ASOC update on marine protected areas in the Southern Ocean 2019-2023

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Information Paper submitted by ASOC

Summary

Marine protection is a high profile issue globally, and discussions on CCAMLR MPAs shape international perceptions of the Antarctic Treaty System as a whole. Outside the ATS there is a growing international agreement that MPAs are an essential tool for preserving ocean biodiversity. In this document, ASOC provides an update on MPA discussions since ATCM XLI (Prague, 2019). No new MPAs were adopted since then, however there have been positive developments including a growing number of MPA co-proponents, further work in existing and future MPA proposals, and a significant expansion of the scientific literature related to CCAMLR MPAs. The document also highlights aspects of MPA development that are of particular significance for the ATCM/CEP including with respect to protected areas, specially protected species, tourism, and climate change. In this context, ASOC:

* Encourages all ATCPs who are also Members to support efforts, both at the technical and diplomatic level, towards reaching consensus on a wide network of CCAMLR MPAs in the Southern Ocean in 2023, beginning at the CCAMLR-Special Meeting-III in June 2023.
* Recommends the ATCM/CEP to expand the network of terrestrial and marine ASPAs and ASMAs in Antarctica, considering also the harmonisation of these areas and CCAMLR MPAs.
* Recommends the designation of the emperor penguin as a Specially Protected Species, in accordance with SCAR recommendations.
* Recommends the ATCM/CEP to take continued action on climate change (further detailed in other ASOC Information Papers submitted to ATCM XLV).

Introduction

Antarctica and the Southern Ocean are important for global natural systems and processes; as biodiverse and functioning ecosystems; as a natural reserve devoted to peace and science; as a place for international scientific cooperation; and as a place to realise the 30x30 international goals agreed by the Convention for Biological Diversity.

In this context, the establishment of a representative system of Marine Protected Areas (MPAs) by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) has been one of the most significant issues discussed in the Antarctic Treaty System context in recent years.

In this document, ASOC provides an update on MPA discussions since ATCM XLI (Prague, 2019). Familiarity with these discussions is relevant to ATCM delegates as they the provide a backdrop to some of the ATCM’s own discussions. Furthermore, marine protection is a high profile issue globally, and discussions on CCAMLR MPAs shape international perceptions of the Antarctic Treaty System as a whole.

What happened since 2019?

In 2019 ASOC submitted to ATCM XLII an update on MPA discussions (ATCM 42/IP 130). ASOC has submitted further updates and analysis on MPAs to CCAMLR, more recently in October 2022. Many of the comments made in that paper are still valid in 2023. Table 1 contains an overview of proposals to date. Fig. 1 illustrates discussions since 2009.

The 2019 CCAMLR meeting was the last held in person prior to the pandemic. The CCAMLR meetings of 2020 and 2021 were held online due to the pandemic. The virtual nature of the meetings prevented making progress on some issues. The 2022 meeting was again held in person. Nonetheless, no new MPAs were adopted at those meetings due to lack of consensus among CCAMLR Members (thereafter Members).

The number of Members has increased since 2019 to 27 Members – 26 states and the EU.[[1]](#footnote-1) CCAMLR Acceding States Netherlands and Ecuador became Members in 2019 and 2022, respectively.

A one-week special CCAMLR meeting has been convened for June 2023 in Santiago, Chile, specifically to discuss MPAs. This is only the third special meeting CCAMLR has ever held, and expectations for a breakthrough in the process are high.

Outside of the Antarctic Treaty System (ATS), there has been considerable progress with respect to international agreements on marine conservation. In December 2022, the Conference of Parties of the Convention on Biological Diversity (CBD) adopted the target of conserving 30% of the world’s land and oceans in protected areas by 2030 as part of its post-2020 global biodiversity framework.[[2]](#footnote-2) Subsequently, in March 2022, the draft text of a new international legally binding instrument to under the United Nations Convention on the Law of the Sea (UNCLOS) to protect marine biodiversity in areas beyond national jurisdiction (known as the BBNJ Agreement) was agreed after intense negotiations. The BBNJ agreement will provide a legal framework for the creation of MPAs in areas beyond national jurisdiction, which is necessary for meeting the 30x30 target for *all* of the world’s oceans. These significant steps reflect a growing international agreement that MPAs are an essential tool for preserving ocean biodiversity.

Overview of recent developments

There are three MPA proposals on the table (EAMPA, WSMPA-phase 1, and D1MPA) and a fourth proposal is expected soon (WSMPA-phase 2) (Table 1). The former three add up to ≈ 3.8M km2, and cover a significant portion of their corresponding planning domains (planning areas) i.e. the marine areas of which the MPA is representative. All three MPAs protect in various ways representative (common) as well as important (unique, vulnerable) marine areas. In addition, all three MPA proposals include substantial no-take zones, although the extent and scope of these zones varies.

In brief, no new MPA has been adopted since 2016, reflecting diverging positions between Members and a persistent lack of consensus.[[3]](#footnote-3) However:

* Most Members have expressed support for MPAs over the years. Furthermore, since 2019 the number of MPA co-proponents has increased significantly. Currently 20 Members are co-proponents of at least one MPA. Eighteen Members are co-proponents of two MPAs.
* MPA processes have become more open and consultative, more transparent, more efficient, and their technical complexities are more accessible to decision makers.
* In 2018 the WSMPA proposal was split in two phases. Work on both phases has continued, with phase 1 under the leadership of Germany. Substantial work on phase 2 has been carried out under the leadership of Norway, which announced that a proposal will be submitted to CCAMLR 43 in 2023.
* Most MPA proposals have a public interface hosted by leading proponents and/or CCAMLR.[[4]](#footnote-4) This is significant in that it responds to substantial public interests in Southern Ocean protection, and demonstrate to the public that the proposals are alive.
* MPA-relevant research and monitoring continues in all planning domains where proposals are being developed. Highlights include:
  + The research and monitoring plan for the Ross Sea region MPA has not been adopted by the CCAMLR, but is proceeding apace.
  + In 2021 a significant area occupied by a breeding colony of millions of demersal fish (Jonah’s icefish, *Neopagetopsis ionah*, Nybelin 1947) was discovered in the Weddell Sea.[[5]](#footnote-5) The area was already within the boundaries of the proposed WSMPA-phase 1, which demonstrates the solid scientific basis of the proposal. The MPA’s Special Protection Zone was expanded considerably as a result.
  + The rebound of whales in the NW Antarctic Peninsula, following the 1986 moratorium on commercial whaling, has now been well documented, including in the General Protection Zone of the proposed Domain 1 MPA.
  + The peer-reviewed literature on MPA-related issues has expanded considerably. Topics include basic research supporting MPA development; spatial analysis including Retrospective Analysis of Antarctic Tracking Data (RAATD) and Key Biological Areas (KBAs); commentary on the performance of CCAMLR’s MPA network, if and when adopted; and critical political analyses of CCAMLR’s processes, outcomes, and effectiveness.

What aspects of CCAMLR MPAs are relevant to the ATCM?

Although CCAMLR and the ATCM are independent bodies with different mandates, both are essential components of the Antarctic Treaty System. Further there are significant overlaps in terms of environment and ecosystems, governance and management, and membership in Antarctic Treaty System bodies. The CAMLR Convention’s concept of the Southern Ocean ecosystem (Art. I) and the ecosystem based approach (Art. II (iii)) address elements of the environment and ecosystems that are also relevant to the ATCM. Many of the decisions made (or not made) by CCAMLR have an impact on thematic areas for which the ATCM is responsible, and vice-versa. Some illustrative examples are discussed below.

**Area protection under ATCM and CCAMLR MPAs**

As the network of MPAs expands under CCAMLR, the connectivity between different activities, and types and scales of protected areas under ATCM will become apparent. In turn, this requires better harmonisation between management regimes applicable to those activities or areas, so that management plans and research and monitoring plans are compatible and act in synergy.

ASOC contends that harmonization work could start with the Ross Sea MPA and adjacent ASPAs and ASMAs protecting marine values. This work should continue with other MPA proposals as they are developed.

**Specially Protected Species and MPAs**

Following recommendations from SCAR, in 2022 ATCM discussed assigning Specially Protected Status to the emperor penguin (*Aptenodytes forsteri,* Gray, 1844). This proposal did not reach consensus, despite overwhelming scientific evidence supporting SCAR’s recommendation.[[6]](#footnote-6) Many colonies of emperor penguins are adjacent to actual or proposed MPAs. Emperor penguins dynamic habitat range in all age classes include proposed and existing MPAs and beyond.[[7]](#footnote-7)

ASOC contends that the Emperor penguin should be designated as a Specially Protected Species under Annex II of the Protocol. In parallel, the establishment of MPAs would potentially increase resilience and reduce pressure on this species and its food sources in some areas.

**Tourism and MPAs**

Antarctica tour operators are one of the main users of the waters around Antarctica and have a significant stake in keeping the Antarctic environment and ecosystems pristine in order to protect the natural values that make the Antarctic experience unique. In this regard tourism could be regarded as a form of rational use.

In 2019 IAATO made a statement on how the organization plans to support MPAs at its 2019 annual meeting in Cape Town. ASOC appreciates that the tourism industry has taken an interest in the CCAMLR MPA process, particularly in the Antarctic Peninsula area where shipborne tourism concentrates, and hopes that it will reinforce this commitment, as a high standard of marine protection is essential for the tourism business. This is the case as tourism reaches a critical mass, particularly in the Antarctic Peninsula, where multiple activities overlap, each contributing to cumulative impacts.

Additionally, tour operators routinely provide opportunities for Antarctic scientists to conduct research from tourist vessels, and as such could be called upon to assist with research and monitoring in MPAs.

**Climate change**

Climate change is one of the defining issues of our time. Climate change action is part of CM 91-04, which requires the protection of areas to maintain resilience or the ability to adapt to the effects of climate change. All MPA proposals include climate change considerations as key specific and/or general objectives.

Addressing climate change requires coordinated action within and between ATS bodies, as well as outreach to international bodies. Some of key climate actions that are within reach of ATS bodies include increasing area protection on land and at sea as a way of reducing ecosystem pressure/increasing resilience; the continued production of scientific research; and dissemination of Antarctic climate change research in relevant international bodies tasked with climate change action.

Closing remarks and recommendations

The MPA issue was formally added to CCAMLR’s agenda in 2002, over twenty years ago.[[8]](#footnote-8) During the last decade in particular, CCAMLR has devoted a significant amount of time and resources to considering MPA proposals. This reflects also a significant investment by many Members developing MPA proposals or otherwise contributing to the MPA development process agreed by CCAMLR.

On the negative side, the delay experienced in MPA discussions over the past decade casts a shadow not only on the reputation of CCAMLR but on that of the Antarctic Treaty System as a whole. CCAMLR is an essential part of the ATS and any actions taken or not taken by CCAMLR has repercussions on the work of the ATCM.

On the positive side, much has been accomplished in recent years in terms of MPA design, support by Members, research and monitoring, and public outreach.

ASOC strongly supports the designation of MPAs in East Antarctica, the Weddell Sea region, and Domain 1 (NW Antarctic Peninsula and Scotia Sea) by CCAMLR. ASOC also supports completing outstanding formalities concerning a Research and Monitoring plan for the Ross Sea MPA.

ASOC looks forward to these proposals being successfully discussed again. In this context, ASOC:

* Encourages all ATCPs who are also Members to support efforts, both at the technical and diplomatic level, towards reaching consensus on a wide network of CCAMLR MPAs in the Southern Ocean in 2023, beginning at the CCAMLR-Special Meeting-III in June 2023.
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Figures

Fig. 1 – CCAMLR MPA proposals, and number of co-sponsors for all proposals. Members are counted only once whether they co-sponsor one or more proposals. Proposals that have been adopted (2009, 2016) are not counted in subsequent years.

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Table 1 – Overview of CCAMLR MPA proposals (2023)

| MPA | Planning Domain | Original surface area (year) | Current surface area (2022) | Conservation and Management | Current proponents and management | Current status |
| --- | --- | --- | --- | --- | --- | --- |
| South Orkney Is. Southern Shelf MPA | Domain 1 | ≈105,000 km2 (2009) | 93,751 km2 | Fully no-take MPA | Originally proposed by the UK. Managed by CCAMLR. | CCAMLR MPA adopted in 2009, in force. |
| Ross Sea region MPA | Domain 8 | 2,130,564 km2 (Joint NZ-US proposal, 2013) | 1,525,651 km2 excluding ice shelves | Includes a General Protection Zone, a Special Research Zone and a Krill Research Zone. Seventy-two percent of the MPA is "no-take" where all commercial fishing is forbidden. | Originally proposed by New Zealand & USA. Managed by CCAMLR | CCAMLR MPA adopted 2016, in force since 1 Dec. 2017 and until at least 2052. Research & Monitoring Plan active but not yet adopted. |
| East Antarctica MPA | Domain 7 | 1,716,517 km2 (2010) | 969,000 km2 | Designates one of its three sub-areas as a krill no-take zone, aside from other provisions allowing a multiple-use approach and research fishing. Includes a no-take buffer zone for krill predators and protects deep areas within inner shelves <550m depth. | Australia, the European Union & its Member States, India, New Zealand, Norway, Republic of Korea, Ukraine, the United Kingdom, the USA & Uruguay | Under discussion since 2012. |
| Weddell Sea region MPA | Domains 3 & 4 | 2,307,593 km2 (2016) | 2,707,594 km2 (Prior to being splitin 2018) | Includes a General Protection Zone, a Special Protection Zone and a Fisheries Research Zone. | EU & Germany | Under discussion since 2016; split in two phases – E and W - in 2018. |
| Weddell Sea region MPA - phase 1 | Domains 3 & W of Domain 4 | 2,238,245 km2 (2019) | 2,238,245 km2 (2019) | Includes key representative, vulnerable, rare or biodiverse areas. and aims to provide climate change refugia. Includes a General Protection Zone, a Special Protection Zone, and a Fisheries Research Zone inclusive of a no-fishing Scientific Reference Area. | European Union and its Member States, Norway, Uruguay, Australia, the United Kingdom, New Zealand, the USA, Republic of Korea, India & Ukraine | Phase 1 of CCAMLR MPA proposal under discussion since 2016 |
| Weddell Sea region MPA - phase 2 | E of Domain 4; MPA planning area extends further E and N | N/A | TBD | TBD | Proposal being developed by Norway | Phase 2 of proposal under discussion since 2016. Draft proposal expected in 2023. |
| Domain 1 MPA | Domain 1 | 466,000 km2 (2018) | 670,000 km2 | Includes a General Protection Zone and a Krill Fishery Zone. Over 60% of the MPA is protected as part of the GPZ. | Argentina & Chile | CCAMLR MPA proposal under discussion since 2018. |

1. There are currently eight EU Member States that are also CCAMLR Members. The Netherlands joined CCAMLR in October 2019 and the UK left the EU on 1 February 2020. [↑](#footnote-ref-1)
2. https://www.cbd.int/article/draft-1-global-biodiversity-framework [↑](#footnote-ref-2)
3. See e.g. Arpi et al. (2022); Goldsworthy (2022; Roura (2023). [↑](#footnote-ref-3)
4. These include the CCAMLR MPA Information Repository (CMIR) (<https://cmir.ccamlr.org/>), the Weddell Sea MPA Project (<https://wsmpa.de/en>) supported by the German Federal Ministry of Food and Agriculture (BMEL) and the Alfred Wegener Institute (AWI); and dedicated website pages by NAPs, think tanks, and civil society organizations. [↑](#footnote-ref-4)
5. Purser et al. (2022). [↑](#footnote-ref-5)
6. SCAR (2021). [↑](#footnote-ref-6)
7. Aymeric et al. (2022), [↑](#footnote-ref-7)
8. The 2002 WSSD agreed on the goal of establishing a global network of MPAs by 2012; consequently CCAMLR added a MPA agenda item and committed to develop MPAs in the Convention Area. [↑](#footnote-ref-8)