

# NEW ZEALAND MARINE SCIENCES SOCIETY

TE HUNGA MĀTAI MOANA O AOTEAROA



22 August 2012.

Randall Bess  
Ministry for Primary Industries  
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Wellington.

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Dear Randall Bess

## **NZMSS Submission on Punakaiki and Gorge MPA proposals (Fishing Regulations under the Fisheries Act 1996)**

This submission is made by the New Zealand Marine Sciences Society council, on behalf of the New Zealand Marine Sciences Society (NZMSS), a professional body of New Zealand's marine scientists that is affiliated to the Royal Society of New Zealand.

The aims of the Society include encouraging and assisting marine research in New Zealand, and the provision of evidence-based comment on management of marine resources. The Society has more than 260 scientists, managers, policy makers, and students working in all aspects of marine science in New Zealand and overseas. Every year we hold a conference which provides opportunities for members to present their latest research findings and to network. Our members, therefore, have a wide range of views and experiences on science related issues, including the use of marine protected areas for conservation purposes.

The NZMSS makes the following submissions on the proposed MPAs (Fisheries Act) for the South Island West Coast. We welcome the opportunity to provide further information on our submission.

Yours sincerely,

Handwritten signature of Colin McLay.

Assoc. Professor Colin McLay  
Immediate Past President  
New Zealand Marine Sciences Society Council

Email: [secretary@nzmsp.org](mailto:secretary@nzmsp.org)

## **NZMSS Submission on Punakaiki and Gorge MPA proposals (Fishing Regulations under the Fisheries Act 1996)**

### **1. Punakaiki MPAs – Objection**

The NZMSS objects to the two proposed MPAs that are enclosed by the Punakaiki Marine Reserve application.

These coastal areas, although relatively small when compared with the surrounding proposed marine reserve, will remove a significant proportion of shallow inshore habitat from the benefit of comprehensive protection of the marine biodiversity afforded by the Punakaiki Marine Reserve application.

There is insufficient justification for allowing fishing to continue in these areas. NZMSS does not agree with the statement in the marine reserve application document under s5.5(a) “Some nearby areas used by recreational fishers have been excluded from the proposed marine reserves while maintaining the integrity of the proposed protection” (Department of Conservation, 2012). NZMSS contends that the two coastal MPAs, which will limit some types of fishing, will significantly impact on the integrity of the proposed marine reserve. We note in the marine reserves application document (page 29) it is stated that there will be minimal impacts on trawling and longlining, while there is currently no commercial fishing for paua (Department of Conservation, 2012). We therefore see no valid reason for having the two MPAs specifically set aside under the Fishing Regulations to limit certain types of fishing.

The adjacent marine reserve will be compromised by the edge effects created by the MPAs through:

- Movement of mobile species (e.g. blue cod) from the marine reserve into the MPAs where they will be vulnerable to fishing. The resultant effect will be that densities of mobile species adjacent to the MPAs will become relatively depauperate.
- Potential for intensification of fishing. MPAs that allow recreational fishing tend to attract large numbers of fishers.

Research by Willis et al (2003) demonstrated edge effects on snapper densities in the Cape Rodney – Okakari Point Marine Reserve. Due to their mobility, the snapper were caught near the reserve boundaries resulting in suppressed densities for some distance inside the marine reserve.

It has been clearly demonstrated in studies in New Zealand (Denny and Babcock 2004, Shears et al. 2006, De Buisson 2010) and worldwide (Lester et al. 2008) that partial protection (i.e., allowing only recreational fishing in MPAs) has no benefit for harvested species. Importantly, partially protected MPAs can result in knock-on effects on other flora and fauna, preventing re-establishment of fully functioning ‘natural’ ecosystems (Langlois & Ballantine, 2005; Langlois et al 2006).

Research in New Zealand has found that despite the exclusion of commercial fishers and restrictions on recreational fishing, partial closures were ineffective as conservation tools for targeted species (Denny et al 2003; Denny & Babcock 2004).

De Buisson (2010) found that snapper abundance and size in Northland’s Mimiwhangata Marine Park where only some types of recreational fishing is permitted, was no different to areas outside the park where all forms of fishing take

place. De Buisson concluded that the fishing restrictions in the park, although more restrictive than those outside the park, nevertheless resulted in the park not achieving its twin goals of protecting biodiversity while allowing for some recreational fishing.

*Relief sought:*

The proposal for the two fisheries MPAs within the Punakaiki Marine Reserve application is abandoned and these areas are incorporated into the marine reserve application.

## **2. Gorge MPA – Qualified Support**

The NZMSS would support a MPA in this area if the boundaries were adjusted to enable an extension of the Gorge marine reserve application (as advertised by the Department of Conservation) southwards to include Awarua Point and seawards beyond the 200m depth contour.

A modified southern boundary for the MPA would extend to the south of Awarua Point into Big Bay and a significant distance offshore .

In our submission on the application for the Gorge Marine Reserve proposed by the Department of Conservation, we requested an extension to the proposed marine reserve seaward boundary beyond the 200 m depth contour to include significant areas of deep subtidal habitat (30 – 200m) and deep water habitat (200m+ depth). We further requested the proposed reserve include Awarua Point, thereby providing protection of the shallow boulder habitat, other subtidal habitats and all marine life there. We considered these extensions would ensure comprehensive protection of a wide range of habitat types and their associated assemblages of species, as well as the sea bed itself. We also considered the significance of having a larger marine reserve adjacent to the Te Wahi Pounamu New Zealand World Heritage Area. We considered that a greatly increased area of marine reserve both alongshore and offshore, would do justice to the world heritage status of the adjacent terrestrial area.

The modified boundaries would enable the establishment of a functioning marine reserve that is buffered to some degree by a surrounding MPA that prohibits commercial bottom impacting fishing methods (bottom trawling, Danish seining and dredging).

*Relief sought:*

The boundaries of the proposed MPA should be adjusted to enable an extension of the Gorge marine reserve application southwards to include Awarua Point and seawards beyond the 200m depth contour.

A new southern boundary for the MPA should extend to the south of Awarua Point into Big Bay and a significant distance offshore.

## **References**

### ***Limitations of partially protected MPAs***

De Buisson, P.R. (2010). Poor Knights Islands Marine Reserve and Mimiwhangata Marine Park Fish Monitoring 2009. Department of Conservation, Whangarei.

Denny, C. M. & Babcock, R. C. (2004) Do partial marine reserves protect reef fish assemblages? *Biological Conservation* 116(1): 119-129.

Denny CM, Willis TJ, Babcock RC (2003) Effects of Poor Knights Islands marine reserve on demersal fish populations. Department of Conservation Science Internal Series 142:1-34

Lester, S. E. & Halpern, B. S. (2008). Biological responses in marine no-take reserves versus partially protected areas. *Marine Ecology Progress Series* 367: 49-56.

Langlois, T.J., Anderson, M.J., Babcock, R.C., Kato, S. (2006). Marine reserves demonstrate trophic interactions across habitats. *Oecologia* 147(1): 134-140.

Langlois, T.J., Ballantine, W.J. (2005). Marine Ecological Research in New Zealand: Developing Predictive Models through the Study of No-Take Marine Reserves. *Conservation Biology* 19(6): 1763–1770.

Shears, N. T., Grace, R. V., Usmar, N. R., Kerr, V. & Babcock, R. C. (2006) Long-term trends in lobster populations in a partially protected vs. no-take Marine Park. *Biological Conservation* 132: 222-231.

***Complicated reserve boundaries cause high edge effects***

Willis, T. J., Millar, R. B. & Babcock, R. C. (2003) Protection of exploited fishes in temperate regions: high density and biomass of snapper *Pagrus auratus* (Sparidae) in northern New Zealand marine reserves. *Journal of Applied Ecology* 40: 214-227.

***Other references***

Department of Conservation. (2012). Marine Reserves Application for five sites in the West Coast *Tai Poutini* Conservancy, in the localities of Kahurangi, Punakaiki, Okarito, Ship Creek and Gorge. Department of Conservation *Te Papa Atawahi*, West Coast *Tai Poutini* Conservancy, Hokitika.