

NEW ZEALAND MARINE SCIENCES SOCIETY

TE HUNGA MĀTAI MOANA O AOTEAROA



20 September 2019

Department of Conservation
hoihofeedback@doc.govt.nz

Submission to Department of Conservation, on *Strategy and action plan for hoiho*

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 generally supports the strategic priorities and actions proposed in the Hoiho Strategy. However, we recommend strengthening several aspects of the strategy and action plan, in particular setting a more precise target for minimizing the impact of bycatch on this endangered endemic species that is in decline. Our submission is attached. The Society wishes to be heard in respect of this submission.

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

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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 organization that provides access to and within the marine science community. We identify emerging issues through annual conferences, annual reviews, a listserv and our website <http://nzmsp.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 almost 300 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

NZMSS is encouraged to see that several groups of people with an interest in hoiho conservation have taken responsibility, and worked together in creating the five-year action plan for hoiho. We understand the challenges in developing a plan to protect endangered species such as Hoiho that are threatened by a variety of environmental and anthropogenic factors.

Given the lack of exchange between the northern and southern populations, we support the goals of managing these populations separately. This is particularly important given that the mainland populations are located in a hotspot for ocean warming in New Zealand (Shears and Bowen 2017). Warming seawater temperatures in southern New Zealand increase the future uncertainty for southern cold-water endemic species such as Hoiho, and therefore demands a precautionary approach to management that eliminates the sources of mortality that can be managed. Given that Hoiho is an endangered endemic with a declining population we should be attempting to reduce bycatch to zero. This may be necessary to establish populations that are more resilient to other threats such as climate change that are more difficult or impossible to manage.

We applaud the goal in the action plan to “eliminate mortality from dogs”, but recommend a similarly ambitious target to be set for bycatch. The current goal that the agencies should ensure “bycatch does not threaten hoiho” needs to be strengthened and accompanied by a

clear timeline. Numerous studies have examined the number of hoiho killed by fisheries (Darby and Dawson 2000, Thompson & Abraham 2011, Ministry for Primary Industries 2019). We recommend the goal should be to reduce bycatch to an internationally recognised best practice goal (such as the Potential Biological Removal, PBR, used in the USA) in the short-term (e.g. by 2020). A longer-term goal of eliminating bycatch (e.g. by 2025) is needed to ensure measurable progress towards population recovery.

Other marine impacts, such as prey depletion by fisheries and environmental factors, are much more difficult to research and manage. By contrast, the direct impact of fishing methods that cause hoiho bycatch (gillnets and trawling) are readily measurable and avoidable. Managing bycatch right now, would buy time to investigate the indirect impacts of fishing, predation on land and other conservation threats that are still poorly understood and/or difficult to manage.

Response to the specific questions in the hoiho survey online:

- NZMSS agrees with the strategic priorities and actions for themes one (health and monitoring), three (human disturbance), four (terrestrial habitat) and five (working together).
- As stated above, for theme two (marine threats), NZMSS would like to see much ambitious targets to eliminate bycatch, for both the five-year and twenty-year goals.
- We support the goals for more research in the Sub-Antarctics, including on the potential impacts of tourism. In particular, further research needs include gathering more data from Campbell Island and the Auckland Islands to determine if hoiho populations in these areas are also declining.

Further recommendations

- The goal to “Identify, implement and incentivise mitigation practices for minimising bycatch” can be implemented immediately. There is no need for a two-year period for further discussion on this, as there is already ample information to indicate that fisheries mortality is unsustainable.
- NZMSS recommends that the bycatch data be analysed by independent scientists, as the Ministry for Primary Industries’ estimate of a sustainable level of bycatch (Population Sustainability Threshold) at 285 (95% CI: 190-425) hoiho per year (Ministry for Primary Industries 2019) appears very high given the populations size. A re-analysis could be completed within a few months.
- Given the hoiho population is declining, immediate action needs to be taken to reduce the number of birds killed in fishing nets. This could be achieved by extending the current ban on gillnets and trawling (in place to protect Hector’s dolphins) to the 150-metre depth contour. Research by Moore (1999) and more recent unpublished foraging work by Melanie Young shows that this is close to the maximum dive depth for hoiho.

References

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Moore, P.J. (1999). Foraging range of the yellow-eyed penguin *Megadyptes antipodes*. *Marine Ornithology* 27: 49-58.

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Webster T. (2019) Conservation management of yellow-eyed penguins / hoiho in a changing marine environment. NZ Marine Sciences Society Conference presentation, July 2019.