



Fisheries New Zealand

Tini a Tangaroa

Review of Sustainability Measures for Stargazer (STA 7) for 2020/21

Fisheries New Zealand Discussion Paper No: 2020/20

ISBN No: 978-1-99-002526-6 (online)

ISSN No: 2624-0165 (online)

May 2020

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1 Stocks being reviewed

Stargazer (STA 7) *Kathetostoma giganteum*, Puwhara

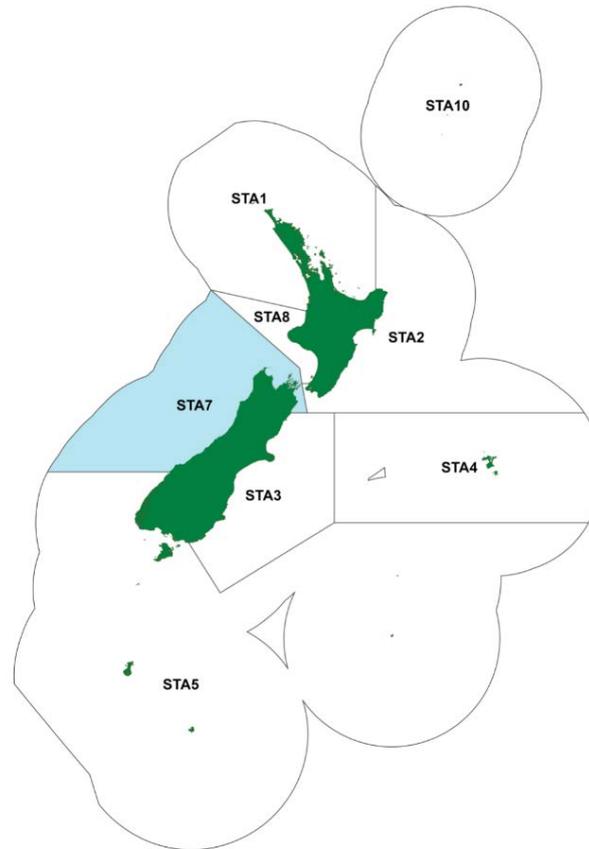


Figure 1: Quota Management Area (QMA) for STA 7

2 Summary

1. Fisheries New Zealand is proposing to review the sustainability measures for stargazer in Quota Management Area 7 (STA 7) for the 1 October 2020 fishing year.
2. Stargazer is a moderate value fishery; some target fishing of stargazer occurs in STA 7 on the West Coast of the South Island (where most of the biomass occurs) but it is predominately a bycatch fishery.
3. The stock status for STA 7 is about as likely as not (40-60% probability) to be at or above target, and projections suggest it is about as likely as not to remain at or above the target at current levels of catch. The recent (2019) West Coast South Island trawl survey shows biomass indices are close to the highest level in the series. This information, and anecdotal information from fishers, suggests abundance is high for STA 7 and that, potentially, more fish could be taken.
4. Fisheries New Zealand proposes the following two options for management settings for this fishery.

Option 1 is the status quo. This retains the current total allowable catch (TAC) at 1,181 tonnes, the total allowable commercial catch (TACC) at 1,122 tonnes, the customary allowance at 1 tonne, the

recreational allowance at 4 tonnes and other sources of fishing related mortality (OSFRM) at 54 tonnes.

Option 2 increases the TAC by 90 tonnes and the TACC by 56 tonnes, retains current customary and recreational allowances, and increases OSFRM by 34 tonnes. This option would provide for additional utilisation and value from the fishery, and assist fishers' to balance stargazer bycatch with annual catch entitlement (ACE). It also adjusts the OSFRM to align with allowances for other inshore stocks that are caught predominantly by trawling.

5. Fisheries New Zealand does not anticipate a significant increase in fishing effort from the proposed increase under Option 2. The additional annual catch entitlement (ACE) made available through the TACC increase would primarily help fishers balance catch given the current high abundance of stargazer.
6. Fisheries New Zealand seeks your input and views on the options proposed.

3 Quota Management System

7. Stargazer in New Zealand's exclusive economic zone are managed using the Quota Management System (QMS), with a 1 October to 30 September fishing year. For more information about the QMS go to <https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/quota-management-system/>.

4 Legal basis for managing fisheries in New Zealand

8. The Fisheries Act 1996 provides the legal basis for managing fisheries in New Zealand, including the Minister's responsibilities for setting and varying sustainability measures. See the separate document *Overview of legislative requirements and other considerations* at <https://www.fisheries.govt.nz/dmsdocument/40502> for more information.

5 Treaty of Waitangi Obligations

5.1 Input and participation of tangata whenua

9. Iwi Fisheries Forums and Forum Fisheries Plans provide for input and participation of tangata whenua. Te Waka a Māui me Ōna Toka Iwi Forum (the forum) is the Te Wai Pounamu (South Island) iwi fisheries forum — it includes all nine tangata whenua Iwi of Te Wai Pounamu: Ngāti Apa ki Ratō, Ngāti Kōata, Ngāti Kuia, Ngāti Rarua, Ngāti Tama, Ngāti Tōarangatira, Rangitāne ō Wairau, Te Ati Awa and Ngai Tahu.
10. In March 2020, Fisheries New Zealand provided forum members with fisheries management material for discussion at a hui scheduled for 18 March 2020. This material included possible stocks for review in the 2020 sustainability round for forum members to input into the proposed management settings. Due to COVID-related travel restrictions, the intended hui on 18 March 2020 was cancelled and input from the forum has been impacted. Any further input from the nine tangata whenua Iwi of Te Wai Pounamu will be by electronic means and will be included in the final advice and recommendations provided to the Minister. Input provided may result in an alternative option being presented to the Minister for his decision on the management settings for stargazer in STA 7.

5.2 Kaitiakitanga

11. Information provided by Forums and iwi views on the management of fisheries resources and fish stocks, as set out in Iwi Fisheries Plans, are the way that tangata whenua exercise kaitiakitanga in respect to fish stocks.

12. While stargazer is not identified as taonga species in the Te Waipounamu Iwi Forum Fisheries Plan, the Te Waka a Maui me Ona Toka Iwi Forum considers all fish species taonga. The Forum Fisheries Plan contains objectives to support and provide for the interests of South Island iwi, including the following which are relevant to the options proposed in this paper:

- **Management objective 1:** To create thriving customary non-commercial fisheries that support the cultural wellbeing of South Island iwi and whanau;
- **Management objective 3:** To develop environmentally responsible, productive, sustainable and culturally appropriate commercial fisheries that create long-term commercial benefits and economic development opportunities for South Island iwi; and
- **Management objective 5:** to restore, maintain and enhance the mauri and wairua of fisheries throughout the South Island.

13. The following customary management areas are located within SNA7:

- the taiāpure of Whakapuaka (Delaware Bay)
- the mātaihai reserves of Okuru/Mussel Point, Tauperikaka, Mahitahi/Bruce Bay, Manakaiaua/Hunts Beach, Okarito Lagoon, Te Tai Tapu (Anatori), Te Tai Tapu (Kaihoka).

6 STA 7 Relevant plans, strategies, statements and context

14. Fisheries New Zealand's draft National Inshore Finfish Fisheries Plan (2019) provides guidance on management objectives and strategies for New Zealand's inshore finfish fisheries. The draft Plan outlines our high-level direction and overarching framework for managing inshore fisheries for the next five years. The five key focus areas of the Plan are: managing individual stocks, enhancing benefits for customary, commercial and recreational fisheries, enabling integrated multi-stock management, improving local fisheries, and improving environmental performance. Thirty-nine submissions, ranging across a number of themes were received, which Fisheries New Zealand is currently considering.

15. There are a number of regional plans in place within STA 7, including:

- Regional coastal plans to address the cumulative effects of activities in the coastal marine area, and the adverse impacts from land-based activities on the marine environment.

16. Fishers are subject to the rules in the plans (for example, small scale restrictions on fishing methods). Fisheries New Zealand considers that the large area of STA 7 means these rules do not, in general, stop fishers taking their ACE from other areas within STA 7.

7 Current state of the stocks

17. In the most recent stock status assessment update (2020), STA 7 was assessed to be about as likely as not to be at or above target biomass. The stock status (see figure 2) is also referenced against the associated soft limit of 20% (which triggers a requirement for a formal time-constrained rebuilding plan) and hard limit of 10% (where a closure of the fishery should be considered). STA 7 is about as likely as not (40-60% probability) to remain at or above target at the current catch levels.

18. The 2019 West Coast South Island (WCSI) trawl survey biomass estimate is the second highest biomass estimate in the trawl survey time series; at a similar level to the series high in 2013. The overfishing threshold is the mean fishing intensity from 2005-2007 (figure 3). The 2020 assessment determined that overfishing is about as likely as not (40-60% probability) to be occurring.

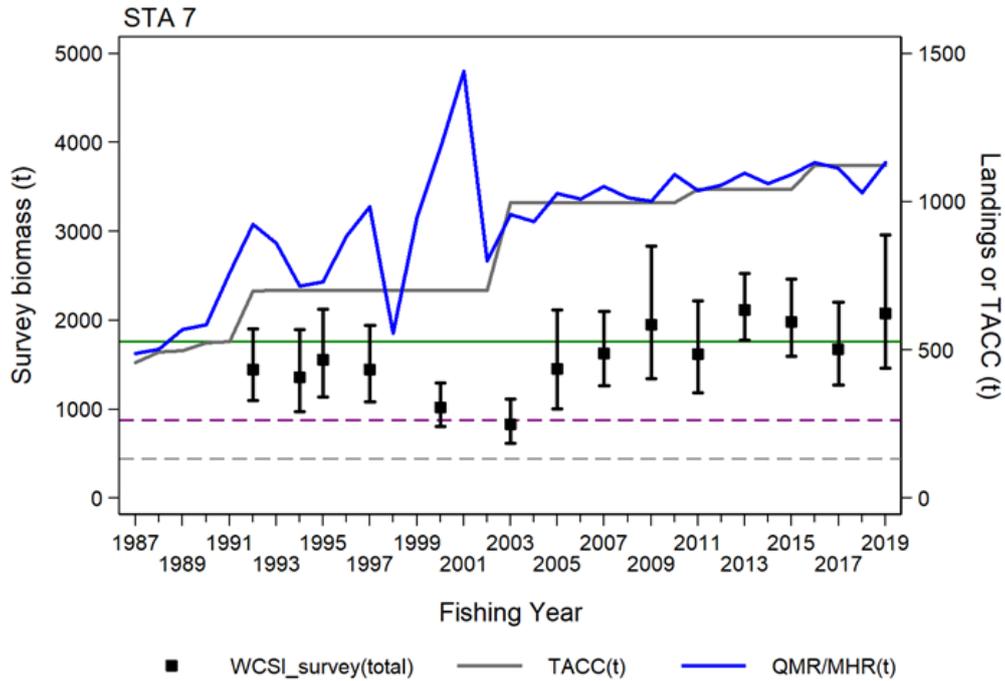


Figure 2: Comparison of West Coast South Island (WCSI) trawl survey indices with the commercial landings and the TACC (in tonnes) for STA 7. The agreed B_{MSY} proxy (the geometric average of the 2005-2017 WCSI survey biomass estimates = 1777 t) is shown as a green line; the calculated Soft Limit (=50% B_{MSY} proxy) is shown as the purple line and the Hard Limit (=25% B_{MSY} proxy) is shown as a grey line.

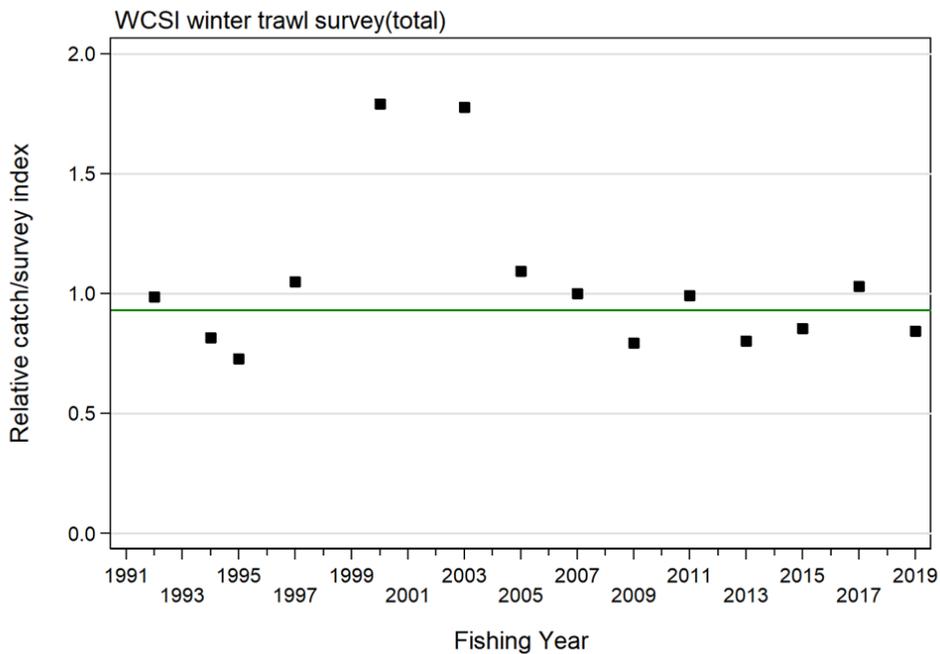


Figure 3: Relative fishing pressure for STA 7 based on the ratio of commercial landings relative to the West Coast recruited winter trawl survey which has been normalised so that its geometric mean = 1.0. Horizontal green line is the geometric mean fishing pressure from 2005-2017.

8 Recent catch levels and trends

19. The best available information on stargazer catch levels and trends is from commercial catch reporting. STA 7 is primarily taken by bottom trawl off the West Coast of the South Island and largely taken as bycatch of other target species (barracoota, red cod, tarakihi, blue warehou, ling and red gurnard).
20. Figure 4 below shows catch has been at or above the TACC since its introduction to the QMS. Information from Industry suggests that the current TACC of stargazer is restricting other target fisheries where stargazer is caught as bycatch

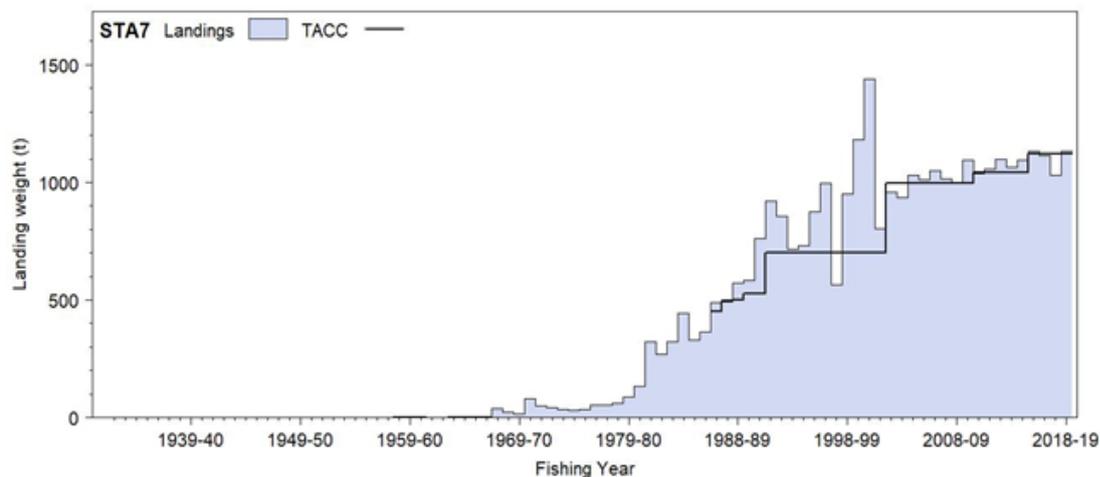


Figure 4: Reported commercial landings and TACC (in tonnes) for STA 7.

21. In the West Coast South Island trawl survey, stargazer biomass was mostly found in strata 100-200m in depth and south of Cape Foulwind, however, West Coast fishers advise that there are now also large catches of stargazer in 20-25m when targeting flatfish.

8.1 Customary

22. The current level of Māori customary catch for finfish in QMA 7 is uncertain. Stargazer (*Puwahara*) have been reported under the South Island customary fishing regulations in past years. However, there is no recent recorded customary catch for stargazer in STA 7. Tangata whenua north of Kahurangi Point and in the Marlborough Sounds and Tasman/Golden bays area are still operating under regulation 50 of the Fisheries (Amateur Fishing) Regulations 2013, which do not require that customary permits or catches be reported. The absence of customary reporting may also reflect that tangata whenua are using recreational fishing regulations for their harvest.

8.2 Recreational

23. Stargazer is not an important target species for recreational fishers. The results of the National Panel Surveys of Marine Recreational Fishers (2011/12 and 2017/18) suggest recreational catch of stargazer is small.

Table 1: Summary of the National Panel Survey of Marine Recreational Fishers results for STA 7

Fish stock	2011/12 Estimated harvest (fish)	CV (%)	2017/18 Estimated harvest (fish)	CV (%)
STA 7	481	71	399	100

8.3 Commercial

24. The majority of STA 7 is caught as bycatch by bottom trawl. While there is some fishing effort targeted at STA 7, it is primarily caught as bycatch in other target fisheries (e.g. red cod, tarakihi, flatfish and barracoota for inshore fisheries and hoki, ling and Jack Mackerel for deepwater fisheries). West Coast fishers are reporting that abundance is at a 25 year high with increased catches in shallower waters (20-25m).

9 Options – Varying the TAC, TACC and allowances

25. Table 2 below shows the proposed TAC, TACC and allowances for STA 7.

Table 2: Current and proposed TACs, TACCs and allowances (all in tonnes) for snapper.

Stock	Option	Total Allowable Catch (t)	Total Allowable Commercial Catch (t)	Allowances		
				Customary Māori (t)	Recreational (t)	All other mortality caused by fishing (t)
STA 7	Option 1 (<i>Status quo</i>)	1,181	1,122	1	4	54
	Option 2	1,271 ↑	1,178 ↑ (5%)	1	4	88 ↑ (63%)

10 Analysis of options for varying the TAC, TACC and allowances

26. The Act provides for the Minister to use the best available information to set a TAC that is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, the B_{MSY} . The best available information suggests the biomass for stargazer is about as likely to be at or above target with the 2019 WCSI trawl survey estimating the second highest biomass estimate in the time series, at a similar level to the series high in 2013. This is supported by commercial fishers who are reporting record levels of abundance for this fish stock and inability to access ACE. STA 7 was over caught last year. Under these circumstances there may be an opportunity to increase the TAC and TACC for STA 7.

27. When setting a TAC, the Minister is required to make allowances for Māori customary non-commercial fishing interests, recreational fishing interests, and all other mortality to the stock caused by fishing. Recreational and customary harvests are negligible compared to the commercial catch for STA 7. Fisheries New Zealand has no new information to support changing customary or recreational allowances at this time. Should new information be provided through further input from Iwi or during the consultation process, Fisheries New Zealand will consider this information and may recommend a change in allowances in final advice to the Minister for his decision.

28. Option 1, the status quo retains the current TAC and other settings. Option 1 does not allow for increased utilisation of the current high biomass of stargazer.

29. Option 2 provides an increase to the TAC by 90 tonnes, an increase to the TACC by 56 tonnes (5%), maintains customary and recreational allowances, and increases OSFRM by 34 tonnes.

30. OSFRM in STA 7 includes mortality associated from fish escaping fishing gear, or illegal discarding. In 2019, the Minister indicated a preference for Fisheries New Zealand to move toward standardising OSFRM for inshore trawl fish stocks at 10% of their respective TACCs, unless there is evidence to suggest otherwise. OSFRM for stargazer is currently set at of 5% of the TACC. Option 2 moves OSFRM toward 10% by increasing it to 7.5% of the TACC, from 54 tonnes to 88 tonnes.

31. Option 2 provides for additional utilisation by the commercial sector and greater derived value from the fishery. The modest increase of 5% to TACC would support fishers to balance non-target STA 7 catch through additional ACE.
32. The estimated economic value of the proposed Option 2, based on 2019/20 port prices, suggests an additional \$113,500 value (primarily in the domestic market). Port price is what the commercial fisher receives, not what the fish is worth at market (which is higher). Nor does it reflect the income for Licensed Fish Receivers (including, wholesalers and/or processors) and retailers.
33. Fisheries New Zealand considers Option 2 will not impact on, or be impacted by, the taiāpure of Whakapuaka (Delaware Bay), or the mātaihai reserves of Okuru/Mussel Point, Tauperikaka, Mahitahi/Bruce Bay, Manakaiaua/Hunts Beach, Okarito Lagoon, Te Tai Tapu (Anatori), and Te Tai Tapu (Kaihoka). Commercial fishing is prohibited in the mātaihai reserves and the taiāpure has no regulations restricting the harvest of stargazer.
34. Option 2 would also contribute towards the achievement of the Te Waipounamu Iwi Forum Fisheries Plan management objectives. Particularly objective 3, to supporting environmentally responsible, productive, sustainable and culturally appropriate commercial fisheries that create long-term commercial benefits and economic development opportunities for South Island iwi.

11 Environmental interactions

35. Fisheries New Zealand does not anticipate any significant increase in environmental effects of fishing associated with this fishery as the proposed increases are not likely to increase targeting of stargazer. Stargazer is predominantly taken by the bottom trawl method as bycatch in a number of other target fisheries (flatfish, tarakihi, and red cod). Catch by other methods is minimal.
36. Research has characterised both New Zealand's benthic environment and the level of benthic impact from fishing activity (Aquatic Environment and Biodiversity Annual Review 2018). The environmental impacts of fishing are summarised annually and Fisheries New Zealand will continue to monitor the bottom trawl footprint of fisheries.

12 Uncertainties and risk

37. No stock assessment is available for STA 7. Stock status is determined by an assessment of the WCSI survey indices of abundance. This is considered to be a reliable index of abundance.

13 Deemed values

38. No changes to the deemed value rate for stargazer in STA 7 are proposed.

14 Questions for submitters on options for varying TACs, TACCs and allowances

39. Fisheries New Zealand seeks your input and views on preferred options and the reasons for those. We are particularly interested in:
 - Which option do you support for revising the TAC, TACC and allowances for stargazer in STA 7? Why?
 - If you do not support any of the options listed, what alternative should be considered? Why?

40. Please provide detailed, verifiable information and rationale to support your views. If you are an organisation, please advise who you represent and/or your membership base.

15 Referenced reports

Aquatic Environment and Biodiversity Annual Review 2018 is accessible at <https://www.mpi.govt.nz/dmsdocument/34854-aquatic-environment-and-biodiversity-annual-review-aebar-2018-a-summary-of-environmental-interactions-between-the-seafood-sector-and-the-aquatic-environment>

Fisheries Assessment Plenary May 2020: <https://www.fisheries.govt.nz/news-and-resources/science-and-research/fisheries-research/>

Harvest Strategy Standard for New Zealand Fisheries, (2008) is accessible at <https://fs.fish.govt.nz/Doc/16543/harveststrategyfinal.pdf.ashx>

Quota Management System information is accessible at <https://www.fisheries.govt.nz/law-and-policy/legal-overviews/fisheries/quota-management-system/>

Wynne-Jones, J.; Gray, A.; Heinemann, A.; Hill, L. (2014). *National Panel Survey of Marine Recreational Fishers 2011-2012. New Zealand Fisheries Assessment Report 2014/67*. 145p. is accessible at <https://www.mpi.govt.nz/dmsdocument/4719-far-201467-national-panel-survey-of-marine-recreational-fishers-201112-harvest-estimates>

Wynne-Jones, J.; Gray, A.; Heinemann, A.; Hill, L.; Walton, L. (2019). *National Panel Survey of Marine Recreational Fishers 2017-2018. New Zealand Fisheries Assessment Report 2019/24*. 104p. <https://www.mpi.govt.nz/dmsdocument/36792-far-201924-national-panel-survey-of-marine-recreational-fishers-201718>

16 How to get more information and have your say

41. Fisheries New Zealand invites you to make a submission on the proposals set out in this discussion document. Consultation closes at 5pm on 1 July 2020.

42. Please see the Fisheries New Zealand sustainability consultation webpage (<https://www.fisheries.govt.nz/news-and-resources/consultations/review-of-sustainability-measures-for-1-october-2020/>) for related information, a helpful submissions template, and information on how to submit your feedback. If you cannot access to the webpage or require hard copies of documents or any other information, please email FMSubmissions@mpi.govt.nz.