</li> </ul>	Monthly report on Otago Fisheries,

	caught in large quantities close inshore.	Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 April 1916, M 1 2/12/2 part 1, NAW.
1916 June	- 'Unsettled foggy weather has prevailed & the trawlers & linemen have not been able to go out regular to the grounds.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 July 1916, M 1 2/12/2 part 1, NAW.
1917 May	- Details include . . . Weather conditions bad, boats have only averaged 2 days fishing each week. 'All fish have demanded a fair price and owing to the small catches taken the fishermen have decided on raising the limit of groper from 2 dozen to 3 dozen per boat.' - Dunedin market on 24 May 1916: total of 80 cases of fish (20 cases of trevally from Oamaru, remainder caught locally). Local supply: small trevally (4 cases), red cod (5 cases), blue cod (9 cases), groper (16 cases), ling (4 cases), flounders (2 cases), coutre (2 cases), bream (4 cases), soles (7 cases), kingfish (4 cases), mixed fish (3 cases).	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1917, M 1 2/12/2 part 1, NAW.
1917 November	- Market poor. 'Several of the boats are working single handed as the limit of fish has been reduced so much that two men can hardly make a living. . . . The steam trawlers have been bringing in large quantities of school fish which have demanded very low prices . . . . The small trawlers have been catching a fair quantity of flat fish . . . . There has not been any quantity of seine fish caught during the month'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 November 1917, M 1 2/12/2 part 1, NAW.
1918	- Generally fish have been plentiful during the year, but fishing handicapped by inconvenient transport, the price of benzine, and unfavourable weather and sea conditions.	Annual report for year ended 31 March 1918 for Oamaru and Moeraki by Inspector of Fisheries at Oamaru, H Foster, M 1 2/12/163 NAW.
1919 August	- Details include . . . Usually a poor month for line men, weather has made it worse than usual. 'On more than one occasion several of the boats have returned from a distance of 18 miles with from one to six ling for the days catch'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1919, M 1 2/12/2 part 1, NAW.
1919	- 'We the undersigned members of the above Society, petition you to introduce a three mile limit from point to point Moeraki to Cape Saunders, similar to that appertaining to the British Isles, Auckland and other ports of the Dominion. // Prior to the trawlers commencing operations, flat fish (flounders and soles) used to go outside the heads into deeper water to spawn, and return again unmolested to the harbours, where Seine fishermen caught them in large quantities. The same applies to groper, kingfish, cod, ling and so on which came close in shore and were easily caught in plenty.'	Petition by The Otago Fisherman's Society Limited, October 1919, to the Minister of Marine, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.
1920	- This year shows an increase in quantity of all fish except Warehou and Barracouta, the figures for which show a marked decrease. Fishermen state that they catch barely enough of the latter for bait.	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1920 by Inspector of Fisheries Richardson, M 1 2/12/207 NAW.
1920	- Line fishermen: irregular catches for first four months owing to weather; when conditions improved the market	Annual report for Otago for year ending

	was oversupplied and the fishermen worked less (partly on account of the high cost of benzine). -	31 March 1920 by Inspector of Fisheries S Broadley, M 1 2/12/207 NAW. <i>[Photocopy 10]</i>
1920 May	- Details include . . . 'Some good hauls taken by the line fishermen principally red cod, groper, kingfish, ling, and barracouta. . . . One man working alone secured 20 dozen barracouta in one day'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1920, M 1 2/12/2 part 1, NAW.
1921	- Satisfactory year for the majority of line fishermen, weather favourable. Several fishermen have purchased more up to date boats, which have enabled them to put to sea under conditions previously unworkable. - red cod have appeared again in large shoals	Annual report for Otago for year ending 31 March 1921 by Inspector of Fisheries S Broadley, M 1 2/12/224 NAW. <i>[Photocopy 11]</i>
1921 July	- Weather conditions favourable. - The boats working closer inshore brought in large supplies of red cod and barracouta. Trawlers taking less fish than previous months. Seine fishermen have taken only fair catches of flounders.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1921, M 1 2/12/2 part 1, NAW.
1922	- Unsettled weather for whole of the year saw the line fishermen average about 3 working days per week. Make a point of catching groper and kingfish as far as possible all year round, believe that they fetch higher prices than say, red cod, ling, and barracouta, which are at times unsaleable. Large quantities of barracouta have frequented the fishing grounds during the year, but fishermen have not troubled to take any quantity. - The trawling boats have taken large catches of flat and round fish for practically the whole of the year.	Annual report for Otago for year ending 31 March 1922 by Inspector of Fisheries S Broadley, M 1 2/12/245 NAW. <i>[Photocopy 12]</i>
1922 June	- 'The line fishermen have brought in large quantities of groper, barracouta, ling and red cod most of which have been taken from 10 to 18 miles off the heads. . . . The trawlers working well offshore have brought in smaller catches than for some time past . . . .	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1922, M 1 2/12/2 part 1, NAW.
1924	- During the whole period there has been an abnormal scarcity of all kinds of fish.	Annual report for Oamaru for year ending 31 March 1924 by Collector of Customs, M 1 2/12/298 NAW.
1924	- Comments on catch of different species (line fishermen): - barracouta have frequented the Otago coast in large numbers during the season, but there was no demand, so no large catches brought in	Annual report for Otago for year ending 31 March 1924 by Inspector of Fisheries S Broadley, M 1 2/12/298 NAW.
1924 December	- Towards the end of the month large quantities of barracouta were noticed outside the Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1924, M 1 2/12/2 part 1, NAW.
1925	- Fish have become more scarce throughout the year, prices rising accordingly. - Groper and kingfish taken by the line fishermen. Large quantities of red cod and barracouta frequented the Otago waters, but not caught because lack of demand.	Annual report for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.



1925 January	<ul style="list-style-type: none"> <li>- Details include . . . ‘The line fishermen have brought in moderate catches of groper and kingfish during the month, whilst red cod, ling and barracouta have been fairly plentiful.’ Price low – on one occasion secretary of the Fishermen’s Union issued instructions for fishermen to cease working in the middle of the week.</li> <li>- ‘At the present time barracouta are to be seen in large quantities outside Otago Heads.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1925, M 1 2/12/2 part 1, NAW.
1926	<ul style="list-style-type: none"> <li>- Year at Oamaru unprofitable for the fishermen during the past 12 months; at Moeraki the fishermen report more favourably on their catches.</li> <li>- Oamaru boats rely on groper for their main catch – plentiful for the first two months, then patchy, during the winter barely enough petrol consumed in seeking new grounds. Red cod and blue cod scarce.</li> <li>- At Moeraki, blue cod and groper proved the mainstay of the Moeraki boats, fairly plentiful. Red cod, barracouta, ling, and crayfish caught in fair quantities throughout the summer months.</li> </ul>	Annual report for Oamaru and Moeraki for year ending 31 March 1926 by Collector of Customs, M 1 2/12/356 NAW.
1926 April	<ul style="list-style-type: none"> <li>- Details include . . . Favourable weather has seen line fishermen averaging five days of fishing per week and have been able to work a long distance off the land, several of these boats taking 3½ hours to reach the fishing grounds, where good catches of groper were taken. Fair quantities of barracouta brought in.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 7 May 1926, M 1 2/12/2 part 1, NAW.
1926 June	<ul style="list-style-type: none"> <li>- Details include . . . Owing to favourable weather the line fishermen able to work well off the land, taking 4 hours to get to the fishing grounds. Some of the larger craft are staying out for 2 or 3 days at a time. All of these boats have taken good catches of groper. Other line fishermen working around Cape Saunders have brought in fair quantities of barracouta and ling.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1926, M 1 2/12/2 part 1, NAW.
1926 November	<ul style="list-style-type: none"> <li>- Details include . . . ‘For this time of year the line fishermen are compelled to go well off the land to secure any quantity of groper. Some of these boats are steaming up to 25 miles to get on the fishing grounds. The boats working close in shore are taking moderated catches of groper and large quantities of barracouta.</li> <li>- ‘On account of changeable weather the water outside Otago Heads is discoloured for about six miles offshore, this I think, is responsible for the fish not working inshore. There appears to be no sign of any fish food about the Otago Waters at the present time, and this is unusual for this month of the year.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1926, M 1 2/12/2 part 1, NAW.
1927 January	<ul style="list-style-type: none"> <li>- Details include . . . Line fishermen caught groper about 10 miles from the Otago Heads, kingfish at night time about 4 miles off. Towards the end of the month no sale for red cod and barracouta, therefore the fishermen had to cease fishing for them.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 February 1927, M 1 2/12/2 part 1, NAW.
1928	<ul style="list-style-type: none"> <li>- Except for three months, line fishermen have had to work at a far greater distance from Otago Heads than in previous years. Some Port Chalmers boats steaming to the Nuggets fishing grounds (getting good catches of groper in favourable weather); others fishing off Green Island and Taieri Mouth.</li> <li>- Fish scarce on the North Reef – only 1 or 2 large catches caught during the year. Few kingfish; red cod and barracouta more plentiful, but demand poor.</li> <li>- Seine men brought in large quantities of trevally at the beginning of the year, but few school fish of any kind.</li> </ul>	Annual report for Otago for year ending 31 March 1928 by Inspector of Fisheries S Broadley, M 1 2/12/413 NAW. [Photocopy 22]
1928 April	<ul style="list-style-type: none"> <li>- Details include . . . Line fishermen have had moderate catches of groper, and ‘a fair number of kingfish’. Fair quantities of ling, red cod, barracouta were taken from the fishing grounds closer inshore.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to

	- Trawling boats working in from 2 to 8 miles off the Heads report a scarcity of flatfish; at times brought in large catches of red cod.	Secretary, Marine Department, 30 April 1928, M 1 2/12/2 part 1, NAW.
1930	- Line fishermen around Otago Heads have had a bad year. During the latter part of the year some began long-lining – catching fair amounts of groper and ling.	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1930, M 1 2/12/477, NAW.
1930 March	- Details include . . . ‘The majority of line fishermen are at the present time using long lines for catching groper and ling, good catches of which were brought in on these boats.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1930, M 1 2/12/2 part 1, NAW.
1930 September	- Details include . . . Poor weather; line fishermen only able to get out about seven days during the month. A number of these men preferred to stay inside the Harbour hooking small red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1930, M 1 2/12/2 part 1, NAW.
1931	- Very lean year for line fishermen . . .	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1931, M 1 2/12/500, NAW.
1931 April	- Details include . . . ‘Large quantities of spawn resembling small garfish made their appearance inside the Harbour and were followed by large shoals of mullet and barracouta. These were seen for about two weeks when they worked their way outside the Heads. Red cod and barracouta could have been taken in plenty, but . . . there was no demand and prices were accordingly low.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1931, M 1 2/12/2 part 1, NAW.
1932 December	- Details include . . . ‘Large quantities of whale feed are at present to be seen off Otago Heads. Barracouta and red cod are feeding off these in great numbers.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1932, M 1 2/12/2 part 1, NAW.
1933 January	- Details include . . . ‘During the past two months large shoals of whale feed have been about the Otago Heads, and large numbers of barracouta and red cod have been making that their feeding ground.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1933, M 1 2/12/2 part 1, NAW.
1934 June	- During the early part of the month when weather conditions were favourable, the line boats working the North Reef, and in the deep water off Cape Saunders brought in moderate catches of groper and a few kingfish. The smaller boats working from Blue Skin Bay to Cape Saunders in shallow water brought in fair catches of ling, red cod, and a few dozen barracouta.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1934, M 1 2/12/2 part 1, NAW.
1934 October	- Details include . . . Weather improved, supply increased. ‘Large shoals of barracouta appeared off the Otago Heads, but very soon there was no demand and the fishermen had to cease catching them.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

1934 November	- Details include . . . Line fishermen working about 8 miles offshore brought in fair numbers of groper, ling, and a few kingfish. Smaller craft working closer secured fair quantities of red cod, ling, and barracouta.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 October	- 'During the early part of the month large numbers of small shrimps were off the Otago Heads with quantities of Barracouta in the vicinity.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 December	- 'The steam trawler "Olive Cam" commenced fishing out of Port Chalmers about the middle of the month and secured large hauls of flat fish and round fish of all kinds. The majority were taken from a depth of from 30 to 40 fathoms. After one trip of 96 hours fishing she returned with 550 boxes each weighing 50 lbs, and made up of groper, ling, soles, barracouta, terakihi, moki, trevally, gurnard, flounders, red cod, dogfish, elephant fish, a few trumpeters, and blue cod.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 January	- Details include . . . "Olive Cam" has ceased fishing out of Port Chalmers; sailed to Australia with a large consignment of fish. Had been working both the Nuggets and Waikawa grounds at a depth of from 20 to 30 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 February	- Details include . . . During the past month the Port Chalmers fishermen have taken fair catches of groper, ling, red cod and a few barracouta. (Little demand for barracouta, fishermen did not bring many ashore.) Majority of these fish taken off Hayward's Point about 4 miles from the Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937	<ul style="list-style-type: none"> <li>- Methods of fishing – line-fishing (dan lines and windy buoys) – Otago and South Canterbury (p 27) <ul style="list-style-type: none"> <li>- at Port Chalmers, Oamaru, Moeraki, and off Taieri Mouth dan lines are the most common type of gear, very little hand-lining being done</li> <li>- lines are suspended from drums to which flags are attached to indicate their position</li> <li>- dan lines are responsible for a large proportion of landings in this area; almost the sole method of fishing used at Oamaru; significant at Port Chalmers</li> <li>- the main fish landed is groper, but also large quantities of less valuable ling; other fish such as red cod and barracouta could be landed in greater quantities if there was a market for these fish</li> </ul> </li> <li>- Methods of fishing – hand-lining – Otago and South Canterbury (p 30) <ul style="list-style-type: none"> <li>- 'This method of fishing is used throughout the Otago and South Canterbury districts, but the fisheries have declined to such an extent that it is becoming practically impossible for the men to make a fair living by the use of hand-lines only, and they are used mainly as an auxiliary method of fishing either while waiting for the set gear to be picked up or when weather conditions make it unadvisable to use set or dan lines.'</li> </ul> </li> </ul>	'Report of the Sea Fisheries Investigation Committee', <i>AJHR</i> , 1937-1938, H-44A.
1937	- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location, though does have a (one-off?) breakdown for South Island ports in main body of report.	A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-1938, H-15.

	Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method
	Oamaru	Lines	97.4	Groper, red cod, blue cod, ling
		Set-nets	2.4	Moki, butterfish
		Trawl	0.2	Sole, flounder
	Moeraki	Lines	98.3	Groper, blue cod, ling
		Set-nets	1.7	Moki, butterfish
	Port Chalmers	Trawl	48.6	Sole, red cod
		Lines	42.5	Groper, ling
		Seine-nets and set-nets	8.9	Flounder, red cod
	Taieri Mouth	Trawl	76.9	Sole, flounder
		Lines	23.1	Groper, blue cod, red cod
	Nuggets	Trawl	78.2	Sole, flounder
		Lines	21.8	Groper, barracouta
	Owaka	Lines	66.7	Groper, blue cod
		Nets (seine)	33.3	Flounder
	Waikawa	Trawl	65.7	Sole, flounder
		Lines	33.9	Groper, blue cod
	Nets (seine)	0.4	Flounder	
- Little comment on Otago fisheries: ‘The general impression obtainable from various reports is that the local trawling-grounds off Canterbury and Otago are not as productive as formerly. The groper fishery, though yielding good supplies to long-liners on occasions, requires more effort than formerly to produce the same results.’				
1937 May	- Details include . . . ‘The large steam trawler working the grounds North East of Otago Heads at a depth of 40 to 60 fathoms brought in some very large catches of Tarakihi, moki, barracouta, red cod, dogfish, elephant fish and a few cases of flatfish.’			Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938 February	- Details include . . . ‘Large shoals of whalefeed are at present to be seen both inside and outside the Otago Harbour. It is many years since this was seen in such large quantities and all the fish are feeding on it.’			Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938	- Most of the records presented are from marine studies carried out at the Marine Fisheries Investigation Station at Portobello over a period of 27 months (1930-32). Supplementary observations compiled from daily visits to the Dunedin fish market cover nearly another two years.			Graham, David H., ‘Fishes of Otago Harbour and Adjacent Seas with Additions to Previous Records’, <i>Transactions and Proceedings of the New Zealand Institute</i> , volume 68, 1938 pp 399-419.
	Thyrstites atun. Barracouta.	Localities: In large or small shoals with or usually without other fish, at times densely occupying many acres at the surface. Large shoals seen 12 miles off shore. Occasionally in the harbour.		

1940 May	- Details include . . . Line fish scarce for this time of the year.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																								
1941 October	- Details include . . . ‘The few line boats working out of Port Chalmers report a decided scarcity of groper, often the catches were too small to send to market. The boats working closer inshore secured small catches of red cod, ling, blue cod and a few barracouta.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																								
1941 November	- Details include . . . ‘Barracouta were seen in large numbers about Cape Saunders, but it was not until nearing the end of the month they were taken in any quantity.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																								
1942 November	- Details include . . . Large shoals of barracouta often seen, but did not bite freely.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																								
1943 February	- Details include . . . Large catches of barracouta taken by the line fishermen working the Otago grounds for export.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																								
1944 January	- ‘Large quantities of fish feed including sprats are to be seen both inside and outside the Otago Harbour. Also large shoals of barracouta, but so far this season they have not been on the bite’.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																								
1946	<div>- Port Chalmers: no steam-trawler has replaced the one wrecked in 1944, though a new motor-trawler is operating in the middle of 1945. The lack of a steam trawler has seen a substantial drop in the catches of terakihi from 3,166 cwt in 1944 to 173 cwt in 1945.</div> <div>- 25,533 cwt landed at Port Chalmers:<div>- 16,260 cwt from motor-trawlers (including 7,034 cwt of red cod and 6,282 cwt of sole)</div><div>- 9,091 from line-fishing vessels (including 7,402 cwt of barracouta)</div></div> <div>- Main types of fish landed over the last five years:</div> <table><tr><td></td><td>1941–42</td><td>1942–43</td><td>1943–44</td><td>1944–45</td><td>1945–46</td></tr><tr><td>Tarakihi</td><td>5 101</td><td>2 886</td><td>3 361</td><td>3 166</td><td>173</td></tr><tr><td>Sole</td><td>6 394</td><td>5 410</td><td>4 114</td><td>4 993</td><td>6 282</td></tr><tr><td>Red cod</td><td>6 952</td><td>10 377</td><td>4 501</td><td>4 033</td><td>7 605</td></tr></table>		1941–42	1942–43	1943–44	1944–45	1945–46	Tarakihi	5 101	2 886	3 361	3 166	173	Sole	6 394	5 410	4 114	4 993	6 282	Red cod	6 952	10 377	4 501	4 033	7 605	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1946, Marine Department annual report, <i>AJHR</i> 1946, H-15.
	1941–42	1942–43	1943–44	1944–45	1945–46																					
Tarakihi	5 101	2 886	3 361	3 166	173																					
Sole	6 394	5 410	4 114	4 993	6 282																					
Red cod	6 952	10 377	4 501	4 033	7 605																					

	<table><tr><td>Barracouta</td><td>5 599</td><td>9 878</td><td>5 157</td><td>6 300</td><td>7 502</td></tr><tr><td>Flounder</td><td>1 516</td><td>840</td><td>885</td><td>1 163</td><td>1 366</td></tr><tr><td>Total</td><td>29 724</td><td>33 603</td><td>21 523</td><td>23 264</td><td>25 533</td></tr></table>	Barracouta	5 599	9 878	5 157	6 300	7 502	Flounder	1 516	840	885	1 163	1 366	Total	29 724	33 603	21 523	23 264	25 533																									
Barracouta	5 599	9 878	5 157	6 300	7 502																																							
Flounder	1 516	840	885	1 163	1 366																																							
Total	29 724	33 603	21 523	23 264	25 533																																							
1947	- ‘We the fishermen operating boats at Nugget Bay are much concerned about the depletion of fish in Nugget Bay by outside trawlers, and are desirous of getting an area set aside on which Nugget boats only are allowed to operate.’	F.H. Arthur to Minister of Marine, 8 February 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										
1947	- Commenting on above letter by F.H. Arthur: ‘The depletion, I am afraid is a known fact, as all who know the area concede that the grounds are slowly becoming poorer. All along the coast the position is the same, but this is in a large measure offset by higher prices.’ - Suggests that trawling be totally prohibited from the area if the depletion was to become an urgent problem.	McIvor, District Inspector of Fisheries to Secretary, Marine, 11 March 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										
1948	- Port Chalmers: total landings of 44,849 cwt, almost double the previous year. Increase mainly due to the fact that a modern steam trawler commenced fishing from this port in February, landing 14,670 cwt for the year. <table><tr><td></td><td>1943–44</td><td>1944</td><td>1945</td><td>1946</td><td>1947</td></tr><tr><td>Tarakihi</td><td>3 361</td><td>3 166</td><td>173</td><td>81</td><td>9 977</td></tr><tr><td>Sole</td><td>4 114</td><td>4 993</td><td>6 282</td><td>8 366</td><td>10 963</td></tr><tr><td>Red cod</td><td>4 501</td><td>4 033</td><td>7 605</td><td>3 846</td><td>2 536</td></tr><tr><td>Barracouta</td><td>5 157</td><td>6 300</td><td>7 502</td><td>8 171</td><td>13 938</td></tr><tr><td>Flounder</td><td>885</td><td>1 163</td><td>1 366</td><td>745</td><td>1 062</td></tr><tr><td>Total (cwt)</td><td>21 523</td><td>23 264</td><td>25 533</td><td>23 250</td><td>44 849</td></tr></table>		1943–44	1944	1945	1946	1947	Tarakihi	3 361	3 166	173	81	9 977	Sole	4 114	4 993	6 282	8 366	10 963	Red cod	4 501	4 033	7 605	3 846	2 536	Barracouta	5 157	6 300	7 502	8 171	13 938	Flounder	885	1 163	1 366	745	1 062	Total (cwt)	21 523	23 264	25 533	23 250	44 849	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1948, Marine Department annual report, AJHR 1948, H-15.
	1943–44	1944	1945	1946	1947																																							
Tarakihi	3 361	3 166	173	81	9 977																																							
Sole	4 114	4 993	6 282	8 366	10 963																																							
Red cod	4 501	4 033	7 605	3 846	2 536																																							
Barracouta	5 157	6 300	7 502	8 171	13 938																																							
Flounder	885	1 163	1 366	745	1 062																																							
Total (cwt)	21 523	23 264	25 533	23 250	44 849																																							
1948	- ‘A claim that the livelihood of fishermen at Taieri Mouth was being affected by the inroads of Port Chalmers boats, which had destroyed 10 years’ work on the part of the Taieri Mouth fishermen, and the operations of a “large steam trawler” between Otago and Oamaru had depleted the fishing grounds of groper and had a harmful effect on private boats operating from Oamaru, Moeraki and Karitane was made to the Daily Times in the week-end by a man who has been fishing at Taieri Mouth for many years. // “About 20 years ago two boats went to Taieri Mouth to look for fresh fishing grounds”, he said. “They became established, and in time about 11 boats were operating from Taieri Mouth. No trawling had been done there before, and the fishing grounds were found to be good. Six cases of fish were caught for a tow lasting an hour and a-half, boats with low-powered engines being used. There was no export market at the time and, in order to preserve the grounds and regulate the supplies of fish to the market, the fishermen did one tow a day. // The Port Chalmers boats heard about the grounds, however” he continued, “and they worked them continuously until the fish became seriously depleted. Eventually, Port Chalmers fishermen did not gain by trawling off Taieri Mouth, and they went away. After that the Taieri Mouth fishermen got about two cases of fish from a two-hour tow.”’ - “‘It took 10 years for us to build up the grounds,” he said, “and in the past two years, when the fish have been better than ever, the Port Chalmers boats have begun to visit the grounds again. All through the summer they	Article entitled: “Fishing Grounds – Excessive Trawling – Effect on Taieri Mouth Fleet”, extract from <i>Otago Daily Times</i> , 12 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										

	<p>worked round the clock, and catches of up 100 cases have been known to go back to Port Chalmers.”</p> <p>- ““The export of fish has not been of benefit to the public of Otago. It has been a means for the outlet of surplus fish, and the fishermen have ‘threshed’ it to such an extent that the grounds are becoming depleted.””</p>	
1956	<p>- [Graham worked for many years as a marine biologist at the Marine Fisheries Investigation Station, Portobello, Otago. In <i>A Treasury</i>, Graham refers largely to past observations during his time at the Research Station. Quite a lot of the material in this book repeats information presented in his 1938 <i>Transactions</i> article (vol 68, pp 399-419). I have not taken notes where the information is repetitive. Most of his observations, unsurprisingly, relate to Otago.]</p> <p><i>Barracouta (Manga)</i></p> <p>- (p 310) These fish usually caught on a slightly curved stick, about 4 feet in length. Fastened to this stick was a piece of stout fishing line, about 3-4 feet in length, carrying a piece of red wood about 5-6 inches in length. A bent nail was secured to this piece of wood in the form of a hook but no bait was used. ‘When a school of Barracouta was found the Couta stick, or paw, was brought out ready for fishing. From the cockpit of the launch the piece of wood with the nail was violently swirled with a circular motion in and out of the water, causing a disturbance of the water in a good imitation of a number of Sprats, Pilchards or other small fish jumping in and out of the sea. The Barracouta would swim for such a place. Seeing the piece of red wood moving rapidly through the water they would take it for a fish, snap at it or even jump out of the water for the lure and were caught by the crude iron hook. As the fish was hooked during the time the paw was being drawn through the water the fisherman would swing the fish over his head above the boat or launch and when the caught fish was midway in the air, more or less above the cockpit, would expertly give the stick a dexterous smart twist. As there was no barb on the hook the fish was released and fell into the cockpit. So rapid are expert fishermen at this game that I have a reliable record of one man catching ninety-six dozen Barracouta in one day.’</p> <p>- (p 311) ‘. . . hardy fishermen did not seem to become exhausted and could keep up a perfect rhythm hour after hour and enjoy it.’</p> <p>- One method of catching barracouta was to watch for the movement of seabirds.</p> <p>- During February and March, large catches of Barracouta made when schools of the fish would set in towards Cape Saunders and drive shoals of Pilchards and Sprats inshore.</p> <p>- (p 312) Barracouta has been canned successfully.</p> <p>- (p 313) In 1930-33, little demand for canned Barracouta, Marine Department annual report records that less than 5 tons were landed in New Zealand ports. But by 1947, 572 tons were landed.</p> <p>- ‘Barracouta were to be found up and down the coastline of Otago and in the Otago Harbour in large or small shoals, sometimes singly and sometimes densely occupying many acres at the surface up to 12 miles off shore.’</p>	<p>David H. Graham, <i>A Treasury of New Zealand Fishes</i>, second edition, A.H. and A.W. Reed, Wellington, 1956. [First published in 1953.]</p>
1957	<p>- ‘Trawler and line fishermen operating off the Otago coast are not “striking it rich” just now. For reasons that only research officers will be able to explain comparatively few fish are being taken from the recognised grounds. In previous years the poundage each day rose into four figures. Now only about 300lb are being taken in a day that lasts as long as 15 hours. . . . No one seems to know why the flounders and sole have disappeared.</p>	<p>‘Deep Sea Fishing’, <i>Otago Daily Times</i>, 18 May 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.</p>

## S29: Otago: Blue Cod

Year	Details	Source				
Unspecified (pre European)	<div>- (pp 62-63) Relative abundance of fish caught by pre-European Māori:<table><tr><th>Fish Family</th><th>Percent</th></tr><tr><td>Blue Cod</td><td>16.6</td></tr></table></div> <div>[Figures vary by area.]</div> <div>- (pp 72-73) Blue Cod. Frequency of blue cod in archaeological sites varies throughout New Zealand. Found in 78 sites in the Fishbone Database – comprise more than 10% of the total catch; species important to pre-European Māori in many parts of New Zealand. Blue cod bones in sites around Otago Harbour, east coast of Coromandel Peninsula/Great Barrier and inner Hauraki Gulf.</div>	Fish Family	Percent	Blue Cod	16.6	F. Leach, <i>Fishing in Pre-European New Zealand</i> , Wellington, 2006.
Fish Family	Percent					
Blue Cod	16.6					
1860s	Example of Otago fisherman in 1860s: Richard Lewis, who had his fishing ketch delivered from Victoria to Otago in 1862. He began by catching hapuku and blue cod between Moeraki and Cape Saunders. Around 1870 he switched to seine fishing for flounder and red cod in Otago Harbour.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 24.				
1860s	A fish-curing factory established at Port Chalmers, processing a wide range of species including barracouta, hapuku, cod, gemfish, and ling.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 25.				
1860s and 1873	From the early 1860s, using small rowboats and sail-assisted dinghies, Moeraki fishermen began fishing for the wider North Otago market. Dried and smoked fish were sent as far afield as Oamaru. An 1873 report, noted that blue cod, red cod, groper, perch, and crayfish were being taken to Oamaru.	McLean, Gavin, <i>Moeraki</i> , Otago Heritage Books, Dunedin, 1986, p 56.				
1869	<div>- notes that the evidence ‘is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.’</div> <div>- three regular fisheries at work: Otago Heads (Harbour and ‘outside’), Moeraki, and Molyneux Bay</div> <div>- these fisheries are worked all year around, though seasonal fluctuation</div> <div>- estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux</div> <div>- Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux</div> <div>- the number of boats working the coast about 30</div> <div>- fishing inside the harbour is carried on all year, each boat working about six tides a week</div> <div>- outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March</div> <div>- the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads</div>	Report of the commissioners for the province of Otago, No. 2 in Further papers relative to the Fisheries of the Colony, <i>AJHR</i> 1869 D-15.				



	<ul style="list-style-type: none"><li>- each boat usually uses one net besides lines – the number of nets estimated to be about 20</li><li>- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.</li><li>- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon</li><li>- crayfish are also ‘caught in large numbers’</li><li>- information based on principally on that provided by fishermen themselves</li><li>- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast</li><li>- crayfish at Purakinui and Blueskin Heads</li></ul>																																									
1869	<i>George Henry Sherwood (fisherman) examined by Mr Burns</i> <ul style="list-style-type: none"><li>- groper, ling, barracouta, red cod, and skate found within a short distance of Otago Heads</li><li>- blue cod and trumpeter very plentiful off Cape Saunders</li></ul>	Evidence obtained from Molyneux Bay, No. 3 in Further papers relative to the Fisheries of the Colony, <i>AJHR</i> 1869 D-15.																																								
c.1870	Example of Otago fisherman around 1870: Edward Williams. Williams and a mate fished off a six metre whaling boat with lines off the Nuggets and sometimes further south, catching blue cod and hapuku.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 24.																																								
1876	<p>- Survey of fish for sale in Dunedin carried out to establish when the ordinary food fishes were in season. Noted down the various sorts of fish exposed for sale in the window of the fishmongers’ shops, as well as by occasional enquiries elsewhere – work began on 1 August 1875, ended 31 July 1876.</p> <table border="1"><thead><tr><th rowspan="2">Species</th><th colspan="12">Number of days in market</th></tr><tr><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr></thead><tbody><tr><td><b>Pakirikiri/Blue Cod</b> <i>Percis colias</i></td><td>5</td><td>6</td><td>3</td><td>4</td><td>9</td><td>2</td><td>4</td><td>5</td><td>3</td><td>11</td><td>10</td><td>17</td><td>78</td></tr></tbody></table> <p>- Blue Cod: ‘a very common fish, and to be caught all round the coast’ – a good many sent up from Stewart Island; two fishes included in this term, one sometimes called Black Cod</p> <p>- December: a good many blue cod and some granite trout sent up from Port Molyneux, having been caught near the Nuggets.</p> <p>- At the present time (July 1876) and for some months, there have been 32 boats, employing about 80 men, in the fishing trade in Otago Harbour.</p> <ul style="list-style-type: none"><li>- in the net fishing in the Harbour, 16 boats regularly employed, worked by 36 men, most boats having only two men as crew</li><li>- in the outside or deep-water branch, 17 boats are engaged, with over 40 men as crew</li><li>- most of the seining boats work nearly every tide, while the outside boats are more dependent on the</li></ul>	Species	Number of days in market												A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Pakirikiri/Blue Cod</b> <i>Percis colias</i>	5	6	3	4	9	2	4	5	3	11	10	17	78	P. Thomson, ‘Fish and their seasons’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 9, 1876, pp 484-490.
Species	Number of days in market																																									
	A	S	O	N	D	J	F	M	A	M	J	J	Total																													
<b>Pakirikiri/Blue Cod</b> <i>Percis colias</i>	5	6	3	4	9	2	4	5	3	11	10	17	78																													

	weather and the state of the sea – sometimes there are long spells of idleness																																											
1877	<div>- Survey of fish for sale in Dunedin – information obtained in the same way as previously – taking notes of the various fishes exposed for sale in town, in boats at the jetties, enquiries at Port Chalmers, etc.</div> <table><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Pakirikiri/Blue Cod</b> <i>Percis colias</i></td><td>12</td><td>7</td><td>14</td><td>3</td><td>6</td><td>2</td><td>6</td><td>8</td><td>8</td><td>19</td><td>10</td><td>14</td><td>119</td></tr></table> <div><div>- Blue cod: supply has been pretty constant, coming also largely from Stewart Island. It is also to be had off any of the rocky points near the Heads.</div><div>- During the year, 8 boats, employing 24 men have been employed in fishing outside the Heads; 12 boats, employing 24 men have been engaged in the seine fishing in Otago Harbour and the adjoining inlets. A new boat of 14 tons recently launched at Port Chalmers for fishing outside the Heads.</div><div>- Complaints continue to be made about small fish.</div><div>- Observes that the supply has been much more steady than during last year, in part due to the ‘pretty regular’ shipments sent up from the Bluff. One or two ‘welled boats’ also working the waters adjacent to Otago Heads, bringing in moki, trumpeter, and other fishes, and thus keeping the market supplied with what used to considered rare or scarce fishes. With the exception of ling and sole, all the other items on the table show a large increase on last year’s returns.</div><div>- ‘There is one mode of fishing which has as yet received hardly a fair trial in our waters. I refer to trawling – a method which is largely employed in the seas adjacent to the British coasts.’</div></div>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Pakirikiri/Blue Cod</b> <i>Percis colias</i>	12	7	14	3	6	2	6	8	8	19	10	14	119	P. Thomson, ‘The Dunedin Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 10, 1877, pp 324-330.
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Pakirikiri/Blue Cod</b> <i>Percis colias</i>	12	7	14	3	6	2	6	8	8	19	10	14	119																															
1878	<div>- Observations from 1 August 1877 to 31 July 1878, ‘taken day by day from the different shops in town, as well as by inquiries at the jetties, Port Chalmers, etc’:</div> <table><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Pakirikiri/Blue Cod</b> <i>Percis colias</i></td><td>11</td><td>9</td><td>6</td><td>15</td><td>1</td><td>5</td><td>2</td><td>1</td><td>1</td><td>5</td><td>5</td><td>4</td><td>65</td></tr></table> <div><div>- Blue cod: this staple fish in fair supply nearly all the year, with the exception of some weeks in winter, when there was some severe weather, which put a stop to outside fishing. Supply from Stewart Island was very irregular.</div><div>- Outside the Heads, 9 whale boats and 2 cutters are engaged in fishing, employing about 30 men. In the Harbour (or seining branch) there are 16 boats and about 40 men engaged in fishing. Two smoke-houses at Port Chalmers, with four men to each.</div></div>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Pakirikiri/Blue Cod</b> <i>Percis colias</i>	11	9	6	15	1	5	2	1	1	5	5	4	65	P. Thomson, ‘Our Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 11, 1878, pp 380-386.
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Pakirikiri/Blue Cod</b> <i>Percis colias</i>	11	9	6	15	1	5	2	1	1	5	5	4	65																															
1885	- Provides details of a brief assessment of New Zealand’s fish stocks and the potential for commercial exploitation.	Papers Relating to the Development of																																										

	<p>- States that from Martins Bay (South Westland) he ‘commenced to meet with fish in such numerous shoals that from there to off Oamaru, inshore and offshore, I believe millions of tons of fish could be caught yearly. . . . Chaslands Mistake, on the mainland, commands splendid moki fishing grounds, and also blue-cod, rock-cod, and trumpeter fishing.(p 2)</p> <p>- ‘Otago Harbour commands most extensive and valuable barracouta, groper, ling, rock-cod, and crayfish fishing, and with proper fishing-smacks Otago Harbour could also command the blue-cod fishing.’</p>	<p>Colonial Industries: Fisheries, AJHR 1885 H-15.  <i>No. 1: J Mackenzie to Julius Vogel, 29 March 1885.</i></p>
1886	<p>[<i>Percis Colias</i>] ‘Abundant all around New Zealand; not found elsewhere. . . . In the neighbourhood of rocks, in from 10 to 15 fathoms of water, is the best fishing-ground for the rock-cod, but they are also caught inside harbours, and even far up the Sounds of the West Coast . . . . Around portions of Stewart Island they are found in very large numbers . . . . The sea, looking through its clear pellucid water, appears quite literally to swarm with them.’</p>	<p>R.A.A. Sherrin, <i>A Handbook of New Zealand Fishes</i>, Wilson and Horton, Auckland, 1886, pp 15-16.</p>
1897	<p>Notes that the names blue cod and rock cod apply to one and the same fish (<i>Percis colias</i>), the first being the name given to the fish in the southern part of the colony.</p>	<p>G.M. Thomson, ‘New Zealand Fisheries, and the Desirability of Introducing a New Species of Sea Fish’, in Protection of Mullet, <i>AJHR</i> Sess. II. 1897, H-17, pp 21-24.</p>
1899	<p>Moeraki: 30 boats, supporting some 70 men. ‘This is without doubt the most important line fishing station in Otago, if not in the Colony. The reason of its prominence is, because a reef six or seven miles wide and perhaps 30 miles long runs off their coast line. On this reef, blue cod, moki, and trumpeter, all good saleable fish, are plentiful.’</p>	<p>D. Harris Hastings, Inspector of Fisheries, to the Collector of Customs, Dunedin, 2 September 1899, ‘Report upon the probable effect of Trawling upon the Line Fishing Industry of Otago’, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.</p>
1900	<p>- (p 7) The turn of the century also saw the introduction of small ‘oil’ engines to the fishing fleet. These were mostly small, single cylinder, 5, 6, or 7 cylinder engines, which ran on a fuel called benzene. These engines were very reliable. ‘With assured and reliable motive power, allied to very seaworthy-designed vessels, fishermen now ventured well outside the Heads and soon discovered various fishing grounds up and down the coast, where groper, cod, and other species congregated. Many of these grounds were named after their finders such as McDonald’s (North Reef), Tonnage’s patch, McIntosh’s reef, Jim Dow’s patch (Little South reef), Jim Dow’s reef, Middendorf, Thomson patches.’</p> <p>- (p 8) The boats were manned usually by two men, setting on each side long lines with hooks, which had to be launched and retrieved by hand. Later, the ‘long-line’ was introduced, with 100 to 300 hooks, buoyed with floats at each end, and the ‘dan’ line – 7 to 20 hooks, with a grapnel at bottom and buoy at top, left in place for 1 to 3 hours.</p>	<p>D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen’s Co-operative Society Ltd 1909-1984</i>, no other details, 1984.</p>
1900	<p>- the steam trawler ‘Doto’ chartered, fitted with an otter trawl (p 1)</p> <p>- expedition undertaken during autumn and winter months of 1900</p> <p>- hauls numbered 47 to 53 were located off the coast between Oamaru and Moeraki (p 7)</p>	<p>Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 23 July 1900, AJHR 1900 H15A.</p>

	- blue cod among the fish taken from these hauls (p 14)	<b>[Photocopy 38]</b>
1906	- Reports received from Inspectors of Fisheries . . . - 'In the Otago District the principal centres of fishing are the Catlins, Molyneux, Taieri Mouth, Port Chalmers, Waikouaiti, Moeraki, and Oamaru, and the principal fish taken are flounders, hapuku, blue cod, and trevalli [Warehou]; and it is stated that notwithstanding the unseasonable weather experienced much larger catches were taken than during the previous year. There has been a considerable improvement in the boats and gear used in the industry.' (p 5)	Marine Department annual report, 30 May 1906, <i>AJHR</i> 1906 H-15.
1907	- 'The Inspector at Dunedin reports that in all old-known fishing-places the catches have been good. In all shallow bays flounders and small fish are obtained in large quantities, and groper, kingfish, schnapper, barracouta, blue and red cod, terakihi, trevalli, and moki are found along the coast from Oamaru to Chaslands.' (p 6)	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15.
1908	James H. Pomery, Invercargill fish dealer, wrote to the Marine Minister, concerned about cod stocks. He suggested that the minimum weight be doubled to one pound. At the time cod as small as four ounces were being taken for marked and large numbers were being used for bait. In 1912, the minimum size was raised to one pound. Response to this culminated in the 1912 Blue Cod Commission.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 84-85.
1908	- Responding to query re minimum weight: 'the fishermen are adverse to any alteration in the regulations as to the weight of this particular class of fish, being a hook and line fish when once taken they are not fit to be returned to the water again.'	Sullivan, Otago Inspector of Fisheries to Secretary, Marine Department, 22 June 1908, M 1 2/12/324 part 1, Cod, 1908-1903, NAW.
1910	- Report of local inspector for the Otago and Canterbury districts: - reports a depression in the industry caused mainly by the scarcity of fish - owing to new class of boats and gear, many parts of the coast formally untouched have been visited, and, as a consequence, a better variety of fish has been taken - soles, flounder, and flatfish have generally been as plentiful, but there is a scarcity of blue cod	Marine Department annual report for 1910-1911, <i>AJHR</i> 1910 H-15.
1912	- Otago inspector reports that catches from most of the Otago fishing grounds have been unusually good (p 12) - Complaints from Moeraki fishermen of the scarcity of blue cod. 'Some of the oldest stated that there had been a steady decrease for a good many years. One man made the statement that "Fifteen years ago one of the old sailing-boats would bring in as many blue-cod in a day as all the boats could do now."' - Collector of Customs at Oamaru reports: "Blue-cod are now very scarce."	Marine Department annual report for 1911-1912, <i>AJHR</i> 1912 H-15.
1912	<i>Report: Commissioners G.H.E. Mc Clure and L.F. Ayson to Secretary, Marine Department, 10 October 1912</i> (p 1) - Inquiry in regard to the weight at which blue cod can be taken, held at Bluff on 27 September 1912 – representative attendance of fishermen from Halfmoon Bay and Riverton. - In their evidence, the fishermen claim: - that the blue-cod grounds off Halfmoon Bay and in Foveaux Strait are not depleted - that a close season is not required as the taking of blue cod practically ceases about the end of August, when the fish evidently disappear for the purpose of spawning - that a size limit is necessary to protect the small fish, but that this should be based on length, not weight - Recommend that the regulation gazetted on 14 March 1912, fixing the size limit to 16 oz, be revoked, and an amending regulation be brought into force fixing size limit to 10.5 inches in length when in green state or 9 inches	Report of the Blue-Cod Commission, <i>AJHR</i> 1912 H-15B.

	<p>when headed properly.</p> <p><u>Report: L.F. Ayson to Secretary, Marine Department, 11 October 1912 (p 2)</u></p> <ul style="list-style-type: none"> <li>- Difficult to ascertain the condition of the blue cod fishing grounds – difficult to get reliable evidence from fishermen.</li> <li>- Has been frequent complaints for some years past about the supply of blue cod and size of the fish brought to market.</li> <li>- All this shows the necessity of protecting these fisheries; plan to make a trip to the principal fishing grounds in March.</li> </ul>	
1913	<ul style="list-style-type: none"> <li>- Otago District: (p 11) <ul style="list-style-type: none"> <li>- from information gathered from fishermen along the coast, the quantity of fish landed about the same as last year</li> </ul> </li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15.
1914	<ul style="list-style-type: none"> <li>- Oamaru – principal fish taken were groper, blue cod, and ling, but the catches poor on account of the weather</li> <li>- Moeraki – fair catches of groper, blue cod, and red cod made in the early part of the season, but later on all fish became scarce and many of the fishermen had to lay their boats up</li> <li>- Nuggets – the season has been a poor one and the boats have had to go farther away <ul style="list-style-type: none"> <li>- fair catches of blue cod were made early in the season, but this fish is now very scarce</li> </ul> </li> </ul>	Marine Department annual report for 1913-1914, <i>AJHR</i> 1914 H-15.
1914 January	<ul style="list-style-type: none"> <li>- Puketeraki fishermen have kept the market supplied with moki, tarakihi, and blue cod.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1914, M 1 2/12/2 part 1, NAW.
1914 February	<ul style="list-style-type: none"> <li>- ‘On several occasions the fishermen have secured good catches of blue cod off Sand-Fly Bay.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 March 1914, M 1 2/12/2 part 1, NAW.
1914 August	<ul style="list-style-type: none"> <li>- Small quantities of blue cod coming in from the Nuggets.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1914, M 1 2/12/2 part 1, NAW.
1914	In a letter to Dunedin MP G.M. Thomson, Rev. Dr S.T. Nevill noted that blue cod was no longer plentiful in the area.	<u>David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i>, Wellington, 2004, p 93.</u>
1915	<ul style="list-style-type: none"> <li>- Nugget Bay – fishermen report a poor season – unfavourable weather to end of 1914, but since then fair catches of groper and blue cod made.</li> <li>- Moeraki – catches of blue cod and groper poor through the winter, and since then fishermen report that supply has not been equal to an average season.</li> </ul>	Marine Department annual report for 1914-1915, <i>AJHR</i> 1915 H-15

1915	<ul style="list-style-type: none"> <li>- October to December poor weather; but otherwise favourable, with good catches from linemen and trawlers.</li> <li>- Groper, ling, kingfish, red cod plentiful; barracouta, moki, tarakihi, trumpeter somewhat scarce; supply of blue cod poor, though a few good catches have been made to the south of Cape Saunders.</li> <li>- Oamaru and Moeraki: <ul style="list-style-type: none"> <li>- towards end of year weather and conditions approved; fish became more plentiful – groper, red cod, ling, blue cod, crayfish were principally taken; an average catch of blue cod would be about 70 lbs per man per day</li> </ul> </li> <li>- Tautuku: <ul style="list-style-type: none"> <li>- 5 whale boats engaged in line fishing for groper and blue cod</li> <li>- ‘The rich fishing grounds lying off this portion of the coast will no doubt in time become a very important source of supply to the Dunedin market.’</li> </ul> </li> </ul>	Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.
1915 March	- Good hauls of blue cod made on several occasions off Sand Fly Bay.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 March 1915, M 1 2/12/2 part 1, NAW.
1915 April	Several good catches of blue-cod have been caught off Cape Saunders.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, undated, M 1 2/12/2 part 1, NAW.
1915 July	<ul style="list-style-type: none"> <li>- Weather conditions unusually favourable.</li> <li>- Several good hauls of blue cod and sea perch have been caught off Cape Saunders.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 August 1915, M 1 2/12/2 part 1, NAW.
1915 August	- Moeraki fishermen report a good winter’s fishing. Groper taken in fair numbers up to the end of June. Blue cod are now more plentiful than for some years passed.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 August 1915, M 1 2/12/2 part 1, NAW.
1916	<ul style="list-style-type: none"> <li>- Oamaru and Moeraki – groper, blue cod, red cod, taken in fair numbers. Exceptionally large hauls of groper caught in January and February.</li> <li>- Nuggets – good hauls of groper and kingfish from the end of October; supply of blue cod not good; barracouta and red cod off the coast in large numbers, but very few caught (owing to cartage freights).</li> </ul>	Annual report on Otago fisheries by inspector of fisheries, W Adams, for year ended 31 March 1916, M 1 2/12/115 NAW.
1917 January	- Details include . . . ‘Blue-cod are reported to be fairly plentiful off Cape Saunders, but owing to the unsettled weather very few were taken by the fishermen.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1917, M 1 2/12/2 part 1, NAW.
1917 March	- Details include . . . ‘Some splendid hauls of blue-cod were caught off Cape Saunders, & were realizing up to 9/- per doz.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to

		Secretary, Marine Department, 2 April 1917, M 1 2/12/2 part 1, NAW.
1917 May	<ul style="list-style-type: none"> <li>- Details include . . . Weather conditions bad, boats have only averaged 2 days fishing each week. ‘All fish have demanded a fair price and owing to the small catches taken the fishermen have decided on raising the limit of groper from 2 dozen to 3 dozen per boat.’</li> <li>- Dunedin market on 24 May 1916: total of 80 cases of fish (20 cases of trevally from Oamaru, remainder caught locally). Local supply: small trevally (4 cases), red cod (5 cases), blue cod (9 cases), groper (16 cases), ling (4 cases), flounders (2 cases), coutre (2 cases), bream (4 cases), soles (7 cases), kingfish (4 cases), mixed fish (3 cases).</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1917, M 1 2/12/2 part 1, NAW.
1919	<ul style="list-style-type: none"> <li>- Oamaru – local Inspector states that there has been a noticeable decrease in practically all kinds of fish – partly due to the bad weather, but mainly due to the absence of fish on the usual fishing grounds. (p 11) Fishermen state that this season is the worst on record.</li> <li>- Moeraki – quantity of fish taken about the same as last year.</li> <li>- Otago District: <ul style="list-style-type: none"> <li>- rough weather interfered with fishing operations</li> <li>- all the outlying fishing ports were visited by the Inspector during the year and a scarcity of fish reported all round</li> </ul> </li> </ul>	Marine Department annual report for 1918-1919, <i>AJHR</i> 1919 H-15
1921	<ul style="list-style-type: none"> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Tautuku – some fine boats, fishermen mostly inexperienced, but take large quantities of groper and blue cod; proves that fish plentiful and that this may become a popular fishing ground; transport difficulties</li> <li>- Puketeraki – large quantities of crayfish and a few groper and blue cod</li> <li>- Moeraki – medium catches of groper, red cod, and blue cod</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1921 by Inspector of Fisheries S Broadley, M 1 2/12/224 NAW. <i>[Photocopy 11]</i>
1922	<ul style="list-style-type: none"> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Tautuku – majority of fishing boats have moved to Waikawa owing to anxiety of landing catches; intend to work same ground as previously; usually bring in fair hauls of groper and blue cod, which are railed to Invercargill</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1922 by Inspector of Fisheries S Broadley, M 1 2/12/245 NAW. <i>[Photocopy 12]</i>
1923	<ul style="list-style-type: none"> <li>- Past year shows a marked decrease in the quantity of fish landed at Oamaru, and a slight decrease at Moeraki.</li> <li>- At Oamaru groper fairly plentiful, but all other kinds of fish showed a decrease, particularly red cod.</li> <li>- At Moeraki groper not so plentiful as it was last season, red cod also a falling off, whereas blue cod an increase, ling and crayfish also plentiful.</li> </ul>	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1923 by Collector of Customs, M 1 2/12/269 NAW.
1924	- During the whole period there has been an abnormal scarcity of all kinds of fish . . . Catches of red and blue cod poor.	Annual report for Oamaru for year ending 31 March 1924 by Collector of Customs, M 1 2/12/298 NAW.
1924 September	‘Large catches of blue cod were taken [by the line fishermen] during the first two weeks . . . being caught mostly from Cape Saunders, close inshore.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1924, M 1 2/12/2 part 1,

		NAW.
1924 October	- Puketeraki men sent in good supplies of groper and blue cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 September 1924, M 1 2/12/2 part 1, NAW.
1925	- Outlying districts: - Puketeraki – fair catches of groper and blue cod sent from Puketeraki; also a good season with crayfish - Moeraki – fair season with blue cod and groper - Oamaru – medium season for all kinds of fish	Annual report for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.
1925 February	- Puketeraki fishermen have forwarded good supplies of groper, also a few blue cod	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1925, M 1 2/12/2 part 1, NAW.
1926	- Year at Oamaru unprofitable for the fishermen during the past 12 months; at Moeraki the fishermen report more favourably on their catches. - Oamaru boats rely on groper for their main catch – plentiful for the first two months, then patchy, during the winter barely enough petrol consumed in seeking new grounds. - At Moeraki, blue cod and groper proved the mainstay of the Moeraki boats, fairly plentiful.	Annual report for Oamaru and Moeraki for year ending 31 March 1926 by Collector of Customs, M 1 2/12/356 NAW.
1926	- Line fishermen have been compelled to work further afield than usual; owing to unsettled weather, only moderate catches of groper and kingfish. Very few red cod have frequented Otago waters, and on account of weather blue cod scarce. - Outlying districts: - Puketeraki – fair catches of groper, blue cod, crayfish - Tautuku and Waikawa – brought in fair catches of groper, ling, and blue cod, mostly railed to Invercargill	Annual report for Otago for year ending 31 March 1926 by Inspector of Fisheries S Broadley, M 1 2/12/356 NAW.
1927	- Past year showed an increase in the quantity of fish landed at both Moeraki and Oamaru, though the fishermen consider the year far from good. - At Oamaru, groper (relied upon for the main catch) plentiful during the summer months; red cod very scarce during the winter months (when it is usually plentiful); other kinds of fish were landed in about the usual numbers. - At Moeraki, fishermen seek blue cod and groper chiefly, but unable to land any great quantity of these fish, largely due to unfavourable weather conditions.	Annual report for Oamaru and Moeraki for year ending 31 March 1927 by Collector of Customs, M 1 2/12/388 NAW.
1928	- at Oamaru, red cod and warehou very scarce; average season for other fish - at Moeraki, groper were fairly plentiful, but the returns for red cod and blue cod showed a decided decrease	Annual return of fishing information for Port of Oamaru (including Moeraki) for year ending 31 March 1928 by Superintendent, Customs, M 1 2/12/413 NAW.
1928	- Outlying districts:	Annual report for Otago for year ending



	<ul style="list-style-type: none"> <li>- Puketeraki – scarcity at the beginning of the season, then fair catches of groper, blue cod.</li> <li>- Tautuku – large catches of groper and blue cod supplied to the Dunedin market during that last 2 months.</li> <li>- Waikawa – moderate catches of groper and blue cod.</li> </ul>	31 March 1928 by Inspector of Fisheries S Broadley, M 1 2/12/413 NAW. [Photocopy 22]
1929	- red cod have been very scarce for the last 2 or 3 season, other fish are not quite as plentiful as in previous years	Annual return for Oamaru (including Moeraki) for the year ending 31 March 1929 by Inspector of Fisheries, Brewer, M 1 2/12/452 NAW.
1929	<ul style="list-style-type: none"> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Puketeraki – fishermen have had a bad year, some giving up fishing</li> <li>- Moeraki – fishermen report a scarcity of all fish, 2 or 3 have started fishing with long-lines and on several occasions brought in large catches of groper</li> <li>- Oamaru – fishermen have for most of the year worked about 16 miles offshore and have taken moderate catches of line fish</li> <li>- Tautuku – a fair amount of blue cod and groper reached the Dunedin market from Tautuku</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW. [Photocopy 24]
1929 February	- Details include . . . A fair supply of groper and blue cod came in from Puketeraki. Very few fish of any kind came in from the Southern Ports; fishermen there report a great scarcity of line fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1929, M 1 2/12/2 part 1, NAW.
1930s	<ul style="list-style-type: none"> <li>- (p 64) The fishing industry at Moeraki experienced difficulties – rising costs, static incomes, a scarcity of fish, and competition from boats from other Otago ports. By 1930s, fishing boats larger and more seaworthy.</li> <li>- (p 66) Though a wide range of species were landed, Moeraki was essentially a groper and blue cod port. Quotes from, <i>Evening Star</i>, 27 December 1937: ‘The fishing fleet at Moeraki has available three reefs within five miles of the port, and in the vicinity of these reefs, blue cod, and groper are taken. In winter, however, the boats usually have to go out to sea as far as twenty miles. . . . Apart from groper and blue cod, an occasional gurnard, ling, tarakihi, kingfish or conger eel is caught. . . .’</li> <li>- (p 66) In 1935, the Fisheries Section of the National Mortgage and Agency Association established a branch operation at Moeraki, inheriting an established packing plant – guaranteed to take the entire catch of the fishermen who supplied it. Until this point, Moeraki fishermen sometimes had problems disposing of their fish.</li> </ul>	Gavin McLean, <i>Moeraki: 150 Years of Net and Plough Share</i> , Dunedin, 1986.
1930	- steady supply of groper and blue cod taken at Moeraki and Oamaru	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1930, M 1 2/12/477, NAW.
1930 March	- ‘The Taieri boats have sent in large catches of groper and a few kingfish, and some of the smaller boats working closer inshore secured fair catches of blue cod and groper.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1930, M 1 2/12/2 part 1, NAW.
1934 August	- Taieri Mouth fishermen have sent in some fair catches of blue cod, but few trawl fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to

		Secretary, Marine Department, 31 August 1934, M 1 2/12/2 part 1, NAW.																															
1935	- Records the presence and abundance of a number of species in the vicinity of the Portobello Station: - blue cod has appeared this year in fair numbers, but not of great size; it is some years since they were common near the Station	W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1935, Marine Department annual report, <i>AJHR</i> 1935 H-15																															
1935 January	- A small freezing plant installed at Waikawa – has proved very beneficial during the hot weather. They have been landing some large catches of flatfish and a fair number of groper and blue cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																															
1935 February	- Taieri Mouth fishermen have taken several good catches of soles and fair numbers of groper and blue cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																															
1935 December	- ‘The steam trawler “Olive Cam” commenced fishing out of Port Chalmers about the middle of the month and secured large hauls of flat fish and round fish of all kinds. The majority were taken from a depth of from 30 to 40 fathoms. After one trip of 96 hours fishing she returned with 550 boxes each weighing 50 lbs, and made up of groper, ling, soles, barracouta, terakihi, moki, trevally, gurnard, flounders, red cod, dogfish, elephant fish, a few trumpeters, and blue cod.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																															
1936 January	- Details include . . . “Olive Cam” has ceased fishing out of Port Chalmers; sailed to Australia with a large consignment of fish. Had been working both the Nuggets and Waikawa grounds at a depth of from 20 to 30 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																															
1937	- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location, though does have a (one-off?) breakdown for South Island ports in main body of report.	A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-1938, H-15.																															
	<table><tr><th>Port</th><th>Method of fishing</th><th>Percentage of weight caught by each method</th><th>Principal kinds of fish caught by each method</th></tr><tr><td rowspan="3">Oamaru</td><td>Lines</td><td>97.4</td><td>Groper, red cod, blue cod, ling</td></tr><tr><td>Set-nets</td><td>2.4</td><td>Moki, butterfish</td></tr><tr><td>Trawl</td><td>0.2</td><td>Sole, flounder</td></tr><tr><td rowspan="2">Moeraki</td><td>Lines</td><td>98.3</td><td>Groper, blue cod, ling</td></tr><tr><td>Set-nets</td><td>1.7</td><td>Moki, butterfish</td></tr><tr><td rowspan="3">Port Chalmers</td><td>Trawl</td><td>48.6</td><td>Sole, red cod</td></tr><tr><td>Lines</td><td>42.5</td><td>Groper, ling</td></tr><tr><td>Seine-nets and set-nets</td><td>8.9</td><td>Flounder, red cod</td></tr></table>	Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method	Oamaru	Lines	97.4	Groper, red cod, blue cod, ling	Set-nets	2.4	Moki, butterfish	Trawl	0.2	Sole, flounder	Moeraki	Lines	98.3	Groper, blue cod, ling	Set-nets	1.7	Moki, butterfish	Port Chalmers	Trawl	48.6	Sole, red cod	Lines	42.5	Groper, ling	Seine-nets and set-nets	8.9	Flounder, red cod	
Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method																														
Oamaru	Lines	97.4	Groper, red cod, blue cod, ling																														
	Set-nets	2.4	Moki, butterfish																														
	Trawl	0.2	Sole, flounder																														
Moeraki	Lines	98.3	Groper, blue cod, ling																														
	Set-nets	1.7	Moki, butterfish																														
Port Chalmers	Trawl	48.6	Sole, red cod																														
	Lines	42.5	Groper, ling																														
	Seine-nets and set-nets	8.9	Flounder, red cod																														

	Taieri Mouth	Trawl	76.9	Sole, flounder		
		Lines	23.1	Groper, blue cod, red cod		
	Nuggets	Trawl	78.2	Sole, flounder		
		Lines	21.8	Groper, barracouta		
	Owaka	Lines	66.7	Groper, blue cod		
		Nets (seine)	33.3	Flounder		
	Waikawa	Trawl	65.7	Sole, flounder		
		Lines	33.9	Groper, blue cod		
		Nets (seine)	0.4	Flounder		
- Little comment on Otago fisheries: ‘The general impression obtainable from various reports is that the local trawling-grounds off Canterbury and Otago are not as productive as formerly. The groper fishery, though yielding good supplies to long-liners on occasions, requires more effort than formerly to produce the same results.’						
1937	- Description of catches, locations, etc.					Annual report for Otago by Inspector of Fisheries, S Broadley, for the year ended 31 March 1937, M 1 2/12/565, NAW. <b>[Photocopy 31]</b>
1937 August	- Line boats working the Otago grounds have taken small catches of red cod and a few blue cod. Groper in short supply, presently carrying heavy spawn; when in this condition do not bite freely. ‘					Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938	- Most of the records presented are from marine studies carried out at the Marine Fisheries Investigation Station at Portobello over a period of 27 months (1930-32). Supplementary observations compiled from daily visits to the Dunedin fish market cover nearly another two years.					Graham, David H., ‘Fishes of Otago Harbour and Adjacent Seas with Additions to Previous Records’, <i>Transactions and Proceedings of the New Zealand Institute</i> , volume 68, 1938, pp 399-419.
	<i>Parapercis colias.</i> Blue cod. <i>Rawaru.</i>	Localities: Up and down the coast from Brinn’s Point to Shag Point in from 10-60 fathoms, in the vicinity of rocks and kelp; in the harbour in summer months. Frequency: Plentiful; less so than formerly, possibly through overfishing.				
1940 January	- Boats working hand lines at The Nuggets brought in fair catches of groper and blue cod. - Moderate catches of groper and blue cod, together with a few green bone, were taken at Tautuku.					Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1941	- During the year there was no appearance of the large shoals of pilchards that have visited the Harbour in other years. Although clear shrimp and whale feed came into the Harbour great supply, providing abundant feed for fish					W.B.Benham, Chairman, Marine Fisheries Investigation Station, to

	and birds, there was a notable shortage of such fish as red cod, blue cod, trevally (warehou), and tarakihi.	Minister of Marine, report for year ending 31 March 1941, Marine Department annual report, <i>AJHR</i> 1941 H-15.
1941 October	- Details include . . . 'The few line boats working out of Port Chalmers report a decided scarcity of groper, often the catches were too small to send to market. The boats working closer inshore secured small catches of red cod, ling, blue cod and a few barracouta.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1947	- 'We the fishermen operating boats at Nugget Bay are much concerned about the depletion of fish in Nugget Bay by outside trawlers, and are desirous of getting an area set aside on which Nugget boats only are allowed to operate.'	F.H. Arthur to Minister of Marine, 8 February 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.
1947	- Commenting on above letter by F.H. Arthur: 'The depletion, I am afraid is a known fact, as all who know the area concede that the grounds are slowly becoming poorer. All along the coast the position is the same, but this is in a large measure offset by higher prices.' - Suggests that trawling be totally prohibited from the area if the depletion was to become an urgent problem.	McIvor, District Inspector of Fisheries to Secretary, Marine, 11 March 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.
1956	- [Graham worked for many years as a marine biologist at the Marine Fisheries Investigation Station, Portobello, Otago. In <i>A Treasury</i> , Graham refers largely to past observations during his time at the Research Station. Quite a lot of the material in this book repeats information presented in his 1938 <i>Transactions</i> article (vol 68, pp 399-419). I have not taken notes where the information is repetitive. Most of his observations, unsurprisingly, relate to Otago.] - (p41) 'Even though the sea is teeming with life, it is quite possible to fish out a certain fish. This may seem incredible to some people, but during 1930-34 one of the most popular fish on the market, the Groper, was slowly and surely being depleted by nothing more or less than overfishing. Unless some restriction is placed either on the number caught, or on their being caught during the spawning season, they will gradually become less abundant. The same can be said for Blue Cod. This is not a scientific theory but is recognised by line fishermen who live by their catches'.  <i>Blue Cod (Rawaru)</i> - (p 288) Habitat of Blue Cod is around the rocky coastline, particularly those where seaweed is growing. The fish occurs on all coasts in NZ and the Chatham Islands; was particularly abundant around Stewart Island, Foveaux Strait, and the Sounds. Large numbers have been caught around 'the Barrier Island, north of Auckland'. - Most blue cod sent to Dunedin market was caught around Cape Saunders, Gull Rocks (Sandfly Bay), and White Island, a few taken at Puketeraki and Brinn's Point. They were caught outside the Otago Heads in from 10 to 60 fathoms, and in the harbour in summer months. - In 1930-34 they were plentiful, but less so than formerly, possibly through overfishing. Average specimen 18 inches (length), 6 pound (weight). - Very good catches were taken at Taieri Mouth – these blue cod larger and better quality than those caught	David H. Graham, <i>A Treasury of New Zealand Fishes</i> , second edition, A.H. and A.W. Reed, Wellington, 1956. [First published in 1953.]

	<p>elsewhere, probably due to the fishing grounds not having been worked over before.</p> <p>- (pp 288-289) At one time blue cod were plentiful in Otago Harbour and provided sport for fishermen around Goat and Quarantine Islands. About 1915-16 they became scarce in the summer months, then returned in 1926. 'Since then, however, Blue Cod once more became less frequent visitors to the harbour, this time probably on account of the extensive dredging and road making which tend to cause cloudiness in the water. They are a species of fish which lives in and prefers water to be clean and transparent, and even when they enter the harbour during the summer months soon disappear outside again if the bottom of the harbour becomes stirred up with either floods or rough weather.'</p> <p>- (p 289) Seldom caught away from kelp-covered rocks and mostly found in from 10-40 fathoms.</p>	
1957	<p>- 'Trawler and line fishermen operating off the Otago coast are not "striking it rich" just now. For reasons that only research officers will be able to explain comparatively few fish are being taken from the recognised grounds. In previous years the poundage each day rose into four figures. Now only about 300lb are being taken in a day that lasts as long as 15 hours. . . . No one seems to know why the flounders and sole have disappeared.</p> <p>- Article also contains account of typical day of fishing on the 'Bravo'.</p>	'Deep Sea Fishing', <i>Otago Daily Times</i> , 18 May 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.

### S30: Otago: Crayfish

Year	Details	Source
Unspecified	- (p 52) 'Crayfish are numerous on many parts of the rocky coast-line, and so furnished quite an important food-supply to the natives. They were taken largely by means of a lobster-pot, termed a taruke, and also often by hand.'	Elsdon Best, <i>Fishing Methods and Devices of the Māori</i> , Dominion Museum Bulletin No. 12, Wellington, 1929.
1860s and 1873	From the early 1860s, using small rowboats and sail-assisted dinghies, Moeraki fishermen began fishing for the wider North Otago market. Dried and smoked fish were sent as far afield as Oamaru. An 1873 report, noted that blue cod, red cod, groper, perch, and crayfish were being taken to Oamaru.	McLean, Gavin, <i>Moeraki</i> , Otago Heritage Books, Dunedin, 1986, p 56.
1868	First trawling in New Zealand undertaken in Otago Harbour in <i>Redcliffe</i> , which began by towing between Port Chalmers and Otago Heads, catching a variety of fish including trumpeter, flounder, crayfish, skate, and sharks. In two later expeditions, the trawl catch also included hapuku, sole, ling, and cod. <i>Redcliffe</i> experiment did not last owing to wear and tear on gear.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 23.
1869	By 1869, Port Chalmers fishermen had identified the Blueskin Heads as a good source of crayfish, which were caught in baited hoop nets that had to be continuously attended.	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts, Waitati</i> , 2007, p 49.
1869	- notes that the evidence 'is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.'	Report of the commissioners for the province of Otago, No. 2 in Further

	<ul style="list-style-type: none"> <li>- three regular fisheries at work: Otago Heads (Harbour and 'outside'), Moeraki, and Molyneux Bay</li> <li>- these fisheries are worked all year around, though seasonal fluctuation</li> <li>- estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux</li> <li>- Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux</li> <li>- the number of boats working the coast about 30</li> <li>- fishing inside the harbour is carried on all year, each boat working about six tides a week</li> <li>- outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March</li> <li>- the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads</li> <li>- each boat usually uses one net besides lines – the number of nets estimated to be about 20</li> <li>- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.</li> <li>- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon</li> <li>- crayfish are also 'caught in large numbers'</li> <li>- information based on principally on that provided by fishermen themselves</li> <li>- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast</li> <li>- crayfish at Purakinui and Blueskin Heads</li> </ul>	papers relative to the Fisheries of the Colony, <i>AJHR</i> 1869 D-15.
1876	<ul style="list-style-type: none"> <li>- Survey of fish for sale in Dunedin carried out to establish when the ordinary food fishes were in season. Noted down the various sorts of fish exposed for sale in the window of the fishmongers' shops, as well as by occasional enquiries elsewhere – work began on 1 August 1875, ended 31 July 1876.</li> <li>- August: rather stormy – no fish on the market for 11 days; crayfish plentiful.</li> <li>- September: crayfish abundant; on the 27<sup>th</sup> two barracouta brought to market – curious that odd barracouta are caught now and then in winter time while cod or groper fishing outside, generally when the hook is just about reaching the bottom.</li> <li>- At the present time (July 1876) and for some months, there have been 32 boats, employing about 80 men, in the fishing trade in Otago Harbour. <ul style="list-style-type: none"> <li>- in the net fishing in the Harbour, 16 boats regularly employed, worked by 36 men, most boats having only two men as crew</li> <li>- in the outside or deep-water branch, 17 boats are engaged, with over 40 men as crew</li> <li>- most of the seining boats work nearly every tide, while the outside boats are more dependent on the weather and the state of the sea – sometimes there are long spells of idleness</li> </ul> </li> </ul>	P. Thomson, 'Fish and their seasons', <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 9, 1876, pp 484-490.
1885	<ul style="list-style-type: none"> <li>- Provides details of a brief assessment of New Zealand's fish stocks and the potential for commercial exploitation.</li> <li>- States that from Martins Bay (South Westland) he 'commenced to meet with fish in such numerous shoals that</li> </ul>	Papers Relating to the Development of Colonial Industries: Fisheries, <i>AJHR</i>

	from there to off Oamaru, inshore and offshore, I believe millions of tons of fish could be caught yearly. . . . ‘Otago Harbour commands most extensive and valuable barracouta, groper, ling, rock-cod, and crayfish fishing, and with proper fishing-smacks Otago Harbour could also command the blue-cod fishing.’	1885 H-15. <i>No. 1: J Mackenzie to Julius Vogel, 29 March 1885.</i>
1900	- the steam trawler ‘Doto’ chartered, fitted with an otter trawl (p 1) - expedition undertaken during autumn and winter months of 1900 - hauls numbered 68 to 71 were located off the coast between Cape Saunders and Nugget Point (p 8) - the following fish were taken from these hauls: brill (or turbot), sole, red cod, and crayfish (p 14)	Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 23 July 1900, <i>AJHR</i> 1900 H15A. <b>[Photocopy 38]</b>
1906	Includes notes on several fish, mostly describing attempts to breed the species at Portobello, but also some comments on abundance and quantity caught. Crayfish ( <i>Palinurus edwardsii</i> ): ‘The crayfish is very valuable to us, inasmuch as it is the only edible crustacean at present inhabiting our coastal waters. It is generally supposed to be of sedentary habits, and to live for a great part of its life within a very restricted area. Large hauls of them are occasionally taken in the trawl some distance from shore, and on a sandy bottom. The fishermen say they are then on the move, and it would appear that at certain periods a great migratory movement takes place from one part of the coast to another.’	T. Anderton, ‘Observations on New Zealand Fishes, &c, made at the Portobello Marine Fish-hatchery’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 39, 1906, pp 477-496.
1913 September	- Fishermen at Puketeraki have been fishing solely for crayfish for the last 2 months – average catch for all the boats is 100 sacks a day.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 October 1913, M 1 2/12/2 part 1, NAW.
1913 December	- ‘Early in the month the steam trawlers were catching large quantities of crayfish. It is estimated that at least six tons weight of crayfish were sent up to Dunedin on one occasion.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 December 1913, M 1 2/12/2 part 1, NAW.
1914 August	- Puketeraki fishermen have kept the market well supplied with crayfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1914, M 1 2/12/2 part 1, NAW.
1914 September	- Puketeraki fishermen solely engaged in crayfishing – sending about 100 sacks of crayfish a day to the canning factory in Dunedin.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 September 1914, M 1 2/12/2 part 1, NAW.
1915	- Oamaru and Moeraki: - towards end of year weather and conditions approved; fish became more plentiful – groper, red cod, ling, blue cod, crayfish were principally taken	Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.
1916	- Details include . . . ‘During the fine spells the trawlers were taking good hauls of soles and flounders. On several	Monthly report on Otago Fisheries,

August	occasions crayfish were also taken in large numbers in the trawls. It is estimated that at least seven tons of crayfish were landed at Port Chalmers on one occasion.’	Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1916, M 1 2/12/2 part 1, NAW.
1919 August	- Fair quantities of crayfish from Puketeraki.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1919, M 1 2/12/2 part 1, NAW.
1920s	- In the 1920s, Moeraki fishermen first began taking crayfish in notable quantities, but received only six shillings per hundredweight (50 kg). Even in 1948, fishing companies paid just 2d per lb (450 g).	Gavin McLean, <i>Moeraki: 150 Years of Net and Plough Share</i> , Dunedin, 1986, p 81.
1920	- All outlying districts visited: - Puheteraki - fishermen have sent a fair supply of crayfish to Dunedin market and canning factory	Annual report for Otago for year ending 31 March 1920 by Inspector of Fisheries S Broadley, M 1 2/12/207 NAW. <b>[Photocopy 10]</b>
1920 October	- Small quantities of crayfish from Puketeraki. Bags of 10 dozen mentioned.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1920, M 1 2/12/2 part 1, NAW.
1921	- Outlying districts: - - Puketeraki – large quantities of crayfish and a few groper and blue cod	Annual report for Otago for year ending 31 March 1921 by Inspector of Fisheries S Broadley, M 1 2/12/224 NAW. <b>[Photocopy 11]</b>
1922	- Outlying districts: - Puketeraki – continue to supply Dunedin market with crayfish	Annual report for Otago for year ending 31 March 1922 by Inspector of Fisheries S Broadley, M 1 2/12/245 NAW. <b>[Photocopy 12]</b>
1923	- Past year shows a marked decrease in the quantity of fish landed at Oamaru, and a slight decrease at Moeraki. - Crayfish plentiful at Moeraki.	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1923 by Collector of Customs, M 1 2/12/269 NAW.
1923	- (p 141) Crayfish made subject to the provisions of the Fisheries Act 1908 in November 1923. The Act already controlled fishing for wetfish and oysters. [Sections 21 and 22 – relating to the granting of exclusive licenses.]	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1924	- Outlying districts:	Annual report for Otago for year ending



	- Puketeraki – large catches of crayfish	31 March 1924 by Inspector of Fisheries S Broadley, M 1 2/12/298 NAW.
1924 July	The Puketeraki fishermen are sending large consignments of crayfish into Dunedin.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1924, M 1 2/12/2 part 1, NAW.
1924 October	- Puketeraki men sent in good supplies of groper and blue cod; unfortunately lost all their cray-fishing gear in very rough weather – cost of the material is high and a great deal of labour is incurred in making new pots.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 September 1924, M 1 2/12/2 part 1, NAW.
1925	- Outlying districts: - Puketeraki – fair catches of groper and blue cod sent from Puketeraki; also a good season with crayfish	Annual report for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.
1925 June	- Puketerake fishermen sent in a few bags of crayfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1925, M 1 2/12/2 part 1, NAW.
1925 July	- Large quantities of crayfish have been sent in from Puketeraki.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 August 1925, M 1 2/12/2 part 1, NAW.
1926	- At Moeraki, blue cod and groper proved the mainstay of the Moeraki boats, fairly plentiful. Red cod, barracouta, ling, and crayfish caught in fair quantities throughout the summer months.	Annual report for Oamaru and Moeraki for year ending 31 March 1926 by Collector of Customs, M 1 2/12/356 NAW.
1926	- Outlying districts: - Puketeraki – fair catches of groper, blue cod, crayfish	Annual report for Otago for year ending 31 March 1926 by Inspector of Fisheries S Broadley, M 1 2/12/356 NAW.
1927	- (p 142) In 1927 the second crayfish cannery in New Zealand established by A.H. Mackrell in Bluff.	Johnson, David, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , completed by Jenny Haworth, Hazard Press for the Fishing Industry Association, Wellington, 2004.
1928	- States that difficult to obtain replies from fishermen. - 12 boats shellfishing intermittently in conjunction with ordinary fishing. - Location: 3 miles north of Moeraki to Seacliff, inshore 9-11 fathoms.	Annual return on crayfishing at Moeraki for year ending 31 March 1928, M 1 2/12/413 NAW.

	<ul style="list-style-type: none"> <li>- Catch: approximately 16,000 dozen.</li> <li>- Fishermen agree that supplies have been diminishing for some years past, variously ascribed to rocky bottom becoming sanded over, too constant working of grounds, too much rain increasing proportion of fresh water.</li> </ul>	
1928	<ul style="list-style-type: none"> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Puketeraki – scarcity at the beginning of the season, then fair catches of groper, blue cod. Between May and October, most of the fishermen at this place fish for crayfish alone.</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1928 by Inspector of Fisheries S Broadley, M 1 2/12/413 NAW. [Photocopy 22]
1929	<ul style="list-style-type: none"> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Puketeraki – fishermen have had a bad year, some giving up fishing</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW. [Photocopy 24]
1930s	- (p 66) Some Moeraki fishermen went crayfishing, but price very low – price did not become a major industry until after World War II.	Gavin McLean, <i>Moeraki: 150 Years of Net and Plough Share</i> , Dunedin, 1986.
1931 September	- Puketeraki fishermen mostly working for crayfish; sending in fair quantities.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1931, M 1 2/12/2 part 1, NAW.
1932 October	- ‘Apart from Crayfish, very little else was sent in from Puketeraki. Three merchants in Dunedin are exporting large quantities of crayfish to London. . . . The crayfish at present being exported are of the very large variety and almost unsaleable here.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1932, M 1 2/12/2 part 1, NAW.
1933 May	- ‘Fair number of crayfish were sent to Dunedin from Puketeraki, and sold . . . per bag of 9 to 10 dozen fish.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1933, M 1 2/12/2 part 1, NAW.
1933 June	- ‘Large quantities of large crayfish tails are being exported to England. . . . Four different firms are engaged in the export of these fish.’ Inspected several bags of these fish and found some with berries attached; asked that fish in this condition not be accepted, warning that regulations would be enforced.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1933, M 1 2/12/2 part 1, NAW.
1933 July	- ‘A number of the Port Chalmers fishermen are going to considerable expense in fitting up their gear in preparation for catching large crayfish for export. One of the boats so fitted visited the crayfishing grounds off the Southern Coast, but found the majority of fish heavy with berries, with the result that they are ceasing operations until the spawning season is over.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1933, M 1 2/12/2 part 1, NAW.
1933 August	<ul style="list-style-type: none"> <li>- Improvements in fishing industry: <ol style="list-style-type: none"> <li>1) installing the latest type of engines in the auxiliary power boats (more economical, use crude oil, faster, suitable for trawling)</li> <li>2) question of providing a wider market for fish – installation of freezers for crayfish export</li> </ol> </li> </ul>	The Otago Daily Times, 22 August 1933

1933	Sudden interest in exporting frozen cray tails. Vessels loading at Port Chalmers, Dunedin, took 1100 cases of tails. Port Chalmers fishing vessels discarded their trawl gear and began cray potting. One boat brought in a ton a day on two successive days. Another took three tons over a weekend.	David Johnson, Hooked: The Story of the New Zealand Fishing Industry, Wellington, 2004, pp 142-144.
1933	- States that he had heard that consignments totalling some 1200 cases [of tails?] had been exported from Dunedin.	Acting Secretary, Marine Department, to Commissioner of Unemployment, 13 June 1933, M 1 2/4/1 part 2.
1933	- Notes that: Crayfish are caught in quantities in traps that area emptied into the launches. 'These fish have been caught off Karitane for 35 years in our season without diminution of supplies.' States that proposed size regulations and loss of sales 'would be a serious loss to our community'.	Petition re Proposed Fish Regulations by 16 Karitane Fishermen and Residents (E. Stammers and others) to Minister of Marine, 25 July 1933, M 1 2/4/1 part 2.
1934	- Discusses 'the effects of [the] trade depression.' - A number of men compelled to seek other employment. Had it not been for the large amount of fish exported during the past year about half the fleet would have been laid up immediately. Export trade has also been a great assistance to the crayfish industry also – 2300 bags of large crayfish sent to Dunedin from Taieri Mouth, the majority for export and taken as part-time fishing.	Inspector of Fisheries for Otago, S Broadley, to the Secretary, Marine Department, Wellington, 10 May 1934, M 1 2/12/533, NAW.
1934 March	- Details include . . . 'At present large numbers of first-class lemon soles are being caught on the Taieri Mouth grounds. Several of the larger craft from Port Chalmers have been working these grounds and returning to Port with some good hauls. There has been a marked scarcity of flounders inside Otago Harbour.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1934, M 1 2/12/2 part 1, NAW.
1934 June	- 'The heavy weather has interfered considerably with the supply of large crayfish for export. This class of work is very dangerous in anything but very calm water. The principal grounds to the south of Cape Saunders are all of a very risky nature, and at times much gear is lost.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1934, M 1 2/12/2 part 1, NAW.
1934 August	- Supply of crayfish for export has also decreased. Puketeraki fishermen have kept up a steady supply for the Dunedin market; a good supply from Moeraki for export.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1934, M 1 2/12/2 part 1, NAW.
1934 October	- Details include . . . Weather improved, supply increased. 'Large shoals of barracouta appeared off the Otago Heads, but very soon there was no demand and the fishermen had to cease catching them.' - 'The majority of the larger [trawling] craft have been journeying to The Nuggets and Taieri Mouth where they have secured very large hauls of flat fish.' - Seine fishing at a standstill owing to the harbour at present being full of floating weed. - Large numbers of flatfish were sent to Port Chalmers for export from Taieri Mouth. - The supply of crayfish for export has decreased considerably owing to the loss of gear from last months weather.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1934 November	- 'A number of Port Chalmer's fishermen changed over from line to crayfishing and brought in good catches for the export sheds. The majority were taken from Sandfly Bay and to the South of Cape Saunders.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date,

		M 1 2/12/2 part 1, NAW.
1935	- 'With few exceptions both fishermen and fish-dealers in Otago had a difficult year. A comparative shortage of large crayfish on the usual grounds was also reported.'	A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, AJHR 1935, H-15.
1935	- 'With few exceptions both fishermen and fish-dealers in Otago had a difficult year. . . . When weather was favourable moderate supplies of groper and ling were brought in, but the boats engaged in the long-line fishery are now compelled to go further afield than formerly.'	A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, AJHR 1935, H-15.
1935 April	- The Puketeraki boats have been fishing for crayfish for practically the whole month.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 October	- Puketeraki boats are securing crayfish for canning.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 October	- One boat fishing there [Waikawa] for crayfish secured very large catches, on one occasion bringing in 3½ tons for one day's fishing. These have been sent in for export; tails only being used, averaging 30 lbs for 17 tails.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936	As the Depression dragged on, crayfish exporters had difficulty selling their product. Most of their supplies came from north of Dunedin, mainly from Karitane. Crayfish caught on that coast were small, ideal for canning. In 1936-37, 82 tons of Crayfish were reported to have been landed at Moeraki and Karitane. Three years later the figure was 88 tons. Hefford had little faith in the statistics, noting that about a quarter should be added.	David Johnson, Hooked: The Story of the New Zealand Fishing Industry, Wellington, 2004, p 144.
1937	- Crayfish – Otago and South Canterbury (p 34) - 'The main crayfishing centres in these districts are Karitane, Moeraki, and Taieri Mouth. Before the export market collapsed owing to the application of a quota in France, arrangements had been made for the purchase of large supplies from these districts by the various firms engaged in the industry. After one year of intensive fishing to supply the heavy demand, the grounds showed marked signs of depletion. This was not so noticeable in the quantity of fish coming forward, but in the alarming decrease in size. The Moeraki grounds suffered worst and have not recovered. Taieri Mouth, which was not exploited so much, suffered least, and these grounds are now coming back to normal. The state of the Karitane grounds is rather doubtful as, although it was noticed that when the question of conservation was being discussed the fishermen would agree to the prohibition of taking of "berried" females, they would not agree to even a mild restriction on the size. From this it would appear that there is still a large proportion of crayfish in the landings. The cannery at Dunedin provides a market for crayfish, but the fishermen complain that the low prices offered and the intermittent market, due to its dependence on overseas orders, make their livelihood	'Report of the Sea Fisheries Investigation Committee', AJHR, 1937-1938, H-44A.

	<p>precarious. The methods used in taking the crayfish in these waters by means of supplejack pots are satisfactory and call for no comment.’</p> <p>- Crayfishing – recommendations (p 36)</p> <ul style="list-style-type: none"> <li>- that the legal size of crayfish be fixed at 9 in. in length</li> <li>- that it be made illegal to take any female crayfish carrying external ova or to remove the ova (berries) prior to sale</li> <li>- that investigations be made into the crayfish stocks at various centres, and that a study be made of the habits, size, sex groups, and migrations of the crayfish, the results being the basis for future legislation</li> </ul>																																											
1937	<p>- Encloses monthly catch details for Moeraki and Karitane for the year ending 31 March 1937:</p> <table border="1"> <thead> <tr> <th>Month</th><th>Moeraki</th><th>Karitane</th></tr> </thead> <tbody> <tr> <td>April</td><td></td><td>650</td></tr> <tr> <td>May</td><td></td><td>4 570</td></tr> <tr> <td>June</td><td></td><td>8 736</td></tr> <tr> <td>July</td><td>2 620</td><td>25 260</td></tr> <tr> <td>August</td><td>3 474</td><td>29 030</td></tr> <tr> <td>September</td><td>2 075</td><td>44 000</td></tr> <tr> <td>October</td><td>10 173</td><td>16 660</td></tr> <tr> <td>November</td><td>5 484</td><td>17 780</td></tr> <tr> <td>December</td><td>4 541</td><td>9 660</td></tr> <tr> <td>January</td><td>160</td><td></td></tr> <tr> <td>February</td><td></td><td></td></tr> <tr> <td>March</td><td></td><td></td></tr> <tr> <td><b>Total (lbs)</b></td><td><b>28 527</b></td><td><b>156 346</b></td></tr> </tbody> </table>	Month	Moeraki	Karitane	April		650	May		4 570	June		8 736	July	2 620	25 260	August	3 474	29 030	September	2 075	44 000	October	10 173	16 660	November	5 484	17 780	December	4 541	9 660	January	160		February			March			<b>Total (lbs)</b>	<b>28 527</b>	<b>156 346</b>	N.W. Young, to Secretary, Marine Department, 21 November 1940, M 1 2/4/1 part 2, Crayfish, NAW.
Month	Moeraki	Karitane																																										
April		650																																										
May		4 570																																										
June		8 736																																										
July	2 620	25 260																																										
August	3 474	29 030																																										
September	2 075	44 000																																										
October	10 173	16 660																																										
November	5 484	17 780																																										
December	4 541	9 660																																										
January	160																																											
February																																												
March																																												
<b>Total (lbs)</b>	<b>28 527</b>	<b>156 346</b>																																										
1937	- Description of catches, locations, etc.	Annual report for Otago by Inspector of Fisheries, S Broadley, for the year ended 31 March 1937, M 1 2/12/565, NAW. [Photocopy 31]																																										
1938	A size limit of 9 inches was set for North Island landings and 8 inches for South Island landings. Females carrying eggs were not to be taken and eggs were not to be stripped from them. In 1940 all restrictions were removed.	David Johnson, Hooked: The Story of the New Zealand Fishing Industry, Wellington, 2004, p 145.																																										
1939	- Concerned at the restriction of 8 inches placed on crayfish. Claim that: ‘The Crayfish in this region of New Zealand are of a much smaller variety than the species which exist in other parts of the sea of this country.’	Petition by 17 Karitane Fishermen, 21 July 1939, M 1 2/4/1 part 2, Crayfish, NAW.																																										
1939	- Discusses petition, noting that there are 8 boats landing crayfish at Karatane. Notes that regulation only gazetted	N.W. Young, Senior Fisheries Officer to																																										

	<p>in Aug 1938, therefore difficult to establish the effect on fishing. Season starts in June, goes to September. Believes that regulation should remain in place for longer to get a better idea of the impact on the fishermen and fishery. Includes following statistics:</p> <p><i>1) Crayfish catch at certain Otago reports</i></p> <table> <tr> <th>Year</th><th>Port</th><th>Catch (Cwt.)</th></tr> <tr> <td>1933–34</td><td>Moeraki</td><td>2 600</td></tr> <tr> <td>1934–35</td><td>Oamaru Moeraki and Dunedin</td><td>3 917</td></tr> <tr> <td>1935–36</td><td>Oamaru Moeraki and Dunedin</td><td>2 017</td></tr> <tr> <td>1936–37</td><td>Oamaru Moeraki and Dunedin</td><td>2 249</td></tr> <tr> <td>1937–38</td><td>Oamaru Moeraki and Dunedin</td><td>2 827</td></tr> <tr> <td>1938–39</td><td>Oamaru Moeraki and Dunedin</td><td>2 336</td></tr> </table> <p><i>2) Crayfish catch of the two 'best' boats at Karitane</i></p> <table> <tr> <th>Year</th><th>'Ballymena'</th><th>'Scout'</th></tr> <tr> <td>1936–37</td><td>48 440</td><td>37 900</td></tr> <tr> <td>1937–38</td><td>34 448</td><td>46 844</td></tr> <tr> <td>1938–39</td><td>20 660</td><td>28 360</td></tr> </table>	Year	Port	Catch (Cwt.)	1933–34	Moeraki	2 600	1934–35	Oamaru Moeraki and Dunedin	3 917	1935–36	Oamaru Moeraki and Dunedin	2 017	1936–37	Oamaru Moeraki and Dunedin	2 249	1937–38	Oamaru Moeraki and Dunedin	2 827	1938–39	Oamaru Moeraki and Dunedin	2 336	Year	'Ballymena'	'Scout'	1936–37	48 440	37 900	1937–38	34 448	46 844	1938–39	20 660	28 360	Chief Inspector of Fisheries, 3 August 1939, M 1 2/4/1 part 2, Crayfish, NAW.
Year	Port	Catch (Cwt.)																																	
1933–34	Moeraki	2 600																																	
1934–35	Oamaru Moeraki and Dunedin	3 917																																	
1935–36	Oamaru Moeraki and Dunedin	2 017																																	
1936–37	Oamaru Moeraki and Dunedin	2 249																																	
1937–38	Oamaru Moeraki and Dunedin	2 827																																	
1938–39	Oamaru Moeraki and Dunedin	2 336																																	
Year	'Ballymena'	'Scout'																																	
1936–37	48 440	37 900																																	
1937–38	34 448	46 844																																	
1938–39	20 660	28 360																																	
1940	- Advises that restrictions on crayfish are to be removed in the interests of the national economy. Fuel and wastage of undersized crayfish.	Secretary, Marine, to Superintendent of Mercantile Marine, Dunedin, 31 July 1940, M 1 2/4/1 part 2, Crayfish, NAW.																																	
1940	<p>- Encloses monthly catch details for Moeraki and Karitane for the year ending 31 March 1940:</p> <table> <tr> <th>Month</th><th>Moeraki</th><th>Karitane</th></tr> <tr> <td>April</td><td></td><td>330</td></tr> <tr> <td>May</td><td></td><td>720</td></tr> <tr> <td>June</td><td>634</td><td>6 600</td></tr> <tr> <td>July</td><td>3 057</td><td>5 820</td></tr> <tr> <td>August</td><td>17 567</td><td>25 100</td></tr> <tr> <td>September</td><td>30 595</td><td>45 983</td></tr> <tr> <td>October</td><td>16 925</td><td>20 886</td></tr> <tr> <td>November</td><td>15 728</td><td>1 800</td></tr> <tr> <td>December</td><td>5 907</td><td></td></tr> </table>	Month	Moeraki	Karitane	April		330	May		720	June	634	6 600	July	3 057	5 820	August	17 567	25 100	September	30 595	45 983	October	16 925	20 886	November	15 728	1 800	December	5 907		N.W. Young, to Secretary, Marine Department, 21 November 1940, M 1 2/4/1 part 2, Crayfish, NAW.			
Month	Moeraki	Karitane																																	
April		330																																	
May		720																																	
June	634	6 600																																	
July	3 057	5 820																																	
August	17 567	25 100																																	
September	30 595	45 983																																	
October	16 925	20 886																																	
November	15 728	1 800																																	
December	5 907																																		

	<table> <tr> <td>January</td><td></td><td></td></tr> <tr> <td>February</td><td></td><td></td></tr> <tr> <td>March</td><td></td><td></td></tr> <tr> <td><b>Total (lbs)</b></td><td><b>90 413</b></td><td><b>107 239</b></td></tr> </table>	January			February			March			<b>Total (lbs)</b>	<b>90 413</b>	<b>107 239</b>	
January														
February														
March														
<b>Total (lbs)</b>	<b>90 413</b>	<b>107 239</b>												
1941 February	<ul style="list-style-type: none"> <li>- Details include . . . ‘Early in the month the line boats working out of Port Chalmers brought in very small catches of groper. This was on account of large numbers of elephant and dog fish frequenting the fishing grounds.’ Supply later improved, with small lots of ling also taken. Those working inshore secured large catches of barracouta.</li> <li>- Elephant and dogfish were occasionally very numerous on the trawling grounds and at times interfered with fishing. One of the larger vessels made a few trips to the Nuggets. The large trawler brought in an occasional large catch of kingfish and ling. Otherwise the catches were small and made up of all kinds of round fish.</li> <li>- ‘The few remaining seine fishermen in Otago Harbour are experiencing a very lean time, often finishing a full tide without catching enough fish of any kind to send to the market.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.												
1941 August	<ul style="list-style-type: none"> <li>- Details include . . . Port Chalmers line boats fishing in deep water secured small catches of groper; those working inshore secured very small catches of ling and red cod. Red cod very scarce for this time of the year.</li> <li>- Otago trawling grounds secured fair catches of flatfish – 2 to 6 boxes of each per day.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.												
1941 October	- Details include . . . ‘The few line boats working out of Port Chalmers report a decided scarcity of groper, often the catches were too small to send to market. The boats working closer inshore secured small catches of red cod, ling, blue cod and a few barracouta.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.												
1941 November	- Details include . . . ‘Barracouta were seen in large numbers about Cape Saunders, but it was not until nearing the end of the month they were taken in any quantity.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.												
1941 December	- Details include . . . ‘All fishing in the Otago Harbour is practically at a standstill and the majority of fishermen have found other employment as for the past two years they have been unable to make wages.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.												
1946	- States that total crayfish landed for the year 31 December 1945 was 1,800,000 – survey carried out by the Association. Requests that earlier regulations regarding size and taking of females be re-enacted, otherwise ‘the waters of the Dominion will, within a nominal period be depleted of this type of fish’.	Secretary, NZ Wholesale Fish Merchants Association, to Minister of Marine, 21 November 1946, M 1 2/4/1 part 2, Crayfish, NAW.												
1947	A size limit of 8 inches was imposed for both the North and South Islands.	David Johnson, Hooked: The Story of the New Zealand Fishing Industry, Wellington, 2004, p 146.												

1947-49	Reported national crayfish landings: 900 tons in 1947, 1336 tons in 1948, and 1838 tons in 1949. Wellington remained the main crayfish port, followed by Karitane, Picton, Kaikoura, Auckland, and Gisborne. There were significant landings in the far north, on the Coromandel Peninsula, at Akaroa, and at Moeraki. There were practically none south of the Taieri mouth or on the west coast of the South Island.	David Johnson, Hooked: The Story of the New Zealand Fishing Industry, Wellington, 2004, p 148.
1948	New size limit of 9 inches, except in Otago where smaller fishes could be taken, but not sold outside Otago.	David Johnson, Hooked: The Story of the New Zealand Fishing Industry, Wellington, 2004, p 148.
1950	Official figures for crayfishing in 1950 recorded 2624 tons landed. Because of tailing at sea there was an element of guesswork involved in calculating this figure. Also, much of the crayfish landed for local consumption was not recorded. Actual landings were well over 3000 tons. The Otago coast produced nearly 850 tons, but as many of the vessels fishing Fiordland were from Port Chalmers the figures could include tails from further afield.	David Johnson, Hooked: The Story of the New Zealand Fishing Industry, Wellington, 2004, p 150.
1951	- Notes that export of frozen tails to the US has produced a phenomenal increase in the crayfish catch off the New Zealand: 15,924 cwt in 1945, 52,482 cwt last year. Exports of frozen crayfish last year totalled 11,814 cwt, compared with 3731 cwt in 1948. 'The annual report of the Marine Department says that while the catch has increased some grounds are already showing a reduced return for the year worked compared with the peak pre-war catch of 12,212cwt.'	Christchurch Press, 26 October 1951, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.
1951	- Notes that crayfish exports were mostly as 'tails' and nearly all to the USA. States that to convert 'tails' to 'green' weight', need to multiply by 3.	Secretary, Marine Department, to Messrs Rosser Bros Ltd, 5 August 1952, M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.
1951 (approx)	- Notes recent growth in crayfish catch. 'Such a rapid increase in the catch of a single species is from past experience a danger signal. Experience has shown that a rapid increase in the catch of a species is followed by a rapid drop when the stocks are unable to withstand the impact of increased fishing intensity. Already in a number of places the catch is beginning to drop.' - Notes that the catching industry has responded to the crayfish incentive in the following ways: <ul style="list-style-type: none"> <li>vessels normally engaged in fishing for 'wet' fish have changed to crayfishing in season;</li> <li>vessels normally engaged in fishing for 'wet' fish are making trips to distant, sometimes little worked or virgin grounds to catch crayfish;</li> <li>additional vessels are being used to develop new fishing areas; and</li> <li>the methods of fishing for crayfish have changed. Trawlers now more actively hunt the crayfish.</li> </ul> 'Crayfish were not caught at Bluff or by the larger vessels operating from Port Chalmers until the export of craytails became so profitable. Now the Port Chalmers boats forsake their own markets and operate around on the West Coast on the same grounds that are worked by the boats from Westport and Greymouth. The following is a view of the fishing industry at Otago. The population density is lower in Otago and Southland than in many other parts of New Zealand and there is therefore more of a surplus left over for export. With the development of the export trade in the post-war years in particular the lemon sole fishery here has been so heavily fished in the summer months and the catch exported that the market has been poorly supplied in the winter months. The export price has resulted in larger and more powerful vessels being financed into the industry but it appears now that these grounds	'The Crayfish Industry', author unknown, no date [seems to be a Marine Department report], M 1 2/4/1 part 3, Crayfish, 1948-1952, NAW.



	are being strained for the export trade and that there are lean years ahead. The fleet or at any rate the bigger vessels are now forsaking the local market during the winter months to catch crayfish because of the big profits in tails.'	
1952	- In 1952, as export volumes continued to expand, concern was expressed about the sustainability of the crayfish industry. In November 1952, the minimum size was increased from 9 to 10 inches, except in Otago, where fisherman were still free to catch what they could so long as any crayfish under the size set for other areas was sold in the province. The taking of berried females was prohibited.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 150-151.
1952	- There was concern about the fouling of grounds by dumping large quantities of cray bodies over the side. Crayfisherman complained about careless dumping by other fishermen. A ban on tailing was introduced in the early 1950s to slow down the fishery.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 152-153.

### S31: Otago: Flatfish

Year	Details	Source
1860s	Example of Otago fisherman in 1860s: Richard Lewis, who had his fishing ketch delivered from Victoria to Otago in 1862. He began by catching hapuku and blue cod between Moeraki and Cape Saunders. Around 1870 he switched to seine fishing for flounder and red cod in Otago Harbour.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 24.
1869	<ul style="list-style-type: none"> <li>- notes that the evidence 'is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.'</li> <li>- three regular fisheries at work: Otago Heads (Harbour and 'outside'), Moeraki, and Molyneux Bay</li> <li>- these fisheries are worked all year around, though seasonal fluctuation</li> <li>- estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux</li> <li>- Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux</li> <li>- the number of boats working the coast about 30</li> <li>- fishing inside the harbour is carried on all year, each boat working about six tides a week</li> <li>- outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March</li> <li>- the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads</li> <li>- each boat usually uses one net besides lines – the number of nets estimated to be about 20</li> <li>- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.</li> <li>- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon</li> <li>- crayfish are also 'caught in large numbers'</li> </ul>	Report of the commissioners for the province of Otago, No. 2 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.

	<ul style="list-style-type: none"><li>- information based on principally on that provided by fishermen themselves</li><li>- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast</li></ul>	
1872	Innes opened a canning factory at Otago [Port Chalmers?], canning barracouta, flounder, and moki.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, pp 28-29.
1875	<ul style="list-style-type: none"><li>- A writer in the <i>Otago Witness</i> (13 March 1875) reported that Blueskin Bay ‘swarms with fish, principally flounders, of a flavour and size not to be excelled on any part of the coast.’</li></ul>	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts, Waitati</i> , 2007, p 49.
1876	<div><div><div><div>Species</div><div></div></div><div><div></div><div>Number of days in market</div></div><div><div></div><div><div>A</div><div>S</div><div>O</div><div>N</div><div>D</div><div>J</div><div>F</div><div>M</div><div>A</div><div>M</div><div>J</div><div>J</div><div>Total</div></div></div><div><div>Patiki/Flounder <i>Rhombosolea monopus</i></div><div>7125111217192021262526201</div></div><div><div>Sole <i>Peltorhamphus NZ</i></div><div>-3224321-15730</div></div></div></div> <div><ul style="list-style-type: none"><li>- Survey of fish for sale in Dunedin carried out to establish when the ordinary food fishes were in season. Noted down the various sorts of fish exposed for sale in the window of the fishmongers’ shops, as well as by occasional enquiries elsewhere – work began on 1 August 1875, ended 31 July 1876.</li></ul><ul style="list-style-type: none"><li>- Flounders: ‘Flounders are in the market all through the year; they are netted in the Lower Harbour and the various inlets up and down the coast, as well as speared in the shallows. Founders are rather over-fished, and are neither so large nor so plentiful as they used to be.’</li><li>- Soles: now more plentiful than formerly, but in very irregular supply.</li><li>- At the present time (July 1876) and for some months, there have been 32 boats, employing about 80 men, in the fishing trade in Otago Harbour.<ul style="list-style-type: none"><li>- in the net fishing in the Harbour, 16 boats regularly employed, worked by 36 men, most boats having only two men as crew</li><li>- in the outside or deep-water branch, 17 boats are engaged, with over 40 men as crew</li><li>- most of the seining boats work nearly every tide, while the outside boats are more dependent on the weather and the state of the sea – sometimes there are long spells of idleness</li></ul></li><li>- Complaints have been made during the past few months about the size of the fish brought to market – most apparent in the case of flat fish, particularly flounders and soles. Thomson comments that it is surprising that fishermen aren’t more conscience of this problem, claiming that if it is carried out much longer the flounder will</li></ul></div>	P. Thomson, ‘Fish and their seasons’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 9, 1876, pp 484-490.

	become rare. Discusses possibility of increasing mesh of nets, but notes that small mesh nets are required to catch garfish, trevally, herrings, and the like – ‘the small mesh in the bunt of the net is the very thing for catching the miscellaneous shoals of fish which come up the Harbour with the young flood tide.’																																																									
1877	<div>- Survey of fish for sale in Dunedin – information obtained in the same way as previously – taking notes of the various fishes exposed for sale in town, in boats at the jetties, enquiries at Port Chalmers, etc.</div> <table><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Patiki/Flounder</b> <i>Rhombosolea monopus</i></td><td>21</td><td>18</td><td>25</td><td>21</td><td>20</td><td>24</td><td>21</td><td>24</td><td>19</td><td>23</td><td>22</td><td>23</td><td>261</td></tr><tr><td><b>Sole</b> <i>Peltorhamphus</i> NZ</td><td>1</td><td>5</td><td>1</td><td>2</td><td>-</td><td>-</td><td>5</td><td>-</td><td>1</td><td>-</td><td>2</td><td>3</td><td>20</td></tr></table> <div>- Flounders: regular supply; many small flounder sent to market. - Soles: somewhat rare in the market; most plentiful in spring. Two varieties. - During the year, 8 boats, employing 24 men have been employed in fishing outside the Heads; 12 boats, employing 24 men have been engaged in the seine fishing in Otago Harbour and the adjoining inlets. A new boat of 14 tons recently launched at Port Chalmers for fishing outside the Heads. - Complaints continue to be made about small fish. - Observes that the supply has been much more steady than during last year, in part due to the ‘pretty regular’ shipments sent up from the Bluff. One or two ‘welled boats’ also working the waters adjacent to Otago Heads, bringing in moki, trumpeter, and other fishes, and thus keeping the market supplied with what used to considered rare or scarce fishes. With the exception of ling and sole, all the other items on the table show a large increase on last year’s returns. - ‘There is one mode of fishing which has as yet received hardly a fair trial in our waters. I refer to trawling – a method which is largely employed in the seas adjacent to the British coasts.’</div>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Patiki/Flounder</b> <i>Rhombosolea monopus</i>	21	18	25	21	20	24	21	24	19	23	22	23	261	<b>Sole</b> <i>Peltorhamphus</i> NZ	1	5	1	2	-	-	5	-	1	-	2	3	20	P. Thomson, ‘The Dunedin Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 10, 1877, pp 324-330.
Species	Number of days in market																																																									
	A	S	O	N	D	J	F	M	A	M	J	J	Total																																													
<b>Patiki/Flounder</b> <i>Rhombosolea monopus</i>	21	18	25	21	20	24	21	24	19	23	22	23	261																																													
<b>Sole</b> <i>Peltorhamphus</i> NZ	1	5	1	2	-	-	5	-	1	-	2	3	20																																													
1877	<div>- (p 113) Marine Department first became interested in fisheries administration with passage of the Fish Protection Act 1877. [Regulations were introduced under the Act in 1878 – see notes on regulations.] 1877 Act was introduced after J. Macandrew (Dunedin MP) complained to Parliament about destruction caused by drag-net fishing and requested legislation to provide protection. [NZPD, vol XXV, pp 659-660, 26 September 1877: ‘Mr Macandrew asked the Attorney-General, If the attention of the Government has been called to the necessity of legislative action being taken in order to the protection of seine fisheries throughout the various harbours of New Zealand during the spawning season; and if the Government will take such action this session? Attention has been directed during the last few years to the wanton destruction of fish which has taken place in the waters of Dunedin and in other parts of the colony. Ground fish, such as flounders and soles, were being rapidly exterminated, and he put the question in the hope that the Government would pass a measure dealing with the subject this session. He thought that if the Protection of Animals Act were extended to fish it would effect the object he had in view. There</div>	Martin, E.R., <i>Marine Department Centennial History: 1866-1966</i> , Marine Department, Wellington, 1969.																																																								

	ought to be at least three months in the year during which no such fish should be caught, and no fish below a given size should be allowed to be exploited for sale.']																																																								
1877	- In Septemeber 1877, James Macandrew, member for Dunedin, commented on wastage of fish resource. In the House of Representatives, he drew attention to the ‘wanton destruction of fish which has taken place in the waters of Dunedin and in other parts . . . Ground fish, such as flounders and soles, were being rapidly exterminated.’	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 55.																																																							
1878	<p>Observations from 1 August 1877 to 31 July 1878, ‘taken day by day from the different shops in town, as well as by inquiries at the jetties, Port Chalmers, etc’:</p> <table><tr><th>Species</th><th colspan="12">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Patiki/Flounder</b> <i>Rhombosolea monopus</i></td><td>24</td><td>20</td><td>24</td><td>25</td><td>23</td><td>23</td><td>23</td><td>26</td><td>25</td><td>23</td><td>22</td><td>24</td><td>282</td></tr><tr><td><b>Sole</b> <i>Peltorhamphus</i> NZ</td><td>1</td><td>-</td><td>-</td><td>-</td><td>1</td><td>1</td><td>-</td><td>4</td><td>-</td><td>2</td><td>-</td><td>2</td><td>11</td></tr></table> <p>- Flounders: regular supply; those brought into town have increased in size a little. - Soles: not very common, only those caught in the seine being brought to market. If trawling were introduced in suitable localities along the coast, the fish would be more plentiful. - Outside the Heads, 9 whale boats and 2 cutters are engaged in fishing, employing about 30 men. In the Harbour (or seining branch) there are 16 boats and about 40 men engaged in fishing. Two smoke-houses at Port Chalmers, with four men to each.</p>	Species	Number of days in market													A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Patiki/Flounder</b> <i>Rhombosolea monopus</i>	24	20	24	25	23	23	23	26	25	23	22	24	282	<b>Sole</b> <i>Peltorhamphus</i> NZ	1	-	-	-	1	1	-	4	-	2	-	2	11	P. Thomson, ‘Our Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 11, 1878, pp 380-386.
Species	Number of days in market																																																								
	A	S	O	N	D	J	F	M	A	M	J	J	Total																																												
<b>Patiki/Flounder</b> <i>Rhombosolea monopus</i>	24	20	24	25	23	23	23	26	25	23	22	24	282																																												
<b>Sole</b> <i>Peltorhamphus</i> NZ	1	-	-	-	1	1	-	4	-	2	-	2	11																																												
1880s	- Several Waitati settlers made a living out of selling oysters, cockles, mullet, and flounders.	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts</i> , Waitati, 2007, p 50.																																																							
1882	The New Zealand Deep Sea Fishing Company, operating out of Port Chalmers, briefly trawled with a steamer before winding up. In November 1882, the ship landed its first major catch: 300-400 sole and four large baskets of skate, groper and gurnard.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 45.																																																							
1900	- the steam trawler ‘Doto’ chartered, fitted with an otter trawl (p 1) - expedition undertaken during autumn and winter months of 1900 - hauls numbered 47 to 53 were located off the coast between Oamaru and Moeraki (p 7) - common flounder, brill (or turbot), sole, lemon-sole included among the fish taken from these hauls (p 14) - hauls numbered 54 to 67 were located off the coast between Moeraki and Cape Saunders (pp 7-8) - common flounder, yellow-bellied flounder, sole, and lemon sole included among the fish taken in these hauls (p 14)	Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 23 July 1900, <i>AJHR</i> 1900 H15A. <i>[Photocopy 38]</i>																																																							

	<ul style="list-style-type: none"> <li>- hauls numbered 68 to 71 were located off the coast between Cape Saunders and Nugget Point (p 8)</li> <li>- brill (or turbot) and sole included in the fish taken in these hauls (p 14)</li> <li>- hauls numbered 72 to 75 were located off the coast between Nugget Point and Bluff (p 8)</li> <li>- common flounder, sole, and lemon sole included in the fish taken in these hauls (p 14)</li> </ul>	
1901	<ul style="list-style-type: none"> <li>- Only a few licensed fishermen working from Blueskin Bay in the early 1900s. (p 224)</li> <li>- Discusses one of the fishermen working at Blueskin Bay prior to 1903, when licensing introduced. George King, a seine fishermen, used his locally built boat <i>May</i> and worked from his shed at Doctors Point. 'Seine fishing involved one man holding the end of a net on the bank while his mate rode around in a semi-circle sweeping up flounders and soles.' In 1901, King had a new two-man boat built at Port Chalmers. <i>The Fly</i>, first licensed in 1911, was 14 feet long, five feet wide and two feet deep, and had a lug sail as well as oars. (p 51)</li> </ul>	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts, Waitati</i> , 2007.
1902	<ul style="list-style-type: none"> <li>- Inquiry into the complaint by fisherman at Port Chalmers that trawling is affecting their interests and request that they should not be allowed to work within a certain distance of shore. Inquiry held at Port Chalmers on 14 and 15 November 1902.</li> <li>- Notes that there has been an unusual scarcity of fish in the last winter and spring – believes that trawling not the cause and looks to other factors, such as unusual weather. Points out that there has also been a scarcity of fish at other places, where there are no trawlers operating.</li> <li>- Notes that two trawlers working out of Port Chalmers – the 'Express' and 'Napier', owned by F.J. Sullivan.</li> <li>- Did not believe that the line and seine net fisherman had bought any proof to substantiate their claims that trawling was destroying fish-feed on the bottom and driving fish away.</li> <li>- Trawler owner and men working on the trawler stated that they generally work outside of the area where the small boats go and that they get quite a different class of fish from what the small boats get.</li> <li>- Fish mongers stated that the trawlers gave a more plentiful supply and more varied. Stated that the small-boat men cannot supply what is needed all year round and that in winter the market was almost entirely supplied by the trawlers.</li> </ul> <p><i>Evidence of F.J Sullivan, trawler owner</i></p> <ul style="list-style-type: none"> <li>- At the moment trawlers are working about eight miles off land and cannot get fish in less than 30 fathoms of water. Fish have confined themselves to deep water this season. Would be wrong to prevent trawlers from coming inshore. (p 2)</li> <li>- Notes that 14 men employed on the two trawlers, which are the largest boats in the country.</li> <li>- Have been able to catch fish in all weathers, when other fisherman could not venture out. (p 3)</li> </ul> <p><i>Evidence of Captain Ryffell of the trawler 'Express'</i></p> <ul style="list-style-type: none"> <li>- Employed for 12 months; usually trawl in 20 or 30 fathoms of water; never make a point of trawling in shallow water; keep on the same ground for 8 or 9 miles from 'the Point'[?]. (p 3)</li> <li>- Mostly catching large tarakihi, moki, soles, and kingfish; in deeper water always catching kingfish and ling.</li> <li>- The following fish that are caught by the trawlers, but not the fishermen: moki, terakihi, and sole. Conversely, the small-boat men catch barracouta and groper.</li> </ul>	Report of Inspector of Fisheries on Trawling at Port Chalmers, 18 December 1902, <i>AJHR</i> 1903 H-15B.

<p><i>Evidence of Frank Keenan, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that outside fishing ground extends from Cape Saunders to Shag Point. (p 4)</li> <li>- Fishes 10 miles from Otago Heads, catching by line fishing groper, red cod, ling, barracouta, and kingfish.</li> <li>- Claims that trawlers injuring fishing. Has been fishing for 10 years; fish terribly scarce the last 2 or 3 years. Now have to go much further than in other years, and the supply is shorter. Used to be able to get plenty of fish near Otago Heads.</li> <li>- Believes that trawling over the ground where the fish feed is disturbing the fish.</li> </ul> <p><i>Evidence of John Malcolm, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has fished locally for 25 years and has observed a marked decline in the last four years. (p 3)</li> <li>- ‘Many years ago the boats used to keep the market more than supplied, and they have done it all along. They were limited very often to perhaps two dozen a day. They could take in perhaps thirty or forty barracouta, and two dozen groper.’</li> <li>- Details that there are 27 outside boats and craft, with two or three men on each.</li> <li>- States that there are over 200 ‘seine men’. [Seems that seine netting was done within the harbour, while the outside fishermen used lines.]</li> </ul> <p><i>Evidence of Edward Nelson, inside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has been fishing locally for 18 years, seine fishing all that time from the Port to the Heads. Has only once seen a season as bad – some 20 years ago. (p 4)</li> <li>- States that since trawling has started inside fishermen rarely get sole, used to get 6 or 8 dozen. Has also been a decline in flounder over the last 10 years.</li> <li>- Number of seine fishermen the same as 15 years ago.</li> <li>- Believes that greater mesh size of trawl net would limit the destruction of small fish.</li> </ul> <p><i>Evidence of John H Tunnage</i></p> <ul style="list-style-type: none"> <li>- Sullivan employs four boats [all trawlers?]; outside there are five cutters (average size about 15 tons) and 31 small boats; inside a total of 32 three man boats. (p 5)</li> </ul> <p><i>Evidence of W.G. Robertson, wholesale fish merchant</i></p> <ul style="list-style-type: none"> <li>- ‘Since we have had the trawlers here the supply has very much increased, and undoubtedly so has the demand.’ (p 5)</li> <li>- States that trawlers and fishermen catch different fish.</li> <li>- Notes that for several years past we have had no moki or sprats, which were formerly very plentiful; red cod also dropped off.</li> <li>- Small boats catch most of their fish from Jan to May, when shoal fish appear and come close in shore, sometimes right up harbour.</li> <li>- Notes that trawlers continue to work in rough weather; the line-men cannot work in such weather, except in the three cutters (though even these cannot work several days after rains owing to fish not being able to see the bait).</li> </ul>	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p>(p 6)</p> <p><i>Evidence of W Stewart, fishmonger, Princes Street</i></p> <ul style="list-style-type: none"> <li>- Has been in business for 16 years, observes that there has been a poor supply of fish over the last few years. (p 6)</li> <li>- ‘We should have had nothing at all if it had not been for the trawlers.’</li> <li>- Notes that trawlers catch fish that are not usually taken by the small boat fishermen, principally the terakihi.</li> <li>- Comments that flounders ‘seem to be going out of existence altogether.’</li> </ul> <p><i>Evidence of H Kenton, master of the trawler “Napier”</i></p> <ul style="list-style-type: none"> <li>- Many of the varieties of fish caught by trawl are not caught by the line and seine net men. Barracouta and groper are not caught in the trawl because the frequent the rocky bottom, which cannot be trawled. (p 6)</li> <li>- States it would be detrimental to trawling if a three mile limit was imposed from the shore. Sometimes fish more plentiful inshore than in deep water, and if weather rough need to fish closer to land.</li> <li>- States that he does not believe the supply of flounder is going down. (p 7)</li> </ul> <p><i>Evidence of Francis Hewitt, mate of the trawler “Napier”</i></p> <ul style="list-style-type: none"> <li>- Formerly worked as a small boat fisherman and fish curer. States that in winter the flounder always ‘go off’ and that the only thing the seine men have to live on is red cod. ‘Five years ago we were catching nothing but red-cod, and it was owing to that that Mr Sullivan took up the trawling business.’ (p 7)</li> </ul>	
1906	<ul style="list-style-type: none"> <li>- Reports received from Inspectors of Fisheries . . .</li> <li>- ‘In the Otago District the principal centres of fishing are the Catlins, Molyneux, Taieri Mouth, Port Chalmers, Waikouaiti, Moeraki, and Oamaru, and the principal fish taken are flounders, hapuku, blue cod, and trevalli [Warehou]; and it is stated that notwithstanding the unseasonable weather experienced much larger catches were taken than during the previous year. There has been a considerable improvement in the boats and gear used in the industry.’ (p 5)</li> </ul>	Marine Department annual report, 30 May 1906, <i>AJHR</i> 1906 H-15.
1906	<ul style="list-style-type: none"> <li>- Portobello Marine Hatchery: large number of flounder-fry hatched and the fry liberated.</li> </ul>	Marine Department annual report, 30 May 1906, <i>AJHR</i> 1906 H-15.
1906	<p>Includes notes on several fish, mostly describing attempts to breed the species at Portobello, but also some comments on abundance and quantity caught.</p> <p>Flounder (<i>Rhombosolea plebeius</i>): taken in large numbers by the steam trawlers and seine fishermen in Blueskin Bay during June, almost all very large fish, females predominating. As many as twenty dozen were taken in a night’s fishing with one seine net, from Purakanui Beach.</p> <p>Sole (<i>Peltorhamphus novae zealandeo</i>): vast numbers were taken by the trawlers in the shallower waters (5 to 6 fathoms) of Blueskin Bay during the months of June and July; presence there generally stated to be for spawning purposes.</p>	T. Anderton, ‘Observations on New Zealand Fishes, &c, made at the Portobello Marine Fish-hatchery’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 39, 1906, pp 477-496.
1907	<ul style="list-style-type: none"> <li>- Portobello Marine Hatchery: ‘Several millions of ova of New Zealand food fishes, principally soles and flounders, have been fertilised and hatched out at the station and liberated in Otago Harbour.’ Looking into introduction of herring and one other kind of fish – cod, haddock, or turbot ova.</li> </ul>	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15.

1909	<ul style="list-style-type: none"> <li>- Notes that on 31 March five year term of annual £250 subsidy granted by R.J. Seddon expired – suggests implementation of proposed new funding scheme</li> <li>- Lists achievements during five years, includes: <ul style="list-style-type: none"> <li>- release of millions of larvae of sole, lemon-sole, flounder, gurnard, crayfish, and prawn into Otago Harbour</li> </ul> </li> </ul>	Chairman of the Portobello Fish Hatchery Board to Minister of Marine, 1 June 1909, Marine Department annual report, <i>AJHR</i> 1909 H-15
1909	<ul style="list-style-type: none"> <li>- (p 3) The Otago (later Port Chalmers') Fishermen's Co-operative Society formed in 1909 to represent the interests of fishermen working outside the Harbour.</li> <li>- (p 3) 'Inside' fishermen were fishermen who worked inside the Harbour, using nets to catch mostly flounder, maybe mullet and butterfish. They used rowing boats about 16 to 20 feet long, fine lined with hour-glass sterns to make rowing easier.</li> </ul>	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
1910	<ul style="list-style-type: none"> <li>- Report of local inspector for the Otago and Canterbury districts: <ul style="list-style-type: none"> <li>- reports a depression in the industry caused mainly by the scarcity of fish</li> <li>- owing to new class of boats and gear, many parts of the coast formally untouched have been visited, and, as a consequence, a better variety of fish has been taken</li> <li>- soles, flounder, and flatfish have generally been as plentiful, but there is a scarcity of blue cod</li> </ul> </li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1910 H-15.
1913	<ul style="list-style-type: none"> <li>- Otago District: (p 11) <ul style="list-style-type: none"> <li>- from information gathered from fishermen along the coast, the quantity of fish landed about the same as last year</li> </ul> </li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15.
1913 October	<ul style="list-style-type: none"> <li>- Supply of flat fish from the local grounds has been good. Now only 3 steam trawlers working the grounds; small craft haven taken to line fishing.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1913, M 1 2/12/2 part 1, NAW.
1914	<ul style="list-style-type: none"> <li>- Dunedin – catches as good as those made in previous year <ul style="list-style-type: none"> <li>- three steam trawlers have been in use during the year – they and several of the fishing boats fitted with trawling gear made good catches of flounders and soles during the winter months</li> <li>- inside the harbour flounders and trevalli have been caught in fairly large numbers by the seine fishermen</li> </ul> </li> <li>- Pounawea – the seine fishermen report a fairly good year <ul style="list-style-type: none"> <li>- flounder – the principal fish taken – has been plentiful</li> </ul> </li> </ul>	Marine Department annual report for 1913-1914, <i>AJHR</i> 1914 H-15.
1914 January	<ul style="list-style-type: none"> <li>- Supply of flatfish well maintained; soles fairly plentiful.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1914, M 1 2/12/2 part 1, NAW.
1914 April	<ul style="list-style-type: none"> <li>- Weather unsettled, strong NE winds; consequently the linemen not able to go out regular to the fishing grounds. When weather favourable, good hauls of soles, red cod, flounders caught in the trawls.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 May 1914, M 1 2/12/2 part 1, NAW.
1914 May	<ul style="list-style-type: none"> <li>- Seine boat men have had a good month. On several occasions, when the weather unsettled, school fish and flounders were the only fish in the market.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to



		Secretary, Marine Department, 1 June 1914, M 1 2/12/2 part 1, NAW.
1914 June	<ul style="list-style-type: none"> <li>- Weather again very bad, fishermen compelled to fish close inshore – catches have not been good.</li> <li>- Early in the month, the trawlers were catching splendid hauls of red cod, but very few flatfish; during latter part of month soles more plentiful and red cod scarce.</li> <li>- Three new boats registered – fitted with trawls and will engaged in trawling on the Otago coast.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 July 1914, M 1 2/12/2 part 1, NAW.
1914 August	<ul style="list-style-type: none"> <li>- Steamers and a number of whale boats fitted with trawls have been making good hauls of soles and flounders.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1914, M 1 2/12/2 part 1, NAW.
1914 October	<ul style="list-style-type: none"> <li>- Three steam trawlers have kept the market well supplied with flatfish, red cod, and tarakihi. Small craft engaged in trawling throughout the winter have now taken to line fishing.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 November 1914, M 1 2/12/2 part 1, NAW.
1914 November	<ul style="list-style-type: none"> <li>- Seine boat men not affected by the bad weather – keeping market well supplied with flounders, garfish, and mullet.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 November 1914, M 1 2/12/2 part 1, NAW.
1914 December	<ul style="list-style-type: none"> <li>- More bad weather, restricting fishing. Also states that ‘prevailing low temperature also appeared to drive fish away from the shallow coastal waters’.</li> <li>- Soles and red cod the principal fish taken by the trawlers.</li> <li>- Seine men, as usual, not affected by the bad weather; catches of flounders and school fish inside the Harbour.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 January 1915, M 1 2/12/2 part 1, NAW.
1915	<ul style="list-style-type: none"> <li>- Otago district: monthly reports provided by Mr Adams, Inspector of Fisheries for the Otago District, show that during winter and spring weather frequently interfered with fishing. (p 15)</li> <li>- At Dunedin, there were good catches of flounder, trevally, etc, frequently made by the seine men inside the Harbour when the weather prevented the trawlers and line-men getting outside. <ul style="list-style-type: none"> <li>- in fine weather, there has been good catches of the best market fish</li> </ul> </li> <li>- Pounawea – the fishing is all seining in the tideway of the Catlins Estuary – good catches of flounders made.</li> <li>- Oamaru – poor catches of groper made till the end of the year, but since then supply has improved.</li> <li>- 88,000 young flounder and 322,000 soles released by Portobello Marine Fish-Hatchery during year ending 31 March 1914. (p 18)</li> <li>- ova secured from fish taken by trawlers</li> </ul>	Marine Department annual report for 1914-1915, AJHR 1915 H-15
1915	<ul style="list-style-type: none"> <li>- October to December poor weather; but otherwise favourable, with good catches from linemen and trawlers.</li> <li>- ‘The supply of flatfish from the four trawlers has been exceptionally good. During the winter months, trawling with oil launches was carried on in the shallower waters with good results.’</li> </ul>	Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.

1915 April	- Flounders have been very plentiful inside the Harbour.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, undated, M 1 2/12/2 part 1, NAW.
1915 July	- Weather conditions unusually favourable. - Steam trawlers and several of the whale boats fitted with trawls have been taking large quantities of flat fish – lemon and common soles are now more plentiful than for some years past; selling for one pound a case, each case holding 6 dozen fish. Red cod also taken in fair numbers in the trawls. - Seine men continue to secure fair numbers of flounders, trevally, and mullet inside the harbour.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 August 1915, M 1 2/12/2 part 1, NAW.
1915 September	- Trawlers continue to secure exceptionally large hauls of soles.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 September 1915, M 1 2/12/2 part 1, NAW.
1915 December	- ‘Lemon soles are now the principal flat fishes & are being taken in about 21 fathoms to the NE of Otago Heads.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 January 1916, M 1 2/12/2 part 1, NAW.
1916	- Otago district: inspector says in his annual report that the past year has been extremely satisfactory for those engaged in the fishing industry – catches by trawlers and linemen have been above those taken for many years. (p 11) - supply of flat fish has been unusually good during the months of July – October, with a large number of soles taken - during July and August the catches almost all the common sole and of a large size, but more lemon soles taken as the season advanced and trawling carried on at a greater depth	Marine Department annual report for 1915-1916, AJHR 1916 H-15
1916 April	- Trawlers taking good hauls of flat fish and small numbers of moki, tarakihi, and ling. Groper plentiful until the latter part of the month. Kingfish are now very plentiful and good catches were taken ‘on the reef’ NE of Otago Heads. - Flounders, trevally, and mullet the chief fish taken by the seine boats.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 April 1916, M 1 2/12/2 part 1, NAW.
1916 June	- ‘Unsettled foggy weather has prevailed & the trawlers & linemen have not been able to go out regular to the grounds.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 July 1916, M 1 2/12/2 part 1, NAW.
1916 July	- ‘The flat-fishes have been taken in varying quantities, over a wide area, in from 7 to 15 fathoms, but on the whole in much smaller numbers than at this season of last year’.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 July 1916, M 1 2/12/2 part 1, NAW.
1916	- Details include . . . ‘During the fine spells the trawlers were taking good hauls of soles and flounders. On several	Monthly report on Otago Fisheries,

August	occasions crayfish were also taken in large numbers in the trawls.	Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1916, M 1 2/12/2 part 1, NAW.
1916 October	- Details include . . . 'The supply of flatfish from the trawlers has been well maintained. There are at present four steam trawlers working the grounds.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1916, M 1 2/12/2 part 1, NAW.
1917 February	- Details include . . . Unsettled weather. 'The weather has also interfered with the trawling, & on the few occasions that the trawls were able to get out, two cases of soles, per boats, was considered a good haul. Inside the harbour, seine-men were taking poor hauls of flounders & only fair numbers of school fish.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 March 1917, M 1 2/12/2 part 1, NAW.
1917 May	- Details include . . . Weather conditions bad, boats have only averaged 2 days fishing each week. 'All fish have demanded a fair price and owing to the small catches taken the fishermen have decided on raising the limit of proper from 2 dozen to 3 dozen per boat.' - Dunedin market on 24 May 1916: total of 80 cases of fish (20 cases of trevally from Oamaru, remainder caught locally). Local supply: small trevally (4 cases), red cod (5 cases), blue cod (9 cases), groper (16 cases), ling (4 cases), flounders (2 cases), coutre (2 cases), bream (4 cases), soles (7 cases), kingfish (4 cases), mixed fish (3 cases).	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1917, M 1 2/12/2 part 1, NAW.
1918 May	- Very few flat fish have been taken for the month by any of the trawl boats. Seven to ten dozen has been an average catch for the oil boats. Fair catches of flounders have been taken inside the harbour by the seine fishermen.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1918, M 1 2/12/2 part 1, NAW.
1918 August	- Details include . . . 'At the beginning of the month the trawlers were taking very few fish but towards the latter part fish were more plentiful and the catches large. One oil boat caught 100 dozen soles in one day. Such a large catch as this by one boat has not occurred for some considerable time.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1918, M 1 2/12/2 part 1, NAW.
1918 September	- At the beginning of the month fair catches of flat fish were taken but towards the end all trawling boats found it difficult to work on account on account of large quantities of weed settling on the trawling area. A catch of 30 dozen soles was taken by one oil boat . . . The catches taken by the seine fishermen have not been extra large . . .	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1918, M 1 2/12/2 part 1, NAW.
1918 October	- Details include . . . 'All trawling boats have been able to work more regular on account of the flatfish setting in to Blueskin Bay which is more sheltered and easier worked than other grounds.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1918, M 1 2/12/2 part 1, NAW.
1918 December	- Details include . . . 'The steam trawlers on several occasions have taken fair catches of flatfish also a number of round fish. These fish have been taken from deep water about seven miles offshore. // The oil trawling boats	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to

	having to work closer inshore have not been so successful as last month. // The seine fishermen have taken fair quantities of flounder and also a few school fish.'	Secretary, Marine Department, 31 December 1918, M 1 2/12/2 part 1, NAW.
1919	<p>- Otago District:</p> <ul style="list-style-type: none"> <li>- rough weather interfered with fishing operations</li> <li>- poor catches of flat fish by the trawlers on the usual grounds</li> <li>- on account of the scarcity of flat fishes the trawlers worked off shore in about 20 fathoms, getting fair catches of tarakihi, moki, and other round fish</li> <li>- seine net fishermen working in the harbour not affected by the weather; had a prosperous year</li> <li>- all the outlying fishing ports were visited by the Inspector during the year and a scarcity of fish reported all round</li> </ul>	Marine Department annual report for 1918-1919, <i>AJHR</i> 1919 H-15
1919 February	- 'Good catches of flounders have been taken inside the harbour by the seine boats, some taking as many as thirty dozen in one tide.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1919, M 1 2/12/2 part 1, NAW.
1919	- 'We the undersigned members of the above Society, petition you to introduce a three mile limit from point to point Moeraki to Cape Saunders, similar to that appertaining to the British Isles, Auckland and other ports of the Dominion. // Prior to the trawlers commencing operations, flat fish (flounders and soles) used to go outside the heads into deeper water to spawn, and return again unmolested to the harbours, where Seine fishermen caught them in large quantities. The same applies to groper, kingfish, cod, ling and so on which came close in shore and were easily caught in plenty. Since the trawlers started without a limit, the flat fish which usually go outside the heads into the bays to spawn are caught, while full of spawn, and as time has elapsed the want of a limit has caused the fish to grow scarcer and still scarcer, which will continue until the precautions that were take[n] in the British Isles to preserve the fish close in shore is manifested. // The trawls of the trawlers, which are dragged for hours also kill millions of small fish and spawn, and drive groper, kingfish etc. miles off into deeper water, which prior to trawling let it again be mentioned were caught close in shore.'	Petition by The Otago Fisherman's Society Limited, October 1919, to the Minister of Marine, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.
1920s	- At Blueskin Bay, Billy King, fishing from the <i>Fly</i> , made a living netting fish single-handed until the end of the 1930s, though the last record of a license is 1925. His flounders were peddled around the village (Waitati).	Ian Church with Stuart and Jean Strachan, <i>Blueskin Days: A History of Waitati, Evansdale, Warrington and Surrounding Districts</i> , Waitati, 2007, pp 224-5.
1920	<ul style="list-style-type: none"> <li>- Weather conditions interfered with the steam trawlers, but toward the latter part of the year some very large catches were taken by the steam trawlers working offshore, including large hauls of red cod. Oil boats have also had some fair catches of flat fish.</li> <li>- Seine fishermen not being so much affected by the weather have had a fairly prosperous year; flounders fairly numerous and on account of scarcity of other fish prices high.</li> <li>- All outlying districts visited:</li> </ul>	Annual report for Otago for year ending 31 March 1920 by Inspector of Fisheries S Broadley, M 1 2/12/207 NAW. <b>[Photocopy 10]</b>

	- Pounaweia – small catches of flounders being taken	
1920 March	- ‘Large numbers of both round and flat fish have been taken by the steam trawlers. . . . The oil trawling boats have had a very successful month also, and have taken some large hauls of flatfish.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 March 1920, M 1 2/12/2 part 1, NAW.
1920 June	- The steam trawlers working offshore in about 20 fathoms have had some large hauls of soles, flounders, and school fish. The oil trawlers have taken fair numbers of flat fish . . . // There has been a falling off in the catches of trevalli taken by the seine fishermen, but there is a slight improvement in the catches of flounders.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1920, M 1 2/12/2 part 1, NAW.
1920 September	- Steady supply of flatfish (but few round fish) taken by the trawling fleet, which have mostly worked from 3 to 8 miles offshore. Great scarcity of seine fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1920, M 1 2/12/2 part 1, NAW.
1920 December	- Details include . . . ‘There has been a marked improvement in seine fishing from last month. Large hauls of both schoolfish and flounders were sent in.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1920, M 1 2/12/2 part 1, NAW.
1921	- Two steam trawlers and seven oil trawling boats constantly working. Good catches of flatfish. - On account of large supplies of flatfish there has been no demand for flounders and school fish. Seine fishermen have therefore found other employment and do not intend to take up fishing until there has been a slackening off of trawl fish.	Annual report for Otago for year ending 31 March 1921 by Inspector of Fisheries S Broadley, M 1 2/12/224 NAW. <i>[Photocopy 11]</i>
1921 April	- Details include . . . ‘Both steam trawlers are still bringing in large hauls of flat fish, kingfish, and red cod . . . . The oil trawling boats working closer in shore are also taking large hauls of flatfish and red cod.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1921, M 1 2/12/2 part 1, NAW.
1922	- The trawling boats have taken large catches of flat and round fish for practically the whole of the year. - Seine catches have varied; some large hauls of trevally.	Annual report for Otago for year ending 31 March 1922 by Inspector of Fisheries S Broadley, M 1 2/12/245 NAW. <i>[Photocopy 12]</i>
1922 June	- ‘The trawlers working well offshore have brought in smaller catches than for some time past . . . . Owing to fine weather large quantities of flounders were taken by the seine boats one boat having taken 40 dozen in one tide’.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1922, M 1 2/12/2 part 1, NAW.
1923	- Trawling fleet have taken large amounts of flat and round fish, though trawl fish became scarce towards the end	Annual report for Otago for year ending

	<p>of the year and for about 2 months exceptionally poor catches taken; owners of steam trawlers stated they were losing money.</p> <p>- Seine fishermen have taken fair catches of flounder and on some occasions large quantities of</p>	<p>31 March 1923 by Inspector of Fisheries S Broadley, M 1 2/12/269 NAW.</p> <p><b>[Photocopy 13]</b></p>
1924	<p>- Trawling fleet 'experienced a very bad year with the exception of two or three months. Occasionally the round fish brought in realised bad prices. The flatfish, being scarce, averaged very high prices.</p> <p>- Seine boats working inside the Harbour have taken fair catches of flounders and trevally.</p> <p>- Outlying districts:</p> <p>- Owaka – good catches of flounder and mullet reported; mostly sold locally</p>	<p>Annual report for Otago for year ending 31 March 1924 by Inspector of Fisheries S Broadley, M 1 2/12/298 NAW.</p>
1924 July	<p>- 'There has been a slight improvement in the catches of flatfish taken by the trawling fleet . . . The trawlers also brought in fair quantities of red cod. // The seine fishermen have taken fair catches of flounders throughout the month. One of these boats working the outside beaches was very successful.'</p>	<p>Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1924, M 1 2/12/2 part 1, NAW.</p>
1924 October	<p>- 'For the greater part of the month the trawling boats have brought in very poor catches of flatfish, but on a few occasions fair catches of round fish were taken. . . // The seine fishermen have taken good hauls of flounders, and at times large catches of red cod . . . '</p> <p>- Tautuku fishermen . . . one of these fishermen reported that 'a great quantity of sprats have been washed up on the beach, and also that there is a scarcity of flounders in the river.'</p>	<p>Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 September 1924, M 1 2/12/2 part 1, NAW.</p>
1924 November	<p>- Comments that demand for fish slackens in warmer weather. Notes that one steam trawler owners has decided to lay up his boat until conditions improve.</p>	<p>Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1924, M 1 2/12/2 part 1, NAW.</p>
1924 December	<p>- Owing to poor catches of flatfish, the largest of the steam trawlers is laid up indefinitely. Seine boats report flounders to be very scarce for this time of the year, but on several occasions have taken large hauls of flounders.</p>	<p>Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1924, M 1 2/12/2 part 1, NAW.</p>
1925	<p>- Trawling fleet have taken only very poor catches of all kinds of fish for practically the whole year. One large steam trawler withdrawn. Another going as far as the Nuggets, but not profitable owing to the time getting there and back.</p> <p>- Seine fishermen have secured fair catches of flounder and trevally.</p> <p>- Outlying districts:</p> <p>- Nuggets – good catches of groper and trawl fish [incl flatfish]</p> <p>- Pounaweia – good catches of flounder, mostly sold locally</p>	<p>Annual report for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.</p>
1925	<p>- Weather during the winter months has been very unsettled – flat fish more scarce than for some years past. During the spawning season, the flat-fish were only being caught in small numbers on the grounds four miles north and north-east of Otago Heads. The grounds closer inshore were foul with loose weed throughout the greater part</p>	<p>G.M. Thomson, Chairman of the Portobello Marine Fish-Hatchery Biological Station Board to Minister of</p>

	of the winter, and as a result were almost bare of flounder and sole. Towards the end of July, the flat fish began working closer in shore, but further bad weather drove them into deeper water and from then on were on the move. First ripe soles caught on 25 July, all being male; not until 11 August that any ripe females were caught. A week later the majority of soles taken in the trawl were spent, a small number retaining only a few eggs. All were in poor condition. Brill exceptionally scarce – none caught during the spawning season.	Marine, 2 June 1925, Marine Department annual report, <i>AJHR</i> 1925 H-15
1925 January	- Trawling boats continuing to take poor catches of flatfish. Seine boats record good catches of flounders and trevally.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1925, M 1 2/12/2 part 1, NAW.
1925 February	- Details include . . . ‘The trawling fleet continue to take poor catches of flatfish. One of these boats however has been going as far as the Nuggets, where good catches of flatfish have been taken. As it takes about three days to work this place (10 hours being the time taken to steam to the grounds from Port Chalmers), it is necessary for the fish to be put down in ice. It must easily be seen that to make this venture a profitable one, large catches of fish must be obtained	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1925, M 1 2/12/2 part 1, NAW.
1925 June	- Details include . . . ‘The trawling boats continue to take very poor catches of all kinds of fish. Several of these have been compelled to cease fishing, as expense could not be met. A number of these boats I believe, are for sale.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1925, M 1 2/12/2 part 1, NAW.
1925 July	- Slight improvement in the flatfish taken by the trawling boats. - Seine boats have taken fair catches of flounder and trevally. - Several boats from Timaru at present trawling out of Port Chalmers.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 August 1925, M 1 2/12/2 part 1, NAW.
1925 October	- Trawling boats working off Otago Heads have experienced a decided scarcity of all fish; some of the larger trawlers going as far as the Nuggets, where they are securing very large catches of sole and flounders.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1925, M 1 2/12/2 part 1, NAW.
1926	- Mr Adams, the curator, reports that there has been an exceptional scarcity of flat fish on the local grounds. All the trawlers able to have been travelling as far south as The Nuggets, where large hauls of sole have been made over the last seven years. Only two small trawlers have worked the local grounds – there catches have been the poorest on record. During October, flat fish were more plentiful than in any other time of the year. Fair numbers were taken in the shallow water of Blueskin Bay, but in the deeper water some three miles north-east and east of Otago Heads the grounds were found to be almost bare of fish. A greater variety of fish is usually caught on these grounds than on the grounds well off shore.	G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, 5 May 1926, Marine Department annual report, <i>AJHR</i> 1926 H-15.
1926	- Trawling boats working at Nuggets have taken large catches of flatfish. Other trawlers fishing around Otago have taken very poor catches for the whole year. One of the steam trawlers taken out of commission last year, has made another start, but only able to bring in small catches. None of these boats have taken large catches of school-fish. - Seine fishermen have taken large catches of trevally; reported a scarcity of flounder.	Annual report for Otago for year ending 31 March 1926 by Inspector of Fisheries S Broadley, M 1 2/12/356 NAW.

	<ul style="list-style-type: none"> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Pounaweia – good catches of flounder, mostly sold locally</li> </ul> </li> </ul>	
1926 January	- ‘The trawling boats working at Nuggets brought up large hauls of flatfish when the weather permitted. The other trawlers working about Otago Heads secured only small catches for practically the whole month.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 10 February 1926, M 1 2/12/2 part 1, NAW.
1926 April	<ul style="list-style-type: none"> <li>- Trawling boats working at Nugget Bay secured large catches of flatfish; trawlers working off Otago Heads secured very small catches of flatfish.</li> <li>- Seine boats have taken large quantities of trevally, but report flounders to be very scarce.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 7 May 1926, M 1 2/12/2 part 1, NAW.
1926 May	- Details include . . . Two steam trawlers stationed at the Nuggets.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1926, M 1 2/12/2 part 1, NAW.
1926 September	- Details include . . . ‘One or two of the larger trawlers made a trip to the Nuggets, but with little success.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1926, M 1 2/12/2 part 1, NAW.
1926 October	- ‘The trawling boats still average moderate catches of flatfish around Otago Waters, and on a few occasions have taken small quantities of school-fish, and a fair quantity of red cod’.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1926, M 1 2/12/2 part 1, NAW.
1926 November	<ul style="list-style-type: none"> <li>- Trawling boats have taken small catches of flatfish, but large quantities of terakihi. On a couple of occasions, two of the larger trawlers went to the Nuggets grounds and brought in good catches of soles.</li> <li>- Seine fishermen continue to take small catches.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1926, M 1 2/12/2 part 1, NAW.
1926 December	<ul style="list-style-type: none"> <li>- Details include . . . ‘The trawling boats brought in fair catches of soles, red cod, terakihi and moki’.</li> <li>- Seine fishermen have only taken small hauls of flounders; school fish have not made their appearance in any number inside the harbour.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1926, M 1 2/12/2 part 1, NAW.
1927 January	- Trawlers working from 4 to 6 miles off the Heads have brought in fair catches of flatfish, also a few kingfish. A poor month for the seine fishermen, who have taken few flounders and school fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 February 1927, M 1 2/12/2 part 1,



		NAW.
1927 April	<ul style="list-style-type: none"> <li>- 'The trawling boats have taken fair catches of flatfish and school fish, and red cod have been plentiful. . . . These fish were taken from three to six miles off Otago Heads. At present there are about ten motor launches trawling and five steam trawlers.'</li> <li>- 'The seine boats working for flounders, have taken fair catches'.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1927, M 1 2/12/2 part 1, NAW.
1927 July	<ul style="list-style-type: none"> <li>- Weather conditions restricted fishing. Trawling boats have mostly worked close inshore off Wickliffe Bay, where flat fish set in for about 1 week until heavy weather came on and these fish shifted into deeper water.</li> <li>- 'The seine fishermen have taken very poor catches of flounders for practically the whole month, and report a great scarcity of school fish in Otago Harbour. In my opinion this has been brought about by the amount of silt on the bottom caused by dredging and other operations being carried on in the Harbour. In windy weather the water in the Harbour becomes very muddy. In calm weather a considerable amount of water is to be seen on the surface; this is accounted for by the oil from motor boat exhausts and pumped from the bilges.'</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1927, M 1 2/12/2 part 1, NAW.
1927 November	<ul style="list-style-type: none"> <li>- 'The steam trawlers working in twenty to twenty-four fathoms, have taken large catches of ling, kingfish, red cod, terakihi and moki, but very few flatfish. The oil trawlers working closer inshore have taken moderate catches of flatfish.'</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 November 1927, M 1 2/12/2 part 1, NAW.
1927 December	<ul style="list-style-type: none"> <li>- Trawling fleet have taken only moderate catches of flatfish, most being taken about 5 miles NE of the Heads. Fair quantities of flounders were also taken from Blueskin Bay on several occasions.</li> <li>- 'Small fish are very scarce in Otago Harbour this year. I am of the opinion that this has been caused by the amount of oil which has been allowed to escape on several occasions from oil burning steamers at Port Chalmers.'</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1927, M 1 2/12/2 part 1, NAW.
1928	<ul style="list-style-type: none"> <li>- Trawling boats have found fish scarce for several months of the year, though for a few months fair catches of flat fish were brought in. (Notes that it was difficult to dispose of these fish because of the warm weather.) Some boats visited the Nuggets trawling grounds, but expense and bad weather meant that this did not pay.</li> <li>- Seine men brought in large quantities of trevally at the beginning of the year, but few school fish of any kind. Catches of flounder have been fair.</li> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Nuggets – good year with line and trawl fish.</li> <li>- Pounaweia – fair hauls of flounder; scarcity of school fish.</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1928 by Inspector of Fisheries S Broadley, M 1 2/12/413 NAW. <i>[Photocopy 22]</i>
1928	<ul style="list-style-type: none"> <li>- In August and September, trawling grounds foul with loose weed, catches taken by the trawlers therefore poor. Catches of soles no means plentiful, but better than those of the previous three years. In May, soles were fairly plentiful in the shallow water between Haywards Point and the Heads.</li> </ul>	G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, 5 June 1928, Marine Department annual report, <i>AJHR</i> 1928 H-15
1928 April	<ul style="list-style-type: none"> <li>- Trawling boats working in from 2 to 8 miles off the Heads report a scarcity of flatfish; at times brought in large catches of red cod.</li> <li>- Seine boats have taken large quantities of trevally from the North Spit. Flounders more scarce than usual for this</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April

	time of the year.	1928, M 1 2/12/2 part 1, NAW.
1928 July	- About the middle of the month flatfish began to work closer inshore to spawn. Sixteen steam and motor trawlers have worked constantly, bringing in some fair hauls of flatfish; fish taken from a depth of from 10 to 19 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1928, M 1 2/12/2 part 1, NAW.
1928 September	- Trawling boats have mostly worked in Blueskin Bay on account of the weather; have taken small catches of red cod. - Seine boats have secured small catches of flounders and majority have worked with lines inside the Harbour for small catches of red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1928, M 1 2/12/2 part 1, NAW.
1928 October	- The Nuggets boats have taken very few groper for this time of the year, but when able to go trawling have brought in fair catches of flatfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1928, M 1 2/12/2 part 1, NAW.
1929	- The trawling fleet fishing out of Otago Harbour have fished the Otago grounds and taken only moderate supplies for practically the whole year. - Seine fishermen working inside the Harbour took fair hauls of flounder and trevally. School fish later became very scarce and flounders were taken in much smaller numbers. - Outlying districts: - Pounawea – small quantities of flounders and mullet caught	Annual report for Otago for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW. <b>[Photocopy 24]</b>
1930	- With regards to Otago ports . . . Trawlers have done somewhat better, good catches of flat fish in fine weather, though poor to fair fishing the rule.	A.E. Hefford, 8 August 1930, Marine Department annual report for 1929-1930, <i>AJHR</i> 1930, H-15.
1930	- The Nuggets fishermen report a scarcity of groper, have taken very few line fish. Some boats there have been laid up – few boats left mostly working trawl nets, secured several good catches of flat fish. - For two or three months some of the larger trawling boats from Port Chalmers visited The Nugget's trawling grounds, securing some good catches of flatfish. - Smaller boats working out of Otago Harbour secured only moderate hauls of flatfish and very few school fish. - Seine fishermen have also had a bad year – flounders and school-fish very scarce. - A regular supply of flounders and mullet taken at Pounawea.	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1930, M 1 2/12/477, NAW.
1930	- By the end of August, nearly all flat fish taken were found to have spawned. As spring advanced the supply of fish remained limited. While fishermen in the Nuggets were securing good hauls of trawl fish the area within 10 miles of Otago Heads was poorly supplied. In 16 fathoms common soles and lemon soles were mostly taken in small numbers, but close inshore and near the harbour entrance sand flounders of a small size were practically the only flat fish caught.	G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1930, Marine Department annual report, <i>AJHR</i> 1930 H-15
1930 July	- Details include . . . 'The trawling boats have been more fortunate, and have taken fair hauls of soles and flounders; also large quantities of red cod. . . . The majority of these fish were taken from the grounds off	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to

	Wickliffe Bay. There has not been such a large number of flounders taken from these grounds for a number of years.'	Secretary, Marine Department, 31 July 1930, M 1 2/12/2 part 1, NAW.
1930 September	- A bad month for the trawling fleet; small catches of flat fish from the Otago grounds. 'One of them brought back one large catch of 39 cases of flatfish. The other one working at a different time did not meet with much success. . . Very few round fish were taken by the trawlers.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1930, M 1 2/12/2 part 1, NAW.
1930 October	- Details include . . . 'The seine fishermen are experiencing a very bad time. The water in the harbour is very dirty and the fishing grounds covered with a slimy weed. Very few flounders are being taken from the Harbour.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1930, M 1 2/12/2 part 1, NAW.
1931	- The trawling fleet fared much better than line fishermen: - catches appear to have been more regular, though for a few months bad catches owing to poor weather - July and August – large quantities of flounder taken off Wickliffe Bay in 16 to 20 fathoms of water - one steam and one oil boat visited the Nuggets grounds, where large catches of flatfish were taken - Seine boats working inside the harbour have taken poor catches of flounders and very few school-fish; Pounawea seine fishermen have secured fair catches of flounders and mullet throughout the year	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1931, M 1 2/12/500, NAW.
1931 January	- Details include . . . Seine fishermen have taken fair hauls of flounders.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1931, M 1 2/12/2 part 1, NAW.
1931 April	- 'Large quantities of spawn resembling small garfish made their appearance inside the Harbour and were followed by large shoals of mullet and barracouta. These were seen for about two weeks when they worked their way outside the Heads. Red cod and barracouta could have been taken in plenty, but . . . there was no demand and prices were accordingly low.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1931, M 1 2/12/2 part 1, NAW.
1931 September	- Trawlers have brought in moderate catches of flatfish, mostly working 4 to 6 miles off Otago Heads. Seine fishermen a poor month.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1931, M 1 2/12/2 part 1, NAW.
1932 February	- Details include . . . 'Trawlers working the Otago grounds brought in fair quantities of flatfish. Their work was greatly hindered by the large shoals of red cod being taken in almost every haul.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 29 February 1932, M 1 2/12/2 part 1, NAW.
1933 August	- For almost the whole month the trawling fleet secured fair catches of soles and flounders within six miles of the Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31

		August 1933, M 1 2/12/2 part 1, NAW.
1934 March	- 'At present large numbers of first-class lemon soles are being caught on the Taieri Mouth grounds. Several of the larger craft from Port Chalmers have been working these grounds and returning to Port with some good hauls. There has been a marked scarcity of flounders inside Otago Harbour.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1934, M 1 2/12/2 part 1, NAW.
1934 April	- Seine boats working inside the Harbour have not had a profitable month on account of the scarcity of flounders, secured a small number of school fish and one or two hauls of mackerel.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1934, M 1 2/12/2 part 1, NAW.
1934 June	- The steam trawlers also lost a considerable amount of time averaging for the month about twelve day's fishing. The steam trawlers working long distances from the Otago Heads brought in small catches of flat fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1934, M 1 2/12/2 part 1, NAW.
1934 August	- Trawling fleet has also experienced a bad month. 'The large motor boats after twelve hours travelling often came in with only two boxes of fish. Some of the large trawlers journeyed to the Nuggets and brought back fair catches of flat fish.' - Seine boats have secured small numbers of flounders and occasionally a small number of warehou. - Taieri Mouth fishermen have sent in some fair catches of blue cod, but few trawl fish. - Most fishermen at The Nuggets are working with trawling nets, and have been taking some fair hauls of flatfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1934, M 1 2/12/2 part 1, NAW.
1934 September	- Details include . . . Unsettled weather and a decided scarcity of fish; 'shortage has been more acute than for the same month in several years past'. - 'The trawling fleet experienced one of the worst months for many years. Two to four benzene boxes was the average catch for the steam trawlers, while the smaller fleet were able to secure only one or two boxes for a long day's fishing. One steam trawler changed the fishing gear and went in search of school fish. A few cases of terakihi were taken, but not in sufficient quantities to make this class of fish payable.' - 'All seine fishing has been practically at a standstill.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1934 October	- Weather improved, supply increased. - 'The majority of the larger [trawling] craft have been journeying to The Nuggets and Taieri Mouth where they have secured very large hauls of flat fish.' - Seine fishing at a standstill owing to the harbour at present being full of floating weed. - Large numbers of flatfish were sent to Port Chalmers for export from Taieri Mouth.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1934 November	- Some of the oil trawlers working the Nuggets and Taieri Mouth grounds returned with large catches of flatfish. 'The scarcity of flatfish on the grounds about Otago Heads still continues.' - Taieri Mouth fishermen sent in large quantities of flatfish, groper, and blue cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1934 December	- Details include . . . Majority of the trawling fleet working the Taieri Mouth and Nuggets' grounds, bringing back very large catches of flat fish. Very few of these fish have been taken from the Otago grounds.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date,

		M 1 2/12/2 part 1, NAW.
1935	<ul style="list-style-type: none"> <li>- 'The returns obtained from fishing centres in the South Island are for the most part inadequate for enabling one to form anything more than a vague and general idea as to the fishery conditions.'</li> <li>- 'With few exceptions both fishermen and fish-dealers in Otago had a difficult year. The prevalence bad weather . . . and even when conditions for fishing were favourable the catches were generally inferior to those at corresponding season in previous years. The deficiency was marked in respect of flounders; consequently both trawlers working the outside grounds and seiners operating in Otago Harbour and other inshore waters had a decidedly unprofitable year.'</li> </ul>	A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, <i>AJHR</i> 1935, H-15.
1935 January	<ul style="list-style-type: none"> <li>- Details include . . . Trawling boats working the Otago grounds secured small quantities of English soles and flounders; very few lemon soles were taken as the grounds frequented by these fish have been covered with weed that has worked out from inside the harbour. As a result the majority of the trawling fleet have been forced to journey to Taieri Mouth where there has been a plentiful supply of soles in first class condition.</li> <li>- 'The seine fishermen are having a very lean time as there is a decided scarcity of all fish inside the Harbour for this time of the year.'</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 February	<ul style="list-style-type: none"> <li>- Details include . . . Flatfish still in short supply on the Otago grounds – the exporters will take as many of these fish as can be caught.</li> <li>- Seine fishermen working inside the Harbour have experienced a very bad month; flounders and school fish both scarce.</li> <li>- Taieri Mouth fishermen have taken several good catches of soles and fair numbers of groper and blue cod.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 March	<ul style="list-style-type: none"> <li>- 'The quantity of soles and flounders taken by the trawling boats from the Otago grounds increased considerably, but the condition of these fish is still very poor when compared with those from Taieri Mouth.'</li> <li>- Towards the end of the month, the seine fishermen caught more flounders than for some considerable time.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 April	<ul style="list-style-type: none"> <li>- Supply of flatfish from Taieri Mouth has dropped off.</li> <li>- Seine boats have taken moderate hauls of flounders and school fish.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 May	<ul style="list-style-type: none"> <li>- Details include . . . One or two boats of the trawling fleet worked at night in Blueskin Bay and brought in good catches of flounders. The majority were caught in a depth of between three to six fathoms.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 August	<ul style="list-style-type: none"> <li>- Details include . . . Fish scarce, weather poor. One of the steam trawlers made two trips to the Nuggets fishing grounds and returned each time with fair catch of fish. The other steam trawler operating from Port Chalmers has been sold to Southern buyers. 'The removal of this boat from the Otago grounds will considerably lessen the supply of fish to the Dunedin market.'</li> <li>- 'The number of seine boats working inside the Harbour is gradually decreasing, as for some time past they not been able to make a living. In many instances they have only caught one or two dozen flounders for a full night's work.'</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.

1935 September	- Details include . . . ‘There has been very little seine fishing inside the harbour. The average catch for three men for a night’s work was about four dozen flounders’.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 October	- Details include . . . Notes that most of the English soles caught by trawlers had not spawned.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 November	- Details include . . . Supply of flatfish from the Otago grounds still very small. The seine fishermen have taken better hauls of flounders than for some considerable time. - ‘A large trawler owned by an Australian firm is shortly to arrive at Port Chalmers and work out of this port. It is their intention to supply Dunedin and export the surplus to Australia.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 December	- Details include . . . ‘The steam trawler “Olive Cam” commenced fishing out of Port Chalmers about the middle of the month and secured large hauls of flat fish and round fish of all kinds. The majority were taken from a depth of from 30 to 40 fathoms. After one trip of 96 hours fishing she returned with 550 boxes each weighing 50 lbs, and made up of groper, ling, soles, barracouta, terakihi, moki, trevally, gurnard, flounders, red cod, dogfish, elephant fish, a few trumpeters, and blue cod.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936	- ‘It has been possible to obtain only a general impression of conditions off the east coast of the South Island, but it would appear that the fishing has been below an average standard, and rather more than usually checked by bad weather. Generally speaking, flatfish as well as groper supplies have been below requirements. As might be expected, the small-boat and inshore fishermen have been most seriously affected and some of the Otago men have abandoned the fishing.’ - Notes that an Australian trawler fished from Port Chalmers in December 1935 and January 1936, making ‘fairly good catches’, landed at Port Chalmers.	A.E. Hefford, Report on fisheries for the year ended 31 March 1936, Marine Department annual report, AJHR 1936, H-15.
1936 January	- Details include . . . “Olive Cam” has ceased fishing out of Port Chalmers; sailed to Australia with a large consignment of fish. Had been working both the Nuggets and Waikawa grounds at a depth of from 20 to 30 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 February	- Flatfish more plentiful in the Otago grounds – smaller trawlers have had better results. Majority of the larger have regularly fished the Nuggets grounds and secured large catches – most sold to export. - Weather interfered with the Waikawa fleet, though on several occasions large quantities of both line and flatfish were sent to the export sheds at Port Chalmers. - “Olive Cam” has been working Waikawa grounds.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 July	- Details include . . . Practically no trawling done on the southern grounds as they are covered with heavy slimy weed.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936	- ‘Moderate hauls of flounders have been taken inside the harbour by the seine fishermen.	Monthly report on Otago Fisheries,

August		Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																																																
1936 October	- ‘The trawlers working the Otago grounds have taken better catches of flat fish than for some considerable time. The main supply consisted of lemon soles and flounders taken from about five to seven miles off Otago Heads. . . . Some of the large boats journeyed to the Nuggets grounds and returned with several good catches of lemon soles, the average catch being from 17 to 30 benzine boxes per trip.’\n- Large quantities of lemon soles railed to Port Chalmers from Waikawa.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																																																
1937	- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location, though does have a (one-off?) breakdown for South Island ports in main body of report. <table><tr><th>Port</th><th>Method of fishing</th><th>Percentage of weight caught by each method</th><th>Principal kinds of fish caught by each method</th></tr><tr><td rowspan="3">Oamaru</td><td>Lines</td><td>97.4</td><td>Groper, red cod, blue cod, ling</td></tr><tr><td>Set-nets</td><td>2.4</td><td>Moki, butterfish</td></tr><tr><td>Trawl</td><td>0.2</td><td>Sole, flounder</td></tr><tr><td rowspan="2">Moeraki</td><td>Lines</td><td>98.3</td><td>Groper, blue cod, ling</td></tr><tr><td>Set-nets</td><td>1.7</td><td>Moki, butterfish</td></tr><tr><td rowspan="3">Port Chalmers</td><td>Trawl</td><td>48.6</td><td>Sole, red cod</td></tr><tr><td>Lines</td><td>42.5</td><td>Groper, ling</td></tr><tr><td>Seine-nets and set-nets</td><td>8.9</td><td>Flounder, red cod</td></tr><tr><td rowspan="2">Taieri Mouth</td><td>Trawl</td><td>76.9</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>23.1</td><td>Groper, blue cod, red cod</td></tr><tr><td rowspan="2">Nuggets</td><td>Trawl</td><td>78.2</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>21.8</td><td>Groper, barracouta</td></tr><tr><td rowspan="2">Owaka</td><td>Lines</td><td>66.7</td><td>Groper, blue cod</td></tr><tr><td>Nets (seine)</td><td>33.3</td><td>Flounder</td></tr><tr><td>Waikawa</td><td>Trawl</td><td>65.7</td><td>Sole, flounder</td></tr><tr><td></td><td>Lines</td><td>33.9</td><td>Groper, blue cod</td></tr><tr><td></td><td>Nets (seine)</td><td>0.4</td><td>Flounder</td></tr></table> - Little comment on Otago fisheries: ‘The general impression obtainable from various reports is that the local trawling-grounds off Canterbury and Otago are not as productive as formerly. The groper fishery, though yielding good supplies to long-liners on occasions, requires more effort than formerly to produce the same results.’	Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method	Oamaru	Lines	97.4	Groper, red cod, blue cod, ling	Set-nets	2.4	Moki, butterfish	Trawl	0.2	Sole, flounder	Moeraki	Lines	98.3	Groper, blue cod, ling	Set-nets	1.7	Moki, butterfish	Port Chalmers	Trawl	48.6	Sole, red cod	Lines	42.5	Groper, ling	Seine-nets and set-nets	8.9	Flounder, red cod	Taieri Mouth	Trawl	76.9	Sole, flounder	Lines	23.1	Groper, blue cod, red cod	Nuggets	Trawl	78.2	Sole, flounder	Lines	21.8	Groper, barracouta	Owaka	Lines	66.7	Groper, blue cod	Nets (seine)	33.3	Flounder	Waikawa	Trawl	65.7	Sole, flounder		Lines	33.9	Groper, blue cod		Nets (seine)	0.4	Flounder	A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-1938, H-15.
Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method																																																															
Oamaru	Lines	97.4	Groper, red cod, blue cod, ling																																																															
	Set-nets	2.4	Moki, butterfish																																																															
	Trawl	0.2	Sole, flounder																																																															
Moeraki	Lines	98.3	Groper, blue cod, ling																																																															
	Set-nets	1.7	Moki, butterfish																																																															
Port Chalmers	Trawl	48.6	Sole, red cod																																																															
	Lines	42.5	Groper, ling																																																															
	Seine-nets and set-nets	8.9	Flounder, red cod																																																															
Taieri Mouth	Trawl	76.9	Sole, flounder																																																															
	Lines	23.1	Groper, blue cod, red cod																																																															
Nuggets	Trawl	78.2	Sole, flounder																																																															
	Lines	21.8	Groper, barracouta																																																															
Owaka	Lines	66.7	Groper, blue cod																																																															
	Nets (seine)	33.3	Flounder																																																															
Waikawa	Trawl	65.7	Sole, flounder																																																															
	Lines	33.9	Groper, blue cod																																																															
	Nets (seine)	0.4	Flounder																																																															
1937 April	- ‘The large steam trawler fishing for the Port Chalmers exporters made a few trips to the southern grounds. So far the catches have been small . . . . She is at present working with only one trawl until others can be made to suit the size of boat. When in full working order she should be able to keep up a much better supply and assist the retail	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date.																																																																

	trade. ‘		M 1 2/12/2 part 1, NAW.
1937 May	- ‘The large steam trawler working the grounds North East of Otago Heads at a depth of 40 to 60 fathoms brought in some very large catches of Tarakihi, moki, barracouta, red cod, dogfish, elephant fish and a few cases of flatfish.’		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937 August	- ‘The trawling fleet working the Otago grounds secured small catches of flatfish the average from one to three boxes for a day’s fishing. The supply from these grounds is decreasing each year, especially since diesel engines have been installed in the majority of boats. A number of boats from Port Chalmers have moved to Timaru.’ - Seine fishermen have ceased netting for flounders owing to slimy weed being in Otago Harbour.		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937 November	- Details include . . . ‘Seine fishermen are having a very lean time, flounders are scarce and the harbour is full of floating weed. Added to this they have to contend with many weekenders who fish the Harbour from Friday night to Monday morning with a result the grounds never have time to settle.’		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937	- Description of catches, locations, etc.		Annual report for Otago by Inspector of Fisheries, S Broadley, for the year ended 31 March 1937, M 1 2/12/565, NAW. <i>[Photocopy 31]</i>
1938 January	- Harbour conditions have improved and supply of flounders.		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938 July	- Details include . . . ‘The seine fishermen in Otago Harbour have taken small catches of flounders, red cod, and small trevally.’		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938 September	- Details include . . . ‘The large steam trawler owned by the exporting firm did not cease operations during the heavy weather and secured some very large catches of round fish from the Otago grounds N.E. of Otago Heads. . . . Also trawled for flatfish on the southern grounds.’		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938	- Most of the records presented are from marine studies carried out at the Marine Fisheries Investigation Station at Portobello over a period of 27 months (1930-32). Supplementary observations compiled from daily visits to the Dunedin fish market cover nearly another two years.		Graham, David H., ‘Fishes of Otago Harbour and Adjacent Seas with Additions to Previous Records’, <i>Transactions and Proceedings of the New Zealand Institute</i> , volume 68, 1938, pp 399-419.
	<i>Rhombosolea plebeian</i> . Sand Flounder.	Localities: Inside and outside the harbour; extreme high water level to at least 63 fathoms, commonest in 19-23 fathoms; benthic, in sand or sandy mud and shelly bottoms. Frequency: Much the commonest species of flounder, but less abundant than formerly.	



	<i>Rhombosolea leporine</i> . Yellow flounder (yellow-belly).	Localities: Chiefly in rivers or at the mouths, also less commonly in 3-10 fathoms off Wickliffe Bay, Purakanui, etc., and in 16 fathoms north-east of the Heads; also in the harbour. Frequency: Common; in the harbour they may disappear for months and then reappear. It is not uncommon for five or six dozen to be taken in one haul at Taieri Mouth.	
	<i>Rhombosolea tapirina</i> . Green-back flounder.	Localities: Outside and especially inside the harbour; favoured outside localities Kaikai Beach, near Hayward’s Point, 2-5 fathoms, and north-east of Heads and off Wickliffe Bay in 19 fathoms. Frequency: Common in the harbour in the autumn and outside in August.	
	<i>Rhombosolea retiaria</i> . River flounder (black flounder).	Localities: Chiefly in rivers, also fairly common outside the harbour and occasionally within. Two or three may be seen daily over a considerable period amongst other flatfish caught from 7-22 fathoms off Otago Heads, then they may not appear for weeks.	
	<i>Peltorhamphus novae-zelandiae</i> . Common sole.	Localities: Almost exclusively outside the harbour. Frequency: Abundant.	
	<i>Pelotretus flavilatus</i> . Lemon sole.	Localities: As for the previous species, but rarer in the harbour. Frequency: In the aggregate, lemon soles must be rated as very common.	
1940	- Quantity of fish landed in the Otago district 34.4% less than in the previous year – largely due to the fact that the steam trawler “Hananui” was not in operation for 11 months of the year. - Of the total quantity of fish landed in the Otago district, 20,189 cwt, 59.5% was made up of flat fish.		A.E. Hefford, Report on fisheries for the year ended 31 March 1940, Marine Department annual report, <i>AJHR</i> 1940, H-15.
1940 January	- Details include . . . Outlying ports. Good catches of flatfish at Taieri Mouth. - Some large catches of flatfish taken from the Nuggets, especially considering the small size of the boats. One boat has been working up to 13 cases, each averaging 70 lbs, for one day’s fishing. - A launch working out of Pounawea for a short period secured some fair catches of flatfish, averaging from 4 to 10 cases of 70 lbs each. (Notes that the fishing grounds close by are considered to be very good and that one or two of the Port Chalmers men are seriously thinking of working from there.) - At present there are 14 large boats from Timaru, Port Chalmers, and Riverton working at Waikawa. One is line fishing and reports scarcity of all round fish. The others, during favourable weather, have secured large catches of flatfish from about the Nuggets and off Tautuku. The average catch for one day was from 5 to 14 cases of 70 lbs each.		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1940 April	- Details include . . . ‘The large steam trawler owned by the Port Chalmers exporters is again working and has taken some large hauls of terakihi together with smaller quantities of kingfish, ling, elephant fish, rigs and a small amount of groper. The majority of these fish were caught 20 to 30 miles north of Otago Heads, so far she has not		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date,

	been trawling for flatfish.’	M 1 2/12/2 part 1, NAW.
1940 May	- The Port Chalmers trawling fleet worked the grounds about Blueskin Bay; average catch from 1 to 4 cases of soles and flounders per day, a few cases of gurnard taken further off shore.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1940 December	- Details include . . . ‘Conditions in the Otago Harbour have been very unsatisfactory for the seine boats for some considerable time. The catches of flounders and trevally have been small.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1941	- Notes that the deep-sea trawler “Hananui” was back fishing full-time. Owing to this, the proportion of flat fish landings less than previous year, though quantity about the same.	A.E. Hefford, Report on fisheries for the year ended 31 March 1941, Marine Department annual report, AJHR 1941, H-15.
1941 February	- Elephant and dogfish were occasionally very numerous on the trawling grounds and at times interfered with fishing. One of the larger vessels made a few trips to the Nuggets. The large trawler brought in an occasional large catch of kingfish and ling. Otherwise the catches were small and made up of all kinds of round fish. - ‘The few remaining seine fishermen in Otago Harbour are experiencing a very lean time, often finishing a full tide without catching enough fish of any kind to send to the market.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1941 August	- Otago trawling grounds secured fair catches of flatfish – 2 to 6 boxes of each per day.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1941 December	- Details include . . . ‘All fishing in the Otago Harbour is practically at a standstill and the majority of fishermen have found other employment as for the past two years they have been unable to make wages.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1942 February	- Details include . . . ‘The seine boats in Otago Harbour secured some good hauls of flounders, and on one occasion a large haul of trevally from the Spit Beach.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1942 August	- Details include . . . Trawling fleet worked the grounds around Blueskin Bay, brought in small catches of flatfish and an odd case of gurnard – average catch 2 to 5 cases, mostly small size. A few trips to the Nuggets proved unprofitable as the catches were small and the grounds covered with weed. The large steam trawler took small catches of red cod, terakihi, and ling.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1946	- Port Chalmers: no steam-trawler has replaced the one wrecked in 1944, though a new motor-trawler is operating in the middle of 1945. The lack of a steam trawler has seen a substantial drop in the catches of terakihi from 3,166 cwt in 1944 to 173 cwt in 1945. - 25,533 cwt landed at Port Chalmers:	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1946, Marine Department annual report, AJHR 1946,

	<div>- 16,260 cwt from motor-trawlers (including 7,034 cwt of red cod and 6,282 cwt of sole) - 9,091 from line-fishing vessels (including 7,402 cwt of barracouta) - Main types of fish landed over the last five years:</div> <table><tr><td></td><td>1941–42</td><td>1942–43</td><td>1943–44</td><td>1944–45</td><td>1945–46</td></tr><tr><td>Tarakihi</td><td>5 101</td><td>2 886</td><td>3 361</td><td>3 166</td><td>173</td></tr><tr><td>Sole</td><td>6 394</td><td>5 410</td><td>4 114</td><td>4 993</td><td>6 282</td></tr><tr><td>Red cod</td><td>6 952</td><td>10 377</td><td>4 501</td><td>4 033</td><td>7 605</td></tr><tr><td>Barracouta</td><td>5 599</td><td>9 878</td><td>5 157</td><td>6 300</td><td>7 502</td></tr><tr><td>Flounder</td><td>1 516</td><td>840</td><td>885</td><td>1 163</td><td>1 366</td></tr><tr><td>Total</td><td>29 724</td><td>33 603</td><td>21 523</td><td>23 264</td><td>25 533</td></tr></table>		1941–42	1942–43	1943–44	1944–45	1945–46	Tarakihi	5 101	2 886	3 361	3 166	173	Sole	6 394	5 410	4 114	4 993	6 282	Red cod	6 952	10 377	4 501	4 033	7 605	Barracouta	5 599	9 878	5 157	6 300	7 502	Flounder	1 516	840	885	1 163	1 366	Total	29 724	33 603	21 523	23 264	25 533	H-15.
	1941–42	1942–43	1943–44	1944–45	1945–46																																							
Tarakihi	5 101	2 886	3 361	3 166	173																																							
Sole	6 394	5 410	4 114	4 993	6 282																																							
Red cod	6 952	10 377	4 501	4 033	7 605																																							
Barracouta	5 599	9 878	5 157	6 300	7 502																																							
Flounder	1 516	840	885	1 163	1 366																																							
Total	29 724	33 603	21 523	23 264	25 533																																							
1947	- ‘We the fishermen operating boats at Nugget Bay are much concerned about the depletion of fish in Nugget Bay by outside trawlers, and are desirous of getting an area set aside on which Nugget boats only are allowed to operate.’	F.H. Arthur to Minister of Marine, 8 February 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										
1947	- Commenting on above letter by F.H. Arthur: ‘The depletion, I am afraid is a known fact, as all who know the area concede that the grounds are slowly becoming poorer. All along the coast the position is the same, but this is in a large measure offset by higher prices.’ - Suggests that trawling be totally prohibited from the area if the depletion was to become an urgent problem.	McIvor, District Inspector of Fisheries to Secretary, Marine, 11 March 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										
1948	<div>- Port Chalmers: total landings of 44,849 cwt, almost double the previous year. Increase mainly due to the fact that a modern steam trawler commenced fishing from this port in February, landing 14,670 cwt for the year.</div> <table><tr><td></td><td>1943–44</td><td>1944</td><td>1945</td><td>1946</td><td>1947</td></tr><tr><td>Tarakihi</td><td>3 361</td><td>3 166</td><td>173</td><td>81</td><td>9 977</td></tr><tr><td>Sole</td><td>4 114</td><td>4 993</td><td>6 282</td><td>8 366</td><td>10 963</td></tr><tr><td>Red cod</td><td>4 501</td><td>4 033</td><td>7 605</td><td>3 846</td><td>2 536</td></tr><tr><td>Barracouta</td><td>5 157</td><td>6 300</td><td>7 502</td><td>8 171</td><td>13 938</td></tr><tr><td>Flounder</td><td>885</td><td>1 163</td><td>1 366</td><td>745</td><td>1 062</td></tr><tr><td>Total (cwt)</td><td>21 523</td><td>23 264</td><td>25 533</td><td>23 250</td><td>44 849</td></tr></table>		1943–44	1944	1945	1946	1947	Tarakihi	3 361	3 166	173	81	9 977	Sole	4 114	4 993	6 282	8 366	10 963	Red cod	4 501	4 033	7 605	3 846	2 536	Barracouta	5 157	6 300	7 502	8 171	13 938	Flounder	885	1 163	1 366	745	1 062	Total (cwt)	21 523	23 264	25 533	23 250	44 849	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1948, Marine Department annual report, AJHR 1948, H-15.
	1943–44	1944	1945	1946	1947																																							
Tarakihi	3 361	3 166	173	81	9 977																																							
Sole	4 114	4 993	6 282	8 366	10 963																																							
Red cod	4 501	4 033	7 605	3 846	2 536																																							
Barracouta	5 157	6 300	7 502	8 171	13 938																																							
Flounder	885	1 163	1 366	745	1 062																																							
Total (cwt)	21 523	23 264	25 533	23 250	44 849																																							
1948	- ‘A claim that the livelihood of fishermen at Taieri Mouth was being affected by the inroads of Port Chalmers boats, which had destroyed 10 years’ work on the part of the Taieri Mouth fishermen, and the operations of a “large steam trawler” between Otago and Oamaru had depleted the fishing grounds of groper and had a harmful effect on private boats operating from Oamaru, Moeraki and Karitane was made to the Daily Times in the week-end by a man who has been fishing at Taieri Mouth for many years. // “About 20 years ago two boats went to Taieri Mouth	Article entitled: “Fishing Grounds – Excessive Trawling – Effect on Taieri Mouth Fleet”, extract from <i>Otago Daily Times</i> , 12 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										

	<p>to look for fresh fishing grounds”, he said. “They became established, and in time about 11 boats were operating from Taieri Mouth. No trawling had been done there before, and the fishing grounds were found to be good. Six cases of fish were caught for a tow lasting an hour and a-half, boats with low-powered engines being used. There was no export market at the time and, in order to preserve the grounds and regulate the supplies of fish to the market, the fishermen did one tow a day. // The Port Chalmers boats heard about the grounds, however” he continued, “and they worked them continuously until the fish became seriously depleted. Eventually, Port Chalmers fishermen did not gain by trawling off Taieri Mouth, and they went away. After that the Taieri Mouth fishermen got about two cases of fish from a two-hour tow.”</p> <p>- “It took 10 years for us to build up the grounds,” he said, “and in the past two years, when the fish have been better than ever, the Port Chalmers boats have begun to visit the grounds again. All through the summer they worked round the clock, and catches of up 100 cases have been known to go back to Port Chalmers.”</p> <p>- “The export of fish has not been of benefit to the public of Otago. It has been a means for the outlet of surplus fish, and the fishermen have ‘threshed’ it to such an extent that the grounds are becoming depleted.”</p>	
1956	<p>- [Graham worked for many years as a marine biologist at the Marine Fisheries Investigation Station, Portobello, Otago. In <i>A Treasury</i>, Graham refers largely to past observations during his time at the Research Station. Quite a lot of the material in this book repeats information presented in his 1938 <i>Transactions</i> article (vol 68, pp 399-419). I have not taken notes where the information is repetitive. Most of his observations, unsurprisingly, relate to Otago.]</p> <p><i>New Zealand Sand-Flounder (Patiki)</i></p> <p>- (p 193) Referring to Otago – ‘It is less abundant than formerly.’</p> <p><i>New Zealand Common Sole (Patiki Rori)</i></p> <p>- (p 206) Local distribution of Common Sole found to be inside the Harbour, but principally in deeper water outside the Otago Heads to the north and the south. Common throughout NZ. Never been common inside the Harbour, principally a coastal fish. From 1920-33 there was little fluctuation in the number of Common Soles in and around Otago waters. After August, Common Soles leave the shallow water outside the Otago Harbour and migrate to deeper water and not so many large hauls were made by commercial trawlers.</p>	David H. Graham, <i>A Treasury of New Zealand Fishes</i> , second edition, A.H. and A.W. Reed, Wellington, 1956. [First published in 1953.]
1957	<p>- ‘Trawler and line fishermen operating off the Otago coast are not “striking it rich” just now. For reasons that only research officers will be able to explain comparatively few fish are being taken from the recognised grounds. In previous years the poundage each day rose into four figures. Now only about 300lb are being taken in a day that lasts as long as 15 hours. . . . No one seems to know why the flounders and sole have disappeared.</p> <p>- Article also contains account of typical day of fishing on the ‘Bravo’.</p>	‘Deep Sea Fishing’, <i>Otago Daily Times</i> , 18 May 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.

### S32: Otago: Groper (Hapuku and Bass)

Year	Details	Source
Unspecified	- (pp 46-47) The following notes on the taking of sea fish contributed by a South Island Māori: With regard to the taking of sea-fish, <i>hapuku</i> , barracouta, and others by the Māori folk of the tribes Ngai-Tahu and Ngati-Mamoe, let us commence with the <i>hapuku</i> . Fishing-canoes began to go out to the <i>hapuku</i> fishing-grounds in the sixth month (November or December). The larger canoes would contain thirty men, more or less, and the small canoes a lesser number. The large and small canoes would go out together to the fishing [grounds]; the larger vessels proceeded to the more distant fishing-grounds . . . The <i>hapuku</i> fishing ceased in the Maruaroa season [about June], the month when Orion appeared well above the horizon; at that time the tail of the <i>hapuku</i> becomes red, so in the latter days of June the fishing ceases.	Elsdon Best, <i>Fishing Methods and Devices of the Māori</i> , Dominion Museum Bulletin No. 12, Wellington, 1929.
1860s	Example of Otago fisherman in 1860s: Richard Lewis, who had his fishing ketch delivered from Victoria to Otago in 1862. He began by catching hapuku and blue cod between Moeraki and Cape Saunders. Around 1870 he switched to seine fishing for flounder and red cod in Otago Harbour.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 24.
1860s	A fish-curing factory established at Port Chalmers, processing a wide range of species including barracouta, hapuku, cod, gemfish, and ling.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 25.
1868	First trawling in New Zealand undertaken in Otago Harbour in <i>Redcliffe</i> , which began by towing between Port Chalmers and Otago Heads, catching a variety of fish including trumpeter, flounder, crayfish, skate, and sharks. In two later expeditions, the trawl catch also included hapuku, sole, ling, and cod. <i>Redcliffe</i> experiment did not last owing to wear and tear on gear.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 23.
1869	- notes that the evidence 'is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.' - three regular fisheries at work: Otago Heads (Harbour and 'outside'), Moeraki, and Molyneux Bay - these fisheries are worked all year around, though seasonal fluctuation - estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux - Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux - the number of boats working the coast about 30 - fishing inside the harbour is carried on all year, each boat working about six tides a week - outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March - the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads	Report of the commissioners for the province of Otago, No. 2 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.

	<ul style="list-style-type: none"><li>- each boat usually uses one net besides lines – the number of nets estimated to be about 20</li><li>- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.</li><li>- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon</li><li>- crayfish are also ‘caught in large numbers’</li><li>- information based on principally on that provided by fishermen themselves</li><li>- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast</li></ul>	
	<i>George Henry Sherwood (fisherman) examined by Mr Burns</i> <ul style="list-style-type: none"><li>- groper, ling, barracouta, red cod, and skate found within a short distance of Otago Heads</li><li>- blue cod and trumpeter very plentiful off Cape Saunders</li><li>- crayfish at Purakinui and Blueskin Heads</li></ul>	Evidence obtained from Molyneux Bay, No. 3 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.
c.1870	Example of Otago fisherman around 1870: Edward Williams. Williams and a mate fished off a six metre whaling boat with lines off the Nuggets and sometimes further south, catching blue cod and hapuku.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 24.
1872	<i>Hapuku</i> <ul style="list-style-type: none"><li>- (p 102) Obtained from November to May on all parts of NZ coast where rocky capes and islands prevail – appears to be favourite feeding and spawning ground. During winter season they are seldom caught – probably leave the coast for deeper water.</li><li>- Hapuku fishing excellent sport – average weight of the fish being about 45lbs, with occasional specimens reaching to 130lbs.</li></ul>	Captain F.W. Hutton and J. Hector, <i>Fishes of New Zealand – Catalogue With Diagnoses of the Species and Notes on the Edible Fishes</i> , Wellington, 1872.
1876	<div><div><div><div>Species</div><div></div></div><div><div></div><div>A</div><div>S</div><div>O</div><div>N</div><div>D</div><div>J</div><div>F</div><div>M</div><div>A</div><div>M</div><div>J</div><div>J</div><div>Total</div></div></div><div><div>Hapuku/Groper</div><div>Oligorus gigas</div></div><div><div>-</div><div>2</div><div>13</div><div>13</div><div>12</div><div>11</div><div>20</div><div>17</div><div>8</div><div>18</div><div>11</div><div>18</div><div>143</div></div></div> <div><ul style="list-style-type: none"><li>- Survey of fish for sale in Dunedin carried out to establish when the ordinary food fishes were in season. Noted down the various sorts of fish exposed for sale in the window of the fishmongers’ shops, as well as by occasional enquiries elsewhere – work began on 1 August 1875, ended 31 July 1876.</li><li>- Groper: caught off the rocky points of the coast, in five fathoms and upwards of water, just outside the kelp.</li><li>- At the present time (July 1876) and for some months, there have been 32 boats, employing about 80 men, in the fishing trade in Otago Harbour.<ul style="list-style-type: none"><li>- in the net fishing in the Harbour, 16 boats regularly employed, worked by 36 men, most boats having only two men as crew</li><li>- in the outside or deep-water branch, 17 boats are engaged, with over 40 men as crew</li></ul></li></ul></div>	P. Thomson, ‘Fish and their seasons’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 9, 1876, pp 484-490.

	<p>- most of the seining boats work nearly every tide, while the outside boats are more dependent on the weather and the state of the sea – sometimes there are long spells of idleness</p>																																											
1877	<p>- Survey of fish for sale in Dunedin – information obtained in the same way as previously – taking notes of the various fishes exposed for sale in town, in boats at the jetties, enquiries at Port Chalmers, etc.</p> <table border="1"><thead><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr></thead><tbody><tr><td><b>Hapuku/Groper</b> <i>Oligorus gigas</i></td><td>-</td><td>3</td><td>25</td><td>23</td><td>17</td><td>18</td><td>16</td><td>18</td><td>10</td><td>12</td><td>17</td><td>-</td><td>159</td></tr></tbody></table> <p>- Groper: fairly constant to the market; a few very large individuals were brought to town, weighing as high as 50-60lbs, with 20-30lbs being the average size.</p> <p>- During the year, 8 boats, employing 24 men have been employed in fishing outside the Heads; 12 boats, employing 24 men have been engaged in the seine fishing in Otago Harbour and the adjoining inlets. A new boat of 14 tons recently launched at Port Chalmers for fishing outside the Heads.</p> <p>- Complaints continue to be made about small fish.</p> <p>- Observes that the supply has been much more steady than during last year, in part due to the ‘pretty regular’ shipments sent up from the Bluff. One or two ‘welled boats’ also working the waters adjacent to Otago Heads, bringing in moki, trumpeter, and other fishes, and thus keeping the market supplied with what used to considered rare or scarce fishes. With the exception of ling and sole, all the other items on the table show a large increase on last year’s returns.</p> <p>- ‘There is one mode of fishing which has as yet received hardly a fair trial in our waters. I refer to trawling – a method which is largely employed in the seas adjacent to the British coasts.’</p>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Hapuku/Groper</b> <i>Oligorus gigas</i>	-	3	25	23	17	18	16	18	10	12	17	-	159	P. Thomson, ‘The Dunedin Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 10, 1877, pp 324-330.
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Hapuku/Groper</b> <i>Oligorus gigas</i>	-	3	25	23	17	18	16	18	10	12	17	-	159																															
1878	<p>- Observations from 1 August 1877 to 31 July 1878, ‘taken day by day from the different shops in town, as well as by inquiries at the jetties, Port Chalmers, etc’:</p> <table border="1"><thead><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr></thead><tbody><tr><td><b>Hapuku/Groper</b> <i>Oligorus gigas</i></td><td>-</td><td>4</td><td>14</td><td>21</td><td>16</td><td>19</td><td>16</td><td>19</td><td>18</td><td>23</td><td>7</td><td>-</td><td>157</td></tr></tbody></table> <p>- Groper: pretty regular supply; demand for this fish not so great as it should be.</p> <p>- Outside the Heads, 9 whale boats and 2 cutters are engaged in fishing, employing about 30 men. In the Harbour (or seining branch) there are 16 boats and about 40 men engaged in fishing. Two smoke-houses at Port Chalmers, with four men to each.</p>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Hapuku/Groper</b> <i>Oligorus gigas</i>	-	4	14	21	16	19	16	19	18	23	7	-	157	P. Thomson, ‘Our Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 11, 1878, pp 380-386.
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Hapuku/Groper</b> <i>Oligorus gigas</i>	-	4	14	21	16	19	16	19	18	23	7	-	157																															
1879	<p>- (p 30) Fishing industry at The Nuggets established after arrival of a Mr Arthur in 1879, who began fishing to feed his family. His first boat was a 14 foot row boat; caught groper and carted them to Kaitangata, where they were</p>	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen’s Co-</i>																																										

	sold for two pence per pound. (p 31) During WWI, only three boats fishing regularly at The Nuggets, numbers increasing after the war. (p 32) The first large trawler to visited The Nuggets from Port Chalmers in 1931. (p 32) Boat size also increased at The Nuggets.	<i>operative Society Ltd 1909-1984</i> , no other details, 1984.
1882	The New Zealand Deep Sea Fishing Company, operating out of Port Chalmers, briefly trawled with a steamer before winding up. In November 1882, the ship landed its first major catch: 300-400 sole and four large baskets of skate, groper and gurnard.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 45.
1885	<ul style="list-style-type: none"> <li>- Provides details of a brief assessment of New Zealand's fish stocks and the potential for commercial exploitation.</li> <li>- States that from Martins Bay (South Westland) he 'commenced to meet with fish in such numerous shoals that from there to off Oamaru, inshore and offshore, I believe millions of tons of fish could be caught yearly. . . . 'Ling and groper in great quantities I found from off Chaslands Mistake to off Timaru. Those fish are sometimes found inshore, but to get them in any quantity they must be fished for offshore. Otago Harbour commands most extensive and valuable barracouta, groper, ling, rock-cod, and crayfish fishing, and with proper fishing-smacks Otago Harbour could also command the blue-cod fishing.'</li> </ul>	<p>Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15.</p> <p><i>No. 1: J Mackenzie to Julius Vogel, 29 March 1885.</i></p>
1886	States that hapuku feed around exposed rocky capes and islands that rise to 20 to 50 fathoms water, with patches of sandy bottom – Hapuku can be obtained between November and May on nearly every part of the New Zealand coast where these conditions prevail.	R.A.A. Sherrin, <i>A Handbook of New Zealand Fishes</i> , Wilson and Horton, Auckland, 1886, pp 40-42.
1900	<ul style="list-style-type: none"> <li>- the steam trawler 'Doto' chartered, fitted with an otter trawl (p 1)</li> <li>- expedition undertaken during autumn and winter months of 1900</li> <li>- no groper taken in any of the hauls off the Otago coast [reflects preference for rocky conditions]</li> </ul>	<p>Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 23 July 1900, <i>AJHR</i> 1900 H15A.</p> <p><b>[Photocopy 38]</b></p>
1900	<ul style="list-style-type: none"> <li>- (p 3) The Otago (later Port Chalmers') Fishermen's Co-operative Society formed in 1909 to represent the interests of fishermen working outside the Harbour.</li> <li>- (p 7) Fishing outside the Harbour not greatly practised until the arrival of motor engines. This occurred about 1898, when the tug boat <i>Plucky</i> carried out successful trawling trials outside the Heads. These were apparently successful. F.J. Sullivan soon had two steam trawlers, <i>Express</i> and <i>Napier</i> operating, which respectively worked the Otago waters until 1935 and 1926.</li> <li>- (p 7) The turn of the century also saw the introduction of small 'oil' engines to the fishing fleet. These were mostly small, single cylinder, 5, 6, or 7 cylinder engines, which ran on a fuel called benzene. These engines were very reliable. 'With assured and reliable motive power, allied to very seaworthy-designed vessels, fishermen now ventured well outside the Heads and soon discovered various fishing grounds up and down the coast, where groper, cod, and other species congregated. Many of these grounds were named after their finders such as McDonald's (North Reef), Tonnage's patch, McIntosh's reef, Jim Dow's patch (Little South reef), Jim Dow's reef, Middendorf, Thomson patches.'</li> <li>- (p 8) The boats were manned usually by two men, setting on each side long lines with hooks, which had to be launched and retrieved by hand. Later, the 'long-line' was introduced, with 100 to 300 hooks, buoyed with floats at each end, and the 'dan' line – 7 to 20 hooks, with a grapnel at bottom and buoy at top, left in place for 1 to 3 hours.</li> </ul>	D.J. and P.J. Munro, <i>A History of the Port Chalmers Fishermen's Co-operative Society Ltd 1909-1984</i> , no other details, 1984.
1902	- Inquiry into the complaint by fisherman at Port Chalmers that trawling is affecting their interests and request that	Report of Inspector of Fisheries on



	<p>they should not be allowed to work within a certain distance of shore. Inquiry held at Port Chalmers on 14 and 15 November 1902.</p> <ul style="list-style-type: none"> <li>- Notes that there has been an unusual scarcity of fish in the last winter and spring – believes that trawling not the cause and looks to other factors, such as unusual weather. Points out that there has also been a scarcity of fish at other places, where there are no trawlers operating.</li> <li>- Notes that two trawlers working out of Port Chalmers – the ‘Express’ and ‘Napier’, owned by F.J. Sullivan.</li> <li>- Did not believe that the line and seine net fisherman had bought any proof to substantiate their claims that trawling was destroying fish-feed on the bottom and driving fish away.</li> <li>- Trawler owner and men working on the trawler stated that they generally work outside of the area where the small boats go and that they get quite a different class of fish from what the small boats get.</li> <li>- Fish mongers stated that the trawlers gave a more plentiful supply and more varied. Stated that the small-boat men cannot supply what is needed all year round and that in winter the market was almost entirely supplied by the trawlers.</li> </ul> <p><i>Evidence of F.J Sullivan, trawler owner</i></p> <ul style="list-style-type: none"> <li>- At the moment trawlers are working about eight miles off land and cannot get fish in less than 30 fathoms of water. Fish have confined themselves to deep water this season. Would be wrong to prevent trawlers from coming inshore. (p 2)</li> <li>- Notes that 14 men employed on the two trawlers, which are the largest boats in the country.</li> <li>- Have been able to catch fish in all weathers, when other fisherman could not venture out. (p 3)</li> </ul> <p><i>Evidence of Captain Ryffell of the trawler ‘Express’</i></p> <ul style="list-style-type: none"> <li>- Employed for 12 months; usually trawl in 20 or 30 fathoms of water; never make a point of trawling in shallow water; keep on the same ground for 8 or 9 miles from ‘the Point’[?]. (p 3)</li> <li>- Mostly catching large tarakihi, moki, soles, and kingfish; in deeper water always catching kingfish and ling.</li> <li>- The following fish that are caught by the trawlers, but not the fishermen: moki, terakihi, and sole. Conversely, the small-boat men catch barracouta and groper.</li> </ul> <p><i>Evidence of Frank Keenan, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that outside fishing ground extends from Cape Saunders to Shag Point. (p 4)</li> <li>- Fishes 10 miles from Otago Heads, catching by line fishing groper, red cod, ling, barracouta, and kingfish.</li> <li>- Claims that trawlers injuring fishing. Has been fishing for 10 years; fish terribly scarce the last 2 or 3 years. Now have to go much further than in other years, and the supply is shorter. Used to be able to get plenty of fish near Otago Heads.</li> <li>- Believes that trawling over the ground where the fish feed is disturbing the fish.</li> </ul> <p><i>Evidence of John Malcolm, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has fished locally for 25 years and has observed a marked decline in the last four years. (p 3)</li> </ul>	<p>Trawling at Port Chalmers, 18 December 1902, <i>AJHR</i> 1903 H-15B.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------

	<ul style="list-style-type: none"> <li>- ‘Many years ago the boats used to keep the market more than supplied, and they have done it all along. They were limited very often to perhaps two dozen a day. They could take in perhaps thirty or forty barracouta, and two dozen groper.’</li> <li>- Details that there are 27 outside boats and craft, with two or three men on each.</li> <li>- States that there are over 200 ‘seine men’. [Seems that seine netting was done within the harbour, while the outside fishermen used lines.]</li> </ul>	
1906	<ul style="list-style-type: none"> <li>- Reports received from Inspectors of Fisheries . . .</li> <li>- ‘In the Otago District the principal centres of fishing are the Catlins, Molyneux, Taieri Mouth, Port Chalmers, Waikouaiti, Moeraki, and Oamaru, and the principal fish taken are flounders, hapuku, blue cod, and trevalli [Warehou]; and it is stated that notwithstanding the unseasonable weather experienced much larger catches were taken than during the previous year. There has been a considerable improvement in the boats and gear used in the industry.’ (p 5)</li> </ul>	Marine Department annual report, 30 May 1906, <i>AJHR</i> 1906 H-15.
1907	- ‘The Inspector at Dunedin reports that in all old-known fishing-placs the catches have been good. In all shallow bays flounders and small fish are obtained in large quantities, and groper, kingfish, schnapper, barracouta, blue and red cod, terakihi, trevalli, and moki are found along the coast from Oamaru to Chaslands.’ (p 6)	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15.
1910	<ul style="list-style-type: none"> <li>- The area where netting is prohibited in the upper Otago Harbour has been reduced. (p 6)</li> <li>- Report of local inspector for the Otago and Canterbury districts: <ul style="list-style-type: none"> <li>- reports a depression in the industry caused mainly by the scarcity of fish</li> <li>- owing to new class of boats and gear, many parts of the coast formally untouched have been visited, and, as a consequence, a better variety of fish has been taken</li> <li>- groper, trevally, terakihi, snapper, moki, and barracouta have been taken, ‘though some of them have disappeared from their old haunts’</li> </ul> </li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1910 H-15.
1910	- ‘I visited Nugget Bay on the 13 <sup>th</sup> Oct. While I was there I saw all the fishing boats come in. As the weather was rather strong the catches were poor, the largest being 11 Hapuku and a few red cod. The fishermen report good catches through the winter and spring whenever they were able to get out.’	Ayson, Chief Inspector of Fisheries, to Secretary Marine, 16 November 1910, M 1 2/12/324 part 1, Cod, 1908-1903, NAW.
1913	<ul style="list-style-type: none"> <li>- Otago District: (p 11) <ul style="list-style-type: none"> <li>- from information gathered from fishermen along the coast, the quantity of fish landed about the same as last year</li> <li>- at Moeraki some exceptional hauls of hapuku made well off-shore in from 50 to 90 fathoms</li> <li>- at Nugget Point the fishermen report that fishing in the inshore grounds has been rather poor, but further off in the deeper water the catches were equal to other years – hapuku the principal fish taken</li> </ul> </li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15.
1913 October	- ‘Some very large hauls of groper have been caught about 8 miles SE of Otago Heads. One boat is credited with having taken 16 dozen in one day.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1913, M 1 2/12/2 part 1, NAW.
1914	<ul style="list-style-type: none"> <li>- Oamaru – principal fish taken were groper, blue cod, and ling, but the catches poor on account of the weather</li> <li>- Moeraki – fair catches of groper, blue cod, and red cod made in the early part of the season, but later on all fish</li> </ul>	Marine Department annual report for 1913-1914, <i>AJHR</i> 1914 H-15.

	<p>became scarce and many of the fishermen had to lay their boats up</p> <ul style="list-style-type: none"> <li>- Dunedin – catches as good as those made in previous year <ul style="list-style-type: none"> <li>- groper were plentiful up to the end of February, but have since been getting scarce</li> </ul> </li> <li>- Nuggets – the season has been a poor one and the boats have had to go farther away <ul style="list-style-type: none"> <li>- groper, ling, and barracouta have been the principal fish taken</li> </ul> </li> </ul>	
1914 January	- Good hauls of groper and kingfish some 16 miles NE of Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1914, M 1 2/12/2 part 1, NAW.
1914 April	<ul style="list-style-type: none"> <li>- Weather unsettled, strong NE winds; consequently the linemen not able to go out regular to the fishing grounds.</li> <li>- Line men have had a variable month . . . Groper seem to be continually on the move. A man might catch three dozen one day &amp; then perhaps at the same place he might average half a dozen a day for several days.'</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 May 1914, M 1 2/12/2 part 1, NAW.
1914 August	- Groper scarce, as usual during August – spawning season and not inclined to take the bait until they are spent.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1914, M 1 2/12/2 part 1, NAW.
1914 October	- Small craft engaged in trawling throughout the winter have now taken to line fishing. Groper now plentiful; good hauls of kingfish taken by the linemen some 14 miles NE of Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 November 1914, M 1 2/12/2 part 1, NAW.
1915	<ul style="list-style-type: none"> <li>- Otago district: monthly reports provided by Mr Adams, Inspector of Fisheries for the Otago District, show that during winter and spring weather frequently interfered with fishing. (p 15)</li> <li>- At Dunedin, there were good catches of flounder, trevally, etc, frequently made by the seine men inside the Harbour when the weather prevented the trawlers and line-men getting outside. <ul style="list-style-type: none"> <li>- in fine weather, there has been good catches of the best market fish</li> </ul> </li> <li>- Nugget Bay – fishermen report a poor season – unfavourable weather to end of 1914, but since then fair catches of groper and blue cod made.</li> <li>- Moeraki – catches of blue cod and groper poor through the winter, and since then fishermen report that supply has not been equal to an average season.</li> <li>- Oamaru – poor catches of groper made till the end of the year, but since then supply has improved.</li> </ul>	Marine Department annual report for 1914-1915, AJHR 1915 H-15
1915	<ul style="list-style-type: none"> <li>- October to December poor weather; but otherwise favourable, with good catches from linemen and trawlers.</li> <li>- 'The supply of flatfish from the four trawlers has been exceptionally good. During the winter months, trawling with oil launches was carried on in the shallower waters with good results.'</li> <li>- Oamaru and Moeraki:</li> </ul>	Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.

	<ul style="list-style-type: none"> <li>- towards end of year weather and conditions approved; fish became more plentiful – groper, red cod, ling, blue cod, crayfish were principally taken</li> <li>- Tautuku: <ul style="list-style-type: none"> <li>- 5 whale boats engaged in line fishing for groper and blue cod</li> <li>- ‘The rich fishing grounds lying off this portion of the coast will no doubt in time become a very important source of supply to the Dunedin market.’</li> </ul> </li> </ul>	
1915 March	- Fair numbers of groper and ling have been caught by the line men some 16 miles NE of Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 March 1915, M 1 2/12/2 part 1, NAW.
1915 July	- ‘Good catches of groper & ling are being taken “on the reef” some 16 miles NE of Otago Heads.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 August 1915, M 1 2/12/2 part 1, NAW.
1915 August	- Moeraki fishermen report a good winter’s fishing. Groper taken in fair numbers up to the end of June.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 August 1915, M 1 2/12/2 part 1, NAW.
1915 October	- Supply of groper has been good; appear to be working in towards the land, being caught within 4 miles of Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1915, M 1 2/12/2 part 1, NAW.
1916	<p>Groper, ling, bream, kingfish, barracouta (caught in quantity by line men within a few miles of Otago Heads), moki, and tarakihi.</p> <ul style="list-style-type: none"> <li>- Oamaru and Moeraki – groper, blue cod, red cod, taken in fair numbers. Exceptionally large hauls of groper caught in January and February.</li> <li>- Nuggets – good hauls of groper.</li> <li>- Tautuku – fishermen report no scarcity of fish; groper, kingfish, and barracouta plentiful; little fishing during the summer months owing to hot weather.</li> </ul>	Annual report on Otago fisheries by inspector of fisheries, W Adams, for year ended 31 March 1916, M 1 2/12/115 NAW.
1916 February	- Groper and ling fairly plentiful – good catches by the linemen within 3 miles of Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 February 1916, M 1 2/12/2 part 1, NAW.
1916 April	- Groper plentiful until the latter part of the month. Barracouta still being caught in large quantities close inshore.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 April 1916, M 1 2/12/2 part 1, NAW.

1916 June	- 'Unsettled foggy weather has prevailed & the trawlers & linemen have not been able to go out regular to the grounds.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 July 1916, M 1 2/12/2 part 1, NAW.
1916 July	- Catch details include . . . 'The weather has been fair throughout the month & has allowed the linemen to visit the offshore groper grounds regularly. Large numbers of groper were taken daily during the early part of the month, but the numbers have gradually decreased towards the end of the month – this is usual at this time of the year.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 July 1916, M 1 2/12/2 part 1, NAW.
1916 September	'During the more settled weather fish were fairly plentiful & good catches of groper, bream, & small numbers of ling & trumpeter were taken "on the reef" NE of Otago Heads.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 October 1916, M 1 2/12/2 part 1, NAW.
1916 October	- Groper have been very plentiful & large numbers are being caught on the North and South reefs.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 October 1916, M 1 2/12/2 part 1, NAW.
1917 May	- Weather conditions bad, boats have only averaged 2 days fishing each week. 'All fish have demanded a fair price and owing to the small catches taken the fishermen have decided on raising the limit of groper from 2 dozen to 3 dozen per boat.' - Dunedin market on 24 May 1916: total of 80 cases of fish (20 cases of trevally from Oamaru, remainder caught locally). Local supply: small trevally (4 cases), red cod (5 cases), blue cod (9 cases), groper (16 cases), ling (4 cases), flounders (2 cases), coutre (2 cases), bream (4 cases), soles (7 cases), kingfish (4 cases), mixed fish (3 cases).	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1917, M 1 2/12/2 part 1, NAW.
1917 September	- Details include: 'Fair catches have been taken from the North Reef during the intervals of calm weather, these bringing higher prices than usual. // At the beginning of the month one boat was fortunate enough to catch the limit (three dozen) of groper . . . whilst the remainder of boats out the same day caught practically nothing at all.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 1 October 1917, M 1 2/12/2 part 1, NAW.
1917 October	- Outside fishermen have decided to change the limit for groper back to 2 dozen per day.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1917, M 1 2/12/2 part 1, NAW.
1918 September	- Details include . . . 'With the exception of ling all round fish are very scarce and the market has been poorly supplied. For the whole of the month only three dozen groper has been brought in . . .'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1918, M 1 2/12/2 part 1, NAW.
1919	- Oamaru – local Inspector states that there has been a noticeable decrease in practically all kinds of fish – partly due to the bad weather, but mainly due to the absence of fish on the usual fishing grounds. (p 11) Fishermen state	Marine Department annual report for 1918-1919, <i>AJHR</i> 1919 H-15

	<p>that this season is the worst on record.</p> <ul style="list-style-type: none"> <li>- Moeraki – quantity of fish taken about the same as last year.</li> <li>- Otago District: <ul style="list-style-type: none"> <li>- rough weather interfered with fishing operations</li> <li>- all the outlying fishing ports were visited by the Inspector during the year and a scarcity of fish reported all round</li> </ul> </li> </ul>	
1919 August	<p>- Details include . . . Usually a poor month for line men, weather has made it worse than usual. ‘On more than one occasion several of the boats have returned from a distance of 18 miles with from one to six ling for the days catch. . . . As another instance of the uncertainty of fishing one boat came in with three dozen groper for the day’s catch’.</p>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1919, M 1 2/12/2 part 1, NAW.
1919	<p>- ‘We the undersigned members of the above Society, petition you to introduce a three mile limit from point to point Moeraki to Cape Saunders, similar to that appertaining to the British Isles, Auckland and other ports of the Dominion. // Prior to the trawlers commencing operations, flat fish (flounders and soles) used to go outside the heads into deeper water to spawn, and return again unmolested to the harbours, where Seine fishermen caught them in large quantities. The same applies to groper, kingfish, cod, ling and so on which came close in shore and were easily caught in plenty. Since the trawlers started without a limit, the flat fish which usually go outside the heads into the bays to spawn are caught, while full of spawn, and as time has elapsed the want of a limit has caused the fish to grow scarcer and still scarcer, which will continue until the precautions that were take[n] in the British Isles to preserve the fish close in shore is manifested. // The trawls of the trawlers, which are dragged for hours also kill millions of small fish and spawn, and drive groper, kingfish etc. miles off into deeper water, which prior to trawling let it again be mentioned were caught close in shore.’</p>	Petition by The Otago Fisherman’s Society Limited, October 1919, to the Minister of Marine, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.
1920	<p>- This year shows an increase in quantity of all fish except Warehou and Barracouta, the figures for which show a marked decrease.</p>	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1920 by Inspector of Fisheries Richardson, M 1 2/12/207 NAW.
1920	<p>- Line fishermen: irregular catches for first four months owing to weather; when conditions improved the market was oversupplied and the fishermen worked less (partly on account of the high cost of benzine).</p> <p>- All outlying districts visited:</p> <ul style="list-style-type: none"> <li>- Nugget Bay – several fair catches of groper, majority of these fish sent to southern markets; several boats idle during the war now being worked by returned soldiers</li> <li>- Moeraki – fishermen report a poor season</li> </ul>	Annual report for Otago for year ending 31 March 1920 by Inspector of Fisheries S Broadley, M 1 2/12/207 NAW. <i>[Photocopy 10]</i>
1920 June	<p>- Details include . . . ‘Red cod have again made their appearance off Cape Saunders from which place they have been absent for about four years. Several boats working off the North Reef in about 80 fathoms have secured good hauls of groper’.</p>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1920, M 1 2/12/2 part 1, NAW.
1921	<p>- Satisfactory year for the majority of line fishermen, weather favourable. Several fishermen have purchased more up to date boats, which have enabled them to put to sea under conditions previously unworkable.</p> <p>- Outlying districts:</p>	Annual report for Otago for year ending 31 March 1921 by Inspector of Fisheries S Broadley, M 1 2/12/224 NAW.

	<ul style="list-style-type: none"> <li>- Nugget Bay – good catches of groper occasionally caught</li> <li>- Tautuku – some fine boats, fishermen mostly inexperienced, but take large quantities of groper and blue cod; proves that fish plentiful and that this may become a popular fishing ground; transport difficulties</li> <li>- Puketeraki – large quantities of crayfish and a few groper and blue cod</li> <li>- Moeraki – medium catches of groper, red cod, and blue cod</li> </ul>	<i>[Photocopy 11]</i>
1921 July	- Details include . . . Weather conditions favourable. Fair quantities of gropers were taken from the North Reef, which fish at present are heavy in spawn. ‘Several of the fishermen report having no recollection of the fish ever having been so plentiful in this month of the year.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1921, M 1 2/12/2 part 1, NAW.
1922	<ul style="list-style-type: none"> <li>- Unsettled weather for whole of the year saw the line fishermen average about 3 working days per week. Make a point of catching groper and kingfish as far as possible all year round, believe that they fetch higher prices than say, red cod, ling, and barracouta, which are at times unsaleable.</li> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Tautuku – majority of fishing boats have moved to Waikawa owing to anxiety of landing catches; intend to work same ground as previously; usually bring in fair hauls of groper and blue cod, which are railed to Invercargill</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1922 by Inspector of Fisheries S Broadley, M 1 2/12/245 NAW. <i>[Photocopy 12]</i>
1922 June	- ‘The line fishermen have brought in large quantities of groper, barracouta, ling and red cod most of which have been taken from 10 to 18 miles off the heads.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1922, M 1 2/12/2 part 1, NAW.
1923	<ul style="list-style-type: none"> <li>- Past year shows a marked decrease in the quantity of fish landed at Oamaru, and a slight decrease at Moeraki.</li> <li>- At Oamaru groper fairly plentiful, but all other kinds of fish showed a decrease, particularly red cod.</li> <li>- At Moeraki groper not so plentiful as it was last season, red cod also a falling off, whereas blue cod an increase, ling and crayfish also plentiful.</li> <li>- ‘Some of the fishermen strongly recommend a close season for groper from the end of June to October. They state that during these months the fish go out to spawn and by catching them during this time millions of fish are lost annually, and in a few years groper will be exceedingly scarce. // Others again hold that when the groper go to spawn they remove themselves so far from the coast that the fishing boats seldom get near them.’</li> </ul>	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1923 by Collector of Customs, M 1 2/12/269 NAW.
1923	- Fair catches of all round fish by the line fishermen for the greater part of the year. High prices for groper and kingfish.	Annual report for Otago for year ending 31 March 1923 by Inspector of Fisheries S Broadley, M 1 2/12/269 NAW. <i>[Photocopy 13]</i>
1924	- During the whole period there has been an abnormal scarcity of all kinds of fish, except for groper – to catch this boats have to run some 20 miles or more from the coast.	Annual report for Oamaru for year ending 31 March 1924 by Collector of Customs, M 1 2/12/298 NAW.
1924	<ul style="list-style-type: none"> <li>- Comments on catch of different species (line fishermen): <ul style="list-style-type: none"> <li>- groper and ling scarce for the greater part of the year</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1924 by Inspector of Fisheries S Broadley, M 1 2/12/298 NAW.

1924 July	'Fair quantities of groper and red cod were brought in by the line boats, groper mostly being taken in deep water about sixteen miles from Otago Heads. . . .'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1924, M 1 2/12/2 part 1, NAW.
1924 October	- 'At the beginning of the month the Dunedin Market was well supplied with groper and red cod; also fair quantities of other fish. Towards the middle the weather became bad and the line boats could not get out . . . .' - Tautuku fishermen are taking large catches of groper when able to go out	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 September 1924, M 1 2/12/2 part 1, NAW.
1925	- Uneventful year; extremely poor returns in winter, improving in summer. - As usual, groper the mainstay of the fleet, but must be sought 20 miles off the coast in fine weather.	Annual report for Oamaru and Moeraki for year ending 31 March 1925 by Collector of Customs, M 1 2/12/330 NAW.
1925	- Fish have become more scarce throughout the year, prices rising accordingly. - Groper and kingfish taken by the line fishermen. - Outlying districts: - Puketeraki – fair catches of groper and blue cod sent from Puketeraki; - Moeraki – fair season with blue cod and groper - Nuggets – good catches of groper and trawl fish	Annual report for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.
1925 January	- Details include . . . 'The line fishermen have brought in moderate catches of groper and kingfish during the month, whilst red cod, ling and barracouta have been fairly plentiful.' Price low – on one occasion secretary of the Fishermen's Union issued instructions for fishermen to cease working in the middle of the week.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1925, M 1 2/12/2 part 1, NAW.
1925 February	- Puketeraki fishermen have forwarded good supplies of groper, also a few blue cod	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1925, M 1 2/12/2 part 1, NAW.
1925 July	- Details include . . . Weather unfavourable for the line men; averaged about three days fishing per week. When able to get well off land, these fishermen have secured fair catches of groper. Red cod and groper very scarce outside Harbour for this time of the year.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 August 1925, M 1 2/12/2 part 1, NAW.
1925 October	- Details include . . . Weather conditions improved, line fishermen working more regularly off shore, taking moderate catches of groper, a few red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1925, M 1 2/12/2 part 1, NAW.
1926	- Year at Oamaru unprofitable for the fishermen during the past 12 months; at Moeraki the fishermen report more favourably on their catches.	Annual report for Oamaru and Moeraki for year ending 31 March 1926 by



	<ul style="list-style-type: none"> <li>- Oamaru boats rely on groper for their main catch – plentiful for the first two months, then patchy, during the winter barely enough petrol consumed in seeking new grounds.</li> <li>- At Moeraki, blue cod and groper proved the mainstay of the Moeraki boats, fairly plentiful.</li> </ul>	Collector of Customs, M 1 2/12/356 NAW.
1926	<ul style="list-style-type: none"> <li>- Line fishermen have been compelled to work further afield than usual; owing to unsettled weather, only moderate catches of groper and kingfish. Very few red cod have frequented Otago waters, and on account of weather blue cod scarce.</li> <li>- Outlying districts: <ul style="list-style-type: none"> <li>- Puketeraki – fair catches of groper, blue cod, crayfish</li> <li>- Oamaru and Moeraki – fishermen report a bad year</li> <li>- Nuggets – good catches of groper and soles on several occasions, these being sent to private buyers in Invercargill</li> <li>- Tautuku and Waikawa – brought in fair catches of groper, ling, and blue cod, mostly railed to Invercargill</li> </ul> </li> </ul>	Annual report for Otago for year ending 31 March 1926 by Inspector of Fisheries S Broadley, M 1 2/12/356 NAW.
1926 April	- Details include . . . Favourable weather has seen line fishermen averaging five days of fishing per week and have been able to work a long distance off the land, several of these boats taking 3½ hours to reach the fishing grounds, where good catches of groper were taken. Fair quantities of barracouta brought in.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 7 May 1926, M 1 2/12/2 part 1, NAW.
1926 June	<ul style="list-style-type: none"> <li>- Details include . . . Owing to favourable weather the line fishermen able to work well off the land, taking 4 hours to get to the fishing grounds. Some of the larger craft are staying out for 2 or 3 days at a time. All of these boats have taken good catches of groper. Other line fishermen working around Cape Saunders have brought in fair quantities of barracouta and ling.</li> <li>- ‘Some of the large line boats are handicapped with their catches, as they can only send three dozen to Dunedin daily, and when out for three days generally bring in from seven to ten dozen groper.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1926, M 1 2/12/2 part 1, NAW.
1926 November	<ul style="list-style-type: none"> <li>- Details include . . . ‘For this time of year the line fishermen are compelled to go well off the land to secure any quantity of groper. Some of these boats are steaming up to 25 miles to get on the fishing grounds. The boats working close in shore are taking moderated catches of groper and large quantities of barracouta.</li> <li>- ‘On account of changeable weather the water outside Otago Heads is discoloured for about six miles offshore, this I think, is responsible for the fish not working inshore. There appears to be no sign of any fish food about the Otago Waters at the present time, and this is unusual for this month of the year.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1926, M 1 2/12/2 part 1, NAW.
1927	<ul style="list-style-type: none"> <li>- Past year showed an increase in the quantity of fish landed at both Moeraki and Oamaru, though the fishermen consider the year far from good.</li> <li>- At Oamaru, groper (relied upon for the main catch) plentiful during the summer months; red cod very scarce during the winter months (when it is usually plentiful); other kinds of fish were landed in about the usual numbers.</li> <li>- At Moeraki, fishermen seek blue cod and groper chiefly, but unable to land any great quantity of these fish, largely due to unfavourable weather conditions.</li> </ul>	Annual report for Oamaru and Moeraki for year ending 31 March 1927 by Collector of Customs, M 1 2/12/388 NAW.
1927 January	- Details include . . . Line fishermen caught groper about 10 miles from the Otago Heads, kingfish at night time about 4 miles off.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 February 1927, M 1 2/12/2 part 1,

		NAW.
1927 August	- Details include . . . The line fishermen have taken very poor catches of groper for practically the whole month. These fish were taken from the southern grounds, about 10 miles off Cape Saunders. The fishermen report a scarcity of fish at the North Reef for this time of the year. Some of the boats worked this ground at the beginning of the month, catch averaging 2 to 10 groper.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1927, M 1 2/12/2 part 1, NAW.
1928	- at Oamaru, red cod and warehou very scarce; average season for other fish - at Moeraki, groper were fairly plentiful, but the returns for red cod and blue cod showed a decided decrease	Annual return of fishing information for Port of Oamaru (including Moeraki) for year ending 31 March 1928 by Superintendent, Customs, M 1 2/12/413 NAW.
1928	- Except for three months, line fishermen have had to work at a far greater distance from Otago Heads than in previous years. Some Port Chalmers boats steaming to the Nuggets fishing grounds (getting good catches of groper in favourable weather); others fishing off Green Island and Taieri Mouth. - Fish scarce on the North Reef – only 1 or 2 large catches caught during the year. - Outlying districts: - Puketeraki – scarcity at the beginning of the season, then fair catches of groper, blue cod. Between May and October, most of the fishermen at this place fish for crayfish alone. - Moeraki – fair catches of groper. - Tautuku – large catches of groper and blue cod supplied to the Dunedin market during that last 2 months. - Waikawa – moderate catches of groper and blue cod.	Annual report for Otago for year ending 31 March 1928 by Inspector of Fisheries S Broadley, M 1 2/12/413 NAW. <i>[Photocopy 22]</i>
1928 April	- Details include . . . Line fishermen have had moderate catches of groper, and ‘a fair number of kingfish’ – most caught at a distance of from 15 to 18 miles off Otago Heads at a depth of 70 to 100 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1928, M 1 2/12/2 part 1, NAW.
1928 July	- Details include . . . Line fishermen working well off shore have brought in only moderate catches of groper. ‘One boat brought in forty groper from the North Reef, this being the largest for one day during the month. The other catches ranged from five to thirty fish for one day’s taking.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1928, M 1 2/12/2 part 1, NAW.
1928 September	- Details include . . . Weather very poor. Most line fishermen averaged only four days fishing per month. These fishermen mostly worked the north reef, but found fish scarce, an average per boat being ½ dozen fish, mostly small groper and bream.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1928, M 1 2/12/2 part 1, NAW.
1928 October	- Details include . . . The Nuggets boats have taken very few groper for this time of the year, but when able to go trawling have brought in fair catches of flatfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1928, M 1 2/12/2 part 1, NAW.
1928	- ‘At the present time the groper taken from the North Reef are in heavy spawn. I have suggested to the men	S. Broadley, Inspector of Fisheries, to

	working those grounds that they cease fishing for the months of July and August of each year. // Since these fishing grounds were first worked the supply of groper each year is gradually diminishing. This, in my opinion, is due to the large quantities being taken during the spawning season. The majority of the fishermen concerned are of the same opinion as myself in this respect.'	the Secretary, Marine Department, 31 July 1928, M 1 2/12/295, Groper, 1914-1938, NAW.
1928	<p>- Reports on a meeting with fishermen at Port Chalmers on 15 November: 'I found them less unanimous about the closure of the North Reef ground – or any restriction at all – than I had been led to expect. But they were all agreed as to the deterioration of the fishing. They hesitated to recommend any restriction on fishing because they feared it might handicap them &amp; the line fishermen of Port Chalmers) as individuals &amp; as a community in competition with others. There was a general feeling that any restrictive regulation would have to be general, not local: in which I am inclined to agree. They would not at this stage pass any formal resolution but agreed to talk the question over among themselves &amp; arrange for a conference at a later date. // It would appear that there will be difficulty in getting them all to think alike or some of them to think at all.'</p> <p>- File records no further action taken in respect of the proposed closed season for groper on the North Reef.</p>	Ayson to Secretary, Marine Department, minute on Superintendent, Mercantile Marine, Dunedin, to Secretary, Marine Department, 30 November 1928, M 1 2/12/295, Groper, 1914-1938, NAW.
1929	<p>- States that it is the opinion of the experienced fishermen in this district that the Department should consider a closed season for groper during spawning. At this time, the fish are naturally in poor condition and go from 15 to 20 miles off shore into greater depths of water.</p> <p>- Most fishermen at Oamaru and Moeraki have recently adopted the fixed line method of fishing, some lines having up to 500 hooks. 'This system will no doubt be the means of more quickly exhausting the groper fishing grounds.'</p>	Annual report for Oamaru and Moeraki by Inspector of Fisheries, Brewer, 30 May 1929, M 1 2/12/452 NAW.
1929	- red cod have been very scarce for the last 2 or 3 season, other fish are not quite as plentiful as in previous years	Annual return for Oamaru (including Moeraki) for the year ending 31 March 1929 by Inspector of Fisheries, Brewer, M 1 2/12/452 NAW.
1929	<p>- For the first months of the year, the Dunedin market was moderately supplied; later declined through a scarcity of fish and rough weather.</p> <p>- The line fishermen now have to work a long way back, and the expense of doing it is very great (fuel). For last 8 months of the year the grounds worked were Taieri Mouth and North Reef. The supply of groper and kingfish from north reef has been poorer this year than ever before.</p> <p>- Outlying districts:</p> <ul style="list-style-type: none"> <li>- Puketeraki – fishermen have had a bad year, some giving up fishing</li> <li>- Moeraki – fishermen report a scarcity of all fish, 2 or 3 have started fishing with long-lines and on several occasions brought in large catches of groper</li> <li>- Oamaru – fishermen have for most of the year worked about 16 miles offshore and have taken moderate catches of line fish</li> <li>- Nuggets – fishermen have also experienced a poor year, for line fish often bringing in anything from 4 to 18 fish for a day's catch</li> <li>- Tautuku – a fair amount of blue cod and groper reached the Dunedin market from Tautuku</li> </ul>	Annual report for Otago for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW. <b>[Photocopy 24]</b>
1929 February	- Details include . . . A fair supply of groper and blue cod came in from Puketeraki. Very few fish of any kind came in from the Southern Ports; fishermen there report a great scarcity of line fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to

		Secretary, Marine Department, 28 February 1929, M 1 2/12/2 part 1, NAW.
1929 March	- Details include . . . 'Throughout the month the line fishermen have brought in fair catches of groper and a few kingfish. The majority of these taken form the North Reef and Taieri Mouth grounds.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1929, M 1 2/12/2 part 1, NAW.
1930s	- (p 64) The fishing industry at Moeraki experienced difficulties – rising costs, static incomes, a scarcity of fish, and competition from boats from other Otago ports. By 1930s, fishing boats larger and more seaworthy. - (p 66) Though a wide range of species were landed, Moeraki was essentially a groper and blue cod port. Quotes from, <i>Evening Star</i> , 27 December 1937: 'The fishing fleet at Moeraki has available three reefs within five miles of the port, and in the vicinity of these reefs, blue cod, and groper are taken. In winter, however, the boats usually have to go out to sea as far as twenty miles. . . . Apart from groper and blue cod, an occasional gurnard, ling, tarakihi, kingfish or conger eel is caught. . .' - (p 66) In 1935, the Fisheries Section of the National Mortgage and Agency Association established a branch operation at Moeraki, inheriting an established packing plant – guaranteed to take the entire catch of the fishermen who supplied it. Until this point, Moerakin fishermen sometimes had problems disposing of their fish.	Gavin McLean, <i>Moeraki: 150 Years of Net and Plough Share</i> , Dunedin, 1986.
1930	- With regards to Otago ports, line fishing for groper has been especially disappointing, particularly on the nearer grounds. Several fishermen have adopted the long-line method of fishing and gone further afield, others have sought different employment for the time being.	A.E. Hefford, 8 August 1930, Marine Department annual report for 1929-1930, <i>AJHR</i> 1930, H-15.
1930	- States that the majority of fishermen believe the Department should consider making a brief close season for groper during spawning. Moeraki fishermen have requested a fisheries expert to visit their port.	R Brewer, Oamaru Fisheries Inspector, to Secretary, Marine Department, 7 May 1930, M 1 2/12/477, NAW.
1930	- Line fishermen around Otago Heads have had a bad year. During the latter part of the year some began long-lining – catching fair amounts of groper and ling. - Men working out of the Taieri Mouth caught fish from a depth of 40 to 70 fathoms; long lines also worked there. - The Nuggets fishermen report a scarcity of groper, have taken very few line fish. Some boats there have been laid up – few boats left mostly working trawl nets. - Fair supply of groper from Tautuku; also steady supply of groper and blue cod taken at Moeraki and Oamaru.	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1930, M 1 2/12/477, NAW.
1930 February	- Details include . . . 'The Taieri Mouth fishermen sent in fair catches of groper on a few occasions, but on account of their having to work a treacherous bar, a good deal of time has been lost during the month. Several of the Port Chalmers fishermen are working at Taieri Mouth at present, but have averaged very low wages during the month. The Puketeraki fishermen report a decided scarcity of line fish . . . The Nuggets fishermen also report a great scarcity of all line fish for this time of the year'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 28 February 1930, M 1 2/12/2 part 1, NAW.
1930 March	- Details include . . . 'The majority of line fishermen are at the present time using long lines for catching groper and ling, good catches of which were brought in on these boats. The Taieri boats have sent in large catches of groper and a few kingfish, and some of the smaller boats working closer inshore secured fair catches of blue cod and groper.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 March 1930, M 1 2/12/2 part 1, NAW.

1931	- Canterbury and Otago fishing affected by bad weather, but also is certain areas a general scarcity of line fish, particularly groper. Otago fishermen have expressed the view that a restriction should be placed on these fish when they are spawning or about to spawn. Some fishermen believe that present scarcity may be the result of dead fish on lost long-lines polluting the grounds. I disagree that there is any chance of appreciable pollution occurring. 'The effect of long-lines, in my opinion, is to bring about an increase in the number of fish abstracted from an already depleted stock.'	A.E. Hefford, 28 July 1931, Marine Department annual report for 1930-1931, AJHR 1931, H-15.
1931	- Moeraki fishermen still request that a fisheries expert to visit their port; concerned that about the future supply of groper ('the mainstay of fishing in this district'), which they claim are becoming more difficult to obtain owing to the long-line method of catching (believe that hooked fish frighten off others).	R. Brewer, Oamaru Fisheries Inspector, to Secretary, Marine Department, 21 May 1931, M 1 2/12/500, NAW.
1931	- Very lean year for line fishermen: - for the greater part of the year line fish have been very scarce, with the exception of red cod - at the latter end of the season, fair catches of groper were secured by the Taieri Mouth and Tautuku fishermen; very poor catches taken from the Otago, Puketeraki and Nuggets grounds – two dozen fish for one day's work being a good haul - for several months a number of Port Chalmers line fishing boats fished inside the harbour for small red cod (as they were not earning sufficient to meet benzine expenses outside), but the North Reef upon which these men have depended in former years proved of little value (on many occasions some boats returned without a single fish)	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1931, M 1 2/12/500, NAW.
1931 January	- Details include . . . Seine fishermen have taken fair hauls of flounders.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1931, M 1 2/12/2 part 1, NAW.
1931 September	- Details include . . . Unsettled weather. Line fishermen have had a poor month. A few of the larger craft working the North Reef brought in small catches of bream, but very few groper.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1931, M 1 2/12/2 part 1, NAW.
1932	- Notes that in Otago groper (hapuku) catches have been below the average of former years, but better fishing for red cod and kingfish has been experienced.	A.E. Hefford, 'Report on fisheries for the year ended 31 March 1932', 27 August 1932, Marine Department annual report, AJHR 1932-1933, H-15.
1932 April	- Details include . . . After rough weather, line fishermen working in deep water with hand lines secured some fair catches of kingfish. Supply of groper lessened – two dozen being a good catch for a days fishing, most taking from 5 to 12 fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1932, M 1 2/12/2 part 1, NAW.
1933	- Otago and Canterbury, supplies have been more than equal to demand, but prices very poor. Exception with regard to the groper (hapuku) fishery. 'A general scarcity of this fish and of the Southern kingfish has been	A.E. Hefford, Report on fisheries for the year ended 31 March 1933, Marine

	reported from Cook Strait to South Otago.’ It is alleged that fishing with long lines has been the cause of the decline. This is another problem that calls for closer investigation.	Department annual report, <i>AJHR</i> 1933, H-15.
1933 August	- Details include . . . Line boats working the Otago grounds, principally North Reef, brought in fair numbers of bream, but a very limited supply of groper. A few bass groper were brought in from North Reef.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1933, M 1 2/12/2 part 1, NAW.
1934	- ‘Hapuku or groper fishing in Cook Strait and off the Canterbury and Otago coasts is another special fishery to which more intensive methods are being increasingly applied. This kind of fish is becoming more and more difficult of catch. Formerly the market requirements could be supplied by hand-line fishing, but nowadays the majority of groper are taken by long lines. Each line carries several hooks, usually on wire snoods, a sinker being attached to the further end of the line and a buoy to the nearer end. Several of these lines may be fished by a single boat, and in fishing they are allowed to drift with the tide. Experience has shown that groper grounds which are fished in this way do not maintain their original productiveness for very long.’ Notes that fishermen believe that the problem results from dead fish on lost lines fouling the grounds. ‘In my opinion the more probable explanation is that the local depletion is largely a matter of the abstraction of larger numbers of the fish population by the intensified efficiency of the fishing operations. Even hand-line fishing, if carried on continuously, can have a marked effect in reducing the stock of fish.’ Also suggests that variation in reproduction may be a relevant factor. ‘The occurrence of good spawning years and bad spawning years is well known, and the elucidation of the factors effecting such variation in the ultimate results of the natural reproduction of fishes have been clearly demonstrated by fishery investigations in other parts of the world. There remain matters of obscurity with regard to New Zealand fishes, though statistical records of the fisheries, even without biological investigations, would have thrown a great deal of light on these questions’.	A.E. Hefford, Report on fisheries for the year ended 31 March 1934, Marine Department annual report, <i>AJHR</i> 1934-1935, H-15.
1934 June	- Details include . . . ‘During the early part of the month when weather conditions were favourable, the line boats working the North Reef, and in the deep water off Cape Saunders brought in moderate catches of groper and a few kingfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1934, M 1 2/12/2 part 1, NAW.
1934 November	- Details include . . . Line fishermen working about 8 miles offshore brought in fair numbers of groper, ling, and a few kingfish. - Steam trawlers working well off Otago Heads brought in large catches of kingfish, moki, terakihi, ling, and a few groper.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1934	- [Graham worked for many years as a marine biologist at the Marine Fisheries Investigation Station, Portobello, Otago. In <i>A Treasury</i> , Graham refers largely to past observations during his time at the Research Station. Quite a lot of the material in this book repeats information presented in his 1938 <i>Transactions</i> article (vol 68, pp 399-419). I have not taken notes where the information is repetitive. Most of his observations, unsurprisingly, relate to Otago.] - (p41) ‘Even though the sea is teeming with life, it is quite possible to fish out a certain fish. This may seem incredible to some people, but during 1930-34 one of the most popular fish on the market, the Groper, was slowly	David H. Graham, <i>A Treasury of New Zealand Fishes</i> , second edition, A.H. and A.W. Reed, Wellington, 1956. [First published in 1953.]

	<p>and surely being depleted by nothing more or less than overfishing. Unless some restriction is placed either on the number caught, or on their being caught during the spawning season, they will gradually become less abundant. The same can be said for Blue Cod. This is not a scientific theory but is recognised by line fishermen who live by their catches’.</p> <p><i>Bass Groper (Moeone)</i>  - (pp 224-225) ‘Up to 1933 it was not known from The Rock, off Cape Saunders in fifty fathoms, but was often caught from the North and South Reefs in one hundred to two hundred fathoms.’ Common especially from July to November; in 1934 sold in the Dunedin fish market on 29 days.</p> <p><i>Groper (Hapuku)</i>  - (p 227) ‘Since 1927, these splendid fish have decreased and considerably fewer fish were caught; this due to fishing during July and August which is their spawning season. No law has been made to protect this valuable fish and in consequence large Groper were rare. At one time in the summer months Groper were plentiful anywhere in shore in from five to twenty fathoms in such places as Heyward Point, Drivers Rock, Cape Saunders, and similar places up and down the coastline. From 1922 up to 1927 it was possible to fish off Drivers Rock, off Otago Heads, and load a boat with groper. In the years mentioned, during the summer months a few could be caught inside Otago Heads. It was possible at that time to go off inshore to Two Lights, which is about twelve miles off land, and two men in one day could catch from five to fifteen dozen large Groper. When I use the term large I am alluding to fish weighing eighty pound, now so seldom seen.’  - Mr Broadley stated that the dropping of a line and hook in shallow water off Purakuranui, Tyrone, Blueskin and other parts in 1910, or even later, would result in catching up to five or six dozen groper. ‘The dropping of a line anywhere outside the Otago Heads at one time would result in catching Groper.’  - (pp 227-228) As soon as the North Reef was discovered, it was not uncommon to see 20 or more boats fishing there – fishermen coming not only from Port Chalmers, but also Moeraki and Puketerakil. The result was that the place was overfished even during the spawning season and consequently much smaller hauls were evidenced – decrease was notable not only at North Reef, but also at Two Lights, anywhere north and south of Otago Heads.  - (p 228) When the North Reef found, greater numbers of Groper found there than anyone else. Many other fish caught there that were not known anywhere else – Bream, Bass Groper, Groper, and Trumpeter were caught in large numbers. Years ago plenty of Groper caught weighing over 100 pounds; average weight about 1920 was 25 pounds; average weight in 1933 was 10 pounds. In 1934, Graham witnessed one lot of 84 Groper in the Dunedin market – only two weighed more than 4 pound when cleaned and headed.  - (p 228) ‘The prevailing wanton methods of fishing, including overfishing, had in 1930-34 intensified exploitation during the spawning season, resulting in a serious decline in the numbers and size of the fish and called for control over the situation. . . . It is surprising that a thinking community would permit this to go on and on without some attempt being made to formulate some scheme whereby the Groper would be allowed to maintain even its comparative abundance. . . . Fishermen who hooked Groper for a living and to whom I spoke were willing to conform to some regulations under which these fish should not be caught during the spawning season.’</p>	
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

1935	- 'With few exceptions both fishermen and fish-dealers in Otago had a difficult year. The prevalence bad weather . . . and even when conditions for fishing were favourable the catches were generally inferior to those at corresponding season in previous years. . . . When weather was favourable moderate supplies of groper and ling were brought in, but the boats engaged in the long-line fishery are now compelled to go further afield than formerly.'	A.E. Hefford, Report on fisheries for the year ended 31 March 1935, Marine Department annual report, <i>AJHR</i> 1935, H-15.
1935	- Christchurch retailers stated to be in favour of a close season for groper. President of the Christchurch Fish Retailers Association, F.L. Knowles, quoted to say that supplies of groper clearly being depleted and size of fish reduced. Knowles thought that this was particularly noticeable at Timaru and Oamaru, where fishing was done for a distance of five miles out to sea. Noted that fish were taken during spawning. Suggested a close season.	Article entitled 'Close season for groper – support for proposal among fish retailers', extract from Christchurch Press, 8 August 1935, M 1 2/12/295, Groper, 1914-1938, NAW.
1935	- Hefford interviewed by the Christchurch Press. Agreed that the supply of groper was becoming depleted, but declaration of close season would involve problems – suggested that it was for the fishermen concerned to take the first action. - Quotes a recent report by Hefford: 'Hapuku or groper-fishing in Cook Strait and off the Canterbury and Otago coasts, is another special fishery to which more intensive methods are being increasingly applied. This kind of fish is becoming more and more difficult to catch. Formerly the market requirements could be supplied by hand line fishing, but nowadays the majority of groper are taken by long lines. Each line carries several hooks, usually on wire snoods, a sinker being attached to the further end of the line and a buoy to the nearer end. Several of these lines may be fished by a single boat, and in fishing they are allowed to drift with the tide. Experience has shown that groper grounds which are fished in this way do not maintain their productiveness for very long.'	Article entitled 'Close season for groper – several problems to be considered – views of inspector of fisheries', 9 August 1935, extract from Christchurch Press, M 1 2/12/295, Groper, 1914-1938, NAW.
1935 February	- Taieri Mouth fishermen have taken several good catches of soles and fair numbers of groper and blue cod. - Nuggets boats have been line fishing and some fair catches of groper have been taken.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 March	- Details include . . . Line fishermen brought in fair catches of groper, also a few bream and trumpeter, the latter being very large. Most of these fish were taken from very deep water well off Cape Saunders.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 December	- Details include . . . 'The steam trawler "Olive Cam" commenced fishing out of Port Chalmers about the middle of the month and secured large hauls of flat fish and round fish of all kinds. The majority were taken from a depth of from 30 to 40 fathoms. After one trip of 96 hours fishing she returned with 550 boxes each weighing 50 lbs, and made up of groper, ling, soles, barracouta, terakihi, moki, trevally, gurnard, flounders, red cod, dogfish, elephant fish, a few trumpeters, and blue cod.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936	- 'It has been possible to obtain only a general impression of conditions off the east coast of the South Island, but it would appear that the fishing has been below an average standard, and rather more than usually checked by bad weather. Generally speaking, flatfish as well as groper supplies have been below requirements. As might be expected, the small-boat and inshore fishermen have been most seriously affected and some of the Otago men have abandoned the fishing.'	A.E. Hefford, Report on fisheries for the year ended 31 March 1936, Marine Department annual report, <i>AJHR</i> 1936, H-15.



	- Notes that an Australian trawler fished from Port Chalmers in December 1935 and January 1936, making 'fairly good catches', landed at Port Chalmers.	
1936 January	- Details include . . . "Olive Cam" has ceased fishing out of Port Chalmers; sailed to Australia with a large consignment of fish. Had been working both the Nuggets and Waikawa grounds at a depth of from 20 to 30 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 February	- Details include . . . During the past month the Port Chalmers fishermen have taken fair catches of groper, ling, red cod and a few barracouta. Majority of these fish taken off Hayward's Point about 4 miles from the Otago Heads. 'Groper have been more plentiful in this locality than for a considerable number of years.' Moderate catches of groper and kingfish were taken by the boats fishing in deep water.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 April	- Details include . . . Line fish scarce with the exception of a couple of fair catches of groper from deep waters. 'These fish are in first class condition, many of them carrying heavy roes.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 August	- 'On account of the mild weather experienced during the winter month this season for groper has been longer. The majority caught during the months of June and July were carrying heavy spawn. In my opinion it would benefit the fishing industry if the taking of groper from the North Reef was prohibited during these months as I consider this to be the main spawning ground about Otago.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937	<ul style="list-style-type: none"> <li>- Methods of fishing – line-fishing (dan lines and windy buoys) – Otago and South Canterbury (p 27) <ul style="list-style-type: none"> <li>- at Port Chalmers, Oamaru, Moeraki, and off Taieri Mouth dan lines are the most common type of gear, very little hand-lining been done</li> <li>- lines are suspended from drums to which flags are attached to indicate their position</li> <li>- dan lines are responsible for a large proportion of landings in this area; almost the sole method of fishing used at Oamaru; significant at Port Chalmers</li> <li>- the main fish landed is groper, but also large quantities of less valuable ling; other fish such as red cod and barracouta could be landed in greater quantities if there was a market for these fish</li> <li>- 'Groper are markedly declining both in quantity and in size. From Taieri Mouth to Timaru, the statements of the fishermen and merchants all agree that this fishery is in a serious state'.</li> <li>- many fishermen suggest a close season while the fish are in heavy roe, a number asserted that depletion or the groper grounds had been accelerated by the use of dan lines</li> <li>- general recommendations – that the number of windy buoys or dan lines be restricted to 3 for each man on board; that the number of traces on each windy buoy or dan line not exceed 6; that the number of hooks on each trace not exceed 30</li> </ul> </li> <li>- Methods of fishing – line-fishing (set-lines and long lines) – Otago and South Canterbury (p 29) <ul style="list-style-type: none"> <li>- set-lines mainly used by the fishermen at Timaru, though their use not confined to that port</li> </ul> </li> <li>- Methods of fishing – hand-lining – Otago and South Canterbury (p 30) <ul style="list-style-type: none"> <li>- 'This method of fishing is used throughout the Otago and South Canterbury districts, but the fisheries have declined to such an extent that it is becoming practically impossible for the men to make a fair living by the</li> </ul> </li> </ul>	'Report of the Sea Fisheries Investigation Committee', <i>AJHR</i> , 1937-1938, H-44A.

	use of hand-lines only, and they are used mainly as an auxiliary method of fishing either while waiting for the set gear to be picked up or when weather conditions make it unadvisable to use set or dan lines.’																																																																	
1937	<div>- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location, though does have a (one-off?) breakdown for South Island ports in main body of report.</div> <table><tr><th>Port</th><th>Method of fishing</th><th>Percentage of weight caught by each method</th><th>Principal kinds of fish caught by each method</th></tr><tr><td rowspan="3">Oamaru</td><td>Lines</td><td>97.4</td><td>Groper, red cod, blue cod, ling</td></tr><tr><td>Set-nets</td><td>2.4</td><td>Moki, butterfish</td></tr><tr><td>Trawl</td><td>0.2</td><td>Sole, flounder</td></tr><tr><td rowspan="2">Moeraki</td><td>Lines</td><td>98.3</td><td>Groper, blue cod, ling</td></tr><tr><td>Set-nets</td><td>1.7</td><td>Moki, butterfish</td></tr><tr><td rowspan="3">Port Chalmers</td><td>Trawl</td><td>48.6</td><td>Sole, red cod</td></tr><tr><td>Lines</td><td>42.5</td><td>Groper, ling</td></tr><tr><td>Seine-nets and set-nets</td><td>8.9</td><td>Flounder, red cod</td></tr><tr><td rowspan="2">Taieri Mouth</td><td>Trawl</td><td>76.9</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>23.1</td><td>Groper, blue cod, red cod</td></tr><tr><td rowspan="2">Nuggets</td><td>Trawl</td><td>78.2</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>21.8</td><td>Groper, barracouta</td></tr><tr><td rowspan="2">Owaka</td><td>Lines</td><td>66.7</td><td>Groper, blue cod</td></tr><tr><td>Nets (seine)</td><td>33.3</td><td>Flounder</td></tr><tr><td>Waikawa</td><td>Trawl</td><td>65.7</td><td>Sole, flounder</td></tr><tr><td></td><td>Lines</td><td>33.9</td><td>Groper, blue cod</td></tr><tr><td></td><td>Nets (seine)</td><td>0.4</td><td>Flounder</td></tr></table> <div>- Little comment on Otago fisheries: ‘The general impression obtainable from various reports is that the local trawling-grounds off Canterbury and Otago are not as productive as formerly. The groper fishery, though yielding good supplies to long-liners on occasions, requires more effort than formerly to produce the same results.’</div>	Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method	Oamaru	Lines	97.4	Groper, red cod, blue cod, ling	Set-nets	2.4	Moki, butterfish	Trawl	0.2	Sole, flounder	Moeraki	Lines	98.3	Groper, blue cod, ling	Set-nets	1.7	Moki, butterfish	Port Chalmers	Trawl	48.6	Sole, red cod	Lines	42.5	Groper, ling	Seine-nets and set-nets	8.9	Flounder, red cod	Taieri Mouth	Trawl	76.9	Sole, flounder	Lines	23.1	Groper, blue cod, red cod	Nuggets	Trawl	78.2	Sole, flounder	Lines	21.8	Groper, barracouta	Owaka	Lines	66.7	Groper, blue cod	Nets (seine)	33.3	Flounder	Waikawa	Trawl	65.7	Sole, flounder		Lines	33.9	Groper, blue cod		Nets (seine)	0.4	Flounder	A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-1938, H-15.
Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method																																																															
Oamaru	Lines	97.4	Groper, red cod, blue cod, ling																																																															
	Set-nets	2.4	Moki, butterfish																																																															
	Trawl	0.2	Sole, flounder																																																															
Moeraki	Lines	98.3	Groper, blue cod, ling																																																															
	Set-nets	1.7	Moki, butterfish																																																															
Port Chalmers	Trawl	48.6	Sole, red cod																																																															
	Lines	42.5	Groper, ling																																																															
	Seine-nets and set-nets	8.9	Flounder, red cod																																																															
Taieri Mouth	Trawl	76.9	Sole, flounder																																																															
	Lines	23.1	Groper, blue cod, red cod																																																															
Nuggets	Trawl	78.2	Sole, flounder																																																															
	Lines	21.8	Groper, barracouta																																																															
Owaka	Lines	66.7	Groper, blue cod																																																															
	Nets (seine)	33.3	Flounder																																																															
Waikawa	Trawl	65.7	Sole, flounder																																																															
	Lines	33.9	Groper, blue cod																																																															
	Nets (seine)	0.4	Flounder																																																															
1937	- Description of catches, locations, etc.	Annual report for Otago by Inspector of Fisheries, S Broadley, for the year ended 31 March 1937, M 1 2/12/565, NAW. <i>[Photocopy 31]</i>																																																																
1937 August	- ‘Groper in short supply, presently carrying heavy spawn; when in this condition do not bite freely. ‘Several of the line boats have changed over to trawling until conditions improve.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																																																

1937	- Puts before Minister motion passed by the executive of the MFCS on 6 July. Motion concerned difficulties of implementing regulation for size of groper. Suggested that: 'A far more effective way of checking the constantly diminishing supply of Groper would be the enforcing of a Close Season during the Spawning period.'	Secretary, Moeraki Fishermen's Co-operative Society, to Minister of Marine, 10 July 1937, M 1 2/12/295, Groper, 1914-1938, NAW.				
1937	- States that for many years there was a minimum weight limit (5 lbs) for groper, but this was altered to a minimum length limit in 1935 (2 ft overall or 15 inches from the back of the pectoral fin to tip of tail). New limit represented only a slight increase in size. - In regard to suggested close season, states that declaring a universal close season would cause too much hardship; notes that the Department doesn't consider the depletion to be universal.	Secretary, Marine Department, to Secretary, MFCS, 9 September 1937, M 1 2/12/295, Groper, 1914-1938, NAW.				
1938	- Most of the records presented are from marine studies carried out at the Marine Fisheries Investigation Station at Portobello over a period of 27 months (1930-32). Supplementary observations compiled from daily visits to the Dunedin fish market cover nearly another two years. <table border="1"><tr><td><i>Polyprion americanus</i>. Bass groper.</td><td>Localities: North and South Reefs, not known from The Rock; 120-200 fathoms. Frequency: Common, especially in July and August, November and December.</td></tr><tr><td><i>Polyprion oxygeneios</i>. Groper. <i>Hapuku</i>.</td><td>Localities: Chiefly at North and South Reefs and the The Rock during the winter and spring; caught by trawlers during summer and autumn. Frequency: The decline in recent years is a matter of major importance. Formerly abundant and caught anywhere outside the Otago Heads. The decline is serious and the cause undoubtedly the uncontrolled fishing in the spawning season.</td></tr></table>	<i>Polyprion americanus</i> . Bass groper.	Localities: North and South Reefs, not known from The Rock; 120-200 fathoms. Frequency: Common, especially in July and August, November and December.	<i>Polyprion oxygeneios</i> . Groper. <i>Hapuku</i> .	Localities: Chiefly at North and South Reefs and the The Rock during the winter and spring; caught by trawlers during summer and autumn. Frequency: The decline in recent years is a matter of major importance. Formerly abundant and caught anywhere outside the Otago Heads. The decline is serious and the cause undoubtedly the uncontrolled fishing in the spawning season.	Graham, David H., 'Fishes of Otago Harbour and Adjacent Seas with Additions to Previous Records', <i>Transactions and Proceedings of the New Zealand Institute</i> , volume 68, 1938, pp 399-419.
<i>Polyprion americanus</i> . Bass groper.	Localities: North and South Reefs, not known from The Rock; 120-200 fathoms. Frequency: Common, especially in July and August, November and December.					
<i>Polyprion oxygeneios</i> . Groper. <i>Hapuku</i> .	Localities: Chiefly at North and South Reefs and the The Rock during the winter and spring; caught by trawlers during summer and autumn. Frequency: The decline in recent years is a matter of major importance. Formerly abundant and caught anywhere outside the Otago Heads. The decline is serious and the cause undoubtedly the uncontrolled fishing in the spawning season.					
1938 September	- Details include . . . 'The large steam trawler owned by the exporting firm did not cease operations during the heavy weather and secured some very large catches of round fish from the Otago grounds N.E. of Otago Heads. Some of the landing amounted to 300 boxes of 100lbs each. About 75% of this was terakihi, the remainder rigs, red cod, groper and ling.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.				
1939 March	- 'The large steam trawlers brought in some very large catches of terakihi, red cod, and ling, with smaller quantities of groper and kingfish. For two days fishing one catch consisted of 20,000 lbs of mixed fish, 12,000 of which were terakihi.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.				
1939 April	- Details include . . . Large steam trawler condemned; no longer fishing. Port Chalmers exporters have had to rely on outlying ports for their supply; haven't handled anything like the usual quantity of fish for export.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.				

1940 January	<ul style="list-style-type: none"> <li>- Boats working hand lines at The Nuggets brought in fair catches of groper and blue cod.</li> <li>- Moderate catches of groper and blue cod, together with a few green bone, were taken at Tautuku.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1940 April	- Details include . . . 'The large steam trawler owned by the Port Chalmers exporters is again working and has taken some large hauls of terakihi together with smaller quantities of kingfish, ling, elephant fish, rigs and a small amount of groper. The majority of these fish were caught 20 to 30 miles north of Otago Heads, so far she has not been trawling for flatfish.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1940 May	- Details include . . . Line fish scarce for this time of the year.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1941 February	<ul style="list-style-type: none"> <li>- Details include . . . 'Early in the month the line boats working out of Port Chalmers brought in very small catches of groper. This was on account of large numbers of elephant and dog fish frequenting the fishing grounds.'</li> <li>Supply later improved, with small lots of ling also taken.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1941 August	- Details include . . . Port Chalmers line boats fishing in deep water secured small catches of groper; those working inshore secured very small catches of ling and red cod. Red cod very scarce for this time of the year.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1941 October	- Details include . . . 'The few line boats working out of Port Chalmers report a decided scarcity of groper, often the catches were too small to send to market. The boats working closer inshore secured small catches of red cod, ling, blue cod and a few barracouta.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1942	- Notes less groper landed at Port Chalmers than in previous years.	A.E. Hefford, Report on fisheries for the year ended 31 March 1942, Marine Department annual report, <i>AJHR</i> 1942, H-15.
1947	- 'We the fishermen operating boats at Nugget Bay are much concerned about the depletion of fish in Nugget Bay by outside trawlers, and are desirous of getting an area set aside on which Nugget boats only are allowed to operate.'	F.H. Arthur to Minister of Marine, 8 February 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.
1947	<ul style="list-style-type: none"> <li>- Commenting on above letter by F.H. Arthur: 'The depletion, I am afraid is a known fact, as all who know the area concede that the grounds are slowly becoming poorer. All along the coast the position is the same, but this is in a large measure offset by higher prices.'</li> <li>- Suggests that trawling be totally prohibited from the area if the depletion was to become an urgent problem.</li> </ul>	McIvor, District Inspector of Fisheries to Secretary, Marine, 11 March 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.
1948	- 'A claim that the livelihood of fishermen at Taieri Mouth was being affected by the inroads of Port Chalmers	Article entitled: "Fishing Grounds –

	<p>boats, which had destroyed 10 years' work on the part of the Taieri Mouth fishermen, and the operations of a "large steam trawler" between Otago and Oamaru had depleted the fishing grounds of groper and had a harmful effect on private boats operating from Oamaru, Moeraki and Karitane was made to the Daily Times in the week-end by a man who has been fishing at Taieri Mouth for many years. // "About 20 years ago two boats went to Taieri Mouth to look for fresh fishing grounds", he said. "They became established, and in time about 11 boats were operating from Taieri Mouth. No trawling had been done there before, and the fishing grounds were found to be good. Six cases of fish were caught for a tow lasting an hour and a-half, boats with low-powered engines being used. There was no export market at the time and, in order to preserve the grounds and regulate the supplies of fish to the market, the fishermen did one tow a day. // The Port Chalmers boats heard about the grounds, however" he continued, "and they worked them continuously until the fish became seriously depleted. Eventually, Port Chalmers fishermen did not gain by trawling off Taieri Mouth, and they went away. After that the Taieri Mouth fishermen got about two cases of fish from a two-hour tow."</p> <p>- "It took 10 years for us to build up the grounds," he said, "and in the past two years, when the fish have been better than ever, the Port Chalmers boats have begun to visit the grounds again. All through the summer they worked round the clock, and catches of up 100 cases have been known to go back to Port Chalmers."</p> <p>- "The export of fish has not been of benefit to the public of Otago. It has been a means for the outlet of surplus fish, and the fishermen have 'threshed' it to such an extent that the grounds are becoming depleted."</p>	Excessive Trawling – Effect on Taieri Mouth Fleet", extract from <i>Otago Daily Times</i> , 12 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.
1957	<p>- 'Trawler and line fishermen operating off the Otago coast are not "striking it rich" just now. For reasons that only research officers will be able to explain comparatively few fish are being taken from the recognised grounds. In previous years the poundage each day rose into four figures. Now only about 300lb are being taken in a day that lasts as long as 15 hours. . . . No one seems to know why the flounders and sole have disappeared.</p> <p>- Article also contains account of typical day of fishing on the 'Bravo'.</p>	'Deep Sea Fishing', <i>Otago Daily Times</i> , 18 May 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.

### S33: Otago: Red Cod

Year	Details	Source
1860s	Example of Otago fisherman in 1860s: Richard Lewis, who had his fishing ketch delivered from Victoria to Otago in 1862. He began by catching hapuku and blue cod between Moeraki and Cape Saunders. Around 1870 he switched to seine fishing for flounder and red cod in Otago Harbour.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 24.
1860s	A fish-curing factory established at Port Chalmers, processing a wide range of species including barracouta, hapuku, cod, gemfish, and ling.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 25.
1860s and 1873	From the early 1860s, using small rowboats and sail-assisted dinghies, Moeraki fishermen began fishing for the wider North Otago market. Dried and smoked fish were sent as far afield as Oamaru. An 1873 report, noted that	McLean, Gavin, <i>Moeraki</i> , Otago Heritage Books, Dunedin, 1986, p 56.

	blue cod, red cod, groper, perch, and crayfish were being taken to Oamaru.	
1868	First trawling in New Zealand undertaken in Otago Harbour in <i>Redcliffe</i> , which began by towing between Port Chalmers and Otago Heads, catching a variety of fish including trumpeter, flounder, crayfish, skate, and sharks. In two later expeditions, the trawl catch also included hapuku, sole, ling, and cod. <i>Redcliffe</i> experiment did not last owing to wear and tear on gear.	David Johnson, <i>Hooked: The Story of the New Zealand Fishing Industry</i> , Wellington, 2004, p 23.
1869	<ul style="list-style-type: none"> <li>- notes that the evidence 'is vague and in some instances unsatisfactory; many of the men engaged in fishing, as well as those trading in fish, seeming to be unable to give any definite information.'</li> <li>- three regular fisheries at work: Otago Heads (Harbour and 'outside'), Moeraki, and Molyneux Bay</li> <li>- these fisheries are worked all year around, though seasonal fluctuation</li> <li>- estimate of 70 men employed in the fisheries: about 60 at Otago Heads, about 8 to 10 at Moeraki, and about 2 to 4 at Molyneux</li> <li>- Molyneux Bay fishery has recently fallen off, attributed to the mud from the diggings discharged by the Molyneux</li> <li>- the number of boats working the coast about 30</li> <li>- fishing inside the harbour is carried on all year, each boat working about six tides a week</li> <li>- outside fishing is carried on as weather permits all through the year, but the season when fish are most numerous extends from about October to March</li> <li>- the means employed are principally set and hand lines for outside fishing, and seine nets for the fishing inside Otago Heads</li> <li>- each boat usually uses one net besides lines – the number of nets estimated to be about 20</li> <li>- the following are the principal kinds of fish caught on the coast: hapuku, groper, ling, red and blue cod, moki, trumpeter, barracouta, and skate.</li> <li>- inside the Harbour, the fish principally caught are flounder, red cod, mullet or herring, guard-fish, trevally, whiting, and occasionally Colonial salmon</li> <li>- crayfish are also 'caught in large numbers'</li> <li>- information based on principally on that provided by fishermen themselves</li> <li>- evidence taken tends to show that there is no regular fishing ground on the Otago coast, there being no reefs, banks, or natural spawning grounds known at present; there is also a want of reefs capable of affording shelter or resting-ground for the fish while on the coast</li> </ul>	Report of the commissioners for the province of Otago, No. 2 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.
1869	<p><i>George Henry Sherwood (fisherman) examined by Mr Burns</i></p> <ul style="list-style-type: none"> <li>- groper, ling, barracouta, red cod, and skate found within a short distance of Otago Heads</li> <li>- blue cod and trumpeter very plentiful off Cape Saunders</li> <li>- crayfish at Purakinui and Blueskin Heads</li> </ul>	Evidence obtained from Molyneux Bay, No. 3 in Further papers relative to the Fisheries of the Colony, AJHR 1869 D-15.
1876	- Survey of fish for sale in Dunedin carried out to establish when the ordinary food fishes were in season. Noted down the various sorts of fish exposed for sale in the window of the fishmongers' shops, as well as by occasional enquiries elsewhere – work began on 1 August 1875, ended 31 July 1876.	P. Thomson, 'Fish and their seasons', <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 9, 1876, pp 484-490.

	<table><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><td></td><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Red Cod</b> <i>Lotella bacchus</i></td><td>9</td><td>6</td><td>3</td><td>14</td><td>10</td><td>7</td><td>1</td><td>8</td><td>9</td><td>19</td><td>11</td><td>14</td><td>111</td></tr></table> <p>- Red Cod: ‘very common, occurring in the Harbour in large shoals, and a favourite object of sport from all the jetties and piers as well as from boats in the channels . . . also caught outside the Heads in from five to ten fathoms of water.’</p> <p>- At the present time (July 1876) and for some months, there have been 32 boats, employing about 80 men, in the fishing trade in Otago Harbour.</p> <ul style="list-style-type: none"><li>- in the net fishing in the Harbour, 16 boats regularly employed, worked by 36 men, most boats having only two men as crew</li><li>- in the outside or deep-water branch, 17 boats are engaged, with over 40 men as crew</li><li>- most of the seining boats work nearly every tide, while the outside boats are more dependent on the weather and the state of the sea – sometimes there are long spells of idleness</li></ul>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Red Cod</b> <i>Lotella bacchus</i>	9	6	3	14	10	7	1	8	9	19	11	14	111	
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Red Cod</b> <i>Lotella bacchus</i>	9	6	3	14	10	7	1	8	9	19	11	14	111																															
1877	<p>- Survey of fish for sale in Dunedin – information obtained in the same way as previously – taking notes of the various fishes exposed for sale in town, in boats at the jetties, enquiries at Port Chalmers, etc.</p> <table><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><td></td><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Red Cod</b> <i>Lotella bacchus</i></td><td>8</td><td>14</td><td>18</td><td>21</td><td>17</td><td>17</td><td>15</td><td>17</td><td>17</td><td>22</td><td>24</td><td>24</td><td>214</td></tr></table> <p>- Red cod: caught in large numbers inside and outside the Heads.</p> <p>- During the year, 8 boats, employing 24 men have been employed in fishing outside the Heads; 12 boats, employing 24 men have been engaged in the seine fishing in Otago Harbour and the adjoining inlets. A new boat of 14 tons recently launched at Port Chalmers for fishing outside the Heads.</p> <p>- Complaints continue to be made about small fish.</p> <p>- Observes that the supply has been much more steady than during last year, in part due to the ‘pretty regular’ shipments sent up from the Bluff. One or two ‘welled boats’ also working the waters adjacent to Otago Heads, bringing in moki, trumpeter, and other fishes, and thus keeping the market supplied with what used to considered rare or scarce fishes. With the exception of ling and sole, all the other items on the table show a large increase on last year’s returns.</p> <p>- ‘There is one mode of fishing which has as yet received hardly a fair trial in our waters. I refer to trawling – a method which is largely employed in the seas adjacent to the British coasts.’</p>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Red Cod</b> <i>Lotella bacchus</i>	8	14	18	21	17	17	15	17	17	22	24	24	214	P. Thomson, ‘The Dunedin Fish Supply’, <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 10, 1877, pp 324-330.
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Red Cod</b> <i>Lotella bacchus</i>	8	14	18	21	17	17	15	17	17	22	24	24	214																															
1878	<p>- Observations from 1 August 1877 to 31 July 1878, ‘taken day by day from the different shops in town, as well as by inquiries at the jetties, Port Chalmers, etc’:</p>	P. Thomson, ‘Our Fish Supply’, <i>Transactions and Proceedings of the</i>																																										

	<table><tr><th>Species</th><th colspan="13">Number of days in market</th></tr><tr><th></th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>Total</th></tr><tr><td><b>Red Cod</b> <i>Lotella bacchus</i></td><td>23</td><td>23</td><td>22</td><td>25</td><td>20</td><td>22</td><td>17</td><td>26</td><td>25</td><td>24</td><td>20</td><td>20</td><td>267</td></tr></table> <p>- Red cod: caught inside and outside the Heads, shops seldom without a few. This fish is always to be had, in finest condition during the winter months, when pretty large takes of good-sized specimens are got from the outside fishery, those caught by the seine-net in the harbour being as a rule much smaller.</p> <p>- Outside the Heads, 9 whale boats and 2 cutters are engaged in fishing, employing about 30 men. In the Harbour (or seining branch) there are 16 boats and about 40 men engaged in fishing. Two smoke-houses at Port Chalmers, with four men to each.</p>	Species	Number of days in market														A	S	O	N	D	J	F	M	A	M	J	J	Total	<b>Red Cod</b> <i>Lotella bacchus</i>	23	23	22	25	20	22	17	26	25	24	20	20	267	<i>New Zealand Institute</i> , vol. 11, 1878, pp 380-386.
Species	Number of days in market																																											
	A	S	O	N	D	J	F	M	A	M	J	J	Total																															
<b>Red Cod</b> <i>Lotella bacchus</i>	23	23	22	25	20	22	17	26	25	24	20	20	267																															
1885	<p>- Provides details of a brief assessment of New Zealand’s fish stocks and the potential for commercial exploitation.</p> <p>- States that from Martins Bay (South Westland) he ‘commenced to meet with fish in such numerous shoals that from there to off Oamaru, inshore and offshore, I believe millions of tons of fish could be caught yearly. . . . Chaslands Mistake, on the mainland, commands splendid moki fishing grounds, and also blue-cod, rock[red?]-cod, and trumpeter fishing. And here I began to meet with the barracouda in large numbers, and found them all the way northwards to off Oamaru; but off Cape Saunders and Otago Heads seems to be a central gathering ground for countless millions of these fish for several months in the year. . . . Two men fishing, and one man rowing the boat, will often catch from thirty to forty dozen fish in two or three hours.’ (p 2)</p> <p>- ‘Ling and groper in great quantities I found from off Chaslands Mistake to off Timaru. Those fish are sometimes found inshore, but to get them in any quantity they must be fished for offshore. Otago Harbour commands most extensive and valuable barracouta, groper, ling, rock-cod, and crayfish fishing, and with proper fishing-smacks Otago Harbour could also command the blue-cod fishing.’</p>	<p>Papers Relating to the Development of Colonial Industries: Fisheries, AJHR 1885 H-15.</p> <p><i>No. 1: J Mackenzie to Julius Vogel, 29 March 1885.</i></p>																																										
1886	<p>Red Cod: ‘They are very plentiful about the Bluff. . . . Only found in New Zealand. It was described by Mr Thompson [1878] as the most plentiful of all the finny visitors (to Otago), and is caught both inside and outside the Otago Heads. It is in the finest condition during the winter months, when pretty large takes of good-sized specimens are got from the outside fishery, those caught by the Seine net in the harbour, being as a rule, smaller. It was found in the Dunedin market 197 days in the twelve months, on an average for three years’.</p>	<p>R.A.A. Sherrin, <i>A Handbook of New Zealand Fishes</i>, Wilson and Horton, Auckland, 1886, p 16.</p>																																										
1900	<p>- the steam trawler ‘Doto’ chartered, fitted with an otter trawl (p 1)</p> <p>- expedition undertaken during autumn and winter months of 1900</p> <p>- hauls numbered 54 to 67 were located off the coast between Moeraki and Cape Saunders (pp 7-8)</p> <p>- red cod included among the fish taken in these hauls (p 14)</p> <p>- hauls numbered 68 to 71 were located off the coast between Cape Saunders and Nugget Point (p 8)</p> <p>- red cod included in the fish taken in these hauls (p 14)</p> <p>- hauls numbered 72 to 75 were located off the coast between Nugget Point and Bluff (p 8)</p> <p>- red cod included in the fish taken in these hauls (p 14)</p>	<p>Report on experimental trawling, by L.F. Ayson, Inspector of Fisheries, 23 July 1900, <i>AJHR</i> 1900 H15A.</p> <p><b>[Photocopy 38]</b></p>																																										
1902	<p>- Inquiry into the complaint by fisherman at Port Chalmers that trawling is affecting their interests and request that</p>	<p>Report of Inspector of Fisheries on</p>																																										



	<p>they should not be allowed to work within a certain distance of shore. Inquiry held at Port Chalmers on 14 and 15 November 1902.</p> <ul style="list-style-type: none"> <li>- Notes that there has been an unusual scarcity of fish in the last winter and spring – believes that trawling not the cause and looks to other factors, such as unusual weather. Points out that there has also been a scarcity of fish at other places, where there are no trawlers operating.</li> <li>- Notes that two trawlers working out of Port Chalmers – the ‘Express’ and ‘Napier’, owned by F.J. Sullivan.</li> <li>- Did not believe that the line and seine net fisherman had bought any proof to substantiate their claims that trawling was destroying fish-feed on the bottom and driving fish away.</li> <li>- Trawler owner and men working on the trawler stated that they generally work outside of the area where the small boats go and that they get quite a different class of fish from what the small boats get.</li> <li>- Fish mongers stated that the trawlers gave a more plentiful supply and more varied. Stated that the small-boat men cannot supply what is needed all year round and that in winter the market was almost entirely supplied by the trawlers.</li> </ul> <p><i>Evidence of F.J Sullivan, trawler owner</i></p> <ul style="list-style-type: none"> <li>- At the moment trawlers are working about eight miles off land and cannot get fish in less than 30 fathoms of water. Fish have confined themselves to deep water this season. Would be wrong to prevent trawlers from coming inshore. (p 2)</li> <li>- Notes that 14 men employed on the two trawlers, which are the largest boats in the country.</li> <li>- Have been able to catch fish in all weathers, when other fisherman could not venture out. (p 3)</li> </ul> <p><i>Evidence of Captain Ryffell of the trawler ‘Express’</i></p> <ul style="list-style-type: none"> <li>- Employed for 12 months; usually trawl in 20 or 30 fathoms of water; never make a point of trawling in shallow water; keep on the same ground for 8 or 9 miles from ‘the Point’[?]. (p 3)</li> <li>- Mostly catching large tarakihi, moki, soles, and kingfish; in deeper water always catching kingfish and ling.</li> <li>- The following fish that are caught by the trawlers, but not the fishermen: moki, terakihi, and sole. Conversely, the small-boat men catch barracouta and groper.</li> </ul> <p><i>Evidence of Frank Keenan, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that outside fishing ground extends from Cape Saunders to Shag Point. (p 4)</li> <li>- Fishes 10 miles from Otago Heads, catching by line fishing groper, red cod, ling, barracouta, and kingfish.</li> <li>- Claims that trawlers injuring fishing. Has been fishing for 10 years; fish terribly scarce the last 2 or 3 years. Now have to go much further than in other years, and the supply is shorter. Used to be able to get plenty of fish near Otago Heads.</li> <li>- Believes that trawling over the ground where the fish feed is disturbing the fish.</li> </ul> <p><i>Evidence of John Malcolm, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has fished locally for 25 years and has observed a marked decline in the last four years. (p 3)</li> </ul>	<p>Trawling at Port Chalmers, 18 December 1902, <i>AJHR</i> 1903 H-15B.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------

	<ul style="list-style-type: none"> <li>- ‘Many years ago the boats used to keep the market more than supplied, and they have done it all along. They were limited very often to perhaps two dozen a day. They could take in perhaps thirty or forty barracouta, and two dozen groper.’</li> <li>- Details that there are 27 outside boats and craft, with two or three men on each.</li> <li>- States that there are over 200 ‘seine men’. [Seems that seine netting was done within the harbour, while the outside fishermen used lines.]</li> </ul> <p><i>Evidence of Edward Nelson, inside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has been fishing locally for 18 years, seine fishing all that time from the Port to the Heads. Has only once seen a season as bad – some 20 years ago. (p 4)</li> <li>- States that since trawling has started inside fishermen rarely get sole, used to get 6 or 8 dozen. Has also been a decline in flounder over the last 10 years.</li> <li>- Number of seine fishermen the same as 15 years ago.</li> <li>- Believes that greater mesh size of trawl net would limit the destruction of small fish.</li> </ul> <p><i>Evidence of John H Tunnage</i></p> <ul style="list-style-type: none"> <li>- Sullivan employs four boats [all trawlers?]; outside there are five cutters (average size about 15 tons) and 31 small boats; inside a total of 32 three man boats. (p 5)</li> </ul> <p><i>Evidence of W.G. Robertson, wholesale fish merchant</i></p> <ul style="list-style-type: none"> <li>- ‘Since we have had the trawlers here the supply has very much increased, and undoubtedly so has the demand.’ (p 5)</li> <li>- States that trawlers and fishermen catch different fish.</li> <li>- Notes that for several years past we have had no moki or sprats, which were formerly very plentiful; red cod also dropped off.</li> <li>- Small boats catch most of their fish from Jan to May, when shoal fish appear and come close in shore, sometimes right up harbour.</li> <li>- Notes that trawlers continue to work in rough weather; the line-men cannot work in such weather, except in the three cutters (though even these cannot work several days after rains owing to fish not being able to see the bait). (p 6)</li> </ul> <p><i>Evidence of W Stewart, fishmonger, Princes Street</i></p> <ul style="list-style-type: none"> <li>- Has been in business for 16 years, observes that there has been a poor supply of fish over the last few years. (p 6)</li> <li>- ‘We should have had nothing at all if it had not been for the trawlers.’</li> <li>- Notes that trawlers catch fish that are not usually taken by the small boat fishermen, principally the terakihi.</li> <li>- Comments that flounders ‘seem to be going out of existence altogether.’</li> </ul>	
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p><i>Evidence of H Kenton, master of the trawler "Napier"</i></p> <ul style="list-style-type: none"> <li>- Many of the varieties of fish caught by trawl are not caught by the line and seine net men. Barracouta and groper are not caught in the trawl because the frequent the rocky bottom, which cannot be trawled. (p 6)</li> <li>- States it would be detrimental to trawling if a three mile limit was imposed from the shore. Sometimes fish more plentiful inshore than in deep water, and if weather rough need to fish closer to land.</li> <li>- States that he does not believe the supply of flounder is going down. (p 7)</li> </ul> <p><i>Evidence of Francis Hewitt, mate of the trawler "Napier"</i></p> <ul style="list-style-type: none"> <li>- Formerly worked as a small boat fisherman and fish curer. States that in winter the flounder always 'go off' and that the only thing the seine men have to live on is red cod. 'Five years ago we were catching nothing but red-cod, and it was owing to that that Mr Sullivan took up the trawling business.' (p 7)</li> </ul>	
1907	<ul style="list-style-type: none"> <li>- 'The Inspector at Dunedin reports that in all old-known fishing-places the catches have been good. In all shallow bays flounders and small fish are obtained in large quantities, and groper, kingfish, schnapper, barracouta, blue and red cod, terakihi, trevalli, and moki are found along the coast from Oamaru to Chaslands.' (p 6)</li> </ul>	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15.
1907	<ul style="list-style-type: none"> <li>- report on the fishing and deep-sea trawling cruise of the <i>Nora Niven</i>, chartered by the Government from June to September 1907 (p 1)</li> <li>- object of cruise was to test the ocean-floor off the east coast from Stewart Island to the Bay of Plenty and around the Chatham Islands; ascertain trawling grounds exist outside those already known and worked; ascertain what fish-life exists out to 100 fathoms; to look for offshore banks</li> <li>- used otter trawl nets; spread of 120 ft (footrope) and 80 ft (head-line)</li> <li>- owing to time constraints, difficult to thoroughly test each section or to go very far off to test off-shore banks</li> <li>- 106 hauls made, range from 4 to 120 fathoms (p 2)</li> <li>- notes that seasonal differences in fish numbers not established by trawl</li> </ul> <p><i>Summarised report on the section of coast from Stewart Island to Otago Heads</i> (p 3)</p> <ul style="list-style-type: none"> <li>- good results in Molyneaux Bay in regard to bottom and fish numbers <ul style="list-style-type: none"> <li>- sandy bottom indicate good sole and flounder grounds</li> <li>- three hauls, with large quantities of red-cod, dogfish, and elephant-fish</li> </ul> </li> <li>- from Molyneaux Bay to Cape Saunders a considerable extent of good trawling bottom and a fair supply of market-fish taken, though a large extent of hard shingle bottom</li> <li>- from Cape Saunders to about 18 miles north of Otago Heads good bottom was found <ul style="list-style-type: none"> <li>- terakihi the main fish taken from 25 to 60 fathoms</li> <li>- ling and kingfish taken out to 102 fathoms</li> </ul> </li> <li>- 'The best trawling-grounds off the Otago coast extend from Cape Saunders to some distance west and north of Otago Heads, extend from inshore out to about 30 fathoms. These grounds have been considerably worked by Mr. Sullivan's trawlers from Port Chalmers.'</li> </ul> <p><i>Otago to Lyttelton</i> (p 4)</p>	Interim Report on Experimental Trawling, by L.F. Ayson, Chief Inspector of Fisheries, 12 November 1907, <i>AJHR</i> 1907 H-15B. <b>[Photocopy 40]</b>

	<ul style="list-style-type: none"> <li>- trawlers from Port Chalmers presently engaged in working the fishing grounds off Otago Heads and in Blueskin Bay – no attempt was made to test these well known grounds</li> <li>- thirty hauls made between Otago and Lyttelton – almost every haul between Otago and Akaroa inside of about 40 fathoms disclosed the presence of a great variety of fish</li> <li>- foul ground exists to a distance of nine miles, perhaps more off Moeraki and London Bluff – this bottom unsuitable for trawling, though fish appear to be plentiful <ul style="list-style-type: none"> <li>- at present is being worked by line fishermen from Moeraki, with blue cod and hapuku being the main fish taken</li> </ul> </li> </ul>	
1910	<ul style="list-style-type: none"> <li>- Report of local inspector for the Otago and Canterbury districts: <ul style="list-style-type: none"> <li>- reports a depression in the industry caused mainly by the scarcity of fish</li> <li>- owing to new class of boats and gear, many parts of the coast formally untouched have been visited, and, as a consequence, a better variety of fish has been taken</li> <li>- groper, trevally, terakihi, snapper, moki, and barracouta have been taken, ‘though some of them have disappeared from their old haunts’</li> </ul> </li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1910 H-15.
1913	<ul style="list-style-type: none"> <li>- Otago District: (p 11) <ul style="list-style-type: none"> <li>- from information gathered from fishermen along the coast, the quantity of fish landed about the same as last year</li> </ul> </li> </ul>	Marine Department annual report for 1912-1913, <i>AJHR</i> 1913 H-15.
1913 September	<ul style="list-style-type: none"> <li>- ‘Red-Cod have been very scarce for some time, but on the last day of the month a very large haul was made by one of the trawlers some distance NE of Otago Heads.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 October 1913, M 1 2/12/2 part 1, NAW.
1913 November	<ul style="list-style-type: none"> <li>- Red cod have been taken by the trawler, few by the line men, owing it is supposed to the abundance of natural feed that in this season is found in the stomachs of red cod, blue cod, and moki.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 December 1913, M 1 2/12/2 part 1, NAW.
1913 December	<ul style="list-style-type: none"> <li>- ‘Red cod are now very plentiful inside the harbour, and some good catches have been taken by the line men when it has been too rough too venture outside the Heads.’</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 December 1913, M 1 2/12/2 part 1, NAW.
1914	<ul style="list-style-type: none"> <li>- Oamaru – principal fish taken were groper, blue cod, and ling, but the catches poor on account of the weather</li> <li>- Moeraki – fair catches of groper, blue cod, and red cod made in the early part of the season, but later on all fish became scarce and many of the fishermen had to lay their boats up</li> <li>- Dunedin – catches as good as those made in previous year <ul style="list-style-type: none"> <li>- three steam trawlers have been in use during the year – they and several of the fishing boats fitted with trawling gear made good catches of flounders and soles during the winter months</li> <li>- good hauls of red cod made by the trawlers, but very few taken by the line fishermen</li> </ul> </li> </ul>	Marine Department annual report for 1913-1914, <i>AJHR</i> 1914 H-15.

1914 January	- Ling and red cod are fairly plentiful within a few miles of the Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1914, M 1 2/12/2 part 1, NAW.
1914 February	- 'Red Cod have not been very plentiful, and are only been taken by the trawlers.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 March 1914, M 1 2/12/2 part 1, NAW.
1914 March	- 'Several good hauls of red cod have been taken by the trawlers & on one occasion as many as 20 casks were captured by one boat.'	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 31 March 1914, M 1 2/12/2 part 1, NAW.
1914 April	- Weather unsettled, strong NE winds; consequently the linemen not able to go out regular to the fishing grounds. When weather favourable, good hauls of soles, red cod, flounders caught in the trawls. - Line men have had a variable month – except barracouta, round fish have not been too plentiful.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 May 1914, M 1 2/12/2 part 1, NAW.
1914 June	- Weather again very bad, fishermen compelled to fish close inshore – catches have not been good. - Early in the month, the trawlers were catching splendid hauls of red cod, but very few flatfish; during latter part of month soles more plentiful and red cod scarce. - Three new boats registered – fitted with trawls and will engaged in trawling on the Otago coast.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 July 1914, M 1 2/12/2 part 1, NAW.
1914 August	- Steamers and a number of whale boats fitted with trawls have been making good hauls of soles and flounders. - Large hauls of red cod also taken by trawls, but these fish constantly seem to be on the move; line fishermen unable to secure them. - Ling fairly plentiful.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 September 1914, M 1 2/12/2 part 1, NAW.
1914 October	- Three steam trawlers have kept the market well supplied with flatfish, red cod, and tarakihi. Small craft engaged in trawling throughout the winter have now taken to line fishing.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 November 1914, M 1 2/12/2 part 1, NAW.
1914 December	- More bad weather, restricting fishing. Also states that 'prevailing low temperature also appeared to drive fish away from the shallow coastal waters'. - Soles and red cod the principal fish taken by the trawlers.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 January 1915, M 1 2/12/2 part 1, NAW.
1915	- October to December poor weather; but otherwise favourable, with good catches from linemen and trawlers. - Groper, ling, kingfish, red cod plentiful; barracouta, moki, tarakihi, trumpeter somewhat scarce; supply of blue cod poor, though a few good catches have been made to the south of Cape Saunders	Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.

	<ul style="list-style-type: none"> <li>- Oamaru and Moeraki: <ul style="list-style-type: none"> <li>- towards end of year weather and conditions approved; fish became more plentiful – groper, red cod, ling, blue cod, crayfish were principally taken; an average catch of blue cod would be about 70 lbs per man per day</li> </ul> </li> </ul>	
1915 March	- Red cod now plentiful inside and outside Harbour – large quantities taken by the trawlers and seine boat men.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 30 March 1915, M 1 2/12/2 part 1, NAW.
1915 April	- ‘Red Cod can be caught in quantity in almost any part of the harbour.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, undated, M 1 2/12/2 part 1, NAW.
1915 December	- ‘Large numbers of red cod of large size, but in very poor condition, have been taken by the trawlers. On several occasions, owing to their enormous numbers, they have greatly interfered with trawling, & it has been necessary at times, to cut away the meshes before hoisting the trawl on board.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 January 1916, M 1 2/12/2 part 1, NAW.
1916	<ul style="list-style-type: none"> <li>- 3 steam trawlers and 3 smaller craft driven by oil – have been engaged in trawling on the local grounds; fleet increased in the winter months by several whale boats discarding line fishing and taking to the trawl.</li> <li>- Red cod has been very plentiful; large numbers taken in trawls. On some occasions it has been necessary to cut the net before hoisting the trawl owing to the enormous numbers. Good hauls off Cape Saunders.</li> <li>- Oamaru and Moeraki – groper, blue cod, red cod, taken in fair numbers. Exceptionally large hauls of groper caught in January and February.</li> </ul>	Annual report on Otago fisheries by inspector of fisheries, W Adams, for year ended 31 March 1916, M 1 2/12/115 NAW.
1916 February	- Trawlers continue to take good hauls of soles & red-cod. Barracouta reported to be very plentiful, but little demand.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 February 1916, M 1 2/12/2 part 1, NAW.
1916 April	- ‘Both inside & outside the harbour the water is practically alive with red-cod, but on account of the poor demand, very few of these fish were taken.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 April 1916, M 1 2/12/2 part 1, NAW.
1916 June	- ‘Unsettled foggy weather has prevailed & the trawlers & linemen have not been able to go out regular to the grounds.’	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 July 1916, M 1 2/12/2 part 1, NAW.
1917 May	- Details include . . . Weather conditions bad, boats have only averaged 2 days fishing each week. ‘All fish have demanded a fair price and owing to the small catches taken the fishermen have decided on raising the limit of groper from 2 dozen to 3 dozen per boat.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May

	- Dunedin market on 24 May 1916: total of 80 cases of fish (20 cases of trevally from Oamaru, remainder caught locally). Local supply: small trevally (4 cases), red cod (5 cases), blue cod (9 cases), groper (16 cases), ling (4 cases), flounders (2 cases), coutre (2 cases), bream (4 cases), soles (7 cases), kingfish (4 cases), mixed fish (3 cases).	1917, M 1 2/12/2 part 1, NAW.
1917 September	The steam trawlers are barely paying working expenses whilst most of the smaller craft are not going out at present on account of the high price of benzine and the scarcity of fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 1 October 1917, M 1 2/12/2 part 1, NAW.
1917 November	- Market poor. 'Several of the boats are working single handed as the limit of fish has been reduced so much that two men can hardly make a living. . . . The steam trawlers have been bringing in large quantities of school fish which have demanded very low prices . . . . The small trawlers have been catching a fair quantity of flat fish . . . . There has not been any quantity of seine fish caught during the month'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 November 1917, M 1 2/12/2 part 1, NAW.
1918	- Generally fish have been plentiful during the year, but fishing handicapped by inconvenient transport, the price of benzine, and unfavourable weather and sea conditions. - The number of red cod in local waters has declined during the last three years. While still fairly plentiful off Moeraki, Oamaru fishermen scarcely catch enough to provide bait. Suggests that this is because of a corresponding increase in the numbers of Warehou, owing to the Warehou eating the food or the sliminess of this fish.	Annual report for year ended 31 March 1918 for Oamaru and Meoraki by Inspector of Fisheries at Oamaru, H Foster, M 1 2/12/163 NAW.
1918 May	- Details include . . . 'The steam trawlers have been working well offshore and taking good catches of round fish principally ling and at times a number of kingfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1918, M 1 2/12/2 part 1, NAW.
1918 September	- Details include . . . 'With the exception of ling all round fish are very scarce and the market has been poorly supplied.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1918, M 1 2/12/2 part 1, NAW.
1919	- Numbers of Red Cod have steadily declined; fishermen catch barely enough for bait.	Annual report for year ended 31 March 1919 for Oamaru and Meoraki by Inspector of Fisheries at Oamaru, Richardson, M 1 2/12/182 NAW.
1919	- 'We the undersigned members of the above Society, petition you to introduce a three mile limit from point to point Moeraki to Cape Saunders, similar to that appertaining to the British Isles, Auckland and other ports of the Dominion. // Prior to the trawlers commencing operations, flat fish (flounders and soles) used to go outside the heads into deeper water to spawn, and return again unmolested to the harbours, where Seine fishermen caught them in large quantities. The same applies to groper, kingfish, cod, ling and so on which came close in shore and were easily caught in plenty. Since the trawlers started without a limit, the flat fish which usually go outside the heads	Petition by The Otago Fisherman's Society Limited, October 1919, to the Minister of Marine, M 1 2/12/191 parts 1-3, Otago – trawling and seining restrictions, 1899-1961, NAW.

	into the bays to spawn are caught, while full of spawn, and as time has elapsed the want of a limit has caused the fish to grow scarcer and still scarcer, which will continue until the precautions that were take[n] in the British Isles to preserve the fish close in shore is manifested. // The trawls of the trawlers, which are dragged for hours also kill millions of small fish and spawn, and drive groper, kingfish etc. miles off into deeper water, which prior to trawling let it again be mentioned were caught close in shore.'	
1920	- This year shows an increase in quantity of all fish except Warehou and Barracouta, the figures for which show a marked decrease. Fishermen state that they catch barely enough of the latter for bait. After steadily declining over a number of years, rock [red?] cod appears to be on the increase, but are still scarce.	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1920 by Inspector of Fisheries Richardson, M 1 2/12/207 NAW.
1920	- Line fishermen: irregular catches for first four months owing to weather; when conditions improved the market was oversupplied and the fishermen worked less (partly on account of the high cost of benzine). - Weather conditions interfered with the steam trawlers, but toward the latter part of the year some very large catches were taken by the steam trawlers working offshore, including large hauls of red cod.	Annual report for Otago for year ending 31 March 1920 by Inspector of Fisheries S Broadley, M 1 2/12/207 NAW. <i>[Photocopy 10]</i>
1920 March	- Details include . . . 'Large numbers of both round and flat fish have been taken by the steam trawlers. For one day's catch one of these boats brought in 70 cases of red cod . . . . The oil trawling boats have had a very successful month also . . . .'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 March 1920, M 1 2/12/2 part 1, NAW.
1920 May	- Details include . . . 'Some good hauls taken by the line fishermen principally red cod, groper, kingfish, ling, and barracouta. . . . One man working alone secured 20 dozen barracouta in one day'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1920, M 1 2/12/2 part 1, NAW.
1920 June	- Details include . . . 'Red cod have again made their appearance off Cape Saunders from which place they have been absent for about four years.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1920, M 1 2/12/2 part 1, NAW.
1921	- This year shows an increase in the total quantity of fish – most noticeably red cod.	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1921 by Collector of Customs, M 1 2/12/224 NAW.
1921	- Satisfactory year for the majority of line fishermen, weather favourable. Several fishermen have purchased more up to date boats, which have enabled them to put to sea under conditions previously unworkable. - red cod have appeared again in large shoals - Outlying districts: - Moeraki – medium catches of groper, red cod, and blue cod	Annual report for Otago for year ending 31 March 1921 by Inspector of Fisheries S Broadley, M 1 2/12/224 NAW. <i>[Photocopy 11]</i>
1921 April	- Details include . . . 'Both steam trawlers are still bringing in large hauls of flat fish, kingfish, and red cod . . . . The oil trawling boats working closer inshore are also taking large hauls of flatfish and red cod.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1921, M 1 2/12/2 part 1, NAW.



1921 July	<ul style="list-style-type: none"> <li>- Weather conditions favourable.</li> <li>- The boats working closer inshore brought in large supplies of red cod and barracouta. Trawlers taking less fish than previous months. Seine fishermen have taken only fair catches of flounders.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1921, M 1 2/12/2 part 1, NAW.
1922	<ul style="list-style-type: none"> <li>- Unsettled weather for whole of the year saw the line fishermen average about 3 working days per week. Make a point of catching groper and kingfish as far as possible all year round, believe that they fetch higher prices than say, red cod, ling, and barracouta, which are at times unsaleable. Large quantities of barracouta have frequented the fishing grounds during the year, but fishermen have not troubled to take any quantity.</li> <li>- The trawling boats have taken large catches of flat and round fish for practically the whole of the year.</li> </ul>	Annual report for Otago for year ending 31 March 1922 by Inspector of Fisheries S Broadley, M 1 2/12/245 NAW. <i>[Photocopy 12]</i>
1922 June	- 'The line fishermen have brought in large quantities of groper, barracouta, ling and red cod most of which have been taken from 10 to 18 miles off the heads. . . . The trawlers working well offshore have brought in smaller catches than for some time past . . . .	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1922, M 1 2/12/2 part 1, NAW.
1923	<ul style="list-style-type: none"> <li>- Past year shows a marked decrease in the quantity of fish landed at Oamaru, and a slight decrease at Moeraki.</li> <li>- At Oamaru groper fairly plentiful, but all other kinds of fish showed a decrease, particularly red cod.</li> <li>- At Moeraki groper not so plentiful as it was last season, red cod also a falling off, whereas blue cod an increase, ling and crayfish also plentiful.</li> </ul>	Annual report for Oamaru (incl Moeraki) for year ending 31 March 1923 by Collector of Customs, M 1 2/12/269 NAW.
1923	<ul style="list-style-type: none"> <li>- Fair catches of all round fish by the line fishermen for the greater part of the year. High prices for groper and kingfish; on several occasions ling, barracouta and red cod taken too, latter in large quantities.</li> <li>- Trawling fleet have taken large amounts of flat and round fish, though trawl fish became scarce towards the end of the year and for about 2 months exceptionally poor catches taken; owners of steam trawlers stated they were losing money.</li> </ul>	Annual report for Otago for year ending 31 March 1923 by Inspector of Fisheries S Broadley, M 1 2/12/269 NAW. <i>[Photocopy 13]</i>
1924	- During the whole period there has been an abnormal scarcity of all kinds of fish . . . Catches of red and blue cod poor.	Annual report for Oamaru for year ending 31 March 1924 by Collector of Customs, M 1 2/12/298 NAW.
1924	<ul style="list-style-type: none"> <li>- Comments on catch of different species (line fishermen): <ul style="list-style-type: none"> <li>- fair numbers of red cod taken throughout the year</li> </ul> </li> <li>- Trawling fleet 'experienced a very bad year with the exception of two or three months. Occasionally the round fish brought in realised bad prices.</li> </ul>	Annual report for Otago for year ending 31 March 1924 by Inspector of Fisheries S Broadley, M 1 2/12/298 NAW.
1924 July	'Fair quantities of groper and red cod were brought in by the line boats, groper mostly being taken in deep water about sixteen miles from Otago Heads. . . . The trawlers also brought in fair quantities of red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1924, M 1 2/12/2 part 1, NAW.
1924 October	- Details include . . . 'At the beginning of the month the Dunedin Market was well supplied with groper and red cod; also fair quantities of other fish. Towards the middle the weather became bad and the line boats could not get out . . . . // The seine fishermen have taken good hauls of flounders, and at times large catches of red cod . . . .'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 September 1924, M 1 2/12/2 part 1,

		NAW.
1924 November	- Details include . . . Comments that demand for fish slackens in warmer weather. Notes that one steam trawler owners has decided to lay up his boat until conditions improve.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1924, M 1 2/12/2 part 1, NAW.
1925	- Fish have become more scarce throughout the year, prices rising accordingly. - Groper and kingfish taken by the line fishermen. Large quantities of red cod and barracouta frequented the Otago waters, but not caught because lack of demand.	Annual report for Otago for year ending 31 March 1925 by Inspector of Fisheries S Broadley, M 1 2/12/330 NAW.
1925 January	- Details include . . . 'The line fishermen have brought in moderate catches of groper and kingfish during the month, whilst red cod, ling and barracouta have been fairly plentiful.' Price low – on one occasion secretary of the Fishermen's Union issued instructions for fishermen to cease working in the middle of the week.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1925, M 1 2/12/2 part 1, NAW.
1925 July	- Details include . . . Weather unfavourable for the line men; averaged about three days fishing per week. When able to get well off land, these fishermen have secured fair catches of groper. Red cod and groper very scarce outside Harbour for this time of the year.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 August 1925, M 1 2/12/2 part 1, NAW.
1925 October	- Details include . . . Weather conditions improved, line fishermen working more regularly off shore, taking moderate catches of groper, a few red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 October 1925, M 1 2/12/2 part 1, NAW.
1926	- Year at Oamaru unprofitable for the fishermen during the past 12 months; at Moeraki the fishermen report more favourably on their catches. - Oamaru boats rely on groper for their main catch – plentiful for the first two months, then patchy, during the winter barely enough petrol consumed in seeking new grounds. Red cod and blue cod scarce. - At Moeraki, blue cod and groper proved the mainstay of the Moeraki boats, fairly plentiful. Red cod, barracouta, ling, and crayfish caught in fair quantities throughout the summer months.	Annual report for Oamaru and Moeraki for year ending 31 March 1926 by Collector of Customs, M 1 2/12/356 NAW.
1926 December	- Details include . . . 'The trawling boats brought in fair catches of soles, red cod, terakihi and moki'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1926, M 1 2/12/2 part 1, NAW.
1927	- Past year showed an increase in the quantity of fish landed at both Moeraki and Oamaru, though the fishermen consider the year far from good. - At Oamaru, groper (relied upon for the main catch) plentiful during the summer months; red cod very scarce during the winter months (when it is usually plentiful); other kinds of fish were landed in about the usual numbers.	Annual report for Oamaru and Moeraki for year ending 31 March 1927 by Collector of Customs, M 1 2/12/388 NAW.
1927	- Details include . . . Line fishermen caught groper about 10 miles from the Otago Heads, kingfish at night time	Monthly report on Otago Fisheries,

January	about 4 miles off. Towards the end of the month no sale for red cod and barracouta, therefore the fishermen had to cease fishing for them.	Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 4 February 1927, M 1 2/12/2 part 1, NAW.
1927 April	- Details include . . . 'The trawling boats have taken fair catches of flatfish and school fish, and red cod have been plentiful. . . . These fish were taken from three to six miles off Otago Heads. At present there are about ten motor launches trawling and five steam trawlers.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1927, M 1 2/12/2 part 1, NAW.
1927 August	- Details include . . . The line fishermen have taken very poor catches of groper for practically the whole month. Some of the boats working closer inshore secured small quantities of ling and red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1927, M 1 2/12/2 part 1, NAW.
1927 November	- Details include . . . 'The steam trawlers working in twenty to twenty-four fathoms, have taken large catches of ling, kingfish, red cod, terakihi and moki, but very few flatfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 November 1927, M 1 2/12/2 part 1, NAW.
1928	- at Oamaru, red cod and warehou very scarce; average season for other fish - at Moeraki, groper were fairly plentiful, but the returns for red cod and blue cod showed a decided decrease	Annual return of fishing information for Port of Oamaru (including Moeraki) for year ending 31 March 1928 by Superintendent, Customs, M 1 2/12/413 NAW.
1928	- Except for three months, line fishermen have had to work at a far greater distance from Otago Heads than in previous years. Some Port Chalmers boats steaming to the Nuggets fishing grounds (getting good catches of groper in favourable weather); others fishing off Green Island and Taieri Mouth. - Fish scarce on the North Reef – only 1 or 2 large catches caught during the year. Few kingfish; red cod and barracouta more plentiful, but demand poor. - Seine men brought in large quantities of trevally at the beginning of the year, but few school fish of any kind.	Annual report for Otago for year ending 31 March 1928 by Inspector of Fisheries S Broadley, M 1 2/12/413 NAW. <i>[Photocopy 22]</i>
1928	- Red cod, no doubt following the whale feed, have been seen in the Harbour in larger quantities than for some time past.	G.M. Thomson, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, 5 June 1928, Marine Department annual report, AJHR 1928 H-15
1928 April	- Details include . . . Line fishermen have had moderate catches of groper, and 'a fair number of kingfish'. Fair quantities of ling, red cod, barracouta were taken from the fishing grounds closer inshore. - Trawling boats working in from 2 to 8 miles off the Heads report a scarcity of flatfish; at times brought in large catches of red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1928, M 1 2/12/2 part 1, NAW.
1928 July	- Details include . . . Line fishermen working well off shore have brought in only moderate catches of groper. The	Monthly report on Otago Fisheries,

	line fishermen working about Cape Saunders have taken fair catches of red cod.	Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1928, M 1 2/12/2 part 1, NAW.
1928 September	- Trawling boats have mostly worked in Blueskin Bay on account of the weather; have taken small catches of red cod. - Seine boats have secured small catches of flounders and majority have worked with lines inside the Harbour for small catches of red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1928, M 1 2/12/2 part 1, NAW.
1929	- red cod have been very scarce for the last 2 or 3 season, other fish are not quite as plentiful as in previous years	Annual return for Oamaru (including Moeraki) for the year ending 31 March 1929 by Inspector of Fisheries, Brewer, M 1 2/12/452 NAW.
1929	- For the first months of the year, the Dunedin market was moderately supplied; later declined through a scarcity of fish and rough weather. - The trawling fleet fishing out of Otago Harbour have fished the Otago grounds and taken only moderate supplies for practically the whole year. For about 2 months, 2 of the steam trawlers worked for school-fish, and brought in large catches of red cod, kingfish, and tarakihi.	Annual report for Otago for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW. <b>[Photocopy 24]</b>
1930	- Line fishermen around Otago Heads have had a bad year. During the latter part of the year some began long-lining – catching fair amounts of groper and ling. - Seine fishermen have also had a bad year – flounders and school-fish very scarce. During the winter months some of these men secured large hauls of red-cod off the banks near Port Chalmers. - Except for two months – when fair numbers of whalefeed and small sprats about – little fish-food was noticed during periodic visits to Otago fishing grounds. - The scarcity of school-fish in the Harbour and the short stay of the whalefeed is accounted for by the amount of dredging done, and a good amount of clay has been thrown over along the water edge during road alterations. This has stirred up during the winter weather and the water becomes very dirty and discoloured.	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1930, M 1 2/12/477, NAW.
1930 July	- Details include . . . ‘The trawling boats have been more fortunate, and have taken fair hauls of soles and flounders; also large quantities of red cod. . . The majority of these fish were taken from the grounds off Wickcliffe Bay. There has not been such a large number of flounders taken from these grounds for a number of years.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 July 1930, M 1 2/12/2 part 1, NAW.
1930 September	- Details include . . . Poor weather; line fishermen only able to get out about seven days during the month. A number of these men preferred to stay inside the Harbour hooking small red cod.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 September 1930, M 1 2/12/2 part 1, NAW.
1930 December	- Details include . . . ‘Whale feed have not yet made their appearance inside the Harbour. This is a very bad sign of course, as they are usually thick about the first week in November, and the fish always follow them in.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31

		December 1930, M 1 2/12/2 part 1, NAW.
1931	<ul style="list-style-type: none"> <li>- Very lean year for line fishermen: <ul style="list-style-type: none"> <li>- for the greater part of the year line fish have been very scarce, with the exception of red cod</li> <li>- for several months a number of Port Chalmers line fishing boats fished inside the harbour for small red cod (as they were not earning sufficient to meet benzine expenses outside), but the North Reef upon which these men have depended in former years proved of little value (on many occasions some boats returned without a single fish)</li> <li>- towards the close of the season, large quantities of red cod appeared in Blueskin Bay</li> </ul> </li> <li>- Seine boats working inside the harbour have taken poor catches of flounders and very few school-fish</li> </ul>	Annual report of S Broadley, Otago fisheries inspector, for the year ended 31 March 1931, M 1 2/12/500, NAW.
1931 April	- Details include . . . 'Large quantities of spawn resembling small garfish made their appearance inside the Harbour and were followed by large shoals of mullet and barracouta. These were seen for about two weeks when they worked their way outside the Heads. Red cod and barracouta could have been taken in plenty, but . . . there was no demand and prices were accordingly low.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 April 1931, M 1 2/12/2 part 1, NAW.
1932 December	- Details include . . . 'Large quantities of whale feed are at present to be seen off Otago Heads. Barracouta and red cod are feeding off these in great numbers.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1932, M 1 2/12/2 part 1, NAW.
1933	- 'Great numbers of large-sized mullet followed the shrimps in the harbour and also small mullet, red cod, small terakihi and moki, and lesser quantities of warehou and large moki. Towards the end of March pilchards were about in fair quantity. Red cod, during the latter part of the season, were more plentiful than for some years past.'	W.B.Benham, Vice-Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1933, Marine Department annual report, AJHR 1933 H-15
1933 January	- Details include . . . 'During the past two months large shoals of whale feed have been about the Otago Heads, and large numbers of barracouta and red cod have been making that their feeding ground.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 January 1933, M 1 2/12/2 part 1, NAW.
1933 August	<ul style="list-style-type: none"> <li>- Line boats working closer inshore brought in moderate catches of large red cod.</li> <li>- For almost the whole month the trawling fleet secured fair catches of soles and flounders within six miles of the Otago Heads.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1933, M 1 2/12/2 part 1, NAW.
1933 December	- Details include . . . 'The steam trawlers working in deeper water secured large numbers of kingfish and tarekihi. On account of demand, large quantities of red cod were thrown back.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1933, M 1 2/12/2 part 1,

		NAW.
1934 June	- During the early part of the month when weather conditions were favourable, the line boats working the North Reef, and in the deep water off Cape Saunders brought in moderate catches of groper and a few kingfish. The smaller boats working from Blue Skin Bay to Cape Saunders in shallow water brought in fair catches of ling, red cod, and a few dozen barracouta.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 June 1934, M 1 2/12/2 part 1, NAW.
1934 August	- Details include . . . Poor weather. Some of the line fishermen decided to work the grounds round Cape Saunders in search of red cod, but this proved unpayable; average catch was two cases per day. A case of red cod contains 6 dozen fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 August 1934, M 1 2/12/2 part 1, NAW.
1934 November	- Details include . . . Line fishermen working about 8 miles offshore brought in fair numbers of groper, ling, and a few kingfish. Smaller craft working closer secured fair quantities of red cod, ling, and barracouta.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 April	- Details include . . . 'Some good catches of red cod and ling were taken from Blueskin Bay by the smaller craft.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935 December	- 'The steam trawler "Olive Cam" commenced fishing out of Port Chalmers about the middle of the month and secured large hauls of flat fish and round fish of all kinds. The majority were taken from a depth of from 30 to 40 fathoms. After one trip of 96 hours fishing she returned with 550 boxes each weighing 50 lbs, and made up of groper, ling, soles, barracouta, terakihi, moki, trevally, gurnard, flounders, red cod, dogfish, elephant fish, a few trumpeters, and blue cod.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 January	- Details include . . . "Olive Cam" has ceased fishing out of Port Chalmers; sailed to Australia with a large consignment of fish. Had been working both the Nuggets and Waikawa grounds at a depth of from 20 to 30 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 February	- Details include . . . During the past month the Port Chalmers fishermen have taken fair catches of groper, ling, red cod and a few barracouta. (Little demand for barracouta, fishermen did not bring many ashore.) Majority of these fish taken off Hayward's Point about 4 miles from the Otago Heads.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937	- Methods of fishing – line-fishing (dan lines and windy buoys) – Otago and South Canterbury (p 27) - at Port Chalmers, Oamaru, Moeraki, and off Taieri Mouth dan lines are the most common type of gear, very little hand-lining been done - lines are suspended from drums to which flags are attached to indicate their position - dan lines are responsible for a large proportion of landings in this area; almost the sole method of fishing used at Oamaru; significant at Port Chalmers - the main fish landed is groper, but also large quantities of less valuable ling; other fish such as red cod and barracouta could be landed in greater quantities if there was a market for these fish	'Report of the Sea Fisheries Investigation Committee', <i>AJHR</i> , 1937-1938, H-44A.

	<div>- Methods of fishing – hand-lining – Otago and South Canterbury (p 30) - ‘This method of fishing is used throughout the Otago and South Canterbury districts, but the fisheries have declined to such an extent that it is becoming practically impossible for the men to make a fair living by the use of hand-lines only, and they are used mainly as an auxiliary method of fishing either while waiting for the set gear to be picked up or when weather conditions make it unadvisable to use set or dan lines.’</div>																																																																	
1937	<div>- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location, though does have a (one-off?) breakdown for South Island ports in main body of report.</div> <table><tr><th>Port</th><th>Method of fishing</th><th>Percentage of weight caught by each method</th><th>Principal kinds of fish caught by each method</th></tr><tr><td rowspan="3">Oamaru</td><td>Lines</td><td>97.4</td><td>Groper, red cod, blue cod, ling</td></tr><tr><td>Set-nets</td><td>2.4</td><td>Moki, butterfish</td></tr><tr><td>Trawl</td><td>0.2</td><td>Sole, flounder</td></tr><tr><td rowspan="2">Moeraki</td><td>Lines</td><td>98.3</td><td>Groper, blue cod, ling</td></tr><tr><td>Set-nets</td><td>1.7</td><td>Moki, butterfish</td></tr><tr><td rowspan="3">Port Chalmers</td><td>Trawl</td><td>48.6</td><td>Sole, red cod</td></tr><tr><td>Lines</td><td>42.5</td><td>Groper, ling</td></tr><tr><td>Seine-nets and set-nets</td><td>8.9</td><td>Flounder, red cod</td></tr><tr><td rowspan="2">Taieri Mouth</td><td>Trawl</td><td>76.9</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>23.1</td><td>Groper, blue cod, red cod</td></tr><tr><td rowspan="2">Nuggets</td><td>Trawl</td><td>78.2</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>21.8</td><td>Groper, barracouta</td></tr><tr><td rowspan="2">Owaka</td><td>Lines</td><td>66.7</td><td>Groper, blue cod</td></tr><tr><td>Nets (seine)</td><td>33.3</td><td>Flounder</td></tr><tr><td>Waikawa</td><td>Trawl</td><td>65.7</td><td>Sole, flounder</td></tr><tr><td></td><td>Lines</td><td>33.9</td><td>Groper, blue cod</td></tr><tr><td></td><td>Nets (seine)</td><td>0.4</td><td>Flounder</td></tr></table> <div>- Little comment on Otago fisheries: ‘The general impression obtainable from various reports is that the local trawling-grounds off Canterbury and Otago are not as productive as formerly. The groper fishery, though yielding good supplies to long-liners on occasions, requires more effort than formerly to produce the same results.’</div>	Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method	Oamaru	Lines	97.4	Groper, red cod, blue cod, ling	Set-nets	2.4	Moki, butterfish	Trawl	0.2	Sole, flounder	Moeraki	Lines	98.3	Groper, blue cod, ling	Set-nets	1.7	Moki, butterfish	Port Chalmers	Trawl	48.6	Sole, red cod	Lines	42.5	Groper, ling	Seine-nets and set-nets	8.9	Flounder, red cod	Taieri Mouth	Trawl	76.9	Sole, flounder	Lines	23.1	Groper, blue cod, red cod	Nuggets	Trawl	78.2	Sole, flounder	Lines	21.8	Groper, barracouta	Owaka	Lines	66.7	Groper, blue cod	Nets (seine)	33.3	Flounder	Waikawa	Trawl	65.7	Sole, flounder		Lines	33.9	Groper, blue cod		Nets (seine)	0.4	Flounder	A.E. Hefford, Report on fisheries for the year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-1938, H-15.
Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method																																																															
Oamaru	Lines	97.4	Groper, red cod, blue cod, ling																																																															
	Set-nets	2.4	Moki, butterfish																																																															
	Trawl	0.2	Sole, flounder																																																															
Moeraki	Lines	98.3	Groper, blue cod, ling																																																															
	Set-nets	1.7	Moki, butterfish																																																															
Port Chalmers	Trawl	48.6	Sole, red cod																																																															
	Lines	42.5	Groper, ling																																																															
	Seine-nets and set-nets	8.9	Flounder, red cod																																																															
Taieri Mouth	Trawl	76.9	Sole, flounder																																																															
	Lines	23.1	Groper, blue cod, red cod																																																															
Nuggets	Trawl	78.2	Sole, flounder																																																															
	Lines	21.8	Groper, barracouta																																																															
Owaka	Lines	66.7	Groper, blue cod																																																															
	Nets (seine)	33.3	Flounder																																																															
Waikawa	Trawl	65.7	Sole, flounder																																																															
	Lines	33.9	Groper, blue cod																																																															
	Nets (seine)	0.4	Flounder																																																															
1937 April	<div>- Details include . . . ‘The large steam trawler fishing for the Port Chalmers exporters made a few trips to the southern grounds. So far the catches have been small . . . She is at present working with only one trawl until others can be made to suit the size of boat. When in full working order she should be able to keep up a much better supply and assist the retail trade.’</div>	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																																																
1937 May	<div>- Details include . . . ‘The large steam trawler working the grounds North East of Otago Heads at a depth of 40 to</div>	Monthly report on Otago Fisheries,																																																																

	60 fathoms brought in some very large catches of Tarakihi, moki, barracouta, red cod, dogfish, elephant fish and a few cases of flatfish.'		Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937	- Description of catches, locations, etc.		Annual report for Otago by Inspector of Fisheries, S Broadley, for the year ended 31 March 1937, M 1 2/12/565, NAW. <i>[Photocopy 31]</i>
1938 February	- Details include . . . 'Large shoals of whalefeed are at present to be seen both inside and outside the Otago Harbour. It is many years since this was seen in such large quantities and all the fish are feeding on it.'		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938 July	- Details include . . . 'The seine fishermen in Otago Harbour have taken small catches of flounders, red cod, and small trevally.'		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938 September	- Details include . . . 'The large steam trawler owned by the exporting firm did not cease operations during the heavy weather and secured some very large catches of round fish from the Otago grounds N.E. of Otago Heads. Some of the landing amounted to 300 boxes of 100lbs each. About 75% of this was terakihi, the remainder rigs, red cod, groper and ling.'		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1938	<div><div>Physiculus bacchus. Red cod. Hoka.</div><div>Localities: Everywhere, surface to 120 fathoms, occurring on sand, shell, pebbles, cockles banks, reefs, and even mud. Taken on the hook, in trawl, seine and set nets. Frequency: Excessively abundant. Red cod are active, wandering fish living at almost any level – at the bottom or surface or any intermediate depth.</div></div> <div></div>		Graham, David H., 'Fishes of Otago Harbour and Adjacent Seas with Additions to Previous Records', <i>Transactions and Proceedings of the New Zealand Institute</i> , volume 68, 1938, pp 399-419.
1939 March	- Details include . . . 'The large steam trawlers brought in some very large catches of terakihi, red cod, and ling, with smaller quantities of groper and kingfish. For two days fishing one catch consisted of 20,000 lbs of mixed fish, 12,000 of which were terakihi.' - 'Large shoals of fish-feed in the form of small shrimps have been in the Harbour for some time with the result that large number of red cod, mullet and mackerel have made an appearance. This is the first time in about thirty-eight years that mackerel have been in such numbers in Otago Harbour.'		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.



1939 April	- Details include . . . Large steam trawler condemned; no longer fishing. Port Chalmers exporters have had to rely on outlying ports for their supply; haven't handled anything like the usual quantity of fish for export.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																		
1940 April	- 'The large steam trawler owned by the Port Chalmers exporters is again working and has taken some large hauls of terakihi together with smaller quantities of kingfish, ling, elephant fish, rigs and a small amount of groper. The majority of these fish were caught 20 to 30 miles north of Otago Heads, so far she has not been trawling for flatfish.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																		
1941	- During the year there was no appearance of the large shoals of pilchards that have visited the Harbour in other years. Although clear shrimp and whale feed came into the Harbour great supply, providing abundant feed for fish and birds, there was a notable shortage of such fish as red cod, blue cod, trevally (warehou), and tarakihi.	W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1941, Marine Department annual report, <i>AJHR</i> 1941 H-15.																		
1941 August	- Details include . . . Port Chalmers line boats fishing in deep water secured small catches of groper; those working inshore secured very small catches of ling and red cod. Red cod very scarce for this time of the year.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																		
1941 October	- Details include . . . 'The few line boats working out of Port Chalmers report a decided scarcity of groper, often the catches were too small to send to market. The boats working closer inshore secured small catches of red cod, ling, blue cod and a few barracouta.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																		
1942 August	- Details include . . . Trawling fleet worked the grounds around Blueskin Bay, brought in small catches of flatfish and an odd case of gurnard – average catch 2 to 5 cases, mostly small size. A few trips to the Nuggets proved unprofitable as the catches were small and the grounds covered with weed. The large steam trawler took small catches of red cod, terakihi, and ling.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																		
1946	<div>- Port Chalmers: no steam-trawler has replaced the one wrecked in 1944, though a new motor-trawler is operating in the middle of 1945. The lack of a steam trawler has seen a substantial drop in the catches of terakihi from 3,166 cwt in 1944 to 173 cwt in 1945.</div> <div>- 25,533 cwt landed at Port Chalmers:<div>- 16,260 cwt from motor-trawlers (including 7,034 cwt of red cod and 6,282 cwt of sole)</div><div>- 9,091 from line-fishing vessels (including 7,402 cwt of barracouta)</div></div> <div>- Main types of fish landed over the last five years:</div> <table><tr><td></td><td>1941–42</td><td>1942–43</td><td>1943–44</td><td>1944–45</td><td>1945–46</td></tr><tr><td>Tarakihi</td><td>5 101</td><td>2 886</td><td>3 361</td><td>3 166</td><td>173</td></tr><tr><td>Sole</td><td>6 394</td><td>5 410</td><td>4 114</td><td>4 993</td><td>6 282</td></tr></table>		1941–42	1942–43	1943–44	1944–45	1945–46	Tarakihi	5 101	2 886	3 361	3 166	173	Sole	6 394	5 410	4 114	4 993	6 282	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1946, Marine Department annual report, <i>AJHR</i> 1946, H-15.
	1941–42	1942–43	1943–44	1944–45	1945–46															
Tarakihi	5 101	2 886	3 361	3 166	173															
Sole	6 394	5 410	4 114	4 993	6 282															

	<table><tr><td>Red cod</td><td>6 952</td><td>10 377</td><td>4 501</td><td>4 033</td><td>7 605</td></tr><tr><td>Barracouta</td><td>5 599</td><td>9 878</td><td>5 157</td><td>6 300</td><td>7 502</td></tr><tr><td>Flounder</td><td>1 516</td><td>840</td><td>885</td><td>1 163</td><td>1 366</td></tr><tr><td>Total</td><td>29 724</td><td>33 603</td><td>21 523</td><td>23 264</td><td>25 533</td></tr></table>	Red cod	6 952	10 377	4 501	4 033	7 605	Barracouta	5 599	9 878	5 157	6 300	7 502	Flounder	1 516	840	885	1 163	1 366	Total	29 724	33 603	21 523	23 264	25 533																			
Red cod	6 952	10 377	4 501	4 033	7 605																																							
Barracouta	5 599	9 878	5 157	6 300	7 502																																							
Flounder	1 516	840	885	1 163	1 366																																							
Total	29 724	33 603	21 523	23 264	25 533																																							
1947	- ‘We the fishermen operating boats at Nugget Bay are much concerned about the depletion of fish in Nugget Bay by outside trawlers, and are desirous of getting an area set aside on which Nugget boats only are allowed to operate.’	F.H. Arthur to Minister of Marine, 8 February 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										
1947	- Commenting on above letter by F.H. Arthur: ‘The depletion, I am afraid is a known fact, as all who know the area concede that the grounds are slowly becoming poorer. All along the coast the position is the same, but this is in a large measure offset by higher prices.’ - Suggests that trawling be totally prohibited from the area if the depletion was to become an urgent problem.	McIvor, District Inspector of Fisheries to Secretary, Marine, 11 March 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										
1948	- Port Chalmers: total landings of 44,849 cwt, almost double the previous year. Increase mainly due to the fact that a modern steam trawler commenced fishing from this port in February, landing 14,670 cwt for the year. <table><tr><td></td><td>1943–44</td><td>1944</td><td>1945</td><td>1946</td><td>1947</td></tr><tr><td>Tarakihi</td><td>3 361</td><td>3 166</td><td>173</td><td>81</td><td>9 977</td></tr><tr><td>Sole</td><td>4 114</td><td>4 993</td><td>6 282</td><td>8 366</td><td>10 963</td></tr><tr><td>Red cod</td><td>4 501</td><td>4 033</td><td>7 605</td><td>3 846</td><td>2 536</td></tr><tr><td>Barracouta</td><td>5 157</td><td>6 300</td><td>7 502</td><td>8 171</td><td>13 938</td></tr><tr><td>Flounder</td><td>885</td><td>1 163</td><td>1 366</td><td>745</td><td>1 062</td></tr><tr><td>Total (cwt)</td><td>21 523</td><td>23 264</td><td>25 533</td><td>23 250</td><td>44 849</td></tr></table>		1943–44	1944	1945	1946	1947	Tarakihi	3 361	3 166	173	81	9 977	Sole	4 114	4 993	6 282	8 366	10 963	Red cod	4 501	4 033	7 605	3 846	2 536	Barracouta	5 157	6 300	7 502	8 171	13 938	Flounder	885	1 163	1 366	745	1 062	Total (cwt)	21 523	23 264	25 533	23 250	44 849	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1948, Marine Department annual report, AJHR 1948, H-15.
	1943–44	1944	1945	1946	1947																																							
Tarakihi	3 361	3 166	173	81	9 977																																							
Sole	4 114	4 993	6 282	8 366	10 963																																							
Red cod	4 501	4 033	7 605	3 846	2 536																																							
Barracouta	5 157	6 300	7 502	8 171	13 938																																							
Flounder	885	1 163	1 366	745	1 062																																							
Total (cwt)	21 523	23 264	25 533	23 250	44 849																																							
1948	- Discusses depletion of fish stocks etc. . . - ‘Red cod were now brought ashore, whereas once they were returned to the sea, dead from nets. Ling, once despised, were now a valuable catch, even for the price realised by their livers.’	Article entitled: “Fishing Industry – Nationalisation and Study Suggested – Need for Sanctuaries”, extract from the <i>Otago Daily Times</i> , 9 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										
1948	- ‘A claim that the livelihood of fishermen at Taieri Mouth was being affected by the inroads of Port Chalmers boats, which had destroyed 10 years’ work on the part of the Taieri Mouth fishermen, and the operations of a “large steam trawler” between Otago and Oamaru had depleted the fishing grounds of groper and had a harmful effect on private boats operating from Oamaru, Moeraki and Karitane was made to the Daily Times in the week-end by a man who has been fishing at Taieri Mouth for many years. // “About 20 years ago two boats went to Taieri Mouth to look for fresh fishing grounds”, he said. “They became established, and in time about 11 boats were operating from Taieri Mouth. No trawling had been done there before, and the fishing grounds were found to be good. Six cases of fish were caught for a tow lasting an hour and a-half, boats with low-powered engines being used. There	Article entitled: “Fishing Grounds – Excessive Trawling – Effect on Taieri Mouth Fleet”, extract from <i>Otago Daily Times</i> , 12 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.																																										

	<p>was no export market at the time and, in order to preserve the grounds and regulate the supplies of fish to the market, the fishermen did one tow a day. // The Port Chalmers boats heard about the grounds, however” he continued, “and they worked them continuously until the fish became seriously depleted. Eventually, Port Chalmers fishermen did not gain by trawling off Taieri Mouth, and they went away. After that the Taieri Mouth fishermen got about two cases of fish from a two-hour tow.”</p> <p>- “It took 10 years for us to build up the grounds,” he said, “and in the past two years, when the fish have been better than ever, the Port Chalmers boats have begun to visit the grounds again. All through the summer they worked round the clock, and catches of up 100 cases have been known to go back to Port Chalmers.”</p> <p>- “The export of fish has not been of benefit to the public of Otago. It has been a means for the outlet of surplus fish, and the fishermen have ‘threshed’ it to such an extent that the grounds are becoming depleted.”</p>	
1956	<p>- [Graham worked for many years as a marine biologist at the Marine Fisheries Investigation Station, Portobello, Otago. In <i>A Treasury</i>, Graham refers largely to past observations during his time at the Research Station. Quite a lot of the material in this book repeats information presented in his 1938 <i>Transactions</i> article (vol 68, pp 399-419). I have not taken notes where the information is repetitive. Most of his observations, unsurprisingly, relate to Otago.]</p> <p><i>Red Cod (Hoka)</i></p> <p>- (p 168) Red Cod are a roving fish and disappear for long periods – disappeared from Moeraki to Oamaru for a period of three years.</p> <p>- Found in Otago Harbour all year round, but more plentiful in summer months. ‘About 1910 they were so numerous on many occasions in the harbour, Mr Broadley [Fisherman and Inspector of Fisheries] said, that a person in a rowing boat could take a stick with a nail at the end and spear a boatload in an hour and a half. They seemed so numerous in the water as to give one the impression that a person could walk on top of them without sinking. The visitation of this unusual number of Red Cod was due to enormous numbers of Whalefeed being in the harbour.’</p> <p>- Whenever trawling carried on outside the Harbour Red Cod could be caught – live in depths down to 200 fathoms.</p> <p>- (pp 168-169) Prior to 1930 fishermen of Otago Harbour looked to fishing for Red Cod as their mainstay during the winter months and could always rely on catching good hauls off Cape Saunders and Pudding Stone, south of Otago Heads, during “setting in” in June and July.</p>	David H. Graham, <i>A Treasury of New Zealand Fishes</i> , second edition, A.H. and A.W. Reed, Wellington, 1956. [First published in 1953.]
1957	<p>- ‘Trawler and line fishermen operating off the Otago coast are not “striking it rich” just now. For reasons that only research officers will be able to explain comparatively few fish are being taken from the recognised grounds. In previous years the poundage each day rose into four figures. Now only about 300lb are being taken in a day that lasts as long as 15 hours. . . . No one seems to know why the flounders and sole have disappeared.</p>	‘Deep Sea Fishing’, <i>Otago Daily Times</i> , 18 May 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.

### S34: Otago: Tarakihi

Year	Details	Source
1878	<ul style="list-style-type: none"> <li>- Observations from 1 August 1877 to 31 July 1878, 'taken day by day from the different shops in town, as well as by inquiries at the jetties, Port Chalmers, etc'.</li> <li>- Tarakihi not recorded in data of fish appearing on market, but lists tarakihi among fish that appear on market at irregular intervals – notes that a few tarakihi brought to market in January.</li> </ul>	P. Thomson, 'Our Fish Supply', <i>Transactions and Proceedings of the New Zealand Institute</i> , vol. 11, 1878, pp 380-386.
1902	<ul style="list-style-type: none"> <li>- Inquiry into the complaint by fisherman at Port Chalmers that trawling is affecting their interests and request that they should not be allowed to work within a certain distance of shore. Inquiry held at Port Chalmers on 14 and 15 November 1902.</li> <li>- Notes that there has been an unusual scarcity of fish in the last winter and spring – believes that trawling not the cause and looks to other factors, such as unusual weather. Points out that there has also been a scarcity of fish at other places, where there are no trawlers operating.</li> <li>- Notes that two trawlers working out of Port Chalmers – the 'Express' and 'Napier', owned by F.J. Sullivan.</li> <li>- Did not believe that the line and seine net fisherman had bought any proof to substantiate their claims that trawling was destroying fish-feed on the bottom and driving fish away.</li> <li>- Trawler owner and men working on the trawler stated that they generally work outside of the area where the small boats go and that they get quite a different class of fish from what the small boats get.</li> <li>- Fish mongers stated that the trawlers gave a more plentiful supply and more varied. Stated that the small-boat men cannot supply what is needed all year round and that in winter the market was almost entirely supplied by the trawlers.</li> </ul> <p><i>Evidence of F.J Sullivan, trawler owner</i></p> <ul style="list-style-type: none"> <li>- At the moment trawlers are working about eight miles off land and cannot get fish in less than 30 fathoms of water. Fish have confined themselves to deep water this season. Would be wrong to prevent trawlers from coming inshore. (p 2)</li> <li>- Notes that 14 men employed on the two trawlers, which are the largest boats in the country.</li> <li>- Have been able to catch fish in all weathers, when other fisherman could not venture out. (p 3)</li> </ul> <p><i>Evidence of Captain Ryffell of the trawler 'Express'</i></p> <ul style="list-style-type: none"> <li>- Employed for 12 months; usually trawl in 20 or 30 fathoms of water; never make a point of trawling in shallow water; keep on the same ground for 8 or 9 miles from 'the Point'(?]. (p 3)</li> <li>- Mostly catching large tarakihi, moki, soles, and kingfish; in deeper water always catching kingfish and ling.</li> <li>- The following fish that are caught by the trawlers, but not the fishermen: moki, tarakihi, and sole. Conversely, the small-boat men catch barracouta and groper.</li> </ul>	Report of Inspector of Fisheries on Trawling at Port Chalmers, 18 December 1902, <i>AJHR</i> 1903 H-15B.

<p><i>Evidence of Frank Keenan, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that outside fishing ground extends from Cape Saunders to Shag Point. (p 4)</li> <li>- Fishes 10 miles from Otago Heads, catching by line fishing groper, red cod, ling, barracouta, and kingfish.</li> <li>- Claims that trawlers injuring fishing. Has been fishing for 10 years; fish terribly scarce the last 2 or 3 years. Now have to go much further than in other years, and the supply is shorter. Used to be able to get plenty of fish near Otago Heads.</li> <li>- Believes that trawling over the ground where the fish feed is disturbing the fish.</li> </ul> <p><i>Evidence of John Malcolm, outside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has fished locally for 25 years and has observed a marked decline in the last four years. (p 3)</li> <li>- ‘Many years ago the boats used to keep the market more than supplied, and they have done it all along. They were limited very often to perhaps two dozen a day. They could take in perhaps thirty or forty barracouta, and two dozen groper.’</li> <li>- Details that there are 27 outside boats and craft, with two or three men on each.</li> <li>- States that there are over 200 ‘seine men’. [Seems that seine netting was done within the harbour, while the outside fishermen used lines.]</li> </ul> <p><i>Evidence of Edward Nelson, inside fisherman</i></p> <ul style="list-style-type: none"> <li>- States that he has been fishing locally for 18 years, seine fishing all that time from the Port to the Heads. Has only once seen a season as bad – some 20 years ago. (p 4)</li> <li>- States that since trawling has started inside fishermen rarely get sole, used to get 6 or 8 dozen. Has also been a decline in flounder over the last 10 years.</li> <li>- Number of seine fishermen the same as 15 years ago.</li> <li>- Believes that greater mesh size of trawl net would limit the destruction of small fish.</li> </ul> <p><i>Evidence of John H Tunnage</i></p> <ul style="list-style-type: none"> <li>- Sullivan employs four boats [all trawlers?]; outside there are five cutters (average size about 15 tons) and 31 small boats; inside a total of 32 three man boats. (p 5)</li> </ul> <p><i>Evidence of W.G. Robertson, wholesale fish merchant</i></p> <ul style="list-style-type: none"> <li>- ‘Since we have had the trawlers here the supply has very much increased, and undoubtedly so has the demand.’ (p 5)</li> <li>- States that trawlers and fishermen catch different fish.</li> <li>- Notes that for several years past we have had no moki or sprats, which were formerly very plentiful; red cod also dropped off.</li> <li>- Small boats catch most of their fish from Jan to May, when shoal fish appear and come close in shore, sometimes right up harbour.</li> <li>- Notes that trawlers continue to work in rough weather; the line-men cannot work in such weather, except in the three cutters (though even these cannot work several days after rains owing to fish not being able to see the bait).</li> </ul>	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p>(p 6)</p> <p><i>Evidence of W Stewart, fishmonger, Princes Street</i></p> <ul style="list-style-type: none"> <li>- Has been in business for 16 years, observes that there has been a poor supply of fish over the last few years. (p 6)</li> <li>- 'We should have had nothing at all if it had not been for the trawlers.'</li> <li>- Notes that trawlers catch fish that are not usually taken by the small boat fishermen, principally the terakihi.</li> <li>- Comments that flounders 'seem to be going out of existence altogether.'</li> </ul> <p><i>Evidence of H Kenton, master of the trawler "Napier"</i></p> <ul style="list-style-type: none"> <li>- Many of the varieties of fish caught by trawl are not caught by the line and seine net men. Barracouta and groper are not caught in the trawl because the frequent the rocky bottom, which cannot be trawled. (p 6)</li> <li>- States it would be detrimental to trawling if a three mile limit was imposed from the shore. Sometimes fish more plentiful inshore than in deep water, and if weather rough need to fish closer to land.</li> <li>- States that he does not believe the supply of flounder is going down. (p 7)</li> </ul> <p><i>Evidence of Francis Hewitt, mate of the trawler "Napier"</i></p> <ul style="list-style-type: none"> <li>- Formerly worked as a small boat fisherman and fish curer. States that in winter the flounder always 'go off' and that the only thing the seine men have to live on is red cod. 'Five years ago we were catching nothing but red-cod, and it was owing to that that Mr Sullivan took up the trawling business.' (p 7)</li> </ul>	
1907	<ul style="list-style-type: none"> <li>- 'The Inspector at Dunedin reports that in all old-known fishing-places the catches have been good. In all shallow bays flounders and small fish are obtained in large quantities, and groper, kingfish, schnapper, barracouta, blue and red cod, terakihi, trevalli, and moki are found along the coast from Oamaru to Chaslands.' (p 6)</li> </ul>	Marine Department annual report, 25 May 1907, <i>AJHR</i> 1907 H-15.
1907	<ul style="list-style-type: none"> <li>- report on the fishing and deep-sea trawling cruise of the <i>Nora Niven</i>, chartered by the Government from June to September 1907 (p 1)</li> <li>- object of cruise was to test the ocean-floor off the east coast from Stewart Island to the Bay of Plenty and around the Chatham Islands; ascertain trawling grounds exist outside those already known and worked; ascertain what fish-life exists out to 100 fathoms; to look for offshore banks</li> <li>- used otter trawl nets; spread of 120 ft (footrope) and 80 ft (head-line)</li> <li>- owing to time constraints, difficult to thoroughly test each section or to go very far off to test off-shore banks</li> <li>- 106 hauls made, range from 4 to 120 fathoms (p 2)</li> <li>- notes that seasonal differences in fish numbers not established by trawl</li> </ul> <p><i>Summarised report on the section of coast from Stewart Island to Otago Heads</i> (p 3)</p> <ul style="list-style-type: none"> <li>- good results in Molyneaux Bay in regard to bottom and fish numbers <ul style="list-style-type: none"> <li>- sandy bottom indicate good sole and flounder grounds</li> <li>- three hauls, with large quantities of red-cod, dogfish, and elephant-fish</li> </ul> </li> <li>- from Molyneaux Bay to Cape Saunders a considerable extent of good trawling bottom and a fair supply of market-fish taken, though a large extent of hard shingle bottom</li> <li>- from Cape Saunders to about 18 miles north of Otago Heads good bottom was found</li> </ul>	Interim Report on Experimental Trawling, by L.F. Ayson, Chief Inspector of Fisheries, 12 November 1907, <i>AJHR</i> 1907 H-15B. <b>[Photocopy 40]</b>

	<ul style="list-style-type: none"> <li>- tarakihi the main fish taken from 25 to 60 fathoms</li> <li>- ‘The best trawling-grounds off the Otago coast extend from Cape Saunders to some distance west and north of Otago Heads, extend from inshore out to about 30 fathoms. These grounds have been considerably worked by Mr. Sullivan’s trawlers from Port Chalmers.’</li> </ul> <p><i>Otago to Lyttelton</i> (p 4)</p> <ul style="list-style-type: none"> <li>- trawlers from Port Chalmers presently engaged in working the fishing grounds off Otago Heads and in Blueskin Bay – no attempt was made to test these well known grounds</li> <li>- thirty hauls made between Otago and Lyttelton – almost every haul between Otago and Akaroa inside of about 40 fathoms disclosed the presence of a great variety of fish</li> <li>- foul ground exists to a distance of nine miles, perhaps more off Moeraki and London Bluff – this bottom unsuitable for trawling, though fish appear to be plentiful</li> <li>- at present is being worked by line fishermen from Moeraki, with blue cod and hapuku being the main fish taken</li> </ul>	
1909	<ul style="list-style-type: none"> <li>- ‘In Otago and Canterbury there has been an improvement in the industry. Fishing operations have been carried out along the whole of the coast-line, with good results.’ (p 7)</li> <li>- from Waikouaiti to the Catlins River there has been continued improvement</li> <li>- considerable improvements have been made to the Otago fleets – another steam trawler has been procured; sixteen ordinary boats fitted with oil engines and the latest appliances have been launched</li> <li>- 43 fish curing and preserving plants, from which £7000 worth has been exported as well as amount for local consumption</li> <li>- freezing chambers being erected</li> <li>- main fish taken are kingfish, groper (hapuku), trevalli, tarakihi, schnapper, trumpeter, moki, barracouta, blue cod and flounder</li> </ul>	Marine Department annual report, 12 June 1909, <i>AJHR</i> 1908 H-15.
1910	<ul style="list-style-type: none"> <li>- Report of local inspector for the Otago and Canterbury districts:</li> <li>- reports a depression in the industry caused mainly by the scarcity of fish</li> <li>- owing to new class of boats and gear, many parts of the coast formally untouched have been visited, and, as a consequence, a better variety of fish has been taken</li> <li>- groper, trevally, tarakihi, snapper, moki, and barracouta have been taken, ‘though some of them have disappeared from their old haunts’</li> </ul>	Marine Department annual report for 1910-1911, <i>AJHR</i> 1910 H-15.
1914	<ul style="list-style-type: none"> <li>- Otago District 121 fishing boats registered (p 8)</li> <li>- Dunedin – catches as good as those made in previous year</li> <li>- supply of tarakihi and moki has met demand.</li> </ul>	Marine Department annual report for 1913-1914, <i>AJHR</i> 1914 H-15
1914 January	<ul style="list-style-type: none"> <li>- Puketeraki fishermen have kept the market supplied with moki, tarakihi, and blue cod.</li> </ul>	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 1 February 1914, M 1 2/12/2 part 1, NAW.

1914 October	- Three steam trawlers have kept the market well supplied with flatfish, red cod, and tarakihi. Small craft engaged in trawling throughout the winter have now taken to line fishing.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 2 November 1914, M 1 2/12/2 part 1, NAW.
1915	- October to December poor weather; but otherwise favourable, with good catches from linemen and trawlers. - Groper, ling, kingfish, red cod plentiful; barracouta, moki, tarakihi, trumpeter somewhat scarce; supply of blue cod poor, though a few good catches have been made to the south of Cape Saunders	Annual report of Otago Inspector of Fisheries, W Adams, year ending 31 March 1915, M 1 2/12/73 NAW.
1916	- 3 steam trawlers and 3 smaller craft driven by oil – have been engaged in trawling on the local grounds; fleet increased in the winter months by several whale boats discarding line fishing and taking to the trawl. - Red cod has been very plentiful; large numbers taken in trawls. On some occasions it has been necessary to cut the net before hoisting the trawl owing to the enormous numbers. Good hauls off Cape Saunders. - Other fish taken – groper, ling, bream, kingfish, barracouta (caught in quantity by line men within a few miles of Otago Heads), moki, and tarakihi.	Annual report on Otago fisheries by inspector of fisheries, W Adams, for year ended 31 March 1916, M 1 2/12/115 NAW.
1916 April	- Trawlers taking good hauls of flat fish and small numbers of moki, tarakihi, and ling. Barracouta still being caught in large quantities close inshore.	Monthly report on Otago Fisheries, Inspector of Fisheries, W Adam, to Secretary, Marine Department, 29 April 1916, M 1 2/12/2 part 1, NAW.
1917 September	The steam trawlers are barely paying working expenses whilst most of the smaller craft are not going out at present on account of the high price of benzine and the scarcity of fish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 1 October 1917, M 1 2/12/2 part 1, NAW.
1918 May	- Details include . . . ‘The steam trawlers have been working well offshore and taking good catches of round fish principally ling and at times a number of kingfish.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1918, M 1 2/12/2 part 1, NAW.
1919	- Oamaru – local Inspector states that there has been a noticeable decrease in practically all kinds of fish – partly due to the bad weather, but mainly due to the absence of fish on the usual fishing grounds. (p 11) Fishermen state that this season is the worst on record. - Moeraki – quantity of fish taken about the same as last year. - Otago District: - rough weather interfered with fishing operations - on account of the scarcity of flat fishes the trawlers worked off shore in about 20 fathoms, getting fair catches of tarakihi, moki, and other round fish	Marine Department annual report for 1918-1919, AJHR 1919 H-15
1919	- ‘We the undersigned members of the above Society, petition you to introduce a three mile limit from point to point Moeraki to Cape Saunders, similar to that appertaining to the British Isles, Auckland and other ports of the Dominion. // Prior to the trawlers commencing operations, flat fish (flounders and soles) used to go outside the heads into deeper water to spawn, and return again unmolested to the harbours, where Seine fishermen caught them	Petition by The Otago Fisherman’s Society Limited, October 1919, to the Minister of Marine, M 1 2/12/191 parts 1-3, Otago – trawling and seining



	in large quantities. The same applies to groper, kingfish, cod, ling and so on which came close in shore and were easily caught in plenty. Since the trawlers started without a limit, the flat fish which usually go outside the heads into the bays to spawn are caught, while full of spawn, and as time has elapsed the want of a limit has caused the fish to grow scarcer and still scarcer, which will continue until the precautions that were take[n] in the British Isles to preserve the fish close in shore is manifested. // The trawls of the trawlers, which are dragged for hours also kill millions of small fish and spawn, and drive groper, kingfish etc. miles off into deeper water, which prior to trawling let it again be mentioned were caught close in shore.'	restrictions, 1899-1961, NAW.
1926 November	- Trawling boats have taken small catches of flatfish, but large quantities of terakihi. On a couple of occasions, two of the larger trawlers went to the Nuggets grounds and brought in good catches of soles.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 30 November 1926, M 1 2/12/2 part 1, NAW.
1926 December	- Details include . . . 'The trawling boats brought in fair catches of soles, red cod, terakihi and moki'.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 December 1926, M 1 2/12/2 part 1, NAW.
1927 April	- Details include . . . 'The trawling boats have taken fair catches of flatfish and school fish, and red cod have been plentiful. . . . These fish were taken from three to six miles off Otago Heads. At present there are about ten motor launches trawling and five steam trawlers.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 May 1927, M 1 2/12/2 part 1, NAW.
1927 November	- Details include . . . 'The steam trawlers working in twenty to twenty-four fathoms, have taken large catches of ling, kingfish, red cod, terakihi and moki, but very few flatfish.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31 November 1927, M 1 2/12/2 part 1, NAW.
1929	- The trawling fleet fishing out of Otago Harbour have fished the Otago grounds and taken only moderate supplies for practically the whole year. For about 2 months, 2 of the steam trawlers worked for school-fish, and brought in large catches of red cod, kingfish, and tarakihi.'	Annual report for Otago for year ending 31 March 1929 by Inspector of Fisheries S Broadley, M 1 2/12/452 NAW.
1933	- 'Great numbers of large-sized mullet followed the shrimps in the harbour and also small mullet, red cod, small terakihi and moki, and lesser quantities of warehou and large moki. Towards the end of March pilchards were about in fair quantity. Red cod, during the latter part of the season, were more plentiful than for some years past.'	W.B.Benham, Vice-Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1933, Marine Department annual report, AJHR 1933 H-15
1933 December	- Details include . . . 'The steam trawlers working in deeper water secured large numbers of kingfish and tarekihi. On account of demand, large quantities of red cod were thrown back.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, 31

		December 1933, M 1 2/12/2 part 1, NAW.
1934	- Mullet, red cod, wrasse, and spotties numerous around the Station. Barracouta, ling, and kahawai fairly numerous in the vicinity of the Station. Kelpfish, moki, warehou ( <i>Seriotelella brama</i> ), and terakihi ( <i>Dactylosparus macropterus</i> ) scarce.	W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1934, Marine Department annual report, AJHR 1934 H-15
1934 September	- Details include . . . Unsettled weather and a decided scarcity of fish; 'shortage has been more acute than for the same month in several years past'. - 'The trawling fleet experienced one of the worst months for many years. Two to four benzene boxes was the average catch for the steam trawlers, while the smaller fleet were able to secure only one or two boxes for a long day's fishing. One steam trawler changed the fishing gear and went in search of school fish. A few cases of terakihi were taken, but not in sufficient quantities to make this class of fish payable.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1934 November	- Details include . . . Line fishermen working about 8 miles offshore brought in fair numbers of groper, ling, and a few kingfish. Smaller craft working closer secured fair quantities of red cod, ling, and barracouta. - Steam trawlers working well off Otago Heads brought in large catches of kingfish, moki, tarakihi, ling, and a few groper.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1934 December	- 'One steam trawler working the Otago grounds brought in large numbers of Moki, Tarakihi, Ling, and Kingfish, as many as 400 of the latter being caught in one day.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1935	- Records the presence and abundance of a number of species in the vicinity of the Station: - Tarakihi ( <i>Dactylosparus macropterus</i> ) – small sized fish of this species usually plentiful for most months of the year in the Harbour; never get the large ones taken 9 to 10 miles from the Heads.	W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1935, Marine Department annual report, AJHR 1935 H-15
1935 December	- 'The steam trawler "Olive Cam" commenced fishing out of Port Chalmers about the middle of the month and secured large hauls of flat fish and round fish of all kinds. The majority were taken from a depth of from 30 to 40 fathoms. After one trip of 96 hours fishing she returned with 550 boxes each weighing 50 lbs, and made up of groper, ling, soles, barracouta, terakihi, moki, trevally, gurnard, flounders, red cod, dogfish, elephant fish, a few trumpeters, and blue cod.'	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1936 January	- Details include . . . "Olive Cam" has ceased fishing out of Port Chalmers; sailed to Australia with a large consignment of fish. Had been working both the Nuggets and Waikawa grounds at a depth of from 20 to 30 fathoms.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.
1937	- New table showing the quantities of different kinds of fish caught by different methods. Not specific to location,	A.E. Hefford, Report on fisheries for the

	though does have a (one-off) breakdown for South Island ports in main body of report.	year ended 31 March 1937, Marine Department annual report, <i>AJHR</i> 1937-1938, H-15.																																																																
	<table><tr><th>Port</th><th>Method of fishing</th><th>Percentage of weight caught by each method</th><th>Principal kinds of fish caught by each method</th></tr><tr><td rowspan="3">Oamaru</td><td>Lines</td><td>97.4</td><td>Groper, red cod, blue cod, ling</td></tr><tr><td>Set-nets</td><td>2.4</td><td>Moki, butterfish</td></tr><tr><td>Trawl</td><td>0.2</td><td>Sole, flounder</td></tr><tr><td rowspan="2">Moeraki</td><td>Lines</td><td>98.3</td><td>Groper, blue cod, ling</td></tr><tr><td>Set-nets</td><td>1.7</td><td>Moki, butterfish</td></tr><tr><td rowspan="3">Port Chalmers</td><td>Trawl</td><td>48.6</td><td>Sole, red cod</td></tr><tr><td>Lines</td><td>42.5</td><td>Groper, ling</td></tr><tr><td>Seine-nets and set-nets</td><td>8.9</td><td>Flounder, red cod</td></tr><tr><td rowspan="2">Taieri Mouth</td><td>Trawl</td><td>76.9</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>23.1</td><td>Groper, blue cod, red cod</td></tr><tr><td rowspan="2">Nuggets</td><td>Trawl</td><td>78.2</td><td>Sole, flounder</td></tr><tr><td>Lines</td><td>21.8</td><td>Groper, barracouta</td></tr><tr><td rowspan="2">Owaka</td><td>Lines</td><td>66.7</td><td>Groper, blue cod</td></tr><tr><td>Nets (seine)</td><td>33.3</td><td>Flounder</td></tr><tr><td>Waikawa</td><td>Trawl</td><td>65.7</td><td>Sole, flounder</td></tr><tr><td></td><td>Lines</td><td>33.9</td><td>Groper, blue cod</td></tr><tr><td></td><td>Nets (seine)</td><td>0.4</td><td>Flounder</td></tr></table> <p>- Little comment on Otago fisheries: ‘The general impression obtainable from various reports is that the local trawling-grounds off Canterbury and Otago are not as productive as formerly. The groper fishery, though yielding good supplies to long-liners on occasions, requires more effort than formerly to produce the same results.’</p>	Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method	Oamaru	Lines	97.4	Groper, red cod, blue cod, ling	Set-nets	2.4	Moki, butterfish	Trawl	0.2	Sole, flounder	Moeraki	Lines	98.3	Groper, blue cod, ling	Set-nets	1.7	Moki, butterfish	Port Chalmers	Trawl	48.6	Sole, red cod	Lines	42.5	Groper, ling	Seine-nets and set-nets	8.9	Flounder, red cod	Taieri Mouth	Trawl	76.9	Sole, flounder	Lines	23.1	Groper, blue cod, red cod	Nuggets	Trawl	78.2	Sole, flounder	Lines	21.8	Groper, barracouta	Owaka	Lines	66.7	Groper, blue cod	Nets (seine)	33.3	Flounder	Waikawa	Trawl	65.7	Sole, flounder		Lines	33.9	Groper, blue cod		Nets (seine)	0.4	Flounder	
Port	Method of fishing	Percentage of weight caught by each method	Principal kinds of fish caught by each method																																																															
Oamaru	Lines	97.4	Groper, red cod, blue cod, ling																																																															
	Set-nets	2.4	Moki, butterfish																																																															
	Trawl	0.2	Sole, flounder																																																															
Moeraki	Lines	98.3	Groper, blue cod, ling																																																															
	Set-nets	1.7	Moki, butterfish																																																															
Port Chalmers	Trawl	48.6	Sole, red cod																																																															
	Lines	42.5	Groper, ling																																																															
	Seine-nets and set-nets	8.9	Flounder, red cod																																																															
Taieri Mouth	Trawl	76.9	Sole, flounder																																																															
	Lines	23.1	Groper, blue cod, red cod																																																															
Nuggets	Trawl	78.2	Sole, flounder																																																															
	Lines	21.8	Groper, barracouta																																																															
Owaka	Lines	66.7	Groper, blue cod																																																															
	Nets (seine)	33.3	Flounder																																																															
Waikawa	Trawl	65.7	Sole, flounder																																																															
	Lines	33.9	Groper, blue cod																																																															
	Nets (seine)	0.4	Flounder																																																															
1937 April	- Details include . . . ‘The large steam trawler fishing for the Port Chalmers exporters made a few trips to the southern grounds. So far the catches have been small . . . She is at present working with only one trawl until others can be made to suit the size of boat. When in full working order she should be able to keep up a much better supply and assist the retail trade.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																																																
1937 May	- Details include . . . ‘The large steam trawler working the grounds North East of Otago Heads at a depth of 40 to 60 fathoms brought in some very large catches of tarakihi, moki, barracouta, red cod, dogfish, elephant fish and a few cases of flatfish.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																																																
1937 June	- Details include . . . ‘The large steam trawler has secured several large hauls of round fish of all kinds, the principal being terakihi. For one catch of two days fishing she brought in 14,000 lbs of terakihi, 3,000 lbs ling, 410 lbs moki, 300 lbs kingfish, and 1600 of mixed.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																																																

1937 August	<p>- Details include . . . Line boats working the Otago grounds have taken small catches of red cod and a few blue cod</p> <p>- ‘The large steam trawler continues to bring in large catches of round fish, comprising about 75% of terakihi . . . This boat averages tow trips each week and brings in 180 to 220 boxes, each weighing about 1 cwt, every trip. Had it not been for this source of supply, the retailers in Dunedin and surrounding districts would have had a disastrous month.’</p>		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.		
1938	<p>- But the season was rather disappointing – quite a variety of fish we expect to have seen at the Station have not appeared.</p> <p>- Only a few small tarakihi appeared. Small warehou were very plentiful in December. No red cod have been taken since December.</p>		W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1938, Marine Department annual report, <i>AJHR</i> 1938 H-15		
1938 September	<p>- Details include . . . ‘The large steam trawler owned by the exporting firm did not cease operations during the heavy weather and secured some very large catches of round fish from the Otago grounds N.E. of Otago Heads. Some of the landing amounted to 300 boxes of 100lbs each. About 75% of this was terakihi, the remainder rigs, red cod, groper and ling.’</p>		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.		
1938	<p>- Most of the records presented are from marine studies carried out at the Marine Fisheries Investigation Station at Portobello over a period of 27 months (1930-32). Supplementary observations compiled from daily visits to the Dunedin fish market cover nearly another two years.</p> <table border="1"><tr><td><i>Dactylopagrus macropterus</i>. Tarakihi.</td><td>Localities: Everywhere outside the harbour, 5-100 fathoms; small ones inside the harbour. On all bottoms, preferably rough gravelly bottoms. Frequency: Common, but less abundant than formerly.</td></tr></table>		<i>Dactylopagrus macropterus</i> . Tarakihi.	Localities: Everywhere outside the harbour, 5-100 fathoms; small ones inside the harbour. On all bottoms, preferably rough gravelly bottoms. Frequency: Common, but less abundant than formerly.	Graham, David H., ‘Fishes of Otago Harbour and Adjacent Seas with Additions to Previous Records’, <i>Transactions and Proceedings of the New Zealand Institute</i> , volume 68, 1938, pp 399-419.
<i>Dactylopagrus macropterus</i> . Tarakihi.	Localities: Everywhere outside the harbour, 5-100 fathoms; small ones inside the harbour. On all bottoms, preferably rough gravelly bottoms. Frequency: Common, but less abundant than formerly.				
1939 March	<p>- Details include . . . ‘The large steam trawlers brought in some very large catches of terakihi, red cod, and ling, with smaller quantities of groper and kingfish. For two days fishing one catch consisted of 20,000 lbs of mixed fish, 12,000 of which were terakihi.’</p> <p>- ‘Large shoals of fish-feed in the form of small shrimps have been in the Harbour for some time with the result that large number of red cod, mullet and mackerel have made an appearance. This is the first time in about thirty-eight years that mackerel have been in such numbers in Otago Harbour.’</p>		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.		
1939 April	<p>- Details include . . . Large steam trawler condemned; no longer fishing. Port Chalmers exporters have had to rely on outlying ports for their supply; haven’t handled anything like the usual quantity of fish for export.</p>		Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.		
1941	<p>- During the year there was no appearance of the large shoals of pilchards that have visited the Harbour in other years. Although clear shrimp and whale feed came into the Harbour great supply, providing abundant feed for fish and birds, there was a notable shortage of such fish as red cod, blue cod, trevally (warehou), and tarakihi.</p>		W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1941, Marine		

		Department annual report, <i>AJHR</i> 1941 H-15.																																				
1940 April	- ‘The large steam trawler owned by the Port Chalmers exporters is again working and has taken some large hauls of terakihi together with smaller quantities of kingfish, ling, elephant fish, rigs and a small amount of groper. The majority of these fish were caught 20 to 30 miles north of Otago Heads, so far she has not been trawling for flatfish.’	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																				
1940 May	- Details include . . . Line fish scarce for this time of the year.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																				
1941	- During the year there was no appearance of the large shoals of pilchards that have visited the Harbour in other years. Although clear shrimp and whale feed came into the Harbour great supply, providing abundant feed for fish and birds, there was a notable shortage of such fish as red cod, blue cod, trevally (warehou), and tarakihi.	W.B.Benham, Chairman, Marine Fisheries Investigation Station, to Minister of Marine, report for year ending 31 March 1941, Marine Department annual report, <i>AJHR</i> 1941 H-15.																																				
1942 August	- Details include . . . Trawling fleet worked the grounds around Blueskin Bay, brought in small catches of flatfish and an odd case of gurnard – average catch 2 to 5 cases, mostly small size. A few trips to the Nuggets proved unprofitable as the catches were small and the grounds covered with weed. The large steam trawler took small catches of red cod, tarakihi, and ling.	Monthly report on Otago Fisheries, Inspector of Fisheries, S Broadley, to Secretary, Marine Department, no date, M 1 2/12/2 part 1, NAW.																																				
1945	- Otago: - Increased total for previous year arises from somewhat better catches of barracouta, flounder, soles, groper, and elephant-fish. Diminished supplies are shown for terakihi, pioke (dogfish), and ling. General production is substantially below that of the year 1942-43, especially with regard to steam-trawler and line catches.	A.E. Hefford, Report on fisheries for the year ended 31 March 1945, Marine Department annual report, <i>AJHR</i> 1945, H-15.																																				
1946	- Port Chalmers: no steam-trawler has replaced the one wrecked in 1944, though a new motor-trawler is operating in the middle of 1945. The lack of a steam trawler has seen a substantial drop in the catches of terakihi from 3,166 cwt in 1944 to 173 cwt in 1945. - 25,533 cwt landed at Port Chalmers: - 16,260 cwt from motor-trawlers (including 7,034 cwt of red cod and 6,282 cwt of sole) - 9,091 from line-fishing vessels (including 7,402 cwt of barracouta) - Main types of fish landed over the last five years:	M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1946, Marine Department annual report, <i>AJHR</i> 1946, H-15.																																				
<table><tr><td></td><td>1941–42</td><td>1942–43</td><td>1943–44</td><td>1944–45</td><td>1945–46</td></tr><tr><td>Tarakihi</td><td>5 101</td><td>2 886</td><td>3 361</td><td>3 166</td><td>173</td></tr><tr><td>Sole</td><td>6 394</td><td>5 410</td><td>4 114</td><td>4 993</td><td>6 282</td></tr><tr><td>Red cod</td><td>6 952</td><td>10 377</td><td>4 501</td><td>4 033</td><td>7 605</td></tr><tr><td>Barracouta</td><td>5 599</td><td>9 878</td><td>5 157</td><td>6 300</td><td>7 502</td></tr><tr><td>Flounder</td><td>1 516</td><td>840</td><td>885</td><td>1 163</td><td>1 366</td></tr></table>			1941–42	1942–43	1943–44	1944–45	1945–46	Tarakihi	5 101	2 886	3 361	3 166	173	Sole	6 394	5 410	4 114	4 993	6 282	Red cod	6 952	10 377	4 501	4 033	7 605	Barracouta	5 599	9 878	5 157	6 300	7 502	Flounder	1 516	840	885	1 163	1 366	
	1941–42	1942–43	1943–44	1944–45	1945–46																																	
Tarakihi	5 101	2 886	3 361	3 166	173																																	
Sole	6 394	5 410	4 114	4 993	6 282																																	
Red cod	6 952	10 377	4 501	4 033	7 605																																	
Barracouta	5 599	9 878	5 157	6 300	7 502																																	
Flounder	1 516	840	885	1 163	1 366																																	

	Total	29 724	33 603	21 523	23 264	25 533	
1947	- ‘We the fishermen operating boats at Nugget Bay are much concerned about the depletion of fish in Nugget Bay by outside trawlers, and are desirous of getting an area set aside on which Nugget boats only are allowed to operate.’						F.H. Arthur to Minister of Marine, 8 February 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.
1947	- Commenting on above letter by F.H. Arthur: ‘The depletion, I am afraid is a known fact, as all who know the area concede that the grounds are slowly becoming poorer. All along the coast the position is the same, but this is in a large measure offset by higher prices.’ - Suggests that trawling be totally prohibited from the area if the depletion was to become an urgent problem.						McIvor, District Inspector of Fisheries to Secretary, Marine, 11 March 1947, M 1 2/12/191 part 1, Otago Trawling, NAW.
1948	- Port Chalmers: total landings of 44,849 cwt, almost double the previous year. Increase mainly due to the fact that a modern steam trawler commenced fishing from this port in February, landing 14,670 cwt for the year.						M.W. Young, Chief Inspector of Fisheries, Report on fisheries for the year ended 31 March 1948, Marine Department annual report, AJHR 1948, H-15.
		<b>1943–44</b>	<b>1944</b>	<b>1945</b>	<b>1946</b>	<b>1947</b>	
Tarakihi		3 361	3 166	173	81	9 977	
Sole		4 114	4 993	6 282	8 366	10 963	
Red cod		4 501	4 033	7 605	3 846	2 536	
Barracouta		5 157	6 300	7 502	8 171	13 938	
Flounder		885	1 163	1 366	745	1 062	
Total (cwt)		21 523	23 264	25 533	23 250	44 849	
1948	- ‘A claim that the livelihood of fishermen at Taieri Mouth was being affected by the inroads of Port Chalmers boats, which had destroyed 10 years’ work on the part of the Taieri Mouth fishermen, and the operations of a “large steam trawler” between Otago and Oamaru had depleted the fishing grounds of groper and had a harmful effect on private boats operating from Oamaru, Moeraki and Karitane was made to the Daily Times in the week-end by a man who has been fishing at Taieri Mouth for many years. // “About 20 years ago two boats went to Taieri Mouth to look for fresh fishing grounds”, he said. “They became established, and in time about 11 boats were operating from Taieri Mouth. No trawling had been done there before, and the fishing grounds were found to be good. Six cases of fish were caught for a tow lasting an hour and a-half, boats with low-powered engines being used. There was no export market at the time and, in order to preserve the grounds and regulate the supplies of fish to the market, the fishermen did one tow a day. // The Port Chalmers boats heard about the grounds, however” he continued, “and they worked them continuously until the fish became seriously depleted. Eventually, Port Chalmers fishermen did not gain by trawling off Taieri Mouth, and they went away. After that the Taieri Mouth fishermen got about two cases of fish from a two-hour tow.” - ““It took 10 years for us to build up the grounds,” he said, “and in the past two years, when the fish have been better than ever, the Port Chalmers boats have begun to visit the grounds again. All through the summer they						Article entitled: “Fishing Grounds – Excessive Trawling – Effect on Taieri Mouth Fleet”, extract from <i>Otago Daily Times</i> , 12 July 1948, M 1 2/12/191 part 1, Otago Trawling, NAW.

	<p>worked round the clock, and catches of up 100 cases have been known to go back to Port Chalmers.”</p> <p>- ““The export of fish has not been of benefit to the public of Otago. It has been a means for the outlet of surplus fish, and the fishermen have ‘threshed’ it to such an extent that the grounds are becoming depleted.”</p>	
1957	<p>- ‘Trawler and line fishermen operating off the Otago coast are not “striking it rich” just now. For reasons that only research officers will be able to explain comparatively few fish are being taken from the recognised grounds. In previous years the poundage each day rose into four figures. Now only about 300lb are being taken in a day that lasts as long as 15 hours. . . . No one seems to know why the flounders and sole have disappeared.</p> <p>- Article also contains account of typical day of fishing on the ‘Bravo’.</p>	<p>‘Deep Sea Fishing’, <i>Otago Daily Times</i>, 18 May 1957, M 1 2/12/308 part 2-2, Dunedin – marketing of fish, 1954-1960.</p>

### S35: Hauraki landings pre-1931

Data are landings (tons unless specified otherwise) for the 12 months ending 31 March of the following year. Figures for 1927 and 1929 are based on returns for Auckland, Thames, Coromandel, and Mercury Bay. The figures for 1930 also include Whangarei data.

Species (fish)	1927	1929	1930
Snapper	4 663.16	3 723.89	3 956.03
Dory	123.06	9.04	12
Hapuku	259.75	110.53	207.73
Flounder	175.31	339.49	391.29
Flats/Sole/Dabs	529.61	101.79	99.41
Gurnard	35.01	48.75	78.44
Dogfish	1.45	32.03	11.45
Cod	20.59	12.91	16.12
Mullet	5.1	129.28	55.5
Barracouta	0.26	0.22	0.18
Kingfish	2.88	5.95	5.15
Tarakihi	980.74	840.31	1281.17
Creamfish	0.01	0.12	0
Moki	0.39	0.22	0.19
Frostfish	0	0.02	0.05
Trevally	1.12	3.55	2.57
Kahawai	0.07	2.16	0.62
Kahawai and Trevally	6.6	0	0.7
Trumpeter	0.11	0.1	0.15
Eels	0.08	0.23	0.12
Butterfish	7.3	3.56	2.92
Herrings	0.22	0.41	0.07
Maumau	0.11	0.23	0.01
Piori	0.13	0.24	0.2
Skate	0.1	0.02	0.1
Hake	0.01	0	0
Piper	0.01	0	0.39
Pioke	1.07	8.64	15.33
Ling	0.01	0	0
Parrotfish	0	0.31	0.38
Scorpions	0	0.06	0
Mackerel	0	0.1	0
Warioa	0	0	0
Blackfish	0		0.09
Undefined	533.6	498.81	556.71
Total (tons)	7 347.86	5 872.97	6 695.07
<b>Other</b>			
Mussels	3190 sacks & 555 cases canned	5706 sacks	5704 sacks and 500 cases
Crayfish	2500 sacks	2908 cases	3638



### S36: Hauraki Gulf landings of rock oysters

Year	Hauraki Gulf landings (t)	Year	Hauraki Gulf landings (t)
1885	381	1930	136
1886	0	1931	144
1887	0	1932	157
1888	0	1933	143
1889	0	1934	183
1890	-	1935	125
1891	-	1936	169
1892	388	1937	161
1893	155	1938	160
1894	-	1939	191
1895	629	1940	197
1896	0	1941	186
1897	0	1942	174
1898	-	1943	156
1899	-	1944	178
1900	0	1945	175
1901	0	1946	139
1902	0	1947	197
1903	0	1948	161
1904	0	1949	110
1905	-	1950	118
1906	-	1951	96
1907	-	1952	135
1908	374	1953	127
1909	270	1954	155
1910	0	1955	128
1911	160	1956	135
1912	292	1957	143
1913	308	1958	132
1914	275	1959	113
1915	319	1960	99
1916	287	1961	104
1917	277	1962	120
1918	380	1963	107
1919	324	1964	92
1920	221	1965	94
1921	281	1966	75
1922	280	1967	87
1923	302	1968	61
1924	317	1969	124
1925	318	1970	127
1926	197	1971	38
1927	192	1972	22
1928	166	1973	18
1929	187	1974	9

**S37: Mercury Bay landings pre-1931**

Data are landings (tons) for the 12 months ending 31 March of the following year.

Species (fish)	1929	1930
Snapper	298.86	308.56
Dory		
Hapuku	21.26	23.15
Flounder	2.85	2.53
Flats/Sole/Dabs		0.72
Gurnard	3.01	7.04
Dogfish		
Cod	9.46	11.05
Mullet	0.58	0.39
Barracouta	0.19	0.11
Kingfish	1.39	1.21
Tarakihi	5.6	15.11
Creamfish		
Moki	0.14	0.09
Frostfish		
Trevally		
Kahawai		
Kahawai and Trevally		0.03
Trumpeter	0.1	0.15
Eels	0.17	0.04
Butterfish	2.71	2.68
Herrings	0.22	0.01
Maumau	0.11	
Piori		
Skate		
Hake		
Piper		
Pioke		
Ling		
Parrotfish	0.23	0.02
Scorpions	0.06	
Mackerel	0.1	
Garfish		
Undefined	6.18	0.6
Total (tons)	353.22	373.49

### S38: Whangarei landings pre-1931

Data are landings (tons unless specified otherwise) for the 12 months ending 31 March of the following year.

Species (fish)	1915	1917	1920	1921	1922	1923	1924	1925	1926	1928	1930
Snapper				68.75	139.97	113.9				150	146
Dory											
Hapuku				2.68	8.12	4.6				15	14.5
Flounder				7.16	6.98	1.1				15	15.5
Flats/Sole/Dabs											
Gurnard											
Dogfish											
Cod					0.4						
Mullet				24.64	33.17	15				20	13.5
Barracouta											
Kingfish											
Tarakihi					0.54						
Creamfish											
Moki											
Frostfish											
Trevally				2.01							
Kahawai											
Kahawai and											
Trevally											
Trumpeter											
Eels											
Butterfish											
Herrings											
Maumau											
Piori											
Skate											
Hake											
Piper					0.58						
Pioke											
Ling											
Parrotfish											

Scorpions														
Mackerel														
Garfish														
Undefined	70	150	223.35					1	114.95	117.4	130		5.5	
Total (tons)	70	150	223.35	105.24	189.76	135.6	114.95	117.4	130	200	195			

#### Other

Mussels				20								800 sacks		
Crayfish						4								

### S39: Auckland landings pre-1931

Data are landings (tons unless specified otherwise) for the 12 months ending 31 March of the following year.

Species (fish)	1915	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Snapper	4 000	5 000										4 069.98		2 996.1	2 960.89
Dory	100	75										122		2.55	9.32
Hapuku	100	20										245.17		88.81	170.03
Flounder	150	100										10.45		32.84	70.22
Flats/Sole/Dabs												512.58		101.79	57.28
Gurnard	100	75										3.75		18.71	32.93
Dogfish												1.45		30.1	5.25
Cod	50	5										16		3.42	5.02
Mullet	500	100										3.2		125.96	40.07
Barracouta	20	10										0		0.03	0.07
Kingfish	20	4										1.33		4.22	3.62
Tarakihi	100	100										980.44		834.69	1 266.05
Creamfish												0.01		0.12	0
Moki												0.04		0.07	0.02
Frostfish												0		0.02	0.05
Trevally	100	75										1.12		3.55	2.57
Kahawai	100	100										0.07		1.47	0.62
Kahawai and Trevally Trumpeter												0.09			

Eels														0.05	0.01
Butterfish	50	5												0.84	0.24
Herrings	40														
Maumau															
Piori														0.24	0.2
Skate															
Hake															
Piper															0.39
Pioke															
Ling															
Parrotfish														0.08	0.36
Scorpians															
Mackerel	40														
Garfish	40	10													
Warioa															0.45
Blackfish															0.09
Undefined			3 711.6	3 170	3 428	3 285	3 275	5 356.9	5 498	6 647.5	6 006.9	412.15	3 265.2	470.61	525.72
Total (tons)	5 510	5679	3 711.6	3 170	3 428	3 285	3 275	5 356.9	5 498	6 647.5	4 793.5	6 379.8	3 265.2	4 716.3	5 151.5
<b>Other</b>															
Mussels															
Crayfish	100	100			764				1900	2220	50	2500			
					dozen				sacks	cases		sacks			
Shrimps					0.35					1600	1000				
										sacks	sacks				

#### S40: Thames landings pre-1931

Data are landings (tons unless specified otherwise) for the 12 months ending 31 March of the following year.

Species (fish)	1918	1920	1922(1)	1922(2)	1923	1924(1)	1924(2)	1925(1)	1925(2)	1926	1927	1928	1929	1930
Snapper					494.76					482.11	593.18	434.3 5	428.93	540.58
Dory					0.12					0.1	1.06	5.1	6.49	2.68
Hapuku					9.68					10.19	14.58		0.46	0.05
Flounder					215.47					68.25	164.86	210.1	303.8	303.04
Flats/Sole/Dabs											17.03			41.41
Gurnard					37.32					34.45	31.26	31.65	27.03	38.47
Dogfish													1.93	6.2
Cod					3.24					1.1	4.59		0.03	0.05
Mullet					6.75					0.89	1.9	7.45	2.74	1.54
Barracouta					0.03					0.01	0.26			0.32
Kingfish					1.87					1.9	1.55	0.15	0.34	0.01
Tarakihi					1.42					0.04	0.3		0.02	
Creamfish														
Moki										0.05	0.35		0.01	0.08
Frostfish														
Trevally														
Kahawai					8.12							2.15	0.69	
Kahawai and Trevally										8.25	6.6			0.67
Trumpeter											0.02			
Eels					0.19					0.74	0.08		0.01	0.07
Butterfish					0.22					0.17	7.3		0.01	
Herrings					0.09					3.39	0.22		0.19	0.07
Maumau										0.11	0.11		0.12	
Piori										0.18	0.13			
Skate										0.07	0.1		0.02	0.1
Hake											0.01			
Piper											0.01			
Pioke											1.07		8.64	15.33
Ling											0.01			

Parrotfish														
Scorpions														
Mackerel														
Garfish														
Undefined	1 385	410	3 275	1 397.85	200	1 229.6	1 185	1 331.9	1 311.95	601.42	120.35	41.85	20.05	25.89
Total (tons)	1 385	410	3 275	1 397.85	979.28	1 229.6	1 185	1 331.9	1 311.95	1 213.42	966.93	732.8	801.51	976.56
<b>Other</b>														
Mussels					254 sacks						240 sacks	877 sacks	2706 sacks	

#### S41: Coromandel landings pre-1931

Data are landings (tons unless specified otherwise) for the 12 months ending 31 March of the following year.

Species (fish)	1923	1924	1926	1927	1928	1929	1930
Undefined		1.25	2	1.1	4	2	3.75
Total (tons)		1.25	2	1.1	4	2	3.75
<b>Other</b>							
Mussels	1200 sacks		1000 sacks	2950 sacks & 555 cases	2500 sacks	3000 sacks	5704 sacks & 500 cases
Crayfish							3638

#### S42: Otago landings pre-1931

Data are landings (tons unless specified otherwise) for the 12 months ending 31 March of the following year.

Species (fish)	1869	1915	1918	1919	1920	1921	1922	1923	1924	1925	1926	1928
Various/Unspecified (tons)		3 163	1 709	2 049	2 261	2 592	2 462	2 462	2 131	2 177	2 480	2 335
Total (tons)		3 163	1 709	2 049	2 261	2 592	2 462	2 462	2 131	2 177	2 480	2 335

#### Other

Oysters	40 000 dzn
---------	---------------

#### S43: Dunedin and Port Chalmers landings pre-1930

Data are landings (tons) for the 12 months ending 31 March of the following year.

Species (fish)	1907	1916	1917	1918	1927	1928	1929	1930
Groper					789	225		
Flatfish					789	165		
Red and Blue Cod						105		
Ling						75		
Barracouta, Trevally, Moki						30		
Kingfish						5		
Various/Unspecified	77	2 649	1 860	1 709	789			
<b>Total (tons)</b>	77	2 649	1 860	1 709	2 367	605	1 716	2 112
					Dunedin	Port Chalmers	Dunedin	Dunedin



#### S44: Moeraki landings pre-1930

Data are landings (tons unless specified otherwise) for the 12 months ending 31 March of the following year. Data for 1928 and 1930 includes landings from Oamaru.

Species (fish)	1917	1918	1919	1920	1921	1922	1924	1925	1926	1927	1928	1930
Groper			74.1	54.7	60	57.05	90	75.2	91.05	95.15	150.8	173.4
Blue Cold			62.8	48.5	43	59.6	98.25	59.5	85.9	57.35	48.6	77.3
Moki			9.4	8.3	4	2.3	2				21	3
Red Cod			2.6	57	55	22.4	19.25	6.15	11.85	5.75	12.5	21.75
Barracouta			3.7	5.7	2.65	0.7	0.6	4.25	9.55	4	12	8.85
Ling			1.9	2.3	4	7.4	4.35	3.25	2.9	5.65	9	13.7
Warehou			1.8								5.6	3
Sole												0.75
Various/Unspecified	132	127.8	1.6	1.6								
<b>Total (tons)</b>	132	127.8	157.9	178.1	168.65	149.45	214.45	148.35	201.25	167.9	259.5	301.75
<b>Other</b>												
Crayfish	345 sacks				10 tons	20.65 tons	15.75 tons	4.9 tons	13.9 tons	15.25 tons	10 tons	0.5 tons

#### S45: Oamaru landings pre-1930

Data are landings (tons) for the 12 months ending 31 March of the following year. Data for 1928 and 1930 includes landings from Moeraki.

Species (fish)	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Groper				134.5	60.9	53.6	96.05	68.75	63	72.7	79.4	68.95	150.8	176.6	173.4
Blue Cold				8.8	6.1	14.3	4.1	2.5	3.7	9.45	9.9	9.55	48.6	67	77.3
Moki				7.2	8.7	5.3	2.8	3.4	3.65	6.15	6.25	6	21	6.5	3
Red Cod				7.9	83.9	56.3	13.5	6.2	10	15	12.6	7.45	12.5	5.6	21.75
Barracouta				3.6	6.1	8	19.5	1.5	1.75	4.1	6.45	4.95	12	5.7	8.85
Ling				0.2	1.9	1.9	1.35	0.5	1	2.3	2.7	2.55	9	19.2	13.7
Warehou				0.8									5.6		3
Sole															0.75
Various/Unspecified	343	319.4	177.4	0.9	1										
<b>Total (tons)</b>	343	319.4	177.4	163.9	168.6	139.4	137.3	82.85	83.1	109.7	117.3	99.45	259.5	280.6	301.75
<b>Other</b>															
Crayfish (tons)						2						4.35			0.5

## S46: Fisheries regulations, 1877–1950

Fisheries regulations were notified in the *New Zealand Gazette* up until 1936. From this time until 1941, new regulations were noted in the Marine Department Annual Report that was published in the *AJHR*. Later regulations have been located in the Marine Department files, but it is difficult to be sure whether these files include all regulations made from 1940.

The following list does not include regulations relating to oysters. These are recorded in Appendix 24 that deals specifically with oysters.

### NZG 1878, no. 33, pp 441-442

- Regulations under the Fish Protection Act 1877:
- Apply only to tidal waters, but not to Māori or individuals taking or catching fish otherwise than by net.
- ‘Garfish nets’ – mesh not less than one inch.
- ‘Seine net’ or ‘set nets’ – mesh not less than 1¾ inches.
- Minimum size of flounders and soles 9 inches from snout to root of tail, except in July.
- Limits of areas to which the regulations apply:
- Auckland District: ‘All the tidal waters bounding on the Provincial District of Auckland, comprised within a line drawn parallel to and three miles distant from high watermark, the line of high-water mark, and due east and west lines joining these two boundaries.’
- Otago District: ‘All the tidal waters bounding on the Provincial District of Otago, comprised within a line drawn parallel to and three miles distant from high watermark, the line of high-water mark, and due east and west lines joining these two boundaries.’

### Fisheries (Dynamite) Act 1878

- Prohibits the dynamiting of fish in the sea, lakes, and rivers.

### NZG 1888, no. 2, pp 13-14

- Regulations under the Fisheries Conservation Act 1884 and the Fisheries Conservation Amendment Act 1887:
- 12: Minimum fish size:

Description of fish	Weight in ounces or pounds	Length in inches
Hapuku	5 lb	
Kahawai	12 oz	
Schnapper	1 lb	
Tarakihi	4 oz	
Trumpeter	1 lb	
Moki	8 oz	
Barracouta	8 oz	
Horse-mackerel	4 oz	
Trevally	4 oz	
Kingfish	3 lb	
Warehou	4 oz	
Mackeral	8 oz	
Rock-cod	4 oz	
Gurnard	4 oz	
Mullet	4 oz	
Butterfish	4 oz	
Red-cod	4 oz	
Flounder		9 in

Soles		9 in
Garfish		9 in
Herring		5 in

- 14: Mesh of every net or seine used for taking fish in tidal waters should measure, diagonally, not less than two inches, except nets used for taking garfish or herrings only.
- 15: Mesh of garfish net should measure, diagonally, not less than one inch.
- 16: Mesh of herring net should measure, diagonally, not less than one inch.

NZG 1893, no. 98, p 1870

- Regulations under the Fisheries Conservation Act 1884:
- 1: Minimum size of kahawai – 6 oz.

NZG 1894, no. 77, pp 1581-1582

- Regulations under the Fisheries Conservation Act 1884:
- 1: Minimum size of blue-cod, red-cod, and rock-cod – 8 oz.

NZG 1895, no. 32, pp 729-730

- Regulations under the Fisheries Conservation Act 1884:
- Confirms minimum fish sizes set-down in previous regulations.

NZG 1897, no. 1, pp 18-19.

- Regulations under the Sea-Fisheries Act 1894.
- Confirms previous regulations detailed above, except:
- 16: Mesh of herring net should measure, diagonally, not less than 1½ inches.

NZG 1902, no. 1, pp 18-19.

- Regulations under the Sea-Fisheries Act 1894 – trawling in the Hauraki Gulf.
- 1: Prohibits trawling within portion of Hauraki Gulf – ‘Commencing at a point on a line drawn from Cape Colville to Rodney Point, and distant three nautical miles from high-water mark at Cape Colville; proceeding thence generally in a southerly direction at a distance of three nautical miles from high-water mark on the eastern shore-line of Hauraki Gulf till intersected by a straight line extending from the northern entrance of Cabbage Bay to Shearer Rock; thence in a westerly direction in a straight line to Shearer Rock; thence in a northerly direction to Flat Rock; thence in a northerly direction on a continuation of the last-mentioned line till intersected by the beforementioned line drawn from Cape Colville to Rodney Point; thence in a north-westerly direction to Rodney Point; thence generally southerly, easterly, and northerly along the high-water mark of the shore-line of the waters of the Hauraki Gulf to Cape Colville; thence in a straight line to the commencing point’.

NZG 1903, no. 59, p 1623.

- Regulations under the Sea-Fisheries Act 1894.
- 1: No person shall take (a) during June-September any dab (*Rhombosolea monopus*) less than 8 inches in length from nose to tail (b) during October-May any dab less than 9 inches within the waters of the Provincial District of Auckland.

NZG 1903, no. 82, p 2231.

- Regulations as under the Sea-Fisheries Act 1894.
- 1: The mesh of every trawl net shall measure diagonally (when prepared for use and wetted) not less than 5 inches in the wings and body and 4 inches in the cod end.

NZG 1904, no. 14, p 552.

- Regulations under the Sea-Fisheries Act 1894.
- 1: Mesh of every net or seine used in tidal waters should measure, diagonally, not less than 4 inches unless a *bona fide* garfish-net or herring-net.

NZG 1906, no. 41, pp 1381-1385.

- Regulations under the Sea-Fisheries Act 1894.
- Confirms existing regulations detailed above, except:
  - 11: Mesh of every net or seine used in tidal waters should measure, diagonally, not less than 2¼ inches unless a *bona fide* flounder, set-net, mullet-net, garfish-net, or herring-net.
  - 12: Mesh of flounder nets used in all waters should not measure less than 4 inches.
  - 13: Mesh of mullet nets used in tidal waters should not measure less than 3¼ inches.
  - 14: Mesh of garfish nets should not measure less than 1 inch.
  - 15: Mesh of herring- net should not measure less than 1¼ inches.
  - 19: Mesh of a trawl net should not measure less than 4½ inches in wings, belly, and batings down to 100 meshes, 4½ inches in square, and 4 inches in the cod end.

NZG 1907, no. 40, pp 1373.

- Regulations under the Sea-Fisheries Act 1894.
- 1: 'No person shall haul or use a trawl-net for the purpose of taking fish in that portion of the Hauraki Gulf which is bounded on the north by a line extending from the north head of Cabbage Bay to the southernmost point of Tiri Island, and generally on the north-east by a line extending from the said southernmost point of Tiri Island to the right bank of the Matakana River'.

NZG 1907, no. 53, p 1865.

- Regulations under the Sea-Fisheries Act 1894.
- 1: 'No person shall haul or use a net for the purpose of taking fish in that portion of Otago Harbour on the upper side of a line drawn from the north-eastern end of the Ravensbourne Railway-station on the western side of the harbour to the north-eastern end of Macandrew's Wharf on the eastern side of the harbour.'

NZG 1907, no. 55, p 1926.

- Regulations under the Sea-Fisheries Act 1894.
- 1: Trawling prohibited in Bay of Plenty waters within three miles of portion of the mainland lying between the northern head of Whangamata River and Koronohina Point.

NZG 1907, no. 67, p 2310.

- Regulations under the Sea-Fisheries Act 1894.
- 1: Close season for mullet from 1 December to 28 February.
- 2: Regulation to have effect in all waters of the North Island.

NZG 1907, no. 101, pp 3416-3417.

- Regulations under the Sea-Fisheries Act 1894.
- Varies closed season for mullet – not to apply to waters lying south of a line drawn from Tararu Point to the left bank of the mouth of the Makaha Creek.

NZG 1907, no. 8, p 361.

- Regulations under the Sea-Fisheries Act 1894, revoking NZG 1907, no. 53, p 1865.
- 1: Prohibits the use of nets in Otago Harbour in waters lying on upper side of a straight line between southern boundary of Section 46, Harbour East Survey District (Challis's Property) to a point immediately opposite the southern end of the Ravensbourne railway stations.

NZG 1909, no. 86, p 2582.

- Regulations under the Fisheries Act 1908, revoking NZG 1907, no. 8, p361.
- 1: Prohibits the use of nets in Otago Harbour in waters lying on upper side of a straight line from Jack's Point on Section 53 to a point on the opposite side of the harbour at the north-east corner of Section 4, Waverley.

NZG 1912, no. 24, p 1028.

- Regulations under the Fisheries Act 1908.

- 1: Minimum size of blue cod – 1 lb avoirdupois.

NZG 1912, no. 40, p 1490.

- Regulations under the Fisheries Act 1908, amending NZG 1912, no. 24, p 1028.
- Additional provision for it to be lawful for a person to take blue cod when cleaned (ie, headed and gutted) of a weight not less than 11 ounces.

NZG 1913, no. 16, p 676.

- Regulations under the Fisheries Act 1908, revoking NZG 1912, no. 24, p 1028 and NZG 1912, no. 40, p 1490.
- 1: Minimum size of blue cod 10½ inches in natural state, or 9 inches when properly headed (head cut off at the back of the eyes).

NZG 1914, no. 9, p 301.

- Regulations under the Fisheries Act 1908.
- 1: 'In these regulations the term 'long-line' shall mean and include lines set, moored, or placed for the purpose of taking fish, but shall not mean or include deep 'hand-lines'.'
- 2: No long-line should be left for a longer period than 2 hours without being attended to.

NZG 1915, no. 128, p 3762.

- Regulations under the Fisheries Act 1908.
- 1: Minimum size of snapper – 12 ounces avoirdupois.

NZG 1916, no. 135, p 3706.

- Regulations under the Fisheries Act 1908, amending NZG 1906, no. 41, pp 1381-1385, regulation 19.
- Provides that regulation referring to cod end of trawl nets should not have effect for a period of nine months commencing from 1 November 1916, but that the cod ends of such nets should have a mesh of not less than 3¾ inches.

NZG 1917, no. 136, pp 3339-3340.

- Regulations under the Fisheries Act 1908.
- 1: Trawling prohibited within three miles of mainland between the most southern point of Busby Point, near Whangarei Heads, to the north-western point of Mackenzie Cove.

NZG 1917, no. 143, p 3630.

- Regulations under the Fisheries Act 1908.
- 1: Trawling prohibited within (a) Bon Accord Harbour, Kawau Island (inside a straight line from Accord Point to Momona Point), (b) Port Abercrombie, Great Barrier Island (inside a straight line from the westerly point of Green Island to Wellington Head), and (c) Port Fitzroy, Great Barrier Island (inside a straight line from the mainland to Selwyn Island across the narrowest part of Governor's Pass).

NZG 1918, no. 144, p 3655.

- Regulations under the Fisheries Act 1908, revoking NZG 1909, no. 86, p 2582.
- 1: Use of nets prohibited in Otago Harbour in waters lying on upper side of a straight line running between a point immediately north of Jack's Point and a point on the opposite side of the Harbour at the north-east corner of Section 4, Waverley.

NZG 1919, no. 112, p 2813.

- Regulations under the Fisheries Act 1908, revoking NZG 1907, no. 55, p 1926 (prohibiting trawling in Bay of Plenty).

NZG 1919, no. 126, p 3280.

- Regulations under the Fisheries Act 1908.

- 1: Trawling prohibited in Bay of Plenty waters within three miles of portion of the mainland lying between the northern head of Whangamata River and Koronohina Point. [This is identical to NZG 1907, no. 55, p 1926, revoked earlier in 1919.]

NZG 1919, no. 125, pp 3197-3198.

- Regulations under the Fisheries Act 1908, revoking NZG 1907, no. 40, p 1373.  
- 1: Trawling prohibited in that portion of the Hauraki Gulf bounded on the north by a line extending from the north head of Cabbage Bay to Shearer Rock off the north-east of Tiritiri Island, and generally on the north-east by a line extending from Shearer Rock to Mahurangi Heads.

NZG 1920, no. 1, pp 39-40.

- Regulations under the Fisheries Act 1908, revoking NZG 1919, no. 125, pp 3197-3198.  
- 1: Trawling prohibited in that portion of the Hauraki Gulf by a line extending from the north head of Cabbage Bay to Tiritiri Lighthouse, and thence generally on the north-east by a line extending to the most southerly point of North Mahurangi Head.

NZG 1921, no. 18, p 496.

- Regulations under the Fisheries Act 1908.  
- 1: Trawling prohibited within Otago Harbour inside a straight line drawn from the outermost point of Tairoa Head Lighthouse to Hayward Point.

NZG 1921, no. 23, p 602.

- Regulations under the Fisheries Act 1908.  
- 1: Trawling prohibited within a portion of the Bay of Plenty: 'Commencing at high-water mark of ordinary spring tides at Town Point; proceeding thence by a straight line to the southern extreme of Motiti Island; thence by high-water mark of ordinary spring tides to the north-western extreme of the said island; thence by a straight line to the north-western extreme of Karewha Island; thence by a straight line to the north head of the entrance of Katikati Harbour; thence by high-water mark of ordinary spring tides, including the harbour of Tauranga, to the commencing point'.

NZG 1924, no. 4, p 180.

- Regulations under the Fisheries Act 1908.  
- 1: Use of purse-seine [Danish seine] prohibited within the area of the Firth of Thames inside a straight line drawn from Deadman Point to the light known as "Ponui Passage Light" and a straight line from the said light to Raukawa Point.  
- 2: Unlawful to use or convey a purse-seine net on any vessel while such a vessel is engaged in trawling.

NZG 1924, no. 80, p 2866.

- Regulations under the Fisheries Act 1908, revoking NZG 1924, no. 4, p 180.  
- 1: Use of 'Danish seine or a purse-seine net of any description whatsoever' prohibited within the area of the Firth of Thames inside a straight line drawn from Deadman Point to the light known as "Ponui Passage Light" and a straight line from the said light to Raukawa Point.  
- 2: Unlawful to use or convey a 'Danish seine or a purse-seine net of any description whatsoever' on any vessel while such a vessel is engaged in trawling.

NZG 1926, no. 59, pp 2630-2631.

- Regulations under the Fisheries Act 1908, revoking NZG 1924, no. 80, p 2866.

NZG 1927, no. 82, p 3576.

- Regulations under the Fisheries Act 1908, revoking paragraph (d) in schedule to NZG 1926, no. 59, pp 2630-2631.  
- Replacement paragraph (d): 'All that area of tidal land and tidal water inside straight lines drawn from Puri Point to Epuni Point, from the western extreme of Wai Hau Island to the eastern extreme of Tuhina Islet; thence to the northern extreme of Rangipukea Island, and from the southern extreme of Rangipukea Island to Deadman Point.'

NZG 1928, no. 45, p 1748.

- Regulations under the Fisheries Act 1908.

- 1: Trawling prohibited within Mercury Bay within a straight line drawn from the southern end of Koranga Island to the north-easternmost point of Te Tui (Mahurangi) Island; thence by straight line to Heri-heri-auru.

NZG 1928, no. 45, pp 1748-1749.

- Regulations under the Fisheries Act 1908.

- 1: Use of Danish seine net or purse seine net prohibited within Mercury Bay within a straight line drawn from the southern end of Koranga Island to the north-easternmost point of Te Tui (Mahurangi) Island; thence by straight line to Heri-heri-auru.

NZG 1928, no. 54, pp 2157.

- Regulations under the Fisheries Act 1908.

- 1: Minimum mesh size of Danish seine in the last three yards of the cod end, when prepared for use – 4½ inches.

NZG 1929, no. 25, pp 959-960.

- Regulations under the Fisheries Act 1908, revoking NZG 1917, no. 143, p 3630; NZG 1920, no. 1, pp 39-40; NZG 1926, no. 59, pp 2630-2631; NZG 1927, no. 82, p 3576.

NZG 1929, no. 58, p 2139.

- Regulations under the Fisheries Act 1908, revoking NZG 1913, no. 16, p 676.

- 1: Minimum size of blue cod – 12 inches in natural state; 10 inches when properly headed, with head cut off at the back of the eyes.

NZG 1930, no. 32, p 1516.

- Regulations under the Fisheries Act 1908.

- 1: Prohibiting the taking of mussels from area of sea-bed bounded by a line commencing at the southern extremity of Busby Head and proceeding due west to the Marsden Point Beach; thence north-easterly and north-westerly along the line of ordinary high-water mark to the Marsden Point Wharf; thence by a direct line across the Whangarei Harbour to the southern extremity of Lort Point, Reotahi; thence generally easterly and southerly along the high-water mark to the Whangarei Harbour to the starting-point at Busby Head.

NZG 1931, no. 67, p 2810.

- Regulations under the Fisheries Act 1908, amending paragraph 9 in NZG 1929, no. 25, pp 959-960.

- Replacement paragraph 9:

- A “Danish seine net” is a net having a wing on each side of the cod-end or bag, with a warp attached to each wing and which is operated by being drawn over the sea bottom or through the sea, the power for hauling in the net to the vessel being provided by a winch driven by an internal combustion-engine or steam engine. Such hauling operations shall be carried out only while the vessel is moored or anchored and not under way.

- “Trawling” or “using a trawl net” means drawing a net over the sea bottom, or through the sea by means of one or more vessels under way.

NZG 1932, no. 46, p 1597.

- Revoking regulations under the Fisheries Act 1908 – all existing regulations revoked.

NZG 1932, no. 46, pp 1598-1610.

- Regulations under the Fisheries Act 1908. Largely appears to be a consolidation of previous regulations.

NZG 1934, no. 27, p 1138.

- Regulations under the Fisheries Act 1908.



- 2: 'No person shall trawl or use a Danish seine net for the purpose of taking fish in the tidal waters of Tutukaka Harbour inside a straight line drawn from the southern extremity of Tutukaka Head on the northern side of the entrance of the said harbour and extending in a south westerly direction through the rocky islets to the headland on the southern side of the entrance to the said harbour.'

NZG 1934, no. 30, p 1228.

- Regulations under the Fisheries Act 1908.

- 1: Prohibiting trawling and Danish seining in all the tidal waters of Whangamata Harbour inside a straight line drawn in a south-westerly direction from Tarakihi Point (Motu Karamurumu) to the Fourth, Sugar Loaf (or Quartz) Island, and thence in a straight line to Neapito Rock on the southern side of the entrance of the harbour.

NZG 1934, no. 62, p 2447.

- Regulations under the Fisheries Act 1908, amending NZG 1932, no. 46, pp 1598-1610.

- Amending paragraph (b), regulation 52, adding: 'Providing that during the 15<sup>th</sup> day of August 1934, to the 14<sup>th</sup> day of September, 1934, both days inclusive, no person shall use a Danish seine net for taking fish in that part of the Hauraki Gulf south of a straight line drawn from the summit of the hill on Waiheke Island marked 770 ft on Admiralty Chart 1896 through the summit on the hill on Rotaro Island marked 245 ft on the said chart to Cow Rock (Tuahuia Islet).' [This regulation prevented Danish seiners operating in the 'Dab patch' during the spawning season.]

NZG 1934, no. 94, p 4341.

- Regulations under the Fisheries Act 1908.

- 1: Prohibiting the use of Danish seine nets in Port Fitzroy and Port Abercrombie Harbours, Great Barrier Island. (Abercrombie Harbour – inside a straight line from the westerly point of Green Island to Wellington Head; Port Fitzroy – inside a straight line from the mainland to Selwyn Island across the narrowest part of Governor's Pass.)

NZG 1935, no. 14, p 585.

- Regulations under the Fisheries Act 1908, amending NZG 1932, no. 46, pp 1598-1610.

- 1: Regulation 3 amended: 'No person shall take any hapuku having a length of less than two feet measured from the snout to the tip of the tail, or having a length, without head, or less than fifteen inches measured from the back side of the base of the pectoral fin to the tip of the tail.'

NZG 1935, no. 14, p 585.

- Regulations under the Fisheries Act 1908.

- 1: Prohibiting use of nets extending more than half way across any channel or stream. Width to be measured at right angles to the direction of the channel or stream.

NZG 1935, no. 15, p 671.

- Regulations under the Fisheries Act 1908.

- 1: Prohibiting the use of Danish seine nets in Tryphena Harbour, Great Barrier Island, inside a straight line drawn from the point at the northern end of Bailey's Reef and passing through Bird Islet in a south-easterly direction to Home Point.

NZG 1935, no. 51, p 1938.

- Regulations under the Fisheries Act 1908, amending NZG 1932, no. 46, pp 1598-1610.

- Regulation 61 amended with addition of: 'Provided further that, in respect of the waters of Kawhia Harbour and that portion of the Hauraki Gulf (including the Firth of Thames) to the southward of a line drawn from Rodney Point to Cape Colville, no person shall . . . use a set net having a mesh less than four and three-quarter inches (4¾ inches) for taking flounders if the said net or nets when slung for fishing have a greater total length than 80 fathoms or 160 yards.'

NZG 1935, no. 57, p 2164.

- Regulations under the Fisheries Act 1908, amending NZG 1932, no. 46, pp 1598-1610.

- Regulations 49 and 54 revoked and replaced.

NZG 1935, no. 61, p 2278.

- Regulations under the Fisheries Act 1908.

- 1: Prohibiting trawling and Danish seine netting in Kennedy Bay, Coromandel Peninsula, inside a straight line commencing at a point at high-water mark one-half mile north of the entrance to the said bay, and drawn in a south-easterly direction to a point at high-water mark one mile east of the headland on the southern side of the entrance to the bay.

NZG 1936, no. 27, p 673.

- Regulations under the Fisheries Act 1908, amending NZG 1932, no. 46, pp 1598-1610.

- 1: Regulation 3 amended, deleting reference to blue cod and rock cod.

- 2: Minimum size of blue cod – 13 inches in length in natural state, or 10¾ inches when properly gutted (head cut off at the back of the eyes). In cases of blue cod taken by persons other than licensed fishermen and not exposed for sale, minimum size of 12 inches in natural state, or 10 inches when properly gutted.

- 5: For the purpose of these regulations the term blue cod refers to the species *Parapercis colias* (Forsk.).

[From 1937 onwards, regulations are not detailed in the *Gazette*. Regulations were briefly noted in *AJHR* until 1941.]

Orders in Council under Fisheries Act 1908, Appendix II, Marine Department Annual Report, AJHR 1938, H-15, p 59.

- 9 April 1937: Prohibiting trawling and Danish-seining off Bay of Islands, Doubtless and Rangaunu Bays, and Danish-seining off part of the east coast of Otago Province.

- 27 July 1937: Defining 'herring' and 'sardine' and fixing size of nets for taking garfish.

- 13 October 1937: Prescribing close season for seals and prohibiting 'windy bouy' fishing.

- 8 December 1937: Prohibiting the dragging of nets over the sea-bottom by two vessels or by engine power, except off Godley Head to Wakaroa Point.

- 23 February 1938: Prohibiting trawling and Danish seining in Bay of Plenty and trawling in Bay of Plenty and altering the monthly statistics return.

Minister of Marine to Secretary, Port Chalmers Fishermen's Co-operative Society, 3 May 1937, M 1 2/12/191 part 2, Otago Trawling, NAW.

- Advises that Fisheries Regulations have been made, prohibiting Danish seining from the south bank of the Waitaki River to Long Point (about 10 miles southwards of Nuggets).

Salt-Water Fisheries Amendment Regulations 1938, Serial 1938/33, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945, NAW.

- Includes regulation prohibiting boats 40 feet and over in length operating Danish seine nets in vicinity of Whangamata Harbour – 'within a distance of two nautical miles from low-water mark of the shore that extends from a point three miles north to a point three miles south of the northern entrance point of the Whangamata River, and including the waters of the said river'.

Johnson, (2004), p 145.

- 1938: A size limit of 9 inches was set for North Island landings and 8 inches for South Island landings. Females carrying eggs were not to be taken and eggs were not to be stripped from them. In 1940 all restrictions were removed.

Orders in Council under Fisheries Act 1908, Appendix I, Marine Department Annual Report, AJHR 1939, H-15, p 48.

- 3 August 1938: (a) Restricting the size of crayfish to be taken, and prohibiting the taking of egg-bearing females. (b) Prohibiting Danish-seining in Kawau Bay.

- 14 February 1939: Prohibiting Danish-seining in parts of Bay of Plenty.

Orders in Council under Fisheries Act 1908, Appendix I, Marine Department Annual Report, AJHR 1940, H-15, p 36.

- 5 April 1939: Amending regulations for Danish-seining in the Bay of Plenty.
- 18 October 1939: Consolidating the Sea-fisheries Regulations 1939.
- 20 December 1939: Amending the regulations 1939 prescribing the minimum size at which fish may be taken.

Orders in Council under Fisheries Act 1908, Appendix I, Marine Department Annual Report, AJHR 1941, H-15, p 36.

- 3 July 1940: Prohibiting certain classes of vessels from Danish-seining in a portion of the Hauraki Gulf.
- 31 July 1940: Revoking crayfish regulations.

Sea-Fisheries Regulations 1939, Amendment No. 10 (Order in Council 28 February 1945), M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Includes limitation on size of seine or drag nets.

Serial Number 1945/45, Sea-Fisheries Regulations 1939, Amendment 17, M 1 2/12/328, part 2, Mussels – Coromandel and Hauraki Gulf – leasing of areas, 1942-1949, NAW.

- Prohibiting the dredging of mussels from 1 April 1945 to 31 March 1948 in certain Coromandel waters. Two areas described.

Sea-Fisheries Regulations 1939, Amendment No. 16, Serial Number 1945/14, M 1 2/12/415, East Coast, Coromandel – trawling, netting – restrictions, 1928-1945, NAW.

- Includes the following amendment of the principal regulations: ‘No person shall in any waters use a seine-net or drag-net having a length exceeding 90 yards or use in taking fish otherwise than for purposes of sale a seine-net or drag-net having a length exceeding 44 yards.’

Minister of Marine to N.Z. Wholesale Fish Merchants’ Association Limited, Auckland, despatched 11 July 1952, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- ‘While it must be admitted that there has not been any spectacular increase in the fish landings at Thames since the “Dab” Patch was closed in May, 1947, the decline of the fishery has been arrested. Once a fishing ground has been depleted short term closures do not always provide complete restoration. // These grounds are being tested from time to time, but there is no indication that the time has yet come when there would be justification for removing the present restriction.’

Secretary, Marine Department, to Secretary, Whangarei, 11 November 1948, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- Acknowledges petition from some Whangarei fishermen requesting an extension of the present seining and trawling limits.
- Notes the following, existing limits:
  - Danish seining – not allowed inside a straight line drawn from Marsden Point to Busby Head. Regulation 65(8) Fisheries Regulation 1947.
  - Trawling – not allowed within three nautical miles of high water mark between Busby Head and McKenzie Cover. Regulation 75(8) Fisheries Regulations, 1947.

Secretary, Marine Department, to R.E. Hunter, 24 October 1950, M 1 2/12/146 part 1, Trawling and netting restrictions – Whangarei and vicinity, 1917-1954, NAW.

- The Fisheries (General) Regulations, 1950, permitted drag nets of 180 yards for commercial fishermen and 44 yards for amateur fishermen.

Secretary of Marine to Manager, Kia Ora Fish Market, 18 June 1959, AG W1711 box 2713 2/12/55 part 10, Hauraki Gulf restriction, 1951-1963, NAW.

- re the closure of the Dab Patch

- ‘This ground was closed in an attempt to arrest the decline in flounder stocks in Hauraki Gulf when Danish seining was the principal method of fishing. The research vessel “Ikaterē” has worked the ground experimentally to check any recovery of flounder stocks but as yet no significant recovery is apparent.”