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23 July 2024

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Review of Sustainability Measures for 2025/26

Introduction

1. This submission addresses Fisheries New Zealand's (**FNZ**) 2025/2026 review of sustainability measures, including for the following stocks:

    - Orange roughy (ORH 3B)
    - Anchovy (ANC 1), Sprat (SPR 1), Garfish (GAR 1), and Yellow-eyed mullet (YEM 1)
    - Jack Mackerel (JMA 1)
    - Blue Mackerel (EMA 1)
    - Snapper (SNA 7)
    - Low-medium knowledge stocks: Alfonsino (BYX7), frostfish (FRO1), dark ghost shark (GSH 7), leatherjacket (LEA1)

2. The Environmental Defence Society (**EDS**) is an independent not-for-profit organisation conducting interdisciplinary policy research and litigation. It was established in 1971 with the purpose of improving environmental outcomes in Aotearoa New Zealand.

3. EDS has a special interest in the marine environment and recently completed the first phase of a multi-year project looking at options for future reform of the oceans management system.[1] EDS is nearing completion of phase two of the project and has published a report on marine protection[2] and case studies on the Marlborough Sounds[3] and Otago[4] regions. A further case study on the Bay of Islands will be published imminently. Its final report, Pathway to Ocean Reform, is currently out for peer review.

4. In 2018, EDS led an in-depth review of the national fisheries management system and published findings in a report entitled *Voices from the Sea: Managing New Zealand's Fisheries*.[5] It has also sought to improve fisheries decision-making by submitting on proposals to set sustainability measures for the management of various fish stocks.[6]

Summary

5. EDS has assessed FNZ's proposed sustainability measures against Part 3 of the Fisheries Act 1996 (**Act**), the 'sustainable utilisation' purpose of the Act and the Act's environmental principles which decision makers must have regard to.[7]

6. EDS has focused its submission on orange roughy and forage fish stocks, as well as the snapper stock in the upper South Island. For other stocks not explicitly addressed (including green-lipped mussels, Pāua, blue cod and low information stocks), EDS generally supports the greatest reduction in Total Allowable Catch (**TAC**) proposed by FNZ, in accordance with the precautionary approach under s 10(c) of the Act.

7. With respect to orange roughy, EDS considers all of the following actions are necessary to ensure sustainability of ORH 3B:

    a. Formally divide the quota management area of the ORH 3B stock into its known biological sub-stocks
    b. Increase the management target for the stock to 60% of virgin biomass
    c. Close the East & South Chatham Rise (**ESCR**) fishery sub-stock
    d. Close the fishery or reduce the TAC for the Northwest Chatham Rise (**NWCR**), Puysegur and sub-Antarctic sub-stocks, and
    e. Urgently undertake a stock assessment of the Puysegur and Sub-Antarctic sub-stocks.

8. With respect to 'forage fish' stocks (anchovy (ANC 1), sprat (SPR 1), garfish (GAR 1), yellow-eyed mullet (YEM 1), jack mackerel (JMA 1) and blue mackerel (EMA 1)), bigger reductions in

[1] Greg Severinsen and others, 2022, *The Breaking Wave: Oceans Reform in Aotearoa New Zealand*, Environmental Defence Society, Auckland, available from www.eds.org.nz
[2] Raewyn Peart and Deidre Koolen-Bourke, 2025, *Protecting the Sea: Rethinking marine protected areas*, Environmental Defence Society, Auckland, available from https://eds.org.nz/wp-content/uploads/2025/05/Protecting-the-Sea-Final.pdf
[3] Raewyn Peart, 2024, *Restoring the Marlborough Sounds: An oceans reform case study*, Environmental Defence Society, Auckland, available from https://eds.org.nz/wp-content/uploads/2024/12/Marlborough-Sounds-Case-Study.pdf
[4] Raewyn Peart, 2025, *Oceans Management in a Changing Climate: Otago oceans reform case study*, Environmental Defence Society, Auckland, available from https://eds.org.nz/wp-content/uploads/2025/05/Otago-Case-Study.pdf
[5] Raewyn Peart, 2018, *Voices from the Sea: Managing New Zealand's Fisheries*, Environmental Defence Society, Auckland, available from www.eds.org.nz
[6] Copies of EDS's recent submissions on a range of wild fish stocks are available from www.eds.org.nz
[7] Fisheries Act 1996, sections 8, 9 and 11-16

TAC are justified in many cases based on the limited information available and the "disproportionately important ecological role" of these stocks.[8]

9. With respect to snapper (SNA 7), EDS calls for a precautionary approach. As acknowledged by FNZ, snapper play a crucial role in managing kina barrens[9] – until the relationship between snapper and kina, and the impact of recent TAC increases, is better understood in the Tasman/Golden Bay region, TAC should not be further increased.

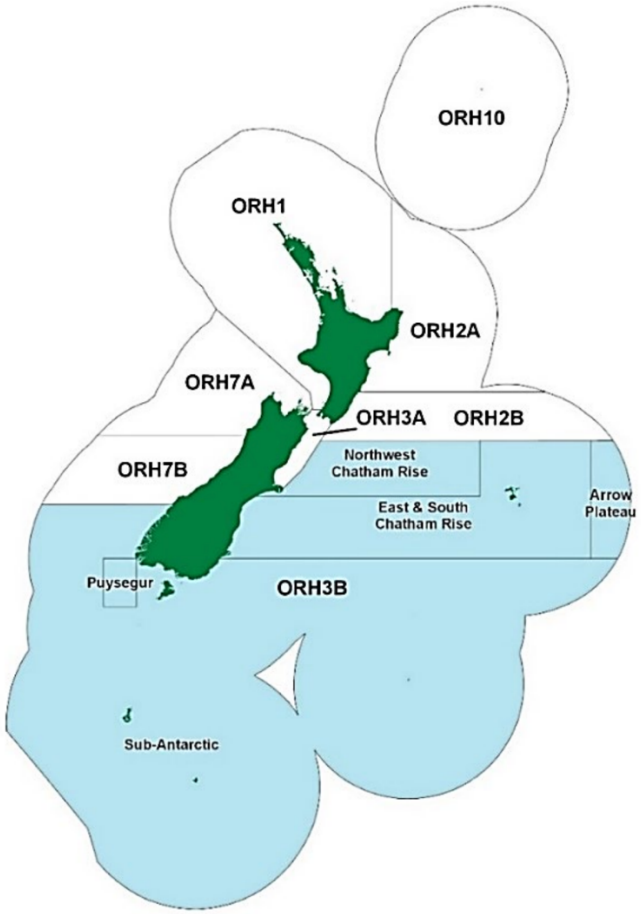
10. With respect to low-medium knowledge stocks, EDS strongly supports reducing the TAC and Total Allowable Commercial Catch (**TACC**).

Proposed sustainability measures

Orange roughy (ORH 3B)

11. FNZ is reviewing sustainability measures for orange roughy in Quota Management Area ORH 3B (Chatham Rise and southern New Zealand). ORH 3B is composed of four known biological sub-stocks which are assigned into four sub-areas:

    a. East & South Chatham Rise (**ESCR**)
    b. Northwest Chatham Rise (**NWCR**)
    c. Puysegur, and
    d. Sub-Antarctic.



[8] Review of sustainability measures for anchovy (ANC 1), garfish (GAR 1), yellow-eyed mullet (YEM 1) and sprat (SPR 1) for 2025/26, at [3]
[9] Review of sustainability measures for rig (SPO 7) and snapper (SNA 7) for 2025/26, at [82]

12. While the TAC and TACC apply to the entire ORH 3B stock, sub-areas within ORH 3B are subject to voluntary catch limits agreed by quota holders. Although these are non-regulatory, historically, FNZ says industry has adhered to them.[10] Most orange roughy fishing in ORH 3B occurs in the ESCR, which has a sub-area limit of 2,755t out of a total ORH 3B TACC of 4,752t.[11]

13. The management target range for orange roughy has been set at 30 – 50% B_0.[12] Previous stock assessment reviews have raised sustainability concerns for the ORH 3B stock as well as issues with previously-used stock assessment models. This led to a 40% reduction in TAC for the 2023/24 fishing year. Additional research has since been commissioned.

14. The 2025/26 assessment is based on four models, each reflecting a different combination of data inputs. All models incorporated an acoustic biomass survey series, but used different acoustic frequencies (38 kHz or 120 kHz). Only some included age frequency data.[13]

ESCR

15. The updated modelling estimated the ESCR sub-stock to be between 8-18 % B_0, significantly below the level required to produce the maximum sustainable yield (**MSY**).[14]

NWCR

16. The NWCR 2025 stock assessment estimated biomass at 34-36% B_0. However, catch taken from the area has declined to low levels relative to the catch limit. Less than 20% of the sub-area catch limit was caught in the 2023/24 fishing year.[15] The reasons for this are unclear, but given the uncertainties in modelling, a biomass significantly lower than the stock assessment indicates cannot be discounted. This highlights the need to take a very precautionary approach when setting the TACC for this substock.

Puysegur

17. The most recent stock assessment for Puysegur was in 2017. This used the older model that was rejected by the Plenary in 2023. As such, the assessment "may have been overly optimistic."[16] Orange roughy catches in the sub-area have been consistent since it was re-opened in 2017, with close to the sub-area catch limit being caught annually over the last five fishing years.[17] However, catches are not a reliable indicator of stock status.

Sub-Antarctic

18. The Sub-Antarctic sub-stock has never been assessed. Annual catch has trended down over the last eight fishing years (since 2016/17) to less than 100 tonnes per year, with effort also trending down.[18]

[10] Review of sustainability measures for orange roughy (ORH 3B) for 2025/26, at [7]
[11] At Table 2
[12] At [2]
[13] At [14]
[14] At [2]
[15] At [18]
[16] At [20]
[17] At [21]
[18] At [23]

Managing ORH 3B

19. FNZ considers the ORH 3B stock needs to be rebuilt within an appropriate period under section 13(2)(b) of the Act,[19] and EDS agrees. FNZ proposes three possible options to reduce the TAC for orange roughy in ORH 3B by 23%, 42% or 60%, to support stock rebuild. Its strongest option includes a closure of the ESCR sub-stock.

20. EDS does not consider these measures go far enough given the main sub-stock is on the brink of collapse and there are considerable uncertainties about the state of the other sub-stocks. More action needs to be taken to rebuild ORH 3B, including the following:

    a. **Formally separate the ORH 3B stock into its known biological sub-stocks**, to:

        i. Enable spatial management that is "more in-line" with biological stocks,[20] recognising that current management is "not ensuring the sustainability of the stock" in accordance with s 17B of the Act.

        ii. Minimise the risk of displaced effort if catch limits are reduced for specific sub-stocks.[21]

        iii. Enable sub-stock catch limits to be independently reviewed, set and enforced.

    b. **Increase the management target for the stock from 30-50% to 60%**, to:

        i. Recognise that orange roughy is a very slow-growing and long-lived species[22] with a very low productivity and fecundity,[23] making it "less resilient to fishing".[24]

        ii. Align with the Operational Guidelines for Harvest Strategy Standard (noting that lower productivity stocks are likely to have relatively higher estimates of B_{MSY})[25] and to align with the 60% targets adopted in Australia for orange roughy.[26]

    c. **Close the ESCR fishery sub-stock** (as per FNZ's proposed Option 3[27]), because:

        i. The ESCR sub-stock abundance is well below the management target (which, as discussed above, is set lower than it should be).

        ii. Sub-stock abundance is also likely below the hard limit of 10% given that "the 120 kHz [model which] should be more accurate for orange roughy"[28]

[19] At [2]
[20] At [7]
[21] At [49]
[22] At [5]
[23] Operational Guidelines for Harvest Strategy Standard 2011, at Table 1; Harvest Strategy Standard for NZ Fisheries, at [24]
[24] Operational Guidelines for Harvest Strategy Standard 2011, at p 6
[25] Harvest Strategy Standard for NZ Fisheries, at [24]
[26] Operational Guidelines for Harvest Strategy Standard 2011, at Table 2
[27] Review of sustainability measures for orange roughy (ORH 3B) for 2025/26, at Table 2
[28] Fisheries Assessment Plenary May 2025 Volume 2 – Orange roughy (ORH 3B), at p 968

assesses the stock as about "as likely as not" to be below the hard limit.[29] Under the Operational Guidelines for Harvest Strategy Standard fisheries which have breached the hard limit need to be considered for closure.[30]

iii. The rebuild time may be anywhere from 33-100+ years, noting that the long-term projections are "highly uncertain due to the species' high age of average maturity, long lifespan and unknown future recruitment levels."[31]

iv. The impacts of climate change on the sustainability of the stock and its ability to rebuild are uncertain, and difficult to assess with confidence, but are almost certainly negative.[32] Recent indications are that productivity is decreasing in the cooler subantarctic waters off New Zealand, due to seawater warming,[33] which will like slow rebuild of the stock. In addition, a particularly warm 'spot' of seawater has developed just south of the Chatham Islands, where subtropical waters are "pushing into an area where they didn't used to be". Marine heatwaves are now persisting in that area for more than 200 days a year.[34] A precautionary approach must be adopted where information is uncertain, unreliable, or inadequate.[35]

v. In light of all the above information, EDS considers full closure is the only credible option to rebuild the stock.

d. **Close the fishery or reduce the sub-area catch limits for the NWCR, Puysegur and sub-Antarctic sub-stocks**, to:

i. Recognise the uncertainties with respect to sub-stock abundance, including because:

1. the models used to estimate Puysegur sub-stock abundance have been shown to be problematic. Too many assumptions have been relied upon, resulting in an "overly optimistic" assessment of stock abundance,[36] and

2. the abundance of the sub-Antarctic sub-stock has never been assessed, but there has been a consistent annual catch decline over recent years to below 100t per year,[37] indicating that sub-stock abundance is declining.

[29] At p 982
[30] Operational Guidelines for Harvest Strategy Standard 2011, at p 10
[31] Harvest Strategy Standard for NZ Fisheries, at [28]
[32] At [116]
[33] Pinkerton M, M Gall, F Thoral, P Sutton and S Wood, 2024, *Monitoring ocean health: Satellite indicators for surface temperature, productivity and suspended solids*, National Institute of Water and Atmospheric Research Limited, Wellington, at 82
[34] Dr Phil Sutton quoted in Gibson E, 2025, 'Ocean near New Zealand warming faster than anywhere else, study finds', *Radio New Zealand*, 7 May
[35] Fisheries Act 1996, section 10(c)
[36] Review of sustainability measures for orange roughy (ORH 3B) for 2025/26, at [9]
[37] At [23]

ii. Recognise that less than 20% of the NWCR catch limit was caught in the previous fishing year,[38] indicating that the NWCR sub-stock abundance may be at risk.

iii. Ensure that a closure of the ESCR does not result in an increase in fishing effort in other parts of ORH 3B, thereby exacerbating stock decline.[39]

iv. Recognise that because of orange roughy species characteristics (such as slow reproductivity), if the stock collapses, recovery will be challenging.[40] All efforts should be made to avoid stock collapse in the first instance.

v. Reduce the known environmental effects associated with bottom trawl fishing methods that are currently not being comprehensively avoided, remedied or mitigated.[41]

e. **Urgently undertake a stock assessment of the Puysegur and sub-Antarctic sub-stocks**, to:

i. Improve the information basis needed to support future decision making, and to ensure the sub-stocks are being managed within limits and to appropriate management targets.

Forage fish: Anchovy, sprat, garfish, yellow-eyed mullet, jack mackerel, blue mackerel

21. EDS supports the review of sustainability measures for these 'forage fish' stocks, which is long overdue. As noted by FNZ, these "are all low knowledge stocks, and their sustainability measures have not been reviewed since their introduction into the QMS." In addition, "There are no estimates of current or reference biomass, nor sustainable yield".[42]

22. EDS acknowledges that information on these stocks is sparse but highlights their crucial role in sustaining ecosystem health. Forage fish "play a disproportionately important ecological role, acting as a crucial link in marine food webs".[43] Blue mackerel, for instance, are known to constitute a significant dietary component for species including southern bluefin tuna, blue marlin, striped marlin, black marlin and Australasian gannets.[44] FNZ notes that blue mackerel also contribute indirectly to food webs via surface feeding frenzies ('work ups') by driving smaller bait fish and zooplankton to the surface where these smaller prey items are consumed by a range of fish, bird and marine mammal species.[45]

23. As such, the available evidence suggests "even modest declines in forage fish biomass could lead to reductions in the overall abundance of marine predator groups, including seabirds, marine mammals, and predatory fish."[46] EDS agrees that their management needs to be "guided by an ecosystem-based approach."[47]

[38] At [18]
[39] At [49]
[40] For example, the rebuild of the ESCR is estimated to take between 33-100+ years
[41] Review of sustainability measures for orange roughy (ORH 3B) for 2025/26, at [152]-[157]
[42] Review of sustainability measures for anchovy (ANC 1), garfish (GAR 1), yellow-eyed mullet (YEM 1) and sprat (SPR 1) for 2025/26, at [6]
[43] At [3]
[44] Review of sustainability measures for blue mackerel (EMA 1) for 2025/26, at [91]
[45] At [91]
[46] At [182]
[47] At [5]

24. The impacts of climate change on forage fish stocks are also important to consider. While difficult to quantify, we know that forage fish are likely to be sensitive to climate change.[48] Ocean temperature fluctuations influence plankton supply and distribution and this, in turn, impacts forage fish stock distribution and abundance and the larger species that predate them.[49] Seawater warming around New Zealand has already resulted in reduced marine productivity, and it is accelerating,[50] meaning that the abundance and resilience of forage stocks are likely to be negatively impacted to a greater extent.

25. The management of forage fish is "further complicated by the fact that they are easily caught, even when their abundance decreases." As such, "[F]orage fish populations are vulnerable to overfishing and collapse and do not always recover readily from depletion as catchability of forage fish stocks can remain high despite decreases in population size."[51]

26. The absence of, or uncertainty in, information must not be used as a reason for failing to act.[52] In fact, it justifies a more precautious approach that, at a minimum, ensures sustainability.[53] In the case of JMA 1, which is likely a straddling stock, Schedule 1A of the Act requires this.[54] In the meantime, recognising the best available information which suggests these forage fish stocks face sustainability risks,[55] the TAC for these stocks should be reduced significantly, in line with s 10(c) of the Act.

Anchovy (ANC 1)

27. The current TAC is 215t and TACC is 200t. Commercial landings over the past decade have been negligible.[56] Despite this, Option 1 proposes to *increase* the TAC to 216t with the TACC unchanged. Option 2 proposes a reduction to a TAC of 116t and TACC of 100t. Both these options can be discounted as bearing little relationship to the current size of the fishery, with current negligible reported commercial harvest levels providing the best information on stock status in the absence of any stock assessment.

28. Option 3 (TAC of 66t and TACC of 50t) also remains high in comparison with nil or very low landings over recent years.[57] EDS submits that there should be a greater reduction in the TAC and TACC for the fishery than Option 3 (such as to a TAC of 10t and TACC of 5t or less).

Sprat (SPR 1)

29. The current TAC is 100t and TACC is 70t, but reported landings since 1990 have been largely less than 1t. Despite this, the TAC for Option 1 represents an *increase* to 101t with the TACC

[48] At [36]
[49] At [3]
[50] Pinkerton M, M Gall, F Thoral, P Sutton and S Wood, 2024, *Monitoring ocean health: Satellite indicators for surface temperature, productivity and suspended solids*, National Institute of Water and Atmospheric Research Limited, Wellington, at 80-81
[51] Review of sustainability measures for jack mackerel (JMA 1) for 2025/26, at [8]
[52] Fisheries Act 1996, sections 10(d) and 13(2A)
[53] Fisheries Act 1996, section 10(c)
[54] Article 3 of Annex I, Agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks
[55] Review of sustainability measures for anchovy (ANC 1), garfish (GAR 1), yellow-eyed mullet (YEM 1) and sprat (SPR 1) for 2025/26, at [7]-[8]
[56] At Figure 2
[57] At Figure 2

unchanged. Option 2 is a reduction to a TAC of 56t and TACC of 35t. Both these options bear little relation to the current size of the fishery.

30. Option 3 (TAC 31t and TACC 15t) also does not go far enough. The available information suggests catches for SPR 1 are "negligible" and likely overrepresented.[58] It is highly unlikely that commercial fishing of sprats will be constrained by the options presented. As such, EDS considers a much lower TAC would best give effect to the precautionary principle (such as a TAC of 10t and TACC of 5t or less)

Garfish (GAR 1)

31. Unlike the other forage fish stocks, Garfish is a target species and is also endemic.[59] It is primarily caught through the use of beach seine nets.[60] As noted by FNZ, it is vulnerable to localised depletion, there has been loss of spawning habitat in the greater Hauraki Gulf region (particularly seagrass beds), and there are knowledge gaps around dependent and associated species.[61] Over five consecutive years, landings have declined significantly, to below 10t per year.[62] The current TAC is 55t and TACC is 25t.

32. In light of this trend, Option 1 (which *increases* the TAC to 56t) and Option 2 (TAC 51t and TACC 20t) does not provide a sufficient reduction in allowable catch. As noted by FNZ, "If the observed catch trends and anecdotal reports of depletion do reflect an actual population decline, this option [2] is unlikely to contribute to population recovery as it will not constrain catch below recent levels."[63] A much greater reduction is required to ensure sustainability and is justified based on the best available information (such as to a TAC of 20t and TACC of 5t).

Yellow-eyed mullet (YEM 1)

33. The current setting for yellow-eyed mullet at a TAC of 50t and TACC of 20t. Most of the catch is targeted and taken by set net.[64]

34. Option 1 is an *increase* in the TAC to 51t (with the TACC unchanged) and Option 2 is a slightly greater increase to a TAC of 54t and an increase of the TACC to 23t. EDS supports FNZ's preliminary position that Option 1 is the most appropriate, for the reasons provided. In particular, EDS highlights:

    a. Uncertainties with reporting and that the stock has been under-caught for 8 out of the last 10 years.

    b. Concerns with respect to localised depletion[65] and pressures from climate change that are particularly pronounced for estuarine environments, where yellow-eyed mullet is principally found.[66]

[58] At [93]-[94]
[59] GARFISH (GAR) – Fisheries Assessment Plenary May 2025 Volume 1, at p 513
[60] Review of sustainability measures for anchovy (ANC 1), garfish (GAR 1), yellow-eyed mullet (YEM 1) and sprat (SPR 1) for 2025/26, at [95]
[61] At [47]
[62] At Figure 3
[63] At [55]
[64] At [101]
[65] At [162]
[66] At [167]

c. Set nets are used to catch yellow-eyed mullets. As FNZ has identified, set nets are non-selective, and any increase in effort could also result in a "higher risk of interactions with protected species", and increased pressure on other fish.[67]

Jack mackerel (JMA 1)

35. Jack mackerel are a key forage fish targeted in the Hauraki Gulf. Like other forage fish, jack mackerel serve a crucial role in marine ecosystems "by transferring energy from lower trophic levels – such as plankton – to higher trophic levels, including predatory fish, seabirds, and marine mammals".[68]

36. FNZ has presented evidence that JMA 1 faces sustainability concerns. In particular, EDS notes:

    a. Over the last nine years, landings in JMA 1 have consistently been below the TACC.[69]

    b. Jack mackerel are particularly sensitive to the effects of climate change because the species occur in "relatively narrow temperature ranges and therefore greater change in their distribution ranges may be expected in response to climate change."[70]

    c. The effects of La Niña events are also relevant,[71] and evident in JMA 1 landings over recent years.[72] Associated limitations in the stock assessment should also be considered.[73]

    d. JMA 1 is likely to be a straddling fish stock, potentially linking across the coasts of Chile and New Zealand,[74] and thereby engaging requirements in Schedule 1A of the Act.[75] EDS refers particularly to Article 6 and the specific requirements when applying the precautionary approach, and Article 3(2) of Annex I, which requires research including surveys of abundance, biomass, etc.

37. Together, these factors point towards the need for a cautious approach. There is currently no TAC and the TACC is set at 10,000t. Commercial landings over the past 3 years have been 3,455t (2021-22), 3,328t (2022-23) and 6,165t (2023-24).[76] FNZ has presented 3 proposed management options: Option 1 (effectively the status quo of a TACC of 10,000 with a TAC of 10,142 introduced to include other allowances); Option 2 with the TACC reduced to 8,000t and Option 3 with the TACC reduced to 7,000t (with TACs of 8,122 and 7,112 respectively).

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[67] At [203]
[68] Review of sustainability measures for jack mackerel (JMA 1) for 2025/26, at [78]
[69] At Figure 2
[70] At [84]
[71] At [6]
[72] At Figure 2, noting that La Niña events occurred in 2017, 2020, 2021 and 2022, generally corresponding to dips in landings.
[73] At [23]
[74] JACK MACKEREL (JMA) – Fisheries Assessment Plenary May 2025, Volume 2, at p 705
[75] Fisheries Act 1996, Schedule 1A: Agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks.
[76] JACK MACKEREL (JMA) – Fisheries Assessment Plenary May 2025, Volume 2, at p 698

38. EDS strongly supports a reduction in TACC for JMA 1 but does not consider any of the options go far enough. Noting the relatively low landings in recent years, EDS considers the TACC should be set at no greater than 5000t per year. This would avoid any increases in commercial catch and enable the sustainability of the stock to be better maintained.

Blue mackerel

39. Blue mackerel is a forage fish that is an important food source for predator species such as marlin. The best available information for this stock indicates that the current catch settings, including the TACC, are set at a level that can produce the maximum sustainable yield from the fishery.[77] As noted by FNZ, the "current level of fishing mortality is either at, or close to the management target."[78]

40. As such, FNZ considers the modified status quo settings (i.e. no increase in TACC) to be the most sustainable and cautious approach. FNZ also considers this option "best aligns with the purpose of the Act, including maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations."[79]

41. EDS agrees, particularly considering the risks associated with an increase in TACC, including:

    a. Potential for overfishing, noting that forage fish, such as blue mackerel, are particularly vulnerable to overfishing and collapse.[80]

    b. Localised depletion of blue mackerel due to the highly localised nature of fishing activity in EMA 1.[81]

    c. The potential for "long-term economic risk if overfishing was to occur"[82] including because an increase in TACC is likely to lead to "reduced opportunity for the stock to contribute to wider ecosystem functioning."[83]

    d. The lack of a mechanism to enable monitoring of the stock's short-term response to a change in the catch settings[84] and, while fisheries independent research could be implemented to provide additional information to inform fisheries management, FNZ considers the cost of doing so would likely exceed the economic benefits of the proposed increases.[85]

Snapper (SNA 7)

42. FNZ is reviewing sustainability measures for SNA 7. EDS notes that sustainability measures for this stock were reviewed very recently in 2024/25, and the TAC was increased. EDS considers it unlikely that enough time has passed to accurately assess the impact of this increase on stock abundance and sustainability. As noted by FNZ, the potential "impacts of increased fishing activity on associated species impacts and the benthos following the 2024

[77] Review of sustainability measures for blue mackerel (EMA 1) for 2025/26, at [20]
[78] At [31]
[79] At [21]
[80] At [31]
[81] At [22]
[82] At [32]
[83] At [38]
[84] At [33]
[85] At [33]

SNA 7 TACC increase, cannot be precisely evaluated."[86] The Tasman/Golden Bay area is fragile and imposing additional pressure without a solid evidence base of the associated adverse effects should be avoided.

43. Any increase in TAC is likely to increase fishing effort and associated effects from trawling.[87] Disturbance and re-suspension of sediment from bottom-contact fishing is a key concern in the region.[88] Specific to SNA 7, fine sediment accumulation has degraded large areas of biogenic and estuarine habitats, such as the Separation Point bryozoan beds following Cyclone Gita, and areas of inner Pelorus Sound.[89]

44. EDS considers an increase in trawl effort and associated adverse effects to be likely, given the proposed increases in TACC are substantial. FNZ has identified the risks associated with an increase in trawl effort but has noted that the region has been intensively trawled in the past.[90]

45. EDS considers many of the adverse effects associated with increased trawl effort, such as re-suspension of sediment and bycatch, can be significant irrespective of whether an area has been previously trawled. EDS is seriously concerned that FNZ has failed to include measures to avoid, remedy or mitigate these adverse effects.

46. TAC increases for SNA 7 may also adversely affect ecosystem stability and exacerbate the harmful spread of kina barrens. Kina barrens occur extensively in the Marlborough Sounds and Tasman Bay and while there is strong evidence of the role of large snapper in reducing kina barrens, further work is needed to understand the extent of kina barrens and the specific role of snapper in SNA 7. In the meantime, a cautious approach should be adopted.

47. With these concerns in mind, EDS prefers the status quo option presented by FNZ.[91]

Low-medium knowledge stocks: Alfonsino, frostfish, dark ghost shark, leatherjacket

48. FNZ is proposing TAC adjustments for five fish stocks (BYX 7, FRO 1, GSH 7, LEA 1, and RBT 3) which are all low-medium knowledge stocks informed by fisher-reported data.[92] The majority of these stocks are categorised by declining catch trends over the last 10 years,[93] and so EDS strongly supports reducing the TAC for these stocks.

49. In the case of Alfonsino, while FNZ has proposed a reduction in TACC to 40.25t, EDS considers the TACC should be reduced to 20t, noting that landings have reduced steadily over the last ten years down to 5t per year. There is unlikely to be a risk of unnecessarily constraining utilisation.

50. Similarly, for frostfish, landings have reduced substantially over the last eight years. While factors other than sustainability concerns (such as decreased fishing effort) may be

[86] Review of sustainability measures for rig (SPO 7) and snapper (SNA 7) for 2025/26, at Table 8
[87] At [45]
[88] Swales A, M M Gibbs, S Handley, G Olsen, R Ovenden, S Wadhwa and J Brown, 2021, *Sources of fine sediment and contribution to sedimentation in the inner Pelorus Sound/Te Hoiere*, NIWA, Hamilton, at 24, 71 and 88
[89] Anderson T, R Stewart, R D'Archino, J Stead and N Eton, 2020, *Life on the seafloor in Queen Charlotte Sound, Tory Channel and adjacent Cook Strait*, NIWA, Wellington, at 101
[90] Review of sustainability measures for rig (SPO 7) and snapper (SNA 7) for 2025/26, at [105] and [165]
[91] At [25]
[92] Review of sustainability measures for five low-medium knowledge stocks for 2025/26, at [5]
[93] At Table 1

contributing, EDS strongly supports the 50% reduction in TACC proposed by FNZ (Option 3) as this is the most sustainable and cautious option presented.

51. Similarly, for ghost shark, EDS supports FNZ's proposed 45% decrease (Option 3) as this is the most sustainable and cautious option. A 45% decrease in TACC is unlikely to constrain current fishing effort.[94]

52. Leatherjacket is predominantly caught in the bottom trawl fishery targeting snapper, John dory and trevally in the Hauraki Gulf and Bay of Plenty.[95] There has been a steep decline in leatherjacket landings over recent years from ~200t down to below 50t per year.[96] While this may be partially attributable to changes in fisher behaviour, there is a real concern that the sustainability of the stock is at risk. FNZ's most cautious option (Option 3) proposes a 50% reduction in TACC, but this is still unlikely to constrain fishing effort in the snapper, John dory, and trevally fisheries in which leatherjacket is caught.[97] As such, EDS considers a greater reduction in TACC, down to 40t, is justified.

Conclusion

53. EDS supports a cautious and ecosystem-based approach to fisheries management that gives full effect to the purpose and principles of the Act.

54. The best available information, including known data gaps and uncertainties, points to the need for greater precaution, particularly for low-information and ecologically important species such as orange roughy and forage fish. In these cases, FNZ should adopt the most conservative management options available, including closures or significant reductions in TAC and TACC.

55. For SNA 7, a pause on further TAC increases is warranted until information on the impact of the very recent TAC increases becomes available.

56. Crucially, EDS encourages FNZ to prioritise improved data collection, regular and comprehensive stock assessments, and a more granular management approach to ensure the long-term health and resilience of New Zealand's marine ecosystems.

[94] At [72]
[95] At [74]
[96] At Figure 8
[97] At [87]