

NEW ZEALAND MARINE SCIENCES SOCIETY

TE HUNGA MĀTAI MOANA O AOTEAROA



14/10/2022

Northland Sustainability Review
Fisheries Management
Fisheries New Zealand
Wellington, New Zealand

Email: FMSubmissions@mpi.govt.nz

Submission: Review of commercial fishing sustainability measures for the Cape Brett to Mimiwhangata area, Northland

This submission is made on behalf of the membership of the New Zealand Marine Sciences Society (NZMSS). It is made in good faith in my role as President of the NZMSS and in accordance with the Code of Ethics and Rules of the Royal Society of New Zealand.

NZMSS **strongly supports Option 1** and the reasons for this are outlined in our submission below.

NZMSS congratulates Fisheries New Zealand for taking this initiative in advancing iwi and community led plans and aspirations to protect marine biodiversity from the impacts of bottom trawling in this area of high ecological, cultural and recreational significance (noting this will only be achieved through Option 1).

Please contact me at the email address provided below for any further information regarding this submission.

Handwritten signature of Kathy Walls in purple ink.

Kathy Walls
President
New Zealand Marine Sciences Society

Address for service:

Email: president@nzmsp.org Submission: Review of commercial fishing sustainability measures for the Cape Brett to Mimiwhangata area, Northland

The New Zealand Marine Sciences Society

The New Zealand Marine Sciences Society, known as 'NZMSS', was formed in 1960 as a constituent of the Royal Society of New Zealand, to encourage and assist marine science and related research across a wide range of disciplines in New Zealand and to foster communication among those with an interest in marine science.

NZMSS is a professional science body and a non-profit organisation. We identify emerging issues through annual conferences, annual reviews, a listserv and our website <http://nzmss.org/>. NZMSS membership covers all aspects of scientific interest in the marine environment and extends to the uptake of science in marine policy, resource management, conservation and the marine business sector. We speak for members of the Society on matters of interest on marine research in New Zealand and we engage with other scientific societies as appropriate. Our current membership comprises over 250 members.

Our submission is consistent with the Royal Society of New Zealand Code of Ethics and Rules, in particular principles 2.1 Integrity and professionalism, 4.1 Compliance with the law and relevant standards, and 10.1 Protection of the environment (www.royalsociety.org.nz/organisation/about/code).

Submission

Below we respond to each of the questions asked of submitters:

Which option do you support for prohibiting bottom trawling and Danish seining in the Cape Brett and Mimiwhangata area? Why?

NZMSS strongly supports Option 1 for the following reasons:

- The prohibition is intended to avoid, remedy, or mitigate any adverse effects of bottom trawling and Danish seining on the aquatic environment, and to maintain biological diversity in the Cape Brett-Mimiwhangata area. As stated in the document, bottom trawling and Danish seining is considered to be the main potential threat to benthic community biodiversity in the area. Option 1 protects the whole area and all habitats from bottom trawling, whereas Option 2 does not protect the area and habitats where most bottom trawling occurs and therefore will not achieve the stated intention of the prohibition.
- The boundaries of Option 1 are very closely aligned and consistent with the proposed Te Hā o Tangaroa Protection Area Rakaumangamanga – Ipipiri and the Te Mana o Tangaroa Protection Area (referred to as “Area C” in Environment Court proceedings¹). In contrast, Option 2 was not considered as part of the Environment Court hearing, and the origin, justification or

¹ Appeal by Forest & Bird and Bay of Islands Maritime Park Inc of decisions on the Northland Regional Plan review seeking marine protected areas under the Resource Management Act 1991 (Northland Regional Plan - Topic 14 - Marine Protected Areas)

rationale for the proposed boundaries is unknown. It is however clear that Option 2 has been designed to not impact on existing trawling activity in the area, which defeats the intended purpose of protection measures that avoid, remedy, or mitigate any adverse effects of bottom trawling and Danish seining.

- The ecological significance of the reef and soft sediment habitats within the Cape Brett-Mimiwhangata area (“Area C”) were clearly documented and agreed upon during the Environment Court hearing². While Option 2 protects reef biodiversity, it does not protect soft sediment habitats from bottom trawling.
- The impacts of bottom contact methods on biodiversity on soft sediment habitats have been well document globally and in New Zealand³. While the impacts of trawling on soft-sediment habitats have not been specifically examined in the Cape Brett-Mimiwhangata area, these impacts can reliably be assumed to occur. Consequently Option 2 does not avoid, remedy, or mitigate these adverse effects.
- In expert conferencing during the Environment Court case all ecological experts agreed¹ that “To protect the integrity of rocky reefs, a buffer including soft sediment areas would be required if the area is not managed as a whole. The extent of the buffer would need to be determined. By way of example, the Northland Regional Plan SEAs [Significant Ecological Areas] use a 1 km buffer. Some experts consider that a greater buffer may be required.” Option 2 does not provide any buffer area around reef habitats and also cuts across reefs in places.
- Option 1 is consistent with the New Zealand Government’s MPA design and implementation guidelines⁴, whereas Option 2 is not. Below we have listed specific “Site Identification and Protected Area Design Guidelines” and outline in italics how the options differ.
 - **Protect whole habitats and ecosystems** – It is desirable that sites be selected on the basis that whole habitats or ecosystems can be protected, particularly where a habitat or ecosystem represents a relatively small mapped unit. For example, it would be desirable to incorporate a whole reef in a protected area rather than establishing a boundary that cuts across the reef.
Option 1 incorporates the whole reef, whereas Option 2 cuts across parts of the reef. Option 1 also protects a variety of soft-sediment habitats, hence protecting associated biodiversity of these habitats (from shallow to deep) and providing a protection buffer around the

² Northland Regional Plan - Topic 14 - Marine Protected Areas, Ecology Expert Conference on 9 and 10 June 2021 - Joint Witness Statement (JWS)ENV-2019-AKL-000117

³ Turner et al (1999) Fishing impacts and the degradation or loss of habitat structure. Fisheries Management and Ecology <https://doi.org/10.1046/j.1365-2400.1999.00167.x>

Thrush et al (1998) Disturbance of the marine benthic habitat by commercial fishing: impacts at the scale of the fishery. Ecological Applications [https://doi.org/10.1890/1051-0761\(1998\)008\[0866:DOTMBH\]2.0.CO;2](https://doi.org/10.1890/1051-0761(1998)008[0866:DOTMBH]2.0.CO;2)

⁴ <https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/marine-protected-areas/mpa-classification-protection-standard.pdf>

reef (allowing for connectivity among habitats is also a basic MPA guideline).

- **Size of protected areas** – For the same amount of area to be protected it is desirable to protect fewer, larger areas rather than numerous smaller areas. This helps maintain healthy self-sustaining populations resilient to ‘edge effects’ resulting from use of the surrounding/adjacent areas. This also allows for more efficient and cost-effective compliance and law enforcement.
Option 1 is a single large area and clearly meets this guideline, whereas Option 2 comprises two smaller areas. In addition to severely compromising the role of the MPA in protecting biodiversity from bottom trawling, it will also complicate compliance and enforcement.
- **Keep boundaries simple and aim for low boundary to area ratio** - To achieve this, protected area design should aim for simple shapes and reduced fragmentation of areas. This can be achieved by using straight boundary lines and minimising the perimeter-to-area ratio. Protected areas should also be designed so they can be realistically enforced. Users and surveillance staff find straight lines much easier to find and follow than lines following depth contours or distance from land or reefs. Squares are easier for users and compliance staff to find and work with than odd shapes. Boundaries should follow major latitude and longitude lines where possible. This makes it easier for users to match with charts. For coastal zones, clear sight lines on-shore or using other fixed objects are good alternatives to areas defined by coordinates.
Splitting the protected area into two smaller MPAs (Option 2) greatly increases the perimeter-to-area ratio and impacts compliance and enforcement.

If you do not support any of the options listed, what alternative(s) should be considered for the Cape Brett and Mimiwhangata area? Why?

NA. We support Option 1.

Do you think these options adequately avoid, remedy or mitigate any adverse effects of fishing on the aquatic environment for the Cape Brett and Mimiwhangata area?

Option 1 will adequately avoid, remedy or mitigate the adverse effects of bottom trawling on the entire benthic environment for the Cape Brett and Mimiwhangata area. In contrast Option 2 will only protect some of the reef where very little bottom trawling occurs, does not protect soft-sediment habitats and account for connectivity between reef and soft sediment habitats.

We note however that neither option will avoid, remedy or mitigate the adverse effects of other forms of fishing on the aquatic environment for the Cape Brett and Mimiwhangata area.