



**Biodiversity
Council**

Submission to Heard Island and McDonald Islands Marine Reserve proposed proclamation and proposal to prepare a draft management plan

3 September 2024

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About The Biodiversity Council

The Biodiversity Council brings together leading experts including Indigenous knowledge holders to promote evidence-based solutions to Australia's biodiversity crisis. The Council was founded by 11 universities with the support of Australian philanthropists.



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Introduction

The Biodiversity Council welcomes the opportunity to provide feedback on the Heard Island and McDonald Islands Marine Reserve (HIMI) proposed proclamation and proposal to prepare a draft management plan.

Heard Island and McDonald Islands and the surrounding ocean have outstanding biodiversity values. This was internationally recognised when they were declared a World Heritage Area in 1997. Seventy-five nationally threatened species, listed under the *Environment Protection and Biodiversity Conservation Act 1999* are known to occur in the region.¹ Two bird species, the Heard Island Imperial Shag (*Phalacrocorax atriceps*) and the Heard Island sheathbill (*Chionis minor nasicornis*), occur nowhere else in the world.²

To protect the values of Heard Island and McDonald Island and the surrounding marine ecosystems, a 65,000 km² reserve was declared in 2002 which was expanded to 71,200 km² in 2014. This reserve represents 17% of the total area around the islands that Australia has jurisdiction over (its [Exclusive Economic Zone](#) or 'EEZ'). The entire reserve is zoned IUCN Ia, which is the category that provides the highest level of protection by limiting the types of activities allowed in the area.

The proposed proclamation would quadruple the size of the current marine reserve to cover 378,715 km², 91% of the EEZ. However, the added areas will be given lower levels of protection than the existing marine reserve.

It is proposed that 138,650 km² will be zoned IUCN II and 169,500 km² will be zoned IUCN IV. Areas zoned IUCN II and IUCN IV allow more activities than areas zoned IUCN Ia. The existing 71,200 km² reserve will remain zoned as IUCN Ia, with no additional areas to be added to this zone.

In the areas designated as IUCN II and IUCN IV, it is proposed that commercial shipping will be allowed which is not allowed in the IUCN Ia (the current reserve).

Commercial fishing using longline, trap, pot will be allowed in areas designated IUCN IV, which would not be allowed in areas zoned IUCN Ia (the current reserve) or areas zoned IUCN II. This would not result in changes to biodiversity outcomes as the consultation paper notes that no fishing has occurred in recent years in the areas proposed to be zoned IUCN II.

The Biodiversity Council is concerned that the proclamation and management plan will not substantially improve levels of protection for marine biodiversity around Heard Island and McDonald Islands.

¹ Welsford, D., Lamb, T., Masere, C., and Sumner, M. (2024) Conservation values in the marine environment surrounding Heard Island and the McDonald Islands, Department of Climate Change, Energy, the Environment and Water, Canberra, March CC BY 4.0.
https://storage.googleapis.com/files-au-climate/climate-au/p/prj2ec4153eaafcaee929127/page/Heard_Island_and_McDonald_Islands_Conservation_report.PDF

² Commonwealth of Australia (2014). *Heard Island and McDonald Islands Marine Reserve Management Plan 2014-2024*, Department of the Environment, Canberra.
https://storage.googleapis.com/files-au-climate/climate-au/p/prj2ec4153eaafcaee929127/page/Heard_Island_and_McDonald_Islands_Marine_Reserve_Management_Plan_2014_2024.pdf

Key concerns

1. Bottom trawling is still permitted outside the reserve

The area within the EEZ that is not reserved is 38,210 km². Within this area, bottom trawling is allowed. It is also open to other future extractive activities.

Bottom trawling has many impacts on marine ecosystems, including significant impacts of fish and destruction of marine habitats³ and releases significant amounts of greenhouse gas emissions.⁴

Within the area covered by the Convention on the Conservation of Antarctic Marine Living Resources (the Southern Ocean), the only bottom trawl fisheries are in the marine waters around Heard and McDonald Islands in the Australian EEZ.⁵ No other nation in the world allows bottom trawling in the Southern Ocean.

Recommendation 1: The Biodiversity Council recommends a ban on bottom trawling because its long-term ecosystem consequences, including greenhouse gas emissions, are substantial.

2. Key conservation assets are not sufficiently protected

The Australian Government states that:

“The proposed expansion of the HIMI Marine Reserve would afford greater protection to values within the surrounding EEZ, particularly the marine ecosystem and its associated seafloor features. It would increase the level of protection for areas important to threatened and migratory species listed under the EPBC Act. It would also enable the continuation of a well-regulated and sustainable Patagonian toothfish fishery within the existing fishery footprint.”

The [Scientific review](#)⁶ commissioned by the Department of Climate Change, Energy, Environment and Water into the conservation values in the marine environment surrounding Heard Island and McDonald Islands clearly states that there are areas of the EEZ of global importance for vulnerable and endangered seabirds and marine mammals that are currently poorly represented in the marine reserve.

Areas of particular concern (pg. 25):

*“The deep, high nutrient, low chlorophyll region to the **west, south of the plateau** is important for wandering and light mantled albatrosses, and the southeast is important for*

³ Pusceddu, A. Bianchelli, S., Martin, J. and Danovaro, R. (2014) Chronic and intensive bottom trawling impairs deep-sea biodiversity and ecosystem functioning *Biological Sciences* **111**(24): 8861-8866
<https://www.pnas.org/doi/full/10.1073/pnas.1405454111>

⁴ Atwood, T. B., Romanou, A., DeVries, T., Lener, P. E., Mayorga, J. S., Bradley, D., Cabral, R. B., Schmidt, G. A. and Sala, E. (2024) Atmospheric CO₂ emissions and ocean acidification from bottom-trawling *Frontiers in Marine Science* **10** <https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2023.1125137/full>

⁵ Bensch, A.; Gianni, M.; Gréboval, D.; Sanders, J.S.; Hjort, A. Worldwide review of bottom fisheries in the high seas. FAO Fisheries and Aquaculture Technical Paper. No. 522, Rev.1. Rome, FAO. 2009. 145p.
<https://www.cbd.int/doc/meetings/mar/soiom-2016-01/other/soiom-2016-01-fao-06-en.pdf>

⁶ Welsford, D., Lamb, T., Masere, C., and Sumner, M. (2024) Conservation values in the marine environment surrounding Heard Island and the McDonald Islands, Department of Climate Change, Energy, the Environment and Water, Canberra, March CC BY 4.0.
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macaroni penguins, and likely to become more important under future climate change scenarios.” [emphasis added]

*“Similarly, the pelagic region of high primary productivity between southern **Gunnari Ridge and Shell Bank**, and **southeast of Shell Bank** are globally important foraging areas for macaroni penguins and are relatively poorly represented in the Marine Reserve. As they are also predicted to increase in importance as climate change progresses, further consideration of appropriate management of this area is warranted.” [emphasis added]*

The Review states that pelagic longlining poses a high risk to vertebrate seabirds and marine mammals, which warrants evaluation of current management arrangements. However, the sites of concern are either Zoned IUCN IV or excluded from the marine protected area entirely (see Figure 1). The Review further notes that these areas are likely to become more important for biodiversity conservation as the climate changes, but the proposed design does not ensure representation for improved protection across the range of ecosystems in the EEZ.

Recommendation 2: The Biodiversity Council recommends increased protection (Zoning Ia or II) to the key conservation features including the William’s ridge complex, southern canyons, Gunnari ridge and western plateau.

3. There is insufficient information about monitoring

The consultation paper notes that:

“Incorporating more of the HIMI EEZ into the marine reserve presents an opportunity to manage current pressures and monitor trends to better understand and build resilience of the important species and communities.”

However, it does not provide any details about monitoring.

The current [Marine Reserve Management Plan 2014-2024](#) lists a series of research and monitoring ‘priorities’, (page 43-46) including:

- Research into the distribution, abundance and population trends of listed threatened species or threatened ecological communities
- Surveys to improve understanding of the Reserve’s biodiversity and its response to climate change
- Research into the potential impacts of commercial fishing in the HIMI fishery upon the Reserve’s values.

There is no commitment to undertaking these activities. They “may, where practicable, be prioritised over the course of this management plan” (pg. 43). This is despite the fact that climate change is causing significant changes in the subantarctic environment and that threatened and endangered

species are particularly vulnerable⁷ and that the extent of impact on conservation values is uncertain due to a lack of sustained observations⁸

Recommendation 3: The Biodiversity Council recommends basic monitoring to track trends on Matters of National Environmental Significance and general indicators of ecosystem health and populations of unlisted iconic species.

4. Are the protected areas representative?

The proposal notes that in addition to protecting and conserving biodiversity, one of aims of the proposed reserve design is ‘enabling the continuation of a sustainable fishery aligned with its historical footprint’ (pg. 11). This objective appears to have driven many of the choices about areas to reserve as there is extremely poor representation of the depth ranges and benthic features between around 750 m to 2,500 m which are the depths where Patagonian toothfish are generally caught. This outcome is not in line with the guiding principles of marine reserve design in Australia.

The [Target 3 of the Kunming-Montreal Global Biodiversity Framework](#) aims to ensure that at least 30% of marine areas are effectively conserved and managed through ecologically representative protected areas. Excluding key areas for biodiversity on the basis of the fishing industry undermines this target.

Recommendation 4: The Biodiversity Council recommends that at least 30% of every mappable biodiversity feature is in an IUCN 1a or II protected area (1a if the species is sensitive to fishing).

⁷ Andrew J. Constable, Ian D. Cresswell, Nicholas J. Bax, Keith Reid (2024), Understanding the marine ecosystems surrounding Heard Island and McDonald Islands (HIMI) and their conservation status. Independent Report published by The Australian Marine Conservation Society
https://www.saveourmarinelife.org.au/wp-content/uploads/2024/07/HIMI_Report_FINAL.pdf

⁸ Welsford, D., Lamb, T., Masere, C., and Sumner, M. (2024) Conservation values in the marine environment surrounding Heard Island and the McDonald Islands, Department of Climate Change, Energy, the Environment and Water, Canberra, March CC BY 4.0.
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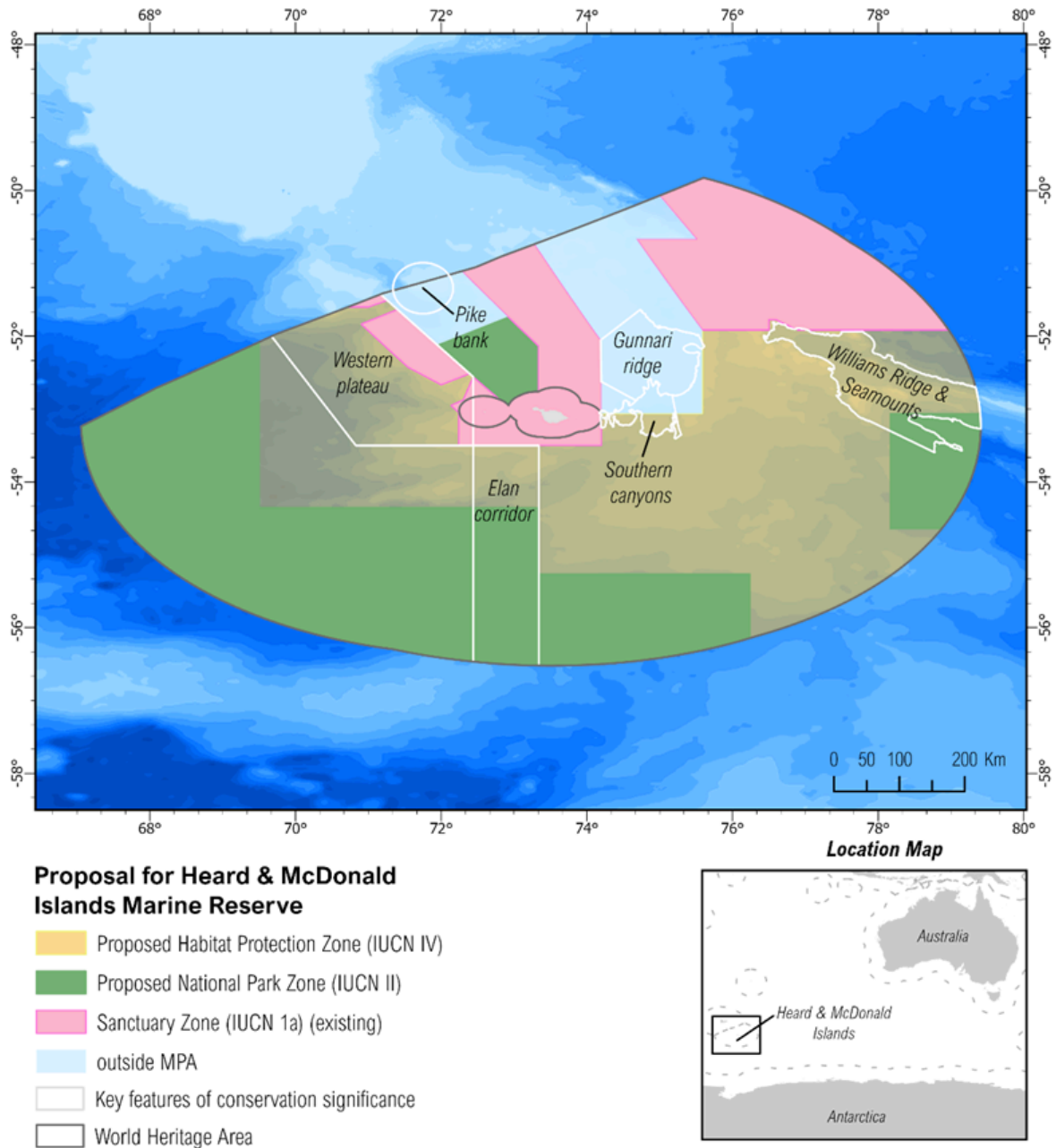


Figure 1: Key conservation areas around Heard Island and McDonald Islands where gaps in protection exist. Source: The Pew Charitable Trusts (Australia)