Bob Gutsell
President
NZ Sport Fishing Council
PO Box 54242, The Marina
Half Moon Bay, Auckland 2144
secretary@nzsportfishing.org.nz

Fisheries New Zealand
PO Box 2526
Wellington 6140
FMSubmissions@mpi.govt.nz

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Submission: Review of fisheries management measures for 1 October 2021

Contents

The submitters

1. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the review of fisheries management measures for 1 October 2021. Fisheries New Zealand (FNZ) advice of consultation was received on 23 June 2021, with submissions due by 27 July 2021.

2. The NZ Sport Fishing Council is a recognised national sports organisation of 55 affiliated clubs with over 36,200 members nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.

3. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

4. The New Zealand Underwater Association is comprised of three distinct user groups including Spearfishing NZ, affiliated scuba clubs throughout the country and Underwater Hockey NZ. Through our membership we are acutely aware that the depletion of inshore fish stocks has impacted on the marine environment and the wellbeing of many of our members.

5. Collectively we are '*the submitters'*. The joint submitters are committed to ensuring that sustainability measures and environmental management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996, including "maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations…" [s8(2)(a) Fisheries Act 1996].

6. Our representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from these reviews and would like to be kept informed of future developments. Our contact is Helen Pastor, secretary@nzsportfishing.org.nz.

Governance framework

7. On 26 June 2021 the Hon. David Parker, the Minister of Oceans and Fisheries, announced the Government had adopted an oceans vision, objectives and principles for the Oceans and Fisheries portfolio[1], as follows –

> ***Vision***
>
> *Ensuring the long-term health and resilience of ocean and coastal ecosystems, including the role of fisheries.*
>
> ***Objectives***
>
> - *Promote an ecosystem-based approach to research, monitoring and management*
> - *Establish a spatial planning framework that optimises the protection and use of marine space and resources*
> - *Support the development of a high-value marine economy that provides equitable wellbeing benefits*

[1] https://www.beehive.govt.nz/release/government-adopts-oceans-vision

Principles

- *Precautionary approach and adaptive management*
- *Equitable allocation of costs and benefits*
- *Give effect to the principles of Te Tiriti o Waitangi/Treaty of Waitangi, including through fisheries and aquaculture settlements and other legislation*
- *Decision-making based on sound science and traditional knowledge*
- *Consistency with international commitments*
- *Transparent, inclusive and effective public participation processes.*

8. The Minister also referred to the Prime Minister's Chief Science Advisor's (PMCSA) report, as follows-

> *The Prime Minister's Chief Science Advisor's report The Future of Commercial Fishing in Aotearoa New Zealand, released in March 2021, envisaged an ambitious, innovative future for the commercial fishing sector, operating with minimal environmental impacts. The report recommended taking immediate, evidence-based action.*
>
> *While the full Government response to the report is being prepared, work is underway on some of the report's recommendations, including innovation in fishing, protecting habitats of particular significance, and increasing the availability of fisheries information.*

9. On 22 March 2021 the Prime Minister's Chief Science Advisor, Professor Dame Juliet Gerrard, released 'The Future of Commercial Fishing in Aotearoa New Zealand' report, making the following comments [foreword] –

> *Over the course of this work, many stakeholders identified the parts of the Fisheries Act 1996 that are under- used. These can enable protection of special marine habitats and an ecosystem approach to fisheries management (EAFM). The most striking example is perhaps Section 9(c), which enables the protection of habitats of particular significance for fisheries management – but has never been used. These provisions can be used in the short term and enable immediate action. We challenge the Minister and the regulator to strengthen their arm and use these provisions to catalyse change.*
>
> *The inherent uncertainty in fisheries management is very easily manipulated to support a particular narrative. From an agreed percentage of how many of our stocks have been assessed, to the size of the original non-fished biomass, to a percentage of this biomass that can be sustainably harvested, to whether our trawling footprint is increasing or decreasing – the very basis of our fisheries management is often fiercely contested.*[2]

10. On 28 May 2009 the Supreme Court issued its judgment in regards to the appeal taken by recreational interests involved in the Kahawai Legal Challenge[3]. In the minority decision of Elias CJ the Court found –

> *Sustainability is a principal purpose of the Act. The measures contained in Part 3 of the Act are designed to achieve the sustainability of* ***all species****. Importantly, sustainability measures include catch limits as s 11(3) makes clear.*
>
> *Conceivably, where a species is of particular importance to one interest group (perhaps Māori or recreational) or* ***where interdependence of stock prompts environmental concern, limitation of the commercial catch may be a necessary tool for sustainability reasons which are independent of the maintenance of the stock at or above maximum sustainable yield.***

[2] https://cpb-ap-se2.wpmucdn.com/blogs.auckland.ac.nz/dist/f/688/files/2020/01/Fish-report-Full-report-11March21.pdf

[3] http://www.option4.co.nz/kahawai/documents/KLC_SC_decision_28_05_09.pdf

11. In the Court of Appeal judgment by McKay J, McGechan J was quoted from the High Court decision in Air New Zealand and others v Wellington International Airport Limited and others, CP 403-91, Jan 6, 1992, in part as follows –

> *Consultation must allow sufficient time, and a genuine effort must be made. It is a reality not a charade. The concept is grasped most clearly by an approach in principle. To "consult" is not merely to tell or present. Nor, at the other extreme is it to agree.*
>
> *Implicit in the concept is a requirement that the party consulted will be (or will be made) adequately informed so as to be able to make intelligent and useful responses. It is also implicit that the party obliged to consult, while quite entitled to have a working plan already in mind, must keep its mind open and be ready to change and even start afresh.*[4]

12. It is with these comments in mind that we make these submissions.

[4] Wellington International Airport Limited and others v Air New Zealand [1993] 1 NZLR 671, at p. 675.

Submission – Snapper 8 (SNA 8)

Consultation

13. We acknowledge and appreciate the process that Fisheries New Zealand conducted to discuss potential issues and management options for Snapper 8. We were assured during the two multi-stakeholder meetings that a lengthier submission process would be available given the significance of the SNA 8 fishery to so many people. We note the submission period was not extended.

14. Given our broad representative base we again object to the 24-working day window of opportunity to respond to a varied range of proposals that have significant management implications for important fish stocks that could impact on our members and supporters nationwide. As non-profit, non-commercial organisations this limited timeframe is a challenge as we complete due process to firstly analyse the raft of proposals, share our views with our member base and interested supporters, then take their feedback into account before we submit a formal response.

15. Historically, truncated timeframes have been used as a weapon against the public to limit analysis, campaigning and feedback. This tactic is tiresome and demonstrates a lack of goodwill on behalf of Fisheries New Zealand (FNZ). We caution the Minister of Oceans and Fisheries (the Minister) against such short timeframes in future as it merely exposes the Minister and FNZ to accusations of bias and contempt of the Court of Appeal decision clarifying that "consultation is an intermediate situation involving meaningful discussion"[5].

Ensuring sustainability

16. The Fisheries Act 1996 has a purpose of enabling utilisation while ensuring sustainability. The Minister may provide for utilisation at his or her discretion however, sustainability must be **ensured;** demanding the highest available threshold to bring certainty of sustainability.

17. Ensuring sustainability is imperfectly defined in the Fisheries Act;

    ensuring sustainability means—

    (a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and

    (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment

18. It isn't possible to determine a point estimate of what level of abundance and diversity will meet the reasonable foreseeable needs of future generations and thus comply with the Fisheries Act. At a high level we can assume that maintaining functioning and resilient ecosystems is a bottom line. Catch settings must import the consideration of the environmental and information principles alongside any science advice to ensure that more vulnerable species are not sacrificed in the pursuit of the most productive.

19. The requirement to avoid, remedy, or mitigate adverse effects of fishing is a non-discretionary

power. It requires that when considering catch limits to ensure sustainability the Minister must enquire into the adverse effects of fishing and take action to avoid, remedy, or mitigate any identified effects.

Trawling, the practice of dragging chains across the seabed, is an adverse effect of fishing and places an obligation on the Minister to establish what these effects are and take appropriate steps to avoid, remedy, or mitigate these effects.

20. Further to seabed damage, the section also encompasses bycatch.

Bycatch must be fully measured and considered before permitting trawling to occur, particularly in inshore waters where biodiversity and juvenile habitat drives fishery production.

21. Traditional models and analyses also do not generally consider the non-market costs associated with fisheries production, such as habitat damage and bycatch, with an overwhelming reliance on technical measures (e.g. regulated hook types or bycatch reduction devices) or spatial closures to limit bycatch and habitat damage (Hall and Mainprize, 2005). However, Beaumont et al. (2008) found that marine biodiversity does indeed have considerable value to the broader community, and reductions of such result in a loss of benefits to society as a whole. Squires and Vestergaard (2016) also developed a theoretical model demonstrating that **taking into consideration non-market benefits associated with ecosystem services generated within fisheries systems resulted in a higher "optimal" stock level than if these benefits were ignored** (Sean Pascoea, 2017).

Principled, ecosystem based management

22. As noted by the Prime Minister's Chief Science Advisor (PMCSA), there are many parts of the Fisheries Act that remain under-used and this submission advocates for better use of sections 9 and 10 of the Fisheries Act 1996. Full use of the these principles will take government along the path to more ecosystem based and precautionary decision making, meeting the objectives and principles of the Oceans and Fisheries portfolio. We apply sections 9 and 10 to this process to ensure that matters of uncertainty, precaution, and the obligation to following generations are given full weight.

23. The move from single species stock assessments for a limited number of species determining catch settings to an ecosystem considered process for setting catch limits is supported by both the Minister and the PMCSA. To meet this ecosystem based approach we have, to the extent available in such a short consultation window, grouped three overlapping stocks together so that the Minister can meet both his statutory obligations and policy objectives, by considering appropriate catch settings for each stock and applying a precautionary approach.

24. It is impractical to attempt to maximise catches in a mixed specie fishery when the availability and productivity of the species are dissimilar. In these circumstances it will always be necessary to leave a dominant species more abundant to protect the more vulnerable from depletion. In the Fisheries Management Area 1 (FMA 1) and SNA 8 (FMA 8 & 9) the affected species are snapper, trevally, gurnard, john dory, and tarakihi. Juvenile hāpuku are also caught in this mixed specie fishery, although catches have declined in recent years.

25. Snapper, gurnard, hāpuku and tarakihi (subject to potential challenge) in FMA 9 and/or FMA 1 are

having catch settings reviewed this year, and in the interests of incorporating a more ecosystem considered decision we must examine the relationships between abundance, range, and catches of these species. We note from the FNZ large scale heat maps that, regardless of the stated target species, trawling mostly occurs on the same grounds.

26. Managing catches and discards of mixed species fisheries, particularly trawl fisheries, has proved problematic in most jurisdictions. The government has chosen a 100% camera coverage of inshore vessels with an obligation to land all catch as the preferred strategy to detect discards and alter incentives. However, there is limited ability for fishers to select catch and we anticipate that historical catch mixes will largely continue.

27. Another concern is that areas that have been lightly fished until now will suffer the impacts of increased trawling if the SNA 8 TACC is increased. This means more benthic disturbance and increased risk to vulnerable species such as māui dolphin.

28. We submit that the SNA 8 commercial catch cannot be increased without also increasing the catch of trevally, john dory, and gurnard due to most of the catch being taken by single trawl. These associated and potentially interdependent species are not in a similar state of abundance as snapper. Moreover, recent catch and anecdotal data suggest these interdependent species need to be rebuilt. In a mixed specie fishery where trawl fishing techniques, with limited selectivity ability, are deployed it is not possible to exploit the most resilient at maximum sustainable rates due to the Minister's inability to **ensure sustainability** of the associated species, as required by the Fisheries Act.

29. Modifying catches to enable a more natural mix of species and age classes would help to improve the predator/prey relationship amongst and between species. Before increasing catch settings for snapper, the most resilient and productive species, consideration must first be made as to what catch setting will ensure the sustainability of all species likely to be taken. With gurnard, tarakihi and john dory all showing signs of overexploitation, and trevally uncertain, **now is not the time to blithely increase fishing effort in the FMA 8 & 9 on the basis of a single species stock assessment.**

30. If the Minister is to invoke the precautionary principle then he will resist the pressure to increase the SNA 8 TACC and demand a much wider examination of all the species that will be affected by any such increase.

31. To meet the standard of ecosystem based management the submitters consider that –

    a. Maximum Economic Yield (MEY) occurs at 60% of the unfished biomass;
    b. Maximum Sustainable Yield (MSY) occurs at 50%;
    c. 40% is the appropriate soft limit; and
    d. 20% is the appropriate hard limit[6].

    This approach closely aligns with some Australian harvest strategies and incorporates strong ecosystem management and precautionary principles. In meeting these standards, the strategy

[6] Rainer Froese, Henning Winker, Didier Gascuel, U Rashid Sumaila, Daniel Pauly (2015). Minimizing the impact of fishing. Fish and Fisheries. 7 December 2015.

avoids the boom/bust cycles experienced in New Zealand by not defending stocks when they pass through the 40% status when being overexploited.

32. Not many fish stocks can be successfully managed by catch limits alone. Ancillary regulations concerning gear type, areas, seasons, size limits etc are used to allow catch limits to achieve their goal of maintaining stock abundance. Fishing intensity needs to be regulated by both input and output limits working in tandem. Defending hāpuku will bring this need into clear focus and the submitters note that for many reef species (hāpuku is one) regulations other than catch limits will be key to restoring abundance to inshore reefs.

Recommendations for SNA 8

33. The submitters support the Minister taking an ecosystem based approach to managing SNA 8 by increasing the Total Allowable Catch by 950 tonnes, to 2735 t on the basis that –

    a. There is no increase to the Total Allowable Commercial Catch (TACC).
    b. The tonnage set aside to allow for Maori customary fishing interests is increased by 57 tonnes, to 100 t.
    c. The tonnage set aside to allow for recreational fishing interests is increased by 893 tonnes, to 1205 t.
    d. The tonnage set aside to allow for other fishing related mortality is retained at 130 tonnes or 10% of the TACC.
    e. A review in 3 years time with an updated stock assessment and potential for greater utilisation.
    f. The trawl exclusion zone is extended to 4 nm from Maunganui Bluff to Tiriparepa/Scott Point.

34. The submitters support the Government's shift towards more holistic management of our oceans based on a set of principles including taking a precautionary approach to achieve the objective of promoting "an ecosystem-based approach to research, monitoring and management"[7].

35. The submitters support regular assessment of stocks and management reviews for key fisheries such as Snapper 8. Fisheries New Zealand has proposed that a review occurs in 3 years time under their option 1. Given the significance of SNA 8 to a broad spectrum of species and people, we believe a 3-year review cycle is appropriate at this stage.

36. SNA 8 was last assessed and reviewed 16 years ago, when there were signs that snapper abundance had started to increase, and the commercial sector were expecting an increase in the TACC. In fact, the stock was at just 10% of the unfished biomass and all catch settings were reduced proportionally, by 13%.

37. There has clearly been an increase in SNA 8 abundance since 2005, and the 2021 stock assessment shows that many more young fish have been reaching maturity over recent years. It is important to maintain productivity and allow some of the young fish to grow. The stock assessment estimates the current SNA 8 biomass is between B39 and B66 with a median of 54% of unfished spawning stock biomass (B54). The uncertainty in the stock assessment must be taken into account. Snapper

[7] https://www.beehive.govt.nz/release/government-adopts-oceans-vision

catches as high as 3000 t a year were last taken in the early 1980s when the SNA 8 stock was in step decline (Figure 1).

38. Snapper make up a larger proportion of catch for customary, recreational and commercial fishers in many areas in New Zealand yet assessments and reviews are infrequent. In SNA 1 there was a review in 2000, then 2013 and the next will probably be in 2023. In SNA 2 there was an assessment in 2002 followed by a failed assessment in 2010 and a CPUE index in 2018. In SNA7 the stock was desperately low for a long time, with an assessment in 2010 that also failed, and no useable stock assessment until 2017. The last SNA 8 assessment was in 2004 with only limited baseline monitoring until the trawl surveys were restarted in 2018.

39. For species like snapper there must be some fishery independent data collected because commercial Catch Per Unit of Effort (CPUE) is no longer a reliable index of stock abundance. Changes in the way catch is recorded under the new Electronic Reporting system using different platforms has been problematic. Fishers have been actively avoiding snapper in a number of areas and then the new PVC cod ends used in precision seafood harvesting project will have changed the selectivity of trawl gear. If land all catch is adopted this will also change retention rates and CPUE.

40. All of Fisheries New Zealand's projections are for the SNA 8 stock to be maintained or increase over time irrespective of the new proposed settings. We urge caution. If there has truly been a rebuild of the magnitude described in the models then there is no rush. It's not like these fish are leaving due to the travel bubble with other countries. These large numbers of young fish will grow and most will be available in future.

41. Applying the environmental and information principles within the Fisheries Act 1996 means that the impact on interdependent species, particularly gurnard, trevally, tarakihi, and john dory, of any increase in commercial fishing effort arising from increasing the snapper TACC must be fully measured and taken into account.

42. Taking a precautionary approach could mean stepped, moderate increases to the TAC and TACC over time. That is, applying a series of moderate increases after regular reviews to ensure no adverse impacts on associated species or the benthic environment.

Stock management target

43. In alignment with the Government's ecosystem-based policy, the submitters support the Snapper 8 (SNA 8) stock being managed to a minimum target level of 50% of unfished biomass, that is B50.

44. B50 is accepted by many international scientists as being the level where fish populations are more able to fulfil their ecosystem functions as prey and predator while supporting productive fisheries[8].

45. While the Snapper 8 stock is considered to be around B54, there is no known status of the associated species caught in the trawl fishery, namely red gurnard, trevally, john dory and tarakihi. There is widespread concern that any increase in trawling effort from increases in the snapper TACC will have a detrimental and undetected effect on these species.

[8] Rainer Froese, Henning Winker, Didier Gascuel, U Rashid Sumaila, Daniel Pauly (2015). Minimizing the impact of fishing. Fish and Fisheries. 7 December 2015.

46. There is no agreed management target for SNA 8. We submit that now is the time for the Minister to support a management target for SNA 8 at a minimum of B50. This is a feasible approach to take. For example, Queensland, Australia, has committed to managing their prime fish stocks to achieve B60 while setting management thresholds for the low information species.

47. The Ministry's Harvest Strategy Standard (HSS) developed in 2008 has a target of B40 for snapper. In a single species management system that approach may work. Science has moved on since 2008 and now international opinion supports B50 as the minimum management target. Having a higher target, say B60 as in Australia, offers economic benefits and greater certainty that the stock will not fall below B50 given natural fluctuations.

48. By 1988 the SNA 8 stock had plummeted to an all-time low of around 7% of unfished biomass. It has taken 33 years to rebuild SNA 8 to its current estimated level. We submit the Minister needs to act cautiously, and applying a series of moderate increases and institute regular monitoring to ensure SNA 8 does not drop below B50 and so the more vulnerable species can rebuild to at least B50. Otherwise, we risk losing the benefits of restoration.

49. As the Supreme Court noted in 2009, while there is discretion how fisheries can be used and by whom, the Minister has a statutory obligation to ensure sustainability[9]. We must not jeopardise sustainability in the race to satisfy commercial demands for higher snapper catches.

Impacts of trawling

50. We submit there are several factors that have contributed to the rebuild of Snapper 8, these include the māui dolphin trawl exclusion zone, several good recruitment years (2006 & 2016), and warming waters. The impacts of each factor is difficult to measure, but cannot be ignored.

51. The submitters support increasing the trawl exclusion zone to 4 nautical miles from Maunganui Bluff to Tiriparepa/Scott Point to ensure Māori customary and recreational fishers in the Far North benefit from the rebuild of Snapper 8 in their area.

52. Ideally, the 4 nm exclusion zone would apply to all of SNA 8, on the basis that it has been a contributing factor to rebuilding the SNA 8 stock, enabling more successful fishing for shore based and harbour fishers. Extending the exclusion zone would also help provide for the needs of Māori customary and recreational fishers in the area from South Taranaki Bight down to Kapiti.

53. There is widespread concern that a TACC increase will lead to more trawling with unknown impacts on other fish species, māui dolphins, the benthic environment and our climate. Currently all these environmental costs are externalised leading to unbridled demand for increases in commercial catches.

54. The concern is that any increase in trawling effort will have a detrimental and undetected effect on other species. Associated species caught in the trawl fishery include red gurnard, trevally, john dory and tarakihi. There is so much concern for gurnard that FNZ has proposed significant TACC

[9] New Zealand Recreational Fishing Council Inc And Anor V Sanford Limited And Ors SC 40/2008 [28 May 2009]. Para 39.

decreases for GUR 1 this year. Also, the Court has ordered the Minister to review management settings for tarakihi because the process to develop the previous rebuild plan was ruled unlawful (subject to potential challenge). It is also concerning that tarakihi targeted fishing effort has moved from the east coast to the west coast in TAR 1 and TAR 7.

55. In taking a precautionary approach the Minister must factor in the reality that Snapper 8 has been hammered by commercial fishing for almost a century. From the mid-1960s to mid-70s there was an unknown amount of catch taken by Japanese trawlers. Pair trawling was prolific between 1970 and the early 2000s, and single trawling ramped up in the 1950s and continues today (Figure 1).

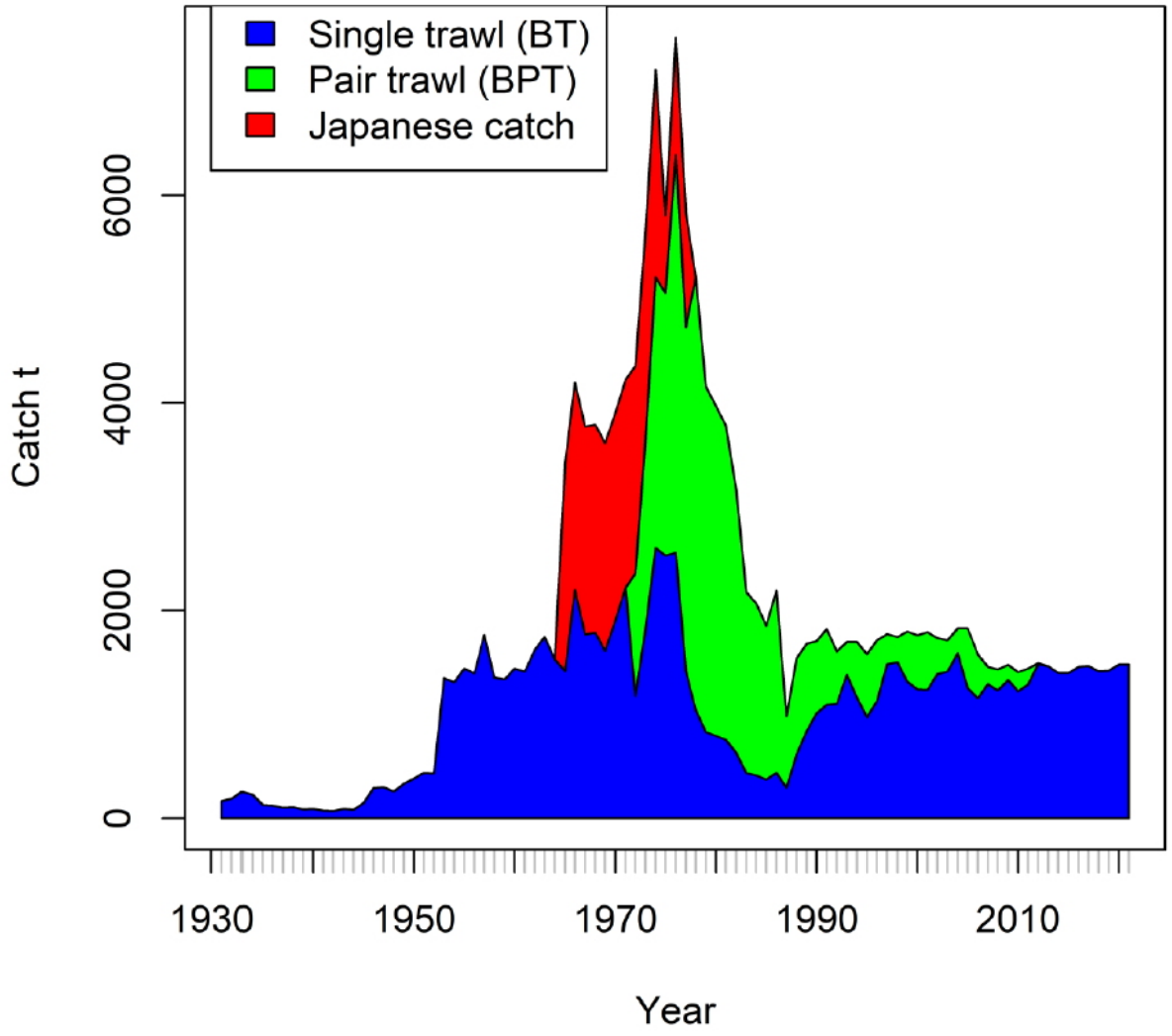


Figure 1: Snapper 8 commercial catch by bottom trawl, 1931 to 2020. Source: Fisheries New Zealand.

56. After all the legal wrangles over implementing the Māui Dolphin Threat Management Plan we cannot ignore the threats posed to the survival of the remaining 62 māui dolphin if more trawling occurs in their habitat. With so few animals left New Zealand has an international obligation to protect this species from extinction.

57. Moreover, Sea Shepherd has asked the US Court of International Trade to ban the importation of New Zealand seafood based on the fishing threats to māui dolphin[10]. US trade due to fish caught in the māui habitat which has been reported to be worth as much as $20 million per annum, while a NZ-wide seafood ban could be worth as much as $200 million.

58. The west coast is a dynamic environment with habitats of significance that sustain a wide variety of species. We must protect the benthic environment that naturally sustains so many fish.

    Any increase in trawl effort must be treated as a threat to biodiversity that must be well monitored and managed.

    Replacing the trawl effort with methods that can accurately target species would permit a more nuanced harvest strategy.

59. *Nature* is a leading international weekly journal of science. In March *Nature* published a paper that identifies bottom trawling as a major contributor to climate change by disturbing the carbon stored over millennia in seabed sediment[11]. The released carbon makes the water more acidic and less able to absorb the carbon dioxide released by our global activities. It is estimated that around one gigaton of carbon is released per annum, as much as the aviation industry worldwide. Again, these costs are currently externalised.

60. The same study also says that "countries with the highest potential to contribute to the mitigation of climate change through protection of carbon stocks are those with large EEZs and large industrial bottom trawl fisheries". New Zealand has a large Exclusive Economic Zone (EEZ) of 4 million square kilometres, 15 times our land area and the 4th largest EEZ in the world. Any increase in bottom trawling will have impacts for the climate, which ultimately impacts all of us.

Catch spreading

61. The Minister has a statutory obligation to account for all mortality within the Total Allowable Catch (TAC). The statutory process is that the Minister firstly sets aside the allowances both for non-commercial fishing interests, Māori customary and recreational, and to allow for mortality caused by fishing i.e. discards, dumping, poaching, through-net mortality and released fish.

62. Due to the way non-commercial catch is regulated, the Minister makes an allowance for non-commercial catch that is the Ministers best estimate of what will be caught. This is to protect the TAC from being over allocated. When that process is complete the remainder of the TAC can be allocated to commercial interests as the Total Allowable Commercial Catch (TACC). There are financial and other penalties for exceeding the TACC, there are no equivalent penalties applied if the overall recreational or Māori customary allowance is exceeded, although individual recreational fishers have species specific daily bag and minimum size limits.

63. The Minister also has a broader obligation to 'allow for' not just catch but non-commercial fishing ***interests***. Both Māori customary and recreational interests are served by having fish in the water and available. In 2009 the Supreme Court confirmed that "people providing for their wellbeing,

[10] https://www.rnz.co.nz/news/national/446165/maui-dolphins-protest-us-trade-court-asked-to-ban-new-zealand-seafood-imports

[11] Review of selected stocks. Recreational submission. 27 July 2021.

particularly their social wellbeing, is an important element of recreational interests"[12]. We submit this analysis applies equally to Māori customary fishing interests and wellbeing.

64. It is a concern that between 2011 and 2020 50% of commercial SNA 8 catch was taken from 90 Mile Beach, Te Oneroa-a-Tōhē (stat area 047) and between the Kaipara and Manukau Harbours (stat area 045). This is an example of the localised depletion that occurs when large QMAs are used to set catch limits. If there is to be a TACC increase that must come with a commitment to take that extra tonnage from the other stat areas and monitor catches to ensure there is no increase effort in stat areas 047 & 045.

Recreational allowance and interests

65. The submitters support the proposed recreational allowance of 1205 t per annum. We acknowledge that actual catch will likely be less in some years and may exceed the allowance in other years.

66. Best available information on recreational harvest is the two National Panel Surveys conducted in 2011-12 and 2017-18. Estimated recreational catch in 2012 was 630 t (±), and in 2018 the estimated harvest was 892 t (±).

67. Recreational harvest in SNA 8 has followed trends in abundance, if the stock is increasing so does catch. When the Snapper 8 stock was low, recreational catch levels were also low. Commercial catch on the other hand can be maintained even when a stock is low due to the use of large scale bulk harvesting methods.

68. This year, all proposals put forward by Fisheries New Zealand change the tonnage set aside to allow for the mortality caused by recreational fishing. The proposed increase to 1205 tonnes represents an additional 893 t from the existing allowance of 312 t. While a 286% increase may seem large, an allowance of 1205 tonnes reflects the estimated recreational catch during 2021-22, with no changes to bag or size limits.

69. A contributing factor has been an increase in the number of east coast fishers choosing to fish on the west coast because catches are better than in SNA 1. Over the last several years there's been a steady increase of fishers choosing to access SNA 8 through Raglan and other west coast points to take advantage of better fishing.

70. The unpredictable and adverse weather acts is a natural limiting factor for SNA 8 for small non-commercial vessels. It isn't reasonable to expect the increased participation of the last decade will continue for the next 10 years. The best defence against further increases in recreational catch is to improve the state of the east coast fisheries to more resemble west coast abundance.

71. Another factor is that in 2005 when SNA 8 was last reviewed, recreational representatives advocated for a more realistic recreational allowance of around 600 tonnes. Because even in 2005 it was clear that recreational harvest was much more than the proposed 312 tonne allowance. Those pleas were ignored.

[12] New Zealand Recreational Fishing Council Inc And Anor V Sanford Limited And Ors SC 40/2008 [28 May 2009]. Para 54.

72. In 2005 the Ministry recommended the Minister make a 312 t recreational allowance because that meant a proportional cut of 13% could be applied to the commercial allocation and the non-commercial allowances, thus protecting commercial interests from greater reductions to the TACC. The Minister followed his Ministry's advice.

73. FNZ advise 25% of current recreational harvest is estimated to come from fishing within the west coast harbours of the Kaipara, Manukau and Raglan. We agree with FNZ that fishing for food is common within the harbours and that these catches support local communities.

74. The current level of abundance is providing for an increase in the average sized snapper inside the west coast harbours and shore based coastal fishers are now able to catch a reasonable bag of snapper for their efforts. Trailer boat fishers off the coast are also enjoying the ability to catch several decent size fish to share with family and friends.

75. After a long period of low abundance and depletion the Snapper 8 fishery is starting to provide for the social, economic and cultural wellbeing of thousands of people living between North Cape and Kapiti. We must not jeopardise these wellbeings by increasing the TACC too quickly.

Māori customary allowance and interests

76. The submitters support the proposed increased Māori customary allowance of 100 t per annum. The current overall allowance is 43 t and Fisheries New Zealand propose to increase the allowance by 57 t, an increase of 133%.

77. We acknowledge that actual catch is likely to be much less than 100 t, FNZ advise it could be around six tonnes per annum. FNZ assume that some snapper is taken within the recreational bag limit of 10 per person, per day, rather than a customary permit. However, the Minister has a statutory obligation to set aside an adequate amount to provide for Māori customary catch and broader interests in Snapper 8.

78. We note there is some interest by iwi in extending the Pātaka Kai system currently used by Te Atiawa iwi around Taranaki to provide kaimoana to whānau/ngā uri o Taranaki Iwi for tangihanga. Other iwi within SNA 8 are now considering a similar model.

79. The submitters support iwi and hapu having access to kaimoana for important cultural occasions especially tangihanga. Our concern is that the system is open to abuse by commercial fishers. We have had reports that the system is being used to cover catch for which commercial fishers have no ACE; that is commercial fishers catch the fish, realise they have no ACE for that species, then call up requesting a customary permit which is granted in retrospect. This is not how we understand the customary regulations ought to be applied.

80. As above, the submitters support the proposed 100 t allowance to provide for Māori customary interests in SNA 8, we do not support any attempts to deplete the fishery and avoid deemed value payments under the guise of customary fishing.

28N rights

81. When the QMS was introduced in 1986 commercial catches in SNA 8 needed to be reduced. Some commercial fishers took Government compensation to reduce their catch levels, others chose to retain their interests by being first in line to receive future catch increases. It has taken 33 years for SNA 8 to rebuild sufficiently to consider a TAC increase. Over that time the public has been denied access to a healthy fishery, and trawling effort has increased, creating adverse impacts on the benthic environment and bycatch species.

82. In a legal environment the Crown has the authority to seize property or assets that have been obtained due to criminal activity. While commercial fishing is a lawful activity, the Minister needs to give due consideration to the unreasonable rebuild timeframe and the impacts on the public and marine environment caused by more than three decades of depletion. In these terms, we do not consider that 28N rights are legitimate nor that the Government has any moral obligation to meet what we now understand as overfishing and environmental damage.

83. The submitters share the concerns of iwi forums in regards to the impact of fulfilling outstanding 28N rights. A total of 16 quota holders have a share in the 932.4 tonnes of these preferential rights, with Sanford Ltd and one other entity holding 96% of those rights. Any TACC increase will first be given to the holders of 28N rights. This means all fishers will only benefit if the Minister increases the TACC by more than 932.4 tonnes.

84. Fisheries New Zealand advise that the existence of 28N rights *"is not a reason for or against setting or varying the TAC, TACC, and allowances".* [para 152]. Really? This statement cannot easily wipe away the inevitable pressure on the Minister to ignore Fisheries New Zealand's options 1 and 2, and only choose from options 3 or 4 as they are the only two options that increase the TACC by more than 932 tonnes, and represents a $50M windfall for the recipients.

85. The existence of a $50 million winners pool arising from any increase in the TACC is not moot. It cannot be swept aside as somehow divorced from the review process, or not to have any influence on the stock assessment or positions advocates have taken.

86. 28N rights in SNA 8 were generated by the reckless pair trawling during the 1980s, the 'catch history years'. These catches were never sustainable and would never have occurred if there had been effective government oversight.

87. With hindsight, 28N rights are visible for what they are, a future right extracted from government in the heat of introducing Individual Transferable Quotas (ITQs) in a fishery on the verge of collapse. Those fish that were taken beyond the sustainable threshold should never generate future catch entitlements – it's simply a transfer of wealth from incumbents to past entities, on the basis of environmental destruction. It is illogical, morally unjust, and inequitable.

88. Today's government, with the benefit of hindsight, must simply cancel these so called 'rights' and start with a clean slate. **For SNA 8 to have a bright future it is essential that 28N rights are cancelled and a precautionary, principle based harvest strategy implemented.**

89. Even if all the outstanding 28N rights are met with a TACC increase, we agree with the iwi forums that smaller scale fishers are unlikely to have sufficient access to the ACE they need to continue fishing. We submit these small scale fishers are the very people that need to have access to any increased ACE (Annual Catch Entitlement) because unlike corporate fishers, they do not have sufficient capacity or flexibility to alter their fishing patterns to deliver fish to order.

90. Moreover, it is untenable that existing quota holders including Māori commercial interests, will lose market share as Sanford and other 28N rights holders increase their share in the SNA 8 fishery if the TACC is increased.

91. To eliminate the unseen, undue pressures on the Minister to increase the TACC, the most elegant solution is for the Minister to relegate 28N rights to history and start with a clean slate so all catches and inputs into his decisions are in plain view of the public.

Submission - Gurnard 1 (GUR 1)

Recommendations for GUR 1

92. The Minister takes an ecosystem based approach to managing Gurnard 1 and in doing so sets a Total Allowable Commercial Catch (TACC) to actively constrain commercial harvest, while also setting aside adequate tonnages to allow for the expected mortality caused by non-commercial fishing, both Māori customary and recreational. He must also set aside an adequate allowance for fishing related mortality based on 10% of the TACC. All to be reviewed within 5 years.

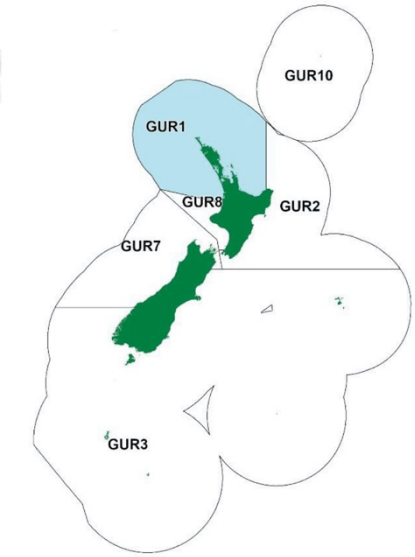
93. The submitters support the Minister to set a conservative Total Allowable Catch and reduce the Total Allowable Commercial Catch by 74%, from 2288 tonnes to 600 t on the basis that the new TACC represents the average of 5 year's commercial catch, less 25% –

    a. The Total Allowable Catch (TAC) is set at 800 tonnes.
    b. The Total Allowable Commercial Catch (TACC) is set at 600 tonnes.
    c. The Minister sets aside an allowance for Māori customary fishing interests of 40 tonnes.
    d. The Minister sets aside an allowance for recreational fishing interests of 100 tonnes.
    e. The Minister sets aside an allowance for other fishing related mortality of 60 tonnes.
    f. A review of GUR 1 within 5 years.
    g. The māui dolphin trawl exclusion zone is extended to 4 nm off the coast, from Maunganui Bluff to Tiriparepa/Scott Point.
    h. The Minister divides GUR 1 at North Cape into two separate management areas, one spanning the east coast down to Cape Runaway, the other from North Cape to Tirua Point, south Waikato.

Background

94. Red gurnard was introduced into the Quota Management System (QMS) in 1986. In Gurnard 1 (GUR 1) the Total Allowable Commercial Catch (TACC) was initially set at 2010 tonnes (t), this increased to 2284 t by 1990, and by 2010 it was 2288 t.

95. The TACC has never been caught. GUR 1 annual landings averaged around 50% of the TACC between 1986 and 2015, and 35% of the TACC between 2016 and 2020. (Figure 2)



96. Red gurnard have a fast growth rate and relatively short lifespan. Fluctuations in recruitment may result in large fluctuations in stock biomass. Current stock status is unknown. There were no North Island inshore trawl surveys for 19 years. Recent inshore trawl surveys have been used to produce relative biomass estimates for each GUR 1 sub-stock area.

97. Between 60-70% of the total GUR 1 commercial catch is taken from the west coast sub-stock (GUR 1W). The remaining harvest is evenly split between East Northland and Hauraki Gulf (GUR 1E), and Bay of Plenty (GUR 1BP) sub-stocks.

98. On the west coast (GUR 1W) around 80-90% of catch is taken by bottom trawl. Fisheries New Zealand advise that despite increased targeting, the largest declines in commercial catch are seen in GUR 1W, potentially signalling poor recruitment over recent years and in the future.

99. FNZ advise the sustainability of the full TACC is unknown as there is no estimate of biomass or Maximum Sustainable Yield (MSY) for GUR 1. Also, that the current TACC could pose a sustainability risk if fully caught, particularly given the variability in gurnard recruitment. It should be noted that gurnard have never been subject to any catch constraint, ever. The catch profile over the last 40 years demonstrates the consequence of not constraining catch – the stock is reduced step by step until there is recognition that a stock crisis exists.

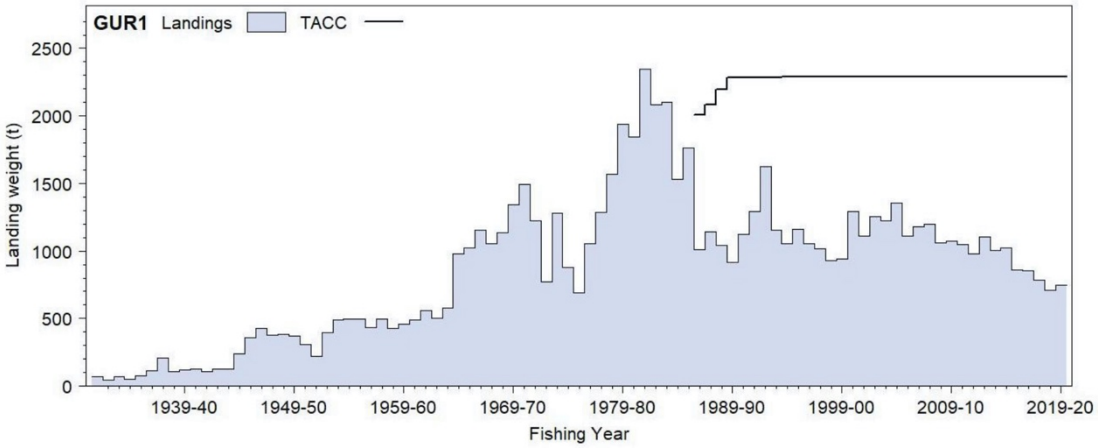


Figure 2: Commercial landings of GUR 1 against the Total Allowable Commercial Catch.

100. Currently there is no Total Allowable Catch (TAC) or allowances set aside for Māori customary and recreational fishing interests or fishing related mortality. Fisheries New Zealand advise that because a large proportion of the catch is taken by bottom trawl, unseen mortality could be significant. Despite this, they propose the Minister set aside an allowance for other mortality at the rate of 7% of the TACC, a diversion from the standard 10% in predominantly trawl fisheries.

Proposals

101. Fisheries New Zealand (FNZ) propose the following options for the Total Allowable Catch (TAC), Total Allowable Commercial Catch (TACC), and associated allowances for Gurnard 1. Any changes will apply from 1 October 2021. (Table 1)

Table 1: Current and proposed TACs, TACCs and allowances for Gurnard 1 in tonnes. Figures in brackets indicate the change from current settings.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Current settings	N/A	2,288	N/A	N/A	N/A
Option 1	2,328	2,045↓ (243 t)	40	100	143
Option 2	1,317	1,100 ↓ (1,188 t)	40	100	77
Option 3	996	800 ↓ (1,488 t)	40	100	56

102. The level of Māori customary harvest in Gurnard 1 is unknown.

103. The best available information on recreational harvest from Gurnard 1 is the two most recent National Panel Surveys. In 2012 estimated recreational harvest was 103 tonnes, and in 2018 the estimate was 86 t.

Ecosystem based management

104. The submitters are concerned that GUR 1 is showing signs of stress and the TACC needs to be reduced. There has never been a period in the exploitation of gurnard where a catch limit has constrained commercial catch. It has only ever been availability and economics that have controlled catches in GUR 1.

105. The submitters do not agree with Fisheries New Zealand that "it may be prudent to refrain from making significant changes to the management settings of GUR 1" until the effects of changes in Snapper 8 are better understood. **The opposite is true:**

    a. The Minister needs to act in a precautionary manner now by both reducing the TACC and substantially reducing removals, before reviewing the TAC in several years time when more information is available; and
    b. This precautionary approach is consistent with the Environmental and Information Principles of the Fisheries Act 1996 [sections 9 & 10].

106. GUR 1 W aligns with the upper portion of Snapper 8, called FMA 9. In recent years west coast commercial fishers have stated that they have modified their gear and trawl speeds to increase targeting of gurnard due to a lack of availability of Snapper 8 ACE. We are concerned that any change to the TACC in SNA 8 will have an impact on gurnard catch and future productivity.

Impacts of trawling

107. Snapper 8 is currently under review and any significant increase in catch limits will make more SNA 8 ACE available. While the targeting of gurnard may decrease, targeting a higher SNA 8 TACC will likely increase trawl effort and the trawl footprint.

108. Gurnard 1 is a mixed fishery. We are concerned that increased trawl effort and a bigger trawl footprint will have an unknown and unmeasured detrimental effect on the benthic environment. FNZ has put limited resources into measuring benthic impacts of trawling despite the widespread

and long-term use of bottom trawling to catch fish in New Zealand waters; and despite the need to avoid, remedy, or mitigate the effects of fishing on the aquatic environment as defined in the *Purpose* of the Fisheries Act. Adopting a more precautionary and ecosystem based decision will conform to the Purpose.

109. More bottom trawling for snapper will likely mean an increase in the catch of associated species such as trevally, john dory, tarakihi and gurnard.

110. We submit that if the Government is to fulfil its commitment to ecosystem based management (EBM), now is the opportune time to give effect to that commitment by considering both snapper and gurnard catches simultaneously, as it is not possible to perfectly control removals to maintain the optimum species mix in a mixed trawl fishery.

111. Taking a EBM approach in the mixed trawl fishery on the west coast of the North Island it is inevitable that some species will become more abundant as we protect the more vulnerable species, and the lower or inconsistent productivity species, from depletion. Applying ecosystem based management means the Minister must consider how existing or increased trawl effort will remove these species at different rates, because using indiscriminate bottom trawl gear means the ability to target specific species while avoiding others is limited.

112. Under EBM, as gurnard, john dory and trevally become over-exploited they act as the limiting species for catches of more successful species such as snapper. It may be that a large increase in the SNA 8 TACC cannot be allowed in an ecosystem based harvest plan. Taking an ecosystem based approach means defending the species with lower productivity or inconsistent productivity from over-exploitation, while targeting the more productive species such as snapper.

113. We submit that adjusting the TACC of one species in a mixed fishery demands an analysis of catch of all the species. Adjusting Gurnard 1 catches down to a level that defends the stock and allows for a rebuild to 50% of unfished biomass will require that john dory and trevally TACCs are also effectively reduced, and then the SNA 8 TACC adjusted so there is no overcatch of the associated species. This is basic ecosystem consideration 101; if the Government cannot embrace this entry level practice of considering the ecosystem then we cannot envisage any genuine intention of following through with their recently announced commitment to ecosystem based management[13].

Stock target

114. We do not agree with FNZ that their option 3 TACC of 800 tonnes "***greatly*** reduces the potential sustainability risk associated with current management settings". There is no evidence to support this claim. We are concerned that a 800 t TACC will not arrest the apparent and ongoing decline in GUR 1, particularly on the west coast (GUR 1W).

115. FNZ's option 3 proposal for a 800 t TACC represents the average of the past 5 years commercial catch from a fishery that has been targeted and in decline. It is time to let this fishery rebuild and

[13] https://www.beehive.govt.nz/release/government-adopts-oceans-vision

the fastest way to achieve a rebuild is to set a TACC that will constrain actual catch, that is after all the purpose of a TACC within the Quota Management System. We recommend a TACC of 600 tonnes.

116. The submitters advocate that inshore fish stocks ought to be managed in a way that enables a depleted stock to rebuild to a biomass equivalent to 50 percent of its unfished, natural level, that is B50.

117. While there is some variation in standardised commercial catch rates (CPUE), it is dangerous to set an interim management target level based on long-term average CPUE in a fishery where gear modifications designed to catch more gurnard are not adequately taken into account. Efficiency gains and effort creep are well known issues that mask declines in stock abundance. The trawl survey data shows very low gurnard abundance in the Hauraki Gulf, a once productive area, and significant declines on the west coast of the North Island.

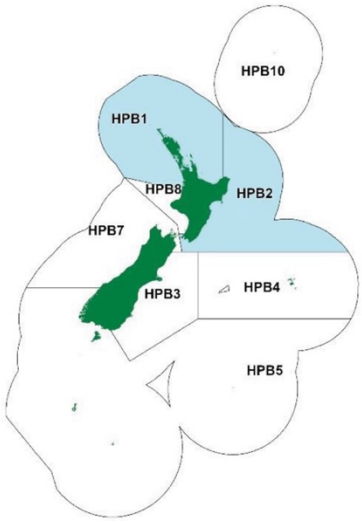
118. Given that the FMA 9 fishery is a mixed trawl fishery we advocate that all associated species which are depleted or are of unknown status are rebuilt to B50 or an equivalent abundance level. This includes GUR 1, Trevally 7, John dory 1 and Tarakihi 1.

Management areas

119. With improved technology, reporting and monitoring systems it is no longer necessary to manage inshore fish stocks in such large areas. For example, GUR 1, Trevally 7, John dory 1 and Tarakihi 1 all include waters on both east and west coasts of the North Island. The Minister must initiate work to consider reducing these large Quota Management Areas that straddle both coasts. Having smaller management areas will enable improved data collection, stock monitoring and management, and faster rebuild timeframes.

Submission - Hāpuku Bass 1 & 2 (HPB 1 & HPB 2)

Recommendations for HPB 1 & 2



120. The Minister sets a Total Allowable Catch (TAC) for HPB 1 & 2 for the first time, reduces the TACC applying in each area and sets aside a recreational allowance to ensure hāpuku and bass are taken as bycatch only in the commercial and non-commercial fisheries. A package of reforms is required to accompany the catch reductions.

121. The revised NZSFC hāpuku and bass policy at the end of this submission sets out the most urgent reforms. Taking account of these additional management changes we recommend the Minister approve the following settings in this sustainability round –

a. Hāpuku/Bass 1 (HPB 1) FNZ Option 3 -

i. The Total Allowable Catch (TAC) is set at 215 tonnes.

ii. The Total Allowable Commercial Catch (TACC) is set at 140 tonnes.

i. The Minister sets aside an allowance for Māori customary fishing interests of 10 tonnes.

ii. The Minister sets aside an allowance for recreational fishing interests of 58 tonnes.

iii. The Minister sets aside an allowance for other fishing related mortality of 7 tonnes.

b. Hāpuku/Bass 1 (HPB 2) FNZ Option 3 –

i. The Total Allowable Catch (TAC) is set at 132 tonnes.

ii. The Total Allowable Commercial Catch (TACC) is set at 80 tonnes.

iii. The Minister sets aside an allowance for Māori customary fishing interests of 10 tonnes.

iv. The Minister sets aside an allowance for recreational fishing interests of 38 tonnes.

v. The Minister sets aside an allowance for other fishing related mortality of 4 tonnes.

The submitters are concerned that in FNZ's Option 3 for HPB 1 a TACC of 140 t is still too high to ensure a bycatch only commercial fishery. FNZ must monitor and report catches and effort by stat area to ensure no targeting, an adequate spread of ACE, and that appropriate deemed value rates apply.

Background

122. There have been concerns about the state of the hāpuku and bass stocks for a long time. Significant changes were observed in the hāpuku fishery as commercial fishing activity grew in the early 1930s. Issues of concern even in those earlier days of fishery development were the diminishing numbers of groper in most accessible inshore areas and a decline in their average size Graham (1953).

123. On the east coast of the North Island average annual catch in the early 1980s was about 1100 tonnes. When the Quota Management System was introduced in 1986 the combined quota for HPB 1 and HBP 2 was intended to reduce catch to 570 t due to sustainability concerns. However quota appeals, often based on claims of unreported catch in the early 1980s, boosted the TACC to 745 t (Table 2) and they have not been reviewed since.

124. **Table 2: Hāpuku and bass catch and TACCs set in the 1980s and 1990s and the commercial and recreational catch at the time of the last National Panel Survey.**

	Year	HPB 1 tonnes	HPB 2 tonnes
Average Catch 1983-84 to 1985-86		728	384
TACC set at the start of the QMS	1986-87	360	210
TACC after quota appeals	1994-95	481	264
Percent increase from appeals		34%	26%
Commercial catch in 2017-18	2017-18	276	159
Percent of TACC caught in 2017-18	2017-18	57%	60%
Recreational catch Panel Survey	2017-18	73	55

125. Large Quota Management Areas (QMAs) areas and increased efficiency due to the advent of high resolution sounders and GPS has enabled catches of hāpuku to be maintained despite obvious overfishing. Vessels move from fishing ground to fishing ground, causing serial depletion of hāpuku and bass populations as they go. Shifting effort to maintain the catch rate makes catch per unit effort (CPUE) unreliable as a way of monitoring changes in abundance (Paul 2005).

126. What is obvious is the continued reduction in range for hāpuku which were often caught in depths of 50 metres or less. Now their range is nearly always over 80 m. Most targeted commercial longline fishing effort is in water from 100 and 250 m deep, while bass are mainly targeted between 250 m and 450 m (Figure 3). For longline fishing events where HPB is used as the target species the depth range is in between (Middleton 2021).

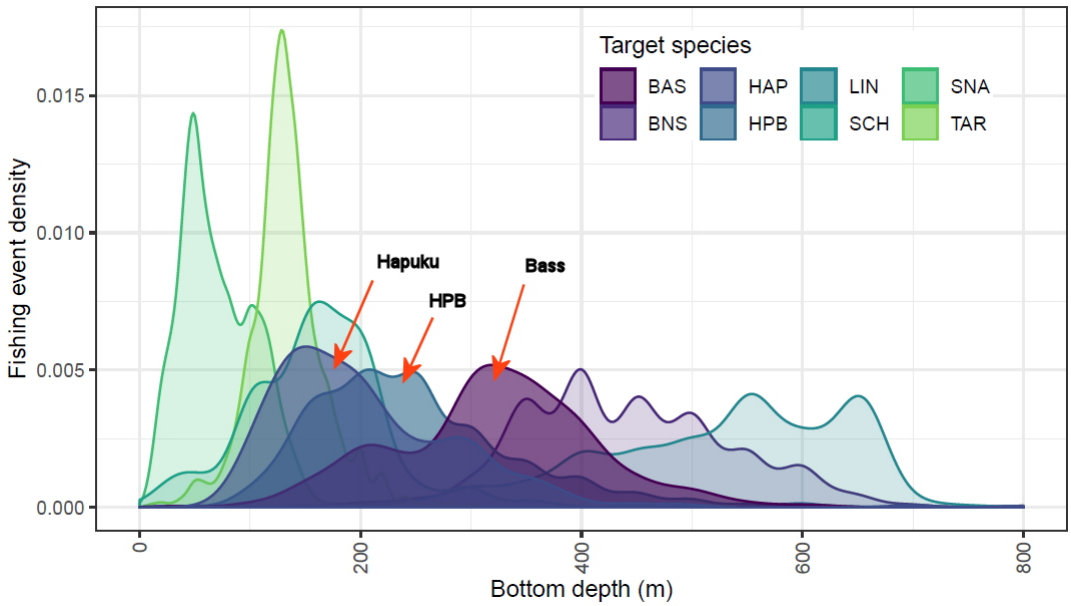


Figure 3: The distribution bottom longline fishing effort in HPB 1 by target species from trips landing hāpuku or bass. HPB is unspecified catch of hāpuku or bass. Other species targeted BNS bluenose; LIN ling; SCH school shark; SNA snapper; TAR tarakihi.

127. Hāpuku and bass in HPB 1 and HPB 2 are mainly caught via bottom longline and Dahn line (approximately 90% targeted catch). In the last four fishing years, setnets have accounted for approximately 10% of the targeted catch in HPB 2.

128. Fisheries New Zealand has undertaken initial consultation with stakeholders and tangata whenua. They propose three management options for HPB 1 and HPB 2, changes to the TAC, TACC and allowances for customary Māori, recreational and all other sources of mortality caused by fishing (Table 3). The options for HPB 1 and HPB 2 are grouped together as the same rationale applies to both stocks.

129. Fisheries New Zealand is not recommending the status quo as an option because initial stakeholder feedback suggests this is inappropriate given the level of concern regarding the sustainability of the fishery. For stocks which do not already have a TAC or allowances set, it is Fisheries New Zealand's policy to propose to the Minister to set these upon review of a stock.

130. TACC options are based on current annual commercial catch calculated as the average annual catch for the past five fishing years with the 2019/20 fishing year data excluded due to the unknown effects of COVID-19 on fishing. Fisheries NZ are proposing to link the recreational measures to each option for reduction in the TACC as in the table below. (Table 3)

Proposals

Table 3: Proposed management options (in tonnes) for HPB 1 and HPB 2 with current and proposed amateur fishing regulations.

HPB 1							
Option	TAC	TACC	Allowances			Recreational Measures	
			Customary Māori	Other mortality	Recreational	Daily Limits	Additional regulations
Current settings	N/A	480.8	N/A	N/A	N/A	5 per person	Included in the combined daily limit of 5 with kingfish with a maximum of 3 kingfish
Option 1	379	280 ↓ (200.8 t)	10	14	75	3 per person	Remain in the combined daily limit of 5 with kingfish, but include a maximum of 3 hāpuku/bass
Option 2	289	210 ↓ (270.8 t)	10	11	58	2 per person	Remove from the combined daily limit of 5 with kingfish and: -Introduce daily limit of 2 hāpuku/bass -Introduce accumulation limit of 3
Option 3	215	140 ↓ (340.8 t)	10	7	58		

HPB 2							
Option	TAC	TACC	Allowances			Recreational Measures	
			Customary Māori	Other mortality	Recreational	Daily Limits	Additional regulations
Current settings	N/A	266.2	N/A	N/A	N/A	5 per person	Included in the combined daily limit of 5 with kingfish with a maximum of 3 kingfish
Option 1	233	160 ↓ (106.2 t)	10	8	55	3 per person	Remain in the combined daily limit of 5 with kingfish, but include a maximum of 3 hāpuku/bass
Option 2	174	120 ↓ (146.2 t)	10	6	38	2 per person	Remove from the combined daily limit of 5 with kingfish and: -Introduce daily limit of 2 hāpuku/bass -Introduce accumulation limit of 3
Option 3	132	80 ↓ (186.2 t)	10	4	38		

A holistic approach

131. The submitters support a more holistic management approach for our oceans based on a set of principles including taking a precautionary approach as described in the first section of this submission.

132. After several meetings to discuss management, there is cross-sector agreement that the current status of hāpuku and bass stocks is very low and declining in HPB 1 and HPB 2. Significant cuts to the TAC and TACC and a reduction in the bag limit for recreational fishers are needed. There is also an acknowledgement that serial depletion of accessible reefs and other structure has been a problem so there is a willingness to support some temporary spatial closures to assist the stocks to rebuild.

133. Hāpuku and bass tend to be voracious feeders, bordering on suicidal when baits or jigs are presented to them. The advent of high resolution sounders and GPS and improvements fishing gear used by commercial and non-commercial fishers has increased catchability and fishing efficiency. Having catch records for the two species combined (before and after introduction to the QMS) and the way fishing effort has shifted to maintain the catch rates makes catch per unit effort (CPUE) unreliable as a way of monitoring changes in abundance for hāpuku and bass either separately or in combination (Paul 2005). What is obvious to everyone is the reduction in range for hāpuku in HPB 1 and HPB 2, which were once caught in depths of 50 meters or less.

134. Hāpuku was a major target species with large catches taken for sale in the 1920s and 1930s. These fish are not fully captured in the recorded catch history. Now the fish are rare on most accessible reefs and it's easily forgotten how prolific they once were. If biomass estimates were available now it is certain that current hāpuku and bass biomass along the east coast of the North Island would be below the soft limit. And in the submitters' view it is clear that hāpuku is below the hard limit.

135. The appropriate management response to the current state of depletion in HPB 1 and HPB 2 is to set TACCs and allowances that effectively make hāpuku bycatch-only species. Given the risk

to sustainability of hāpuku and bass we recommend significant catch reductions for commercial and recreational fishers and closing some reefs to bottom fishing during the rebuild period. The submitters are concerned that in FNZ's Option 3 for HPB 1 a TACC of 140 t is still too high to ensure a bycatch only commercial fishery. FNZ must monitor and report catches and effort by stat area to ensure no targeting, an adequate spread of ACE, and that appropriate deemed value rates apply.

136. To enable effective future monitoring and management there must be full species separation in reporting commercial catch and in recreational harvest surveys.

137. Reductions in the TAC will not be enough to rebuild HPB base within a reasonable time frame or to maintain stock size in the future. These fish are susceptible to serial depletion and the reefs they school on are easily found on charts or plotters. Where the QMS fails to maintain stock size at or above the hard limit the fishery must be closed, a difficult prospect in a future for a species with high release mortality and land-all-catch regulations. The only alternative is a new management approach with effort controls.

138. In addition, the review of the Fisheries Act 1996 must include provisions for removing vulnerable species from the QMS and the introduction of alternative management controls that limit fishing effort to levels appropriate for the fishery. HPB must be treated as a high value niche commercial, customary and recreational fishery that maintains stock levels and ecosystem functions.

139. In the meantime, the submitters ask that the Minister and FNZ support a package of measures to prohibit bottom fishing on well-defined areas of reef or structure to preserve the remaining mature hāpuku and bass, and to provide pathways for immature fish to repopulate reef systems. These measures would also help to protect tarakihi and many long lived semi resident reef species such as pink maomao and golden snapper.

140. As part of the spatial management process, FNZ must consider subdivision of the large Quota Management Areas, as well as catch or effort spreading. For example, commercial and recreational fishers could be encouraged to fish in depths of 250 m or more when fishing for bluenose and gemfish until stocks recover. This would largely avoid hāpuku catch and reduce recreational fishing effort in their preferred depth range (Figure 3).

141. Bulk harvesting methods such as trawling and set netting on deep reefs and similar features must be banned. These methods are indiscriminate and damage a range of protected and rare species. Lost set nets keep killing as they ghost fish on reefs for months and increase plastic waste in sensitive marine envionments.

142. FNZ must help develop a method of monitoring changes in relative abundance and age structure of hāpuku and bass. Having closed areas for comparison would help assist in assessing the relative status of open areas, especially if compliance with area closures from all sectors was high. A mix of extractive and non-extractive sampling could be used.

143. In an effort to contribute to restoring long lived low productivity hāpuku and bass populations to 50% of the estimated unfished biomass (B50) the New Zealand Sport Fishing Council (NZSFC) has

proposed the following policy for ratification at this year's AGM. It is deliberately wide ranging to encompass foreseeable issues and must be considered. The NZSFC is available to discuss this policy package with the Minister and FNZ prior to the Council's September AGM if there is interest in engaging with the recreational sector on collaborative restorative measures.

NZSFC Hāpuku and Bass Policy (in part) - DRAFT

144. **Urgent actions for HPB 1 & 2 only**
    a. The Minister reduces the TACC in HPB 1 & 2 below current catch levels and prohibits any targeting to ensure hāpuku and bass are taken as bycatch in commercial and non-commercial fisheries.
    b. Reduce the daily bag limit for recreational fishers to one or two (TBC) per person, per day, during the rebuild phase and two per person in the future.
    c. Limit the number of hooks used by recreational fishers, to two hooks per line.
    d. Set an accumulation limit per fisher on charter boats and private vessels to four fish per multi-day trip.
    e. Close large areas of reef to all bottom fishing for 10 years where local depletion has or is occurring.
        i. Full rāhui or closure under regulation would help compliance.
        ii. Select the most useful closures, not the least fished areas, and encourage high levels of support and compliance.
        iii. NZSFC club committees and Zone representatives to recommend suitable areas to be closed to all bottom fishing.
    f. Start a series of monitoring projects:
        i. Collect length and location (approx.) of catch by commercial and charter boats.
        ii. FNZ initiated longline survey on fixed sites and age catch. Repeat to show trends.
        iii. Set lines with breakaway hook tags (fish not brought to the surface) to track movement.
        iv. Determine baselines and relative management objectives.

145. Implementing this package of measures will help to restore and maintain robust breeding populations of hāpuku and bass in their preferred habitats. Rebuilding the hāpuku and bass populations will also help the development and maintenance of a high value niche fishery for commercial, recreational and customary fishers.