Ministry for Primary Industries
Manatū Ahu Matua

Review of conversion factor for kingfish processed to dressed state

Consultation Document

MPI Discussion Paper No: 2015/20

ISBN No: 978-0-908334-46-9 (online)
ISSN No: 2253-3907 (online)

June 2015

New Zealand Government

Growing and Protecting New Zealand

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1 Submission Information

MPI welcomes written submissions on the proposals contained in the Consultation Document. All written submissions must be received by MPI no later than 5pm on 17 July 2015.

Written submissions should be sent directly to:

Deepwater Fisheries Management
Ministry for Primary Industries
P O Box 2526
Wellington 6011

or emailed to FMsubmissions@mpi.govt.nz

1.1 OFFICIAL INFORMATION ACT 1982

All submissions are subject to the Official Information Act 1982 (the OIA) and can be released (along with personal details of the submitter) under the OIA. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the OIA.

2 Executive Summary

Fisheries legislation requires the use of greenweight (whole fish) for the purposes of recording and reporting catch. Commercial fishers who process fish at sea are required to use conversion factors to convert the weight of processed fish to whole fish in order to comply with reporting and recording obligations.

Conversion factors are set in notices published under section 188(1) of the Fisheries Act 1996 (the Act) based on combination of species and processed state, i.e. the state to which a fish has been processed. Generic conversion factors are used for fish or shark species for which species-specific conversion factors have not been set.

Kingfish is a species for which species-specific conversion factors have not been set. Apart from whole fish, the most commonly landed state for kingfish is dressed (which entails removal of the head, guts and pectoral fins). Analysis of data collected by Ministry for Primary Industries (MPI) observers indicates that applying the generic conversion factor of 1.80 to dressed kingfish is not accurate, and likely results in landings being over-reported.

MPI proposes that, under section 188(1) of the Act, the Director-General of MPI (or delegate) sets a conversion factor for kingfish processed to a dressed state at 1.60. A requirement of this section of the Act is that consultation must be undertaken prior to a conversion factor being set. MPI is therefore seeking information and views from tangata whenua and stakeholders on this proposal.

The conversion factor setting process typically applies to deepwater species that are of little or no interest to stakeholders other than fishing vessel operators. Given that kingfish is a popular recreational species, MPI has decided to release this Discussion Document alongside the 2015 sustainability round to provide an opportunity for all stakeholders interested in the management of this species to participate in the consultation process.

3 Purpose

The purpose of this discussion document is to obtain stakeholder feedback on a proposal to set a species-specific conversion factor for dressed kingfish for the first time under section 188(1) of the Act. This conversion factor will apply to any kingfish taken in New Zealand fisheries waters that is processed to a dressed state.

Under fisheries legislation, commercial fishers must record all weights of fish, aquatic life or seaweed in greenweight kilograms. Greenweight means whole fish i.e. the weight before any processing commences and before any part is removed.

If fish is processed at sea, fishers must multiply the weight of processed fish by a conversion factor in order to determine greenweight. The conversion factors that must be used are set out in notices under section 188 of the Act or certificates made under section 188(2). The appropriate conversion factor must be used for the particular species/processed state combination.

3.1 ISSUE/NEED FOR ACTION

Some kingfish taken by commercial fishing vessels are processed at sea to a dressed state, which, in short, entails removing the head, guts and pectoral fins of a fish. There are currently no species-specific conversion factors for any kingfish processed states. In their absence, fishers are required to use generic conversion factors. In the case of kingfish, fishers must use

the generic conversion factors for "all other species of finfish (*class Osteichthyes*)". The generic conversion factor for "all other species of finfish" processed to a dressed state is 1.80.

Conversion factor sampling carried out by MPI Observers indicates that 1.80 is not accurate for kingfish, and that it would be appropriate to set a species-specific conversion factor for dressed kingfish of 1.60. Continued use of the generic conversion factor will result in ongoing over-reporting of the amount of dressed kingfish landed by around 12.5%.

3.2 MANAGEMENT APPROACH

The conversion factor regime involves ongoing data collection by observers and regular scans of that data by MPI fisheries management staff. If the scans indicate a gazetted conversion factor is no longer the most accurate value to use, MPI undertakes a formal review of the data together. MPI will also consult with stakeholders regarding amending the gazetted conversion factor.

If alerted to anomalies in the regime, MPI will take appropriate management action. Examples of anomalies include the absence of species-specific conversion factors or production of processed states that differ from those described in notices.

4 Background Information

4.1 FISHERY DESCRIPTION

Kingfish is commonly taken in small quantities by commercial fishers around the North Island and the top of the South Island. Nationwide, most commercial catch is taken by inshore fishers and landed whole.

Factory trawlers targeting jack mackerel off the west coast of the North and South Islands intermittently take kingfish (the KIN7 and KIN8 stocks) and process most of it to a dressed state.[1] All kingfish taken while fishing for jack mackerel is taken as unavoidable bycatch. It is not a species that is actively sought by the fleet as dressed, frozen kingfish is a low-value product.[2]

The jack mackerel fleet is prohibited from operating inside the territorial sea, which extends 12 nautical miles offshore. The fleet is also subject to additional regulations[3] that prohibit trawlers greater than 46 metres in length from operating in specific areas outside the territorial sea. Off the west coast of the North Island, from approximately the Kaipara Harbour in the north to Kapiti in the south, the regulations apply to an area extending an additional eight nautical miles seaward of the outer limit of the territorial sea.

These restrictions, which have been in place since the late 1970s, were introduced primarily to protect the then small domestic fleet and the inshore fishing grounds from the greater power and capacity of larger foreign-owned vessels.

All areas referred to are shown in Figure 1 below.

[1] Based on observer data, kingfish comprises about 0.2% of the catch in the west coast jack mackerel target trawl fishery

[2] The export value of frozen, dressed kingfish during 2014 was around $3.00 per kg of processed fish, equating to around $1.80 per kg of whole fish. In contrast, the export value of fresh whole kingfish during 2014 was over $10 per kg.

[3] The additional regulations relevant to the KIN7 and KIN8 stocks are contained in the Fisheries (Auckland and Commercial Areas Commercial Fishing) Regulations 1986, the Fisheries (Central Areas Commercial Fishing) Regulations 1986 and the Fisheries (Challenger Area Commercial Fishing) Regulations 1986.

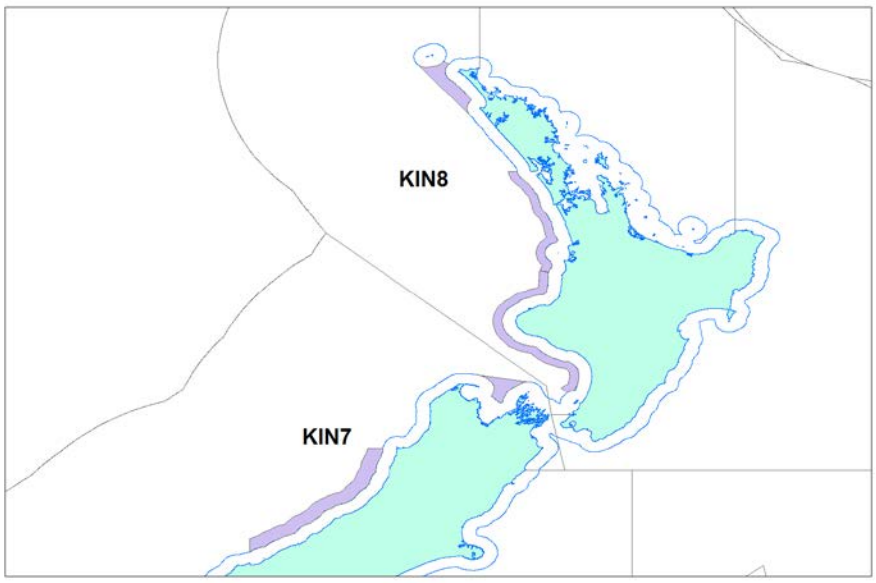

Figure 1. Map showing location of KIN7 and KIN8 quota management areas. The jack mackerel trawl fleet is prohibited from operating in both the territorial sea (outlined in blue) and the areas shown in purple seaward of the territorial sea.

The quantities of KIN7 and KIN8 landed during the last five fishing years are summarised in Table 1 below. Landings are split into those taken by the jack mackerel (JMA) fleet and those taken by all other vessels (primarily the inshore trawl fleet). Fisheries legislation provides for kingfish that are not taken by the method of set netting, and that are likely to survive, to be returned to the sea. Kingfish released alive under this provision are required to be reported, and this information is also shown in Table 1.

Table 1. Reported landings (tonnes) of KIN7 and KIN8 between the 2009/10 and 2013/14 fishing years. Landings have been split into those taken by the jack mackerel trawl fleet and those taken by all other vessels. The quantity reported as released alive (by all vessels) is also shown. Note that this quantity is additional to total landings.

Stock	Year	Landings by JMA fleet (t)	Landings by all other vessels (t)	Total landed (t)	Total released alive (t)
KIN7	2013/14	20	6	26	11
	2012/13	9	3	12	4
(TACC = 15	2011/12	11	4	15	4
tonnes)	2010/11	2	4	6	1
	2009/10	4	3	7	1
KIN8	2013/14	45	44	89	17
	2012/13	32	35	67	28
(TACC = 45	2011/12	33	39	73	36
tonnes)	2010/11	10	28	38	8
	2009/10	15	29	44	13
KIN7 & KIN8	2013/14	65	50	115	28
(combined	2012/13	42	38	79	32
TACC = 60	2011/12	45	43	88	40
tonnes)	2010/11	12	31	44	9
	2009/10	19	31	50	14

Over 99% of dressed kingfish nationwide is landed by the jack mackerel fleet and comprises the KIN7 and KIN8 stocks. The small quantities landed by other vessels are distributed across the KIN1, KIN2, KIN3, KIN7 and KIN8 stocks but typically comprise less than 100kg per stock per year.

The combined quantity of KIN7 and KIN8 reported by the jack mackerel fleet during the last five fishing years is shown in Table 2 below. Landings are separated into fish reported as dressed and all other processed states.

Table 2: Reported landings of KIN7 and KIN8 (combined) by the jack mackerel trawl fleet during the 2009/10 to 2013/14 fishing years together with quantity reported as dressed. All figures in tonnes.

Fishing year	Landing of KIN7 and KIN8 by JMA fleet (t)	Quantity reported as dressed (t)	Quantity reported by other processed states (t)
2013/14	65	54	11
2012/13	42	31	11
2011/12	45	35	9
2010/11	12	8	5
2009/10	19	14	6

Table 1 indicates that the combined quantity of KIN7 and KIN8 reported by both the jack mackerel fleet and all other vessels was higher during the most recent three years than during 2009/10 and 2010/11. Table 2 indicates that as a consequence of increased landings during the last three years, the quantity processed to a dressed state has also increased. During the most recent year just under half the KIN7 and KIN8 reported as landed was processed to DRE.

4.2 NEW INFORMATION

At the conclusion of the 2012/13 and 2013/14 fishing years, operators of the jack mackerel trawl fleet incurred just under $380,000 and $900,000 respectively in deemed values for KIN7 and KIN8 due to catch being in excess of available annual catch entitlement (ACE).[4] That prompted the Deepwater Group Ltd (DWG[5]) to request that MPI review management measures for the KIN7 and KIN8 stocks including catch limits, deemed value rates[6] and the conversion factor for dressed kingfish. DWG, in turn, undertook to analyse spatial and temporal aspects of kingfish catches and has since provided advice (risk areas) to the jack mackerel fleet to aid in avoiding the catch of kingfish.

MPI agreed to review deemed value rates and the conversion factor for dressed kingfish but noted to DWG that there was insufficient information upon which to review catch limits. The paper containing the deemed value rate review for KIN7 and KIN8 is being consulted on concurrently and is available on the consultation section of the MPI website here.

[4] Deemed values are civil financial service charges incurred by commercial fishers when their catch of a stock is greater than the corresponding amount of ACE they hold for that stock at the end of the fishing year. Deemed values are incurred for every kilogram a fisher is out of balance. The deemed value rates for kingfish vary between $8.90 and $17.80 per kilogram depending on the percentage difference between catch and ACE holding. Most deemed values for KIN7 and KIN8 incurred at the conclusion of the 2013/14 year were at the highest rate of $17.80 per kilogram.

[5] The Deepwater Group Ltd is the group that represents quota owners in New Zealand's major deepwater fisheries, including the jack mackerel trawl fishery

[6] Deemed value rates are, in part, based on the value of fresh kingfish, which, as noted earlier, is considerably higher than the value of frozen kingfish.

On reviewing the conversion factor for dressed kingfish. MPI noted that:

i) there were no species-specific conversion factors for kingfish, and
ii) very little conversion factor sampling had been undertaken for kingfish processed to a dressed state (16 tests comprising around 1.5 tonnes greenweight between 1998 and 2014).

The lack of historical conversion factor data for dressed kingfish was due to sampling of this species being a low priority despite high levels of observer coverage on the jack mackerel trawl fleet (coverage has been over 80% since the 2011/12 fishing year and was over 30% for the five years between 2006/07 and 2010/11). MPI subsequently amended the briefings given to observers deployed on the jack mackerel trawl fleet during the first half of the 2014/15 fishing year to add conversion factor sampling of dressed kingfish to the range of observer duties.

Between November 2014 and April 2015 MPI observers collected a further 97 conversion factor samples comprising 5.2 tonnes of whole fish.

The distribution of the individual samples is shown in Figure 2 below. For the purposes of this plot, the conversion factor for each individual sample was rounded to the nearest 0.05. Figure 2 shows that almost all samples are less than the gazetted generic conversion factor for all other species of finfish of 1.80, with most samples being within a relatively narrow range between 1.55 and 1.65. Comments made by observers indicate that two of the samples with the highest conversion factors involved fish with large stomachs.

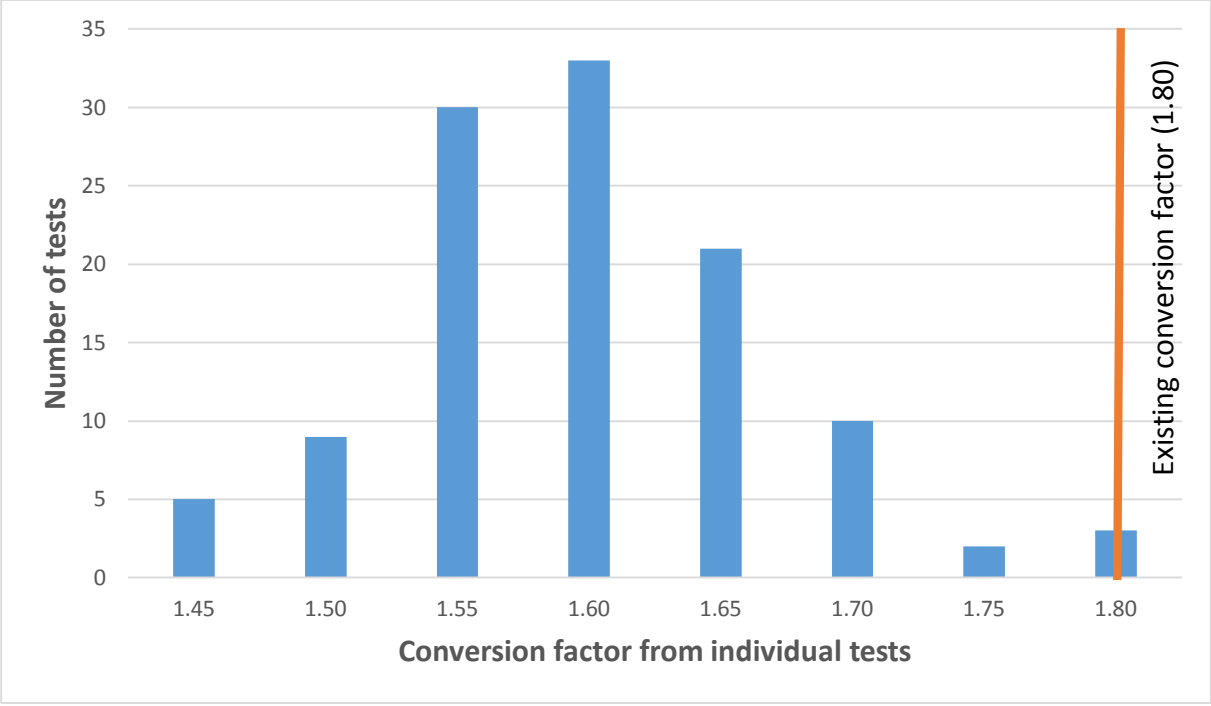

Figure 2: Distribution of the 113 individual conversion factor samples for dressed kingfish collected between 1998 and 2015

A conversion factor for dressed kingfish was calculated using data from the 113 available samples. The result is shown in Table 3 below. Data is unweighted. In this context unweighted means that the conversion factor was calculated by simply dividing total summed greenweight and total summed processed weight, and factors such as year or vessel have not been considered separately.

Table 3. Conversion factor calculations for KIN DRE

Greenweight (kg)	Processed weight (kg)	CF
6,691	4,174	1.60

Analysis of the data indicates a conversion factor of 1.60 should be set for dressed kingfish. Retaining the generic conversion factor of 1.80 is likely to result in ongoing over-reporting of kingfish landings. The quantity estimated to have been over-reported during the last five fishing years was calculated by applying a conversion factor of 1.60 to reported landing data. Results are shown in Table 4 below.

Table 4. Estimated quantity of KIN7 and KIN8 over-reported between 2009/10 and 2013/14 (all figures in tonnes)

Fishing year	Reported landing of DRE kingfish by all vessels (t)	Recalculated landing of DRE kingfish using CF of 1.60 (t)	Difference (amount likely over-reported, t)
2013/14	54	48	6
2012/13	31	27	3
2011/12	36	32	4
2010/11	8	7	1
2009/10	14	12	2

As noted above, over 99% of dressed kingfish is landed from the KIN7 and KIN8 stocks. Over-reporting of other stocks would be negligible due to the very small quantities of dressed kingfish landed outside KIN7 and KIN8.

5 Legal Considerations

Conversion factors are set under section 188 of the Act. Section 188(1) provides for the Director General of the Ministry for Primary Industries to set conversion factors after consultation with such bodies or persons as they consider appropriate in the circumstances. This includes Maori, environmental, commercial, and recreational interests.

This paper has been released at the same time as the October 2015 sustainability round to provide an opportunity for stakeholders to provide submissions, given the high recreational interest in this species.

At the conclusion of the consultation period, a decision document will be prepared for the Director General.

6 Proposed Options

The objective of conversion factors is to facilitate the accurate reporting of the greenweight of fish that are processed at sea. Introducing a species-specific conversion factor of 1.60 for dressed kingfish will achieve this objective, whereas retaining the status quo of 1.80 will likely result on ongoing over-reporting of kingfish landings.

7 Other Matters

The proposal to introduce a species-specific conversion factor for dressed kingfish should be viewed as a means to obtain more accurate information on the greenweight of kingfish being processed this way. It should not be viewed as a way of providing for additional catch from the KIN7 and KIN8 stocks.

8 Conclusion

The available data suggests that retaining the generic conversion factor of 1.80 for kingfish processed at sea to a dressed state is not appropriate. Introducing a species-specific conversion factor of 1.60 will result in the greenweight of kingfish processed this way being reported more accurately. Ongoing sampling will be undertaken by observers and the conversion factor will be reviewed if the additional data indicates that there is a need to do so.