



Fisheries New Zealand

Tini a Tangaroa

Review of Sustainability Measures for Red Snapper (RSN 1 and RSN 2) for 2019/20

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1 Stocks being reviewed

Red Snapper (RSN 1 and RSN 2)

Centroberyx affinis

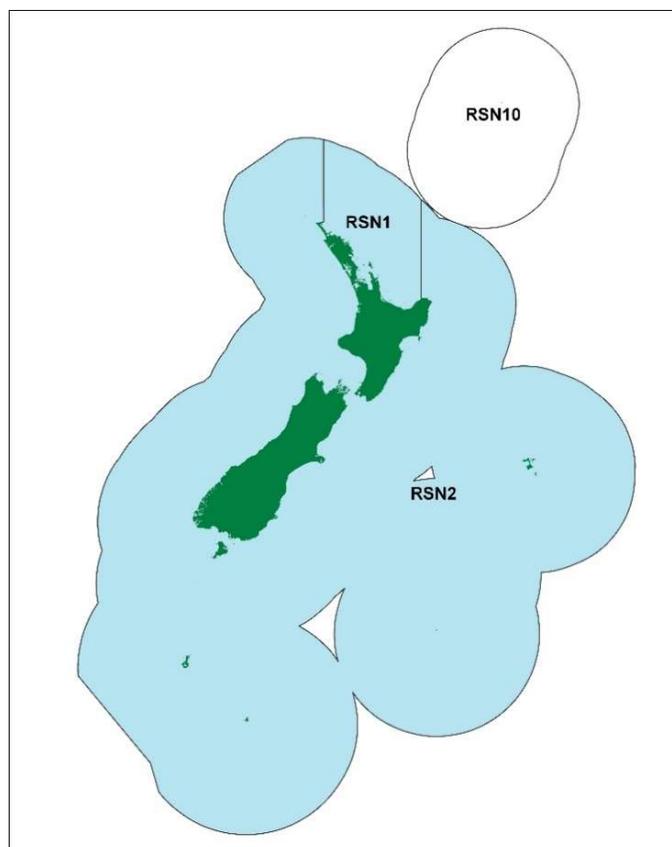


Figure 1: The Quota Management Area (QMA) for red snapper stocks

2 Summary

Red snapper is primarily a commercial bycatch species that is of importance to inshore trawl, set net and bottom long line fleets, particularly in the northern North Island. The vast majority of commercial red snapper catch is taken from east and west Northland on either side of the RSN 1 and RSN 2 boundary. Catch limits and allowances for RSN 1 and RSN 2 have not been reviewed since red snapper was introduced into the quota management system (QMS) in 2004. Within both quota management areas (QMA), trends in the commercial catch have prompted examining the current settings.

The TACC for RSN 1 has been significantly under-caught since around the year 2000. Conversely, commercial landings from RSN 2 have been at or above the TACC for four of the last five years. The industry has expressed concern that the low TACC in RSN 2 is restricting the ability of fishers to access other target species. While current information on both stocks is limited, there may be an opportunity to address a potential sustainability concern in RSN 1, while facilitating increased commercial access to red snapper stocks in RSN 2.

The options proposed are:

Option 1 is to retain the status quo. No increases or decreases.

Option 2 is a decrease in the RSN 1 TAC and TACC by up to 60 tonnes, and a TAC and TACC increase of up to 60 tonnes for RSN 2. The allowances for both RSN 1 and RSN 2 would remain at current levels.

Option 1 makes no change to the current settings. This option does not address the current over-catch and lack of access to red snapper stocks in RSN 2.

Option 2 seeks to address what may be a potential sustainability concern in RSN 1 by reducing the TACC by up to 60 tonnes to reflect the commercial catch level since 2000. Additionally, this option proposes a TACC increase in RSN 2 to facilitate increased access to red snapper stocks. The proposal seeks to mitigate some of the risk of increasing the RSN 2 TACC by making the increase no more than the decrease made in RSN 1. This approach means that the overall total catch limit originally set when red snapper was introduced into the QMS would either be retained or reduced.

Fisheries New Zealand is also seeking feedback on alternative approaches to the management of the red snapper stocks, which may include an amalgamation of stock management boundaries. If there is support for this, Fisheries New Zealand will consider a future review with additional public consultation on these measures.

3 Quota Management System

Within New Zealand red snapper is managed using the Quota Management System (QMS), with a 1 October – 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

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* on the Fisheries New Zealand sustainability consultation webpage (<https://www.fisheries.govt.nz/news-and-resources/consultations/review-of-sustainability-measures-for-1-october-2019>) for more information.

5 Treaty of Waitangi Obligations

5.1 Input and participation of tangata whenua

Input and participation into the sustainability decision-making process is provided through Iwi Fisheries Forums which have been established for that purpose. Each Iwi Fisheries Forum has developed an Iwi Fisheries Forum Plan that describes how the iwi in the Forum exercise kaitiakitanga over the fisheries of importance to them, and their objectives for the management of their interests in fisheries.

Iwi Fisheries Forums may also be used as entities to consult iwi with an interest in particular fisheries.

Prior to consultation, the review of RSN 1 and RSN 2 was discussed with the northern Iwi fisheries forums: Nga Hapu o te Uru o Tainui, Mai I Ngā Kuri a Whareki Tihirau, and Te Hiku o Te Ika.

Fisheries New Zealand seeks further input and information on these proposals from tangata whenua during consultation and before final advice and recommendations are made.

Fisheries New Zealand also seeks input from tangata whenua on the importance of red snapper and the level of Māori customary take to inform the setting of customary Māori allowances under the proposals.

5.2 Katiakitanga

Red Snapper is identified as a taonga species in the Te Hiku o Te Ika Fisheries Forum fisheries plan.

Red Snapper is not identified as a taonga species in the Mai I Nga Kuri A Whareki Tihirau Iwi Forum Fisheries Plan.

Fisheries New Zealand considers that the management options presented in this consultation paper are in keeping with the objectives of these Iwi fisheries plans which generally relate to the maintenance of healthy and sustainable fisheries, but seeks further input from iwi to help inform final advice on this review.

Available information indicates there is currently a negligible level of Māori customary take of red snapper and there have been no reported customary authorisations for RSN 1 or 2. Some red snapper harvested for customary purposes may be taken under the Fisheries (Amateur Fishing) Regulations 2013, and would therefore not be visible in the Māori customary harvest information available to Fisheries New Zealand.

Due to the deep water nature of red snapper, there are no mātaihai reserves or closures/restrictions implemented under s 186A of the Fisheries Act 1996 that are likely to interact with the red snapper fishery.

6 Relevant plans, strategies, statements and context

There are no plans, strategies or statements relevant to red snapper in RSN 1 or RSN 2.

As the Hauraki Gulf Marine Park falls within the RSN 1 quota management area, sections 7 and 8 of the Hauraki Gulf Marine Park Act (HGMPA) 2000 are applicable to any management decisions. Fisheries New Zealand notes that only small amounts of RSN 1 commercial catch is reported from within the Hauraki Gulf Marine Park and proposals are likely to have little or no impact on fishing within the Hauraki Gulf.

7 Current state of the stocks

There has been no stock assessment of red snapper to determine the biomass that can support the maximum sustainable yield (B_{MSY}), and the reference and current biomass are unknown for both RSN 1 and RSN 2. Consequently, it is not known whether the recent catch levels are sustainable, or what the stock status of RSN 1 and RSN 2 are relative to B_{MSY} (the default biomass target).

It is unknown whether red snapper is a single biological stock, or whether there are multiple stocks. However, red snapper has a predominantly northern distribution, and it is likely that stocks on either side of the northern boundary between RSN 1 and RSN 2, where the bulk of the commercial catch is taken, are linked. Red snapper is less common south of East Cape and Cape Egmont, however it is caught in small amounts in Fisheries Management Area (FMA) 2.

Red snapper is a low knowledge stock. There is limited information available to monitor the fishery and assess fishery performance. The only available information is trends in catch. The catch trend for RSN 1 is decreasing, while that for RSN 2 is increasing.

The current stock boundaries were implemented to reflect the historical commercial catches, however the information used to set the original QMAs and TACs was limited. At the time, red snapper catches were predominantly from the RSN 1 area, but it was known that red snapper were found elsewhere,

including into FMA 2, so RSN 2 was established as a separate QMA. Commercial by-catch of red snapper in RSN 2 has reportedly become a restricting factor in accessing other target fisheries in some areas of north-west Northland due to the low TACC relative to RSN 1.

Information on the biology of red snapper indicates that it is long-lived and likely to be a relatively unproductive species. While often caught on or around reef areas, red snapper are also known to inhabit open water indicating that they may not be a reef-restricted species. Anecdotal information provided by commercial fishers during consultation on the introduction of red snapper into the QMS stated that; “red snapper are not uncommon in open water habitats between 100-400m in depth”. In 1993, a regulatory prohibition on sale was introduced for a number of ‘reef’ fish species because of concerns over sustainability. This prohibition did not include red snapper, because it was accepted that although it mostly occupies reefs, it is also found in open waters.

Fisheries New Zealand is aware of anecdotal concerns from environmental and recreational fishing groups about the sustainability of red snapper. These concerns are based on the biological and ecological characteristics of red snapper as a reef fish, which may make it susceptible to localised depletion.

8 Recent catch levels and trends

While the commercial fishery for red snapper is relatively small, it is recognised as a valuable by-catch component of other target fisheries. Red snapper is caught as by-catch in three areas in the North Island: the longline snapper fishery off east Northland; the tarakihi trawl fisheries off east and west Northland; and the snapper and trevally set net fishery in the Bay of Plenty. While the trawl fisheries occur mostly in RSN 1, the tarakihi trawl fishery does straddle the northern boundary of RSN 1 and RSN 2, where red snapper can be a significant component of the by-catch.

The catch history of RSN 1 and RSN 2 is illustrated in Figure 2 below. Small commercial catches of red snapper would likely have been landed for decades, but historically would have been reported among ‘assorted minor species’ and not identified as red snapper. Commercial catch of red snapper in RSN 1 increased to its peak of 211 tonnes in 1996/97, followed by a significant decline in catch in the early 2000’s, and then relatively stable catches, consistently well below the TACC. It is not known what factors influenced the significant decline in catch.

Commercial catch in RSN 2 has increased and has been greater than the TACC (which is considerably smaller than the RSN 1 TACC) in four of the last five years (Figure 2).

As part of the roll out of electronic monitoring in New Zealand fisheries, work is currently underway to implement electronic reporting of catch, effort and landing information, as well as compulsory geospatial position reporting (GPR). By December 2019 all commercial operators will be required to report and submit electronic fishing reports on a daily basis and carry GPR devices on their vessels. This will provide improved information about the location and extent of fishing. Finer scale, more timely information will provide an opportunity to improve monitoring of commercial catch for red snapper.

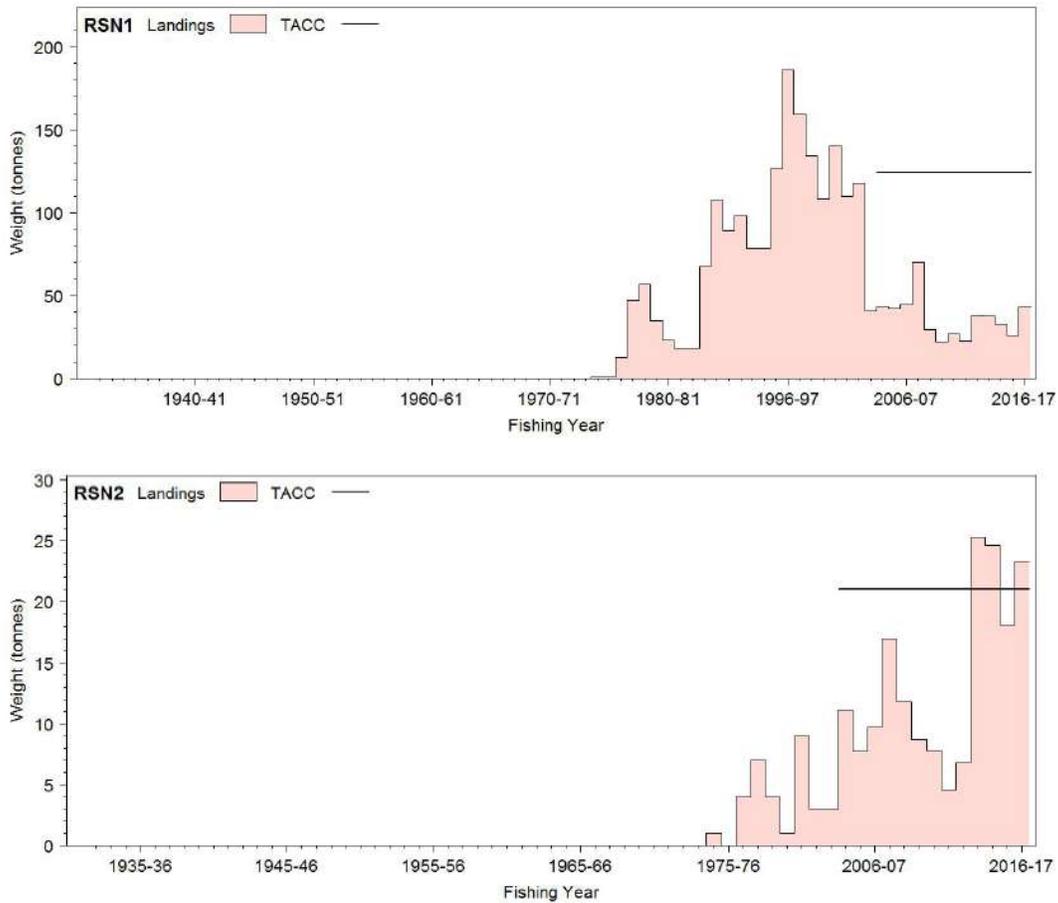


Figure 2: Commercial landings of RSN 1 and RSN 2 over time.

While red snapper is believed to be caught by customary fishers, the amount of catch is uncertain and believed to be small. Information currently held by Fisheries New Zealand on Māori customary catch, where RSN 1 and RSN 2 were authorised to be taken, shows that there have been no customary authorisations specifically for red snapper.

Customary catch reporting information does not reflect the whole country, as tangata tiaki/kaitiaki in areas of RSN 1 and RSN 2, who operate under the Fisheries (Amateur Fishing) Regulations 2013, are not required to report their customary take. The information nevertheless suggests that tangata whenua use of the customary fishing provisions within the Amateur Fishing regulations to harvest red snapper is low at this time. Tangata whenua in RSN 1 and RSN 2 may be using recreational bag limits to meet their needs for red snapper.

While red snapper is known to be caught by recreational fishers, the amount of catch is uncertain and believed to be small. At present, there is no quantitative estimate of recreational catch of red snapper in RSN 1 and 2. Recreational red snapper take is not captured well by either the 2011/12 or 2017/18 National Panel Survey of Marine Recreational Fishers, which represent the best available information on recreational harvest. It is likely that red snapper is taken as an unknown (but likely small) percentage of the 'other finfish' category of the National Panel Survey, which itself was a small proportion of the overall recreational harvest in 2017/18.

No quantitative estimates of the recreational catch or customary Māori catch are available to update allowances. Fisheries New Zealand considers that the recreational red snapper catch is likely to be no more than 10% of the TACC, with the customary catch estimated at around 15% of the recreational catch: this contributes to the non-commercial allowances of 1-13 tonnes.

A nominal allowance of 1 tonne for other sources of fishing-related mortality is allowed for each of the red snapper stocks.

9 Current TAC, TACC and Allowances

Table 1: Current TAC, TACC and allowances for RSN 1 and RSN 2

	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Maori	Recreational	All other mortality to the stock caused by fishing
RSN 1	140	124	2	13	1
RSN 2	25	21	2	1	1

10 Current controls

There is no commercial or recreational minimum legal size for red snapper in either RSN 1 or RSN 2.

In RSN 1, there is a combined maximum daily bag limit of 20 fish (of specified species) for recreational fishers, which includes red snapper. There is a minimum mesh size of 100 mm for both set nets and drag nets.

A number of recreational rules apply to different areas of RSN 2. In general, there is a combined maximum daily bag limit of 20 fish of specified species, which includes red snapper, and there is a minimum mesh size of 100mm for set nets. There are no limits for red snapper in the South Island.

11 Options – Varying the TAC, TACC and allowances

Table 2 below shows the proposed TAC, TACC and allowances in tonnes for RNS 1 and RSN 2. The increases and decreases under Option 2 are the maximum levels proposed. Fisheries New Zealand seeks feedback on alternative proposals within this range. There is no proposal to change existing allowances for customary Māori, recreational or all other mortality to the stock caused by fishing.

Table 2: Proposed TACs, TACCs and allowances in tonnes for RSN1 and RNS2 from 1 October 2019.

Option	Stock	Total Allowable Catch (tonnes)	Total Allowable Commercial Catch (tonnes)	Allowances		
				Customary Māori (tonnes)	Recreational (tonnes)	All other mortality to the stock caused by fishing (tonnes)
Option 1 (<i>Status quo</i>)	RSN 1	140	124	2	13	1
	RSN 2	25	21	2	1	1
Option 2	RSN 1	80↓ (43%)	64↓ (48%)	2	13	1
	RSN 2	85↑ (340%)	81↑ (386%)	2	1	1

The economic implications of the proposed options are outlined in Table 3 below.

Table 3: Predicted changes to commercial revenue of the proposed options, based on the port price to the fisher for red snapper (RSN 1 \$9.34 and RSN 2 \$7.29)

	Stock	Change from status quo (t)	Predicted revenue change (\$ p.a.) from status quo	Change from average catch (last 5 years)	Predicted revenue change (\$ p.a.) from last 5 years
Option 2	RSN1	60 ↓	560,400 ↓	0	0
Option 2	RSN2	60 ↑	437,400 ↑	60	437,400 ↑

The predicted additional revenue from Option 2 assumes that current RSN 1 catch levels would be maintained, and that the maximum 60 tonnes proposed increase to RSN 2 would be implemented.

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

Option 1

Option 1 retains the current TACC and allowances for RSN 1, keeping the TAC set at 141 tonnes. The current TACC is based on the average of the commercial landings from 1993-94 to 2001-02. The allowances then contribute to the balance of the TAC.

Option 1 retains the current TACC and allowances for RSN 2, keeping the TAC set at 23 tonnes. The current TACC is based on the average of the RSN 2 commercial landings for 1993/94 to 2001/02. The allowances then provide the balance of the TAC at 23 tonnes for RSN 2.

Option 1 makes no change to the current settings. Fisheries New Zealand notes that from this year onwards more information will be collected through the introduction of digital monitoring on all commercial vessels. This option allows time to confirm if a sustainability concern exists before making a decision to adjust the RSN 1 TAC, TACC and allowances.

This option does not address the current over-catch and lack of access to red snapper stocks in RSN 2.

Option 2

After a significant decline around the year 2000, commercial catch in RSN 1 has remained relatively stable at well below the TACC. There is the potential that this continued low level of catch, following a sharp decline, may be indicative of a sustainability concern. However, the factors contributing to the decrease and subsequent low catch levels are uncertain. Option 2 proposes to make a reduction to the RSN 1 TACC of up to 60 tonnes. An adjusted TACC of 64 tonnes would still be above the current catch level so would provide for moderate increases in commercial catch if it were to rise above the current trend.

Option 2 proposes a TACC increase in RSN 2 to facilitate increased access to this stock. It is proposed that some of the risk of making an increase to the RSN 2 TACC could be mitigated by making the increase equivalent to, or less than, the decrease made in RSN 1. This approach would mean the overall total catch limit originally set when red snapper was introduced into the QMS would be retained, or reduced, depending on the weight placed on potential sustainability concerns in RSN 1, and the potential risks of increasing the RSN 2 TACC in a low information environment.

Increasing the TACC under Option 2 will allow for more commercial value to be achieved from the fishery. The increased revenue to fishers is estimated at \$437,400 (Table 3 above) if the maximum 60 tonnes TACC increase was implemented. The increased catch in RSN 2 will be supported by monitoring of catch and effort to ensure that any potential sustainability concerns can be detected and

managed promptly. The implementation of digital monitoring will support this by providing finer scale, more timely information.

Reducing of the TACC for RSN1 by up to 60 tonnes responds to sustainability concerns arising from persistent under-catch. The impact of adopting this option on recent commercial catch and revenues in RSN 1 would be negligible, as this option reflects catch levels of the most recent years. However, the reduction in the TACC will mean an opportunity cost for commercial fishers, who will no longer be able to catch up to the current catch limit (124 tonnes TACC).

Wider environmental impacts of an increase in RSN 2 catches are expected to be low, given red snapper are predominantly a by-catch species and it is not expected that a target fishery would develop as a result the proposed changes.

13 Environmental interactions

Red snapper are primarily taken as a bycatch species in other target fisheries. As a result it is not expected that either option will result in changes to environmental interactions.

The key environmental interactions with the fishery, which must be taken into account are:

Marine mammals

No overall change in interactions.

Fish bycatch

No overall change in interactions outside of increased take of RSN 2.

Seabirds

No overall change in interactions.

Biological diversity

If a target fishery were to develop which sought out assemblages of red snapper around reef structures, there may be implications in terms of the biological diversity in these areas. Given the biology of red snapper there is a risk that any depletion may be slow to recover.

Habitats of significance

No overall change in interactions.

14 Uncertainties and risks

RSN 1 and RSN 2 are low knowledge stocks, with no information on stock status or the biomass that can support B_{MSY} . While the roll out of digital monitoring across all commercial fisheries will provide finer scale and more timely information on red snapper catch, the low level of information available in RSN1 and RSN 2 still presents some risk in terms of the ability to monitor the fishery and assess fishery performance.

Both proposed options mitigate some of the risk posed by the low level of information by maintaining or reducing the overall combined catch limit across RSN 1 and RSN 2. However, there are risks associated with making a significant amount of additional RSN 2 annual catch entitlement (ACE) available in that increased fishing effort, predominantly in certain areas, may result in localised depletion of red snapper stocks. These risks are exacerbated by the biology of red snapper, which suggests that such depletion would be slow to recover.

Fisheries New Zealand is seeking input on initiatives that would mitigate this risk, and also on ways to increase the information available for management of the red snapper fishery.

15 Options for other sustainability measures

Fisheries New Zealand notes there are alternative approaches to the management of the red snapper stocks into the future, which may include an altering or amalgamation of stock management boundaries. This option would require agreement from quota owners, as per section 25A of the Fisheries Act 1996, or a Ministerial process under section 25B if agreement cannot be reached. While some interest from Industry has been expressed in exploring this option, there is insufficient information to evaluate its feasibility at this time. We are seeking feedback from submitters on this (or other) management options.

16 Questions for submitters on options for other sustainability measures

- How will the options proposed here impact the utilisation of the commercial fishery?
- If you agree that the TACCs should be adjusted, do you support the proposed level of 60 tonnes or do you suggest a lesser amount? Why? If not, what alternatives should be considered?
- What other management controls should be considered for both recreational and commercial fishers? Why?

17 Deemed values

The purpose of deemed values is to provide incentives for commercial fishers to balance the catch of QMS species with ACE within each fishing year. As the deemed value settings are consistent with the Principles of the Deemed Value Guidelines, no changes are proposed to the deemed value rates. Please refer to the deemed values discussion paper for further information on the deemed value regime.

18 Referenced reports

Fisheries Assessment Plenary May 2019: <https://www.fisheries.govt.nz/news-and-resources/science-and-research/fisheries-research/>
<https://www.mpi.govt.nz/dmsdocument/18337-fisheries-assessment-plenary-may-2017-volume-3-pipi-to-yellow-eyed-mullet>

Red Snapper (RSN) Introduction into the QMS – Final Advice Paper 2004.

19 How to get more information and have your say

Fisheries New Zealand invites you to make a submission on the proposals set out in this discussion document. We must receive your submission by 5pm on 26 July 2019. 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-2019>) for related information, a helpful submissions template, and information on how to submit your feedback. If you cannot access the webpage or require hard copies of documents or any other information, please email FMSubmissions@mpi.govt.nz.