



Australian Marine Sciences Association Inc.

Postal Address: PO Box 220
Campbelltown
SA 5074

ABN: 35 279 182 164
ARBN: 604 875 774

President: Prof Chris Frid
Mobile: 0490 927487
Email: president@amsa.asn.au

The Expansion of Macquarie Island Marine Park
Submission by the
Australian Marine Sciences Association Inc. ARBN 604 875 774

May 2023

The Australian Marine Sciences Association (AMSA) is pleased to provide a submission on the expansion of the Macquarie Island Marine Park.

AMSA is Australia's largest professional society of marine scientists with close to one thousand members nationwide. AMSA actively promotes the advancement of marine sciences in Australia and engages in public debate where our members have specialist knowledge. Our members work across research agencies, universities, museums, government departments, and the private sector, and have expertise spanning all disciplines related to marine sciences. AMSA provides science-based position papers and statements on marine issues and throughout its over 60-year history, has been influential in the development of marine science policy in Australia. AMSA is also a member of the National Marine Science Committee and Science & Technology Australia.

AMSA is supportive of the move to expand the Macquarie Island Marine Park in recognition of the globally significant marine and terrestrial features, habitats and species contained within the Macquarie Island EEZ and nearby waters, and further recognizing that these features are not comprehensively or adequately represented by the current MPA system. In particular, the entire area west of the Macquarie Ridge is unrepresented, as are most of the northern and southern parts of the ridge. Protecting these values with an expanded Macquarie Island Marine Park will help mitigate human and environmental pressures, conserving biodiversity and supporting the needs and aspirations of future generations. Importantly, the proposed design also minimises impacts on the current sustainable and well-managed Patagonian toothfish fishery.

Since the designation of the marine parks over 20 years ago, scientific knowledge of natural values and pressures on the marine environment has advanced substantially (as summarised in the expert independent report by Cresswell et al 2023), and the move to expand protected area coverage within the Macquarie Island EEZ is entirely consistent with the increased appreciation of the global significance of these values and the need to proactively protect them from current and future pressures. The globally significant proposed expansion is also in line with Australia's commitments to global conservation agreement and targets, and further establishes Australia as a leader in best practice for marine reserve design and a champion for Southern Ocean protection, building upon Australia's current co-sponsorship of the proposed East Antarctic and Weddell Sea marine parks. This leadership on Southern Ocean conservation is particularly important given difficulties achieving consensus outcomes in CCAMLR in recent years.

The proposed addition of the large marine national park area, and re-zoning of the habitat protection zone, represents a major advance for Australia's nationally representative marine reserve network and global conservation efforts. The proposed zoning for the expanded marine park protects the area from future extractive uses including these more damaging fisheries, seabed mining and bioprospecting. AMSA commends this initiative.

AMSA supports the rationale outlined in the independent expert report by Cresswell et al 2023 that the design philosophy should be to first establish what the key values are that need protection, then determine the required management/zoning arrangements (as opposed alternative approaches where conservation values are one of several sets of values considered in an optimisation). AMSA also supports the suggestion by Cresswell et al (2023) that the habitat protection zone be delimited as the area of the current toothfish fishery (mainly within the Central/Central assessment zone). We also urge that the ongoing permitting of fishing in this zone be contingent upon demonstrating ongoing satisfactory maintenance of conservation of benthic habitat by the fishery.

AMSA further echoes the recommendation from Cresswell et al (2023) to consider inclusion in the South-east Marine Park Network areas of the seafloor and subsoil on Australia's extended continental shelf to the south of the Macquarie Island EEZ (i.e., extending the marine park boundary to the south beyond the current proposed rezoning), where Macquarie Ridge extends and features at least one prominent seamount. This area of extended continental shelf is eligible for inclusion in the South-east Marine Park Network as part of Australia's obligation under the Convention on Biological Diversity (CBD) and possibly through general obligations under the UN Convention on the Law of the Sea (UNCLOS). Protection of seamount habitat in this region would be consistent with the widely-held view globally that no new seamounts should be subject to fishing.

We also note that, although it does not substantively affect the reserve design, the locations of the oceanic fronts used in the public consultation paper (from Orsi et al 1995) do not reflect the current state of knowledge, and that more recent analyses (Park et al 2019) demonstrate that the location of the Polar front to the East of Macquarie Island is considerably further north than reflected in the Orsi et al front locations.

In summary, AMSA:

- Supports the proposed design principles and particularly the rationale outlined in the independent expert report by Cresswell et al 2023 that the design philosophy should be to first establish what the key values are that need protection, then determine the required management (zoning; as opposed alternative approaches where conservation values are one of several sets of values considered in an optimisation).
- Urges that, consistent with the recommendations of the independent expert report of Cresswell et al 2023, the habitat protection zone be delimited as the area of the current toothfish fishery (mainly within the Central/Central assessment zone)
- Emphasises the need to ensure that the marine park's design is 'Comprehensive, Adequate, and Representative', and that the park is effectively enforced and managed, in keeping with [AMSA's Position Statement on Marine Protected Areas](#). Importantly, sanctuary zones should be representative of all marine environments in the region. We note that representation is not met under the current zoning because all of the west of the ridge and most of the northern and southern parts are not in the current marine park.
- Suggests that the area of Australia's extended continental shelf where Macquarie Ridge extends to the south of the Macquarie Island EEZ, which features at least one prominent seamount, be considered for inclusion in the SE Marine Park Network.

References

AMSA (2019). *Position statement on Marine Protected Areas*.

<https://www.amsa.asn.au/sites/default/files/AMSA%20MPA%20Position%20Statement%20October2019.pdf>

Cresswell I.D., Nicholas J. Bax, Andrew J. Constable, Keith Reid, and Anthony D. M. Smith, The unique marine ecosystem surrounding Macquarie Island. Independent Report published by The Australian Marine Conservation Society and The Pew Charitable Trusts

Orsi, A. H., T. Whitworth III and W. D. Nowlin, Jr. (1995). On the meridional extent and fronts of the Antarctic Circumpolar Current, *Deep-Sea Research I*, 42, 641-673.

Park Y.-H., Park T., Kim T.-W., Lee S.-H., Hong C.-S., Lee J.-H., Rio M.-H., Pujol M.-I., Ballarotta M., Durand I., Provost C. (2019). Observations of the Antarctic Circumpolar Current over the Udintsev Fracture Zone, the narrowest choke point in the Southern Ocean. *Journal of Geophysical Research: Oceans*, -. <https://doi.org/10.1029/2019JC015024>