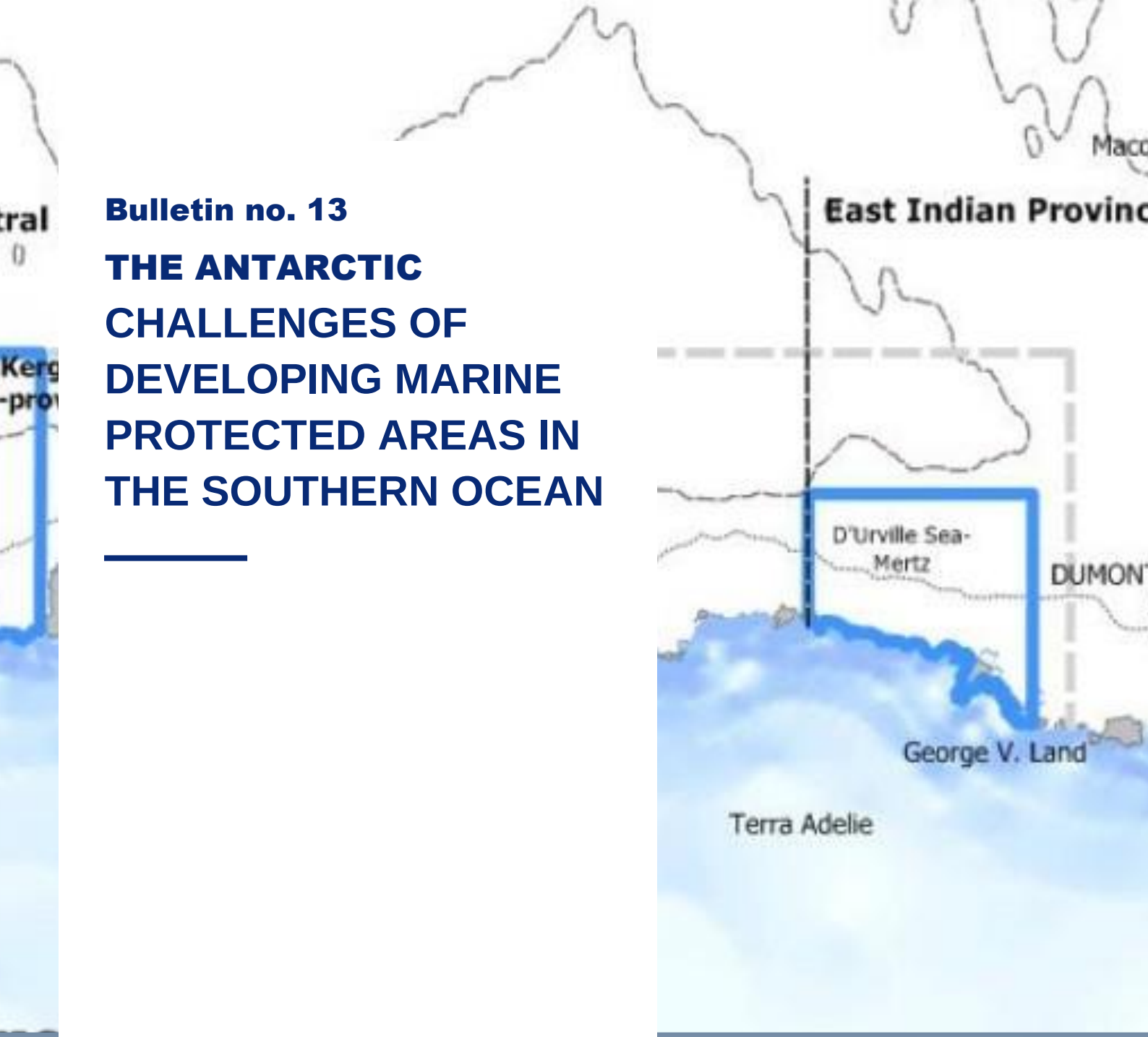


Bulletin no. 13

# THE ANTARCTIC CHALLENGES OF DEVELOPING MARINE PROTECTED AREAS IN THE SOUTHERN OCEAN

APRIL 2026

**POLAR WATCH**

**Polar Regions Monitoring and Forecasting**

LE CERCLE POLAIRE

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# POLAR WATCH

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**PUBLISHED BY**: le Cercle Polaire – April 2026
**PUBLICATION MANAGER**: Stéphane Hergueta
**COVER CREDIT**: *Australian Antarctic Program, 2021.*
**PRINTER**: *Abon'copies*


ISSN 2981-2739

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# The Difficult Revival of the East Antarctic Marine Protected Area Project

After 14 years of debate and rejection by the Commission for the Conservation of Antarctic Marine Living Resources, does the adoption of East Antarctic Marine Protected Area Project still stand a chance?

The Southern Ocean plays a central role in regulating the global climate and is home to fragile, unique and exceptional biodiversity. This is why the international community, through the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), has decided to establish a representative system of marine protected areas (MPAs). Since 2016 and the adoption of the Ross Sea Region Marine Protected Area, the establishment of new marine protected areas in Antarctica has stalled, and does not appear likely to resume in the near future. The Franco-Australian proposal for the East Antarctica is no exception. Although recognized by the CCAMLR Scientific Committee as being based on the *best available science*, the proposal has not yet managed to reach consensus due to continued opposition from two Members of the Commission.

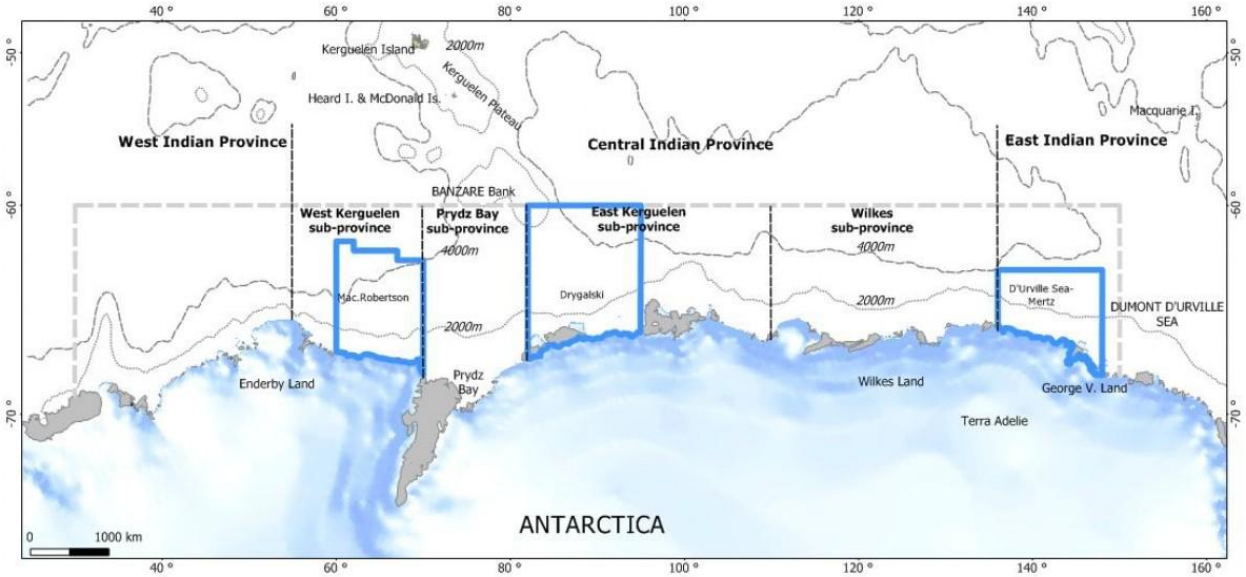


**Figure 1: The East Antarctic MPA Project.** The boundaries of each zone (MacRobertson, Drygalski and D'Urville Sea-Mertz) are indicated by blue lines. The boundaries of biogeographic provinces and sub-provinces are indicated by dash lines. *Source: Australian Antarctic Program, 2021*.

***'It would be naive to think that geopolitics has no bearing on the adoption of conservation policies in the Southern Ocean'***

CCAMLR, in consideration of the fragility and uniqueness of Antarctic ecosystems and the increase in potentially harmful human activities, sought as early as 2009 to establish a tool for the protection and management of marine areas: a system of MPAs representative of the diverse ecosystems of the Southern Ocean. Since then, two MPAs (South Orkney Islands and the Ross Sea) have been adopted, and four others (Domain 1, Weddell Sea Phase 1 and 2, and East Antarctica) are still under discussion, however with little hope—at least for the latter three—of their adoption in the near future.

The definition of MPAs and the practical arrangements for their implementation remain vague and subject to debate. One definition that has gained consensus is the one included in the most recent international treaty on marine biodiversity conservation, the BBNJ (Biodiversity Beyond National Jurisdiction) agreement: "a geographically defined marine area that is designated and managed to achieve specific long-term biological diversity conservation objectives and may allow, where appropriate, sustainable use provided it is consistent with the conservation objectives". A MPA is a tool which scope extending beyond the mere regulation of economic activities within a given geographical area. By designating an area as a MPA, one or more ecosystems are protected in the long term from further negative impacts caused by human activities, particularly in the context of rapid climate change.

At the international level, quantified conservation targets (such as the Kumming-Montreal 30x30 target, which aims to place at least 30% of the planet under effective protection by 2030, including 30% of marine and coastal areas) are generally based on the assumption that the entire area designated as a MPA is effectively protected or, at the very least, subject to some form of management. This logic has encouraged a flurry of publicity stunts regarding MPAs among states or multilateral organisations. It often tends to be at the expense of establishing a regulatory framework that is genuinely suited to conservation. MPA status primarily confers legal recognition intended to ensure visibility, institutional stability and specific prerogatives. Zoning or status are certainly important criteria but not the most decisive ones. Researchers link the effectiveness of MPAs to the robustness of their regulatory framework and, more specifically, the practical implementation of that framework.

According to the BBNJ definition, a MPA is not incompatible with sustainable resource-use activities, provided that such activities are consistent with conservation objectives. However, it is clear that the terms *sustainable use* and *consistent* remain vague when it comes to regulating fishing activities for example. All the more so because MPAs with strict or high levels of protection, and which therefore allow only very limited human

activities (subsistence fishing, restricted tourism, etc.), provide more effective protection of biodiversity[1]. Areas with lower levels of protection may offer advantages in certain contexts where other uses of the marine space remain important, but the effectiveness of an MPA often depends on its ability to achieve strong ecological objectives in order to distinguish itself from areas with no MPA status and to justify the economic and social costs of its protection.

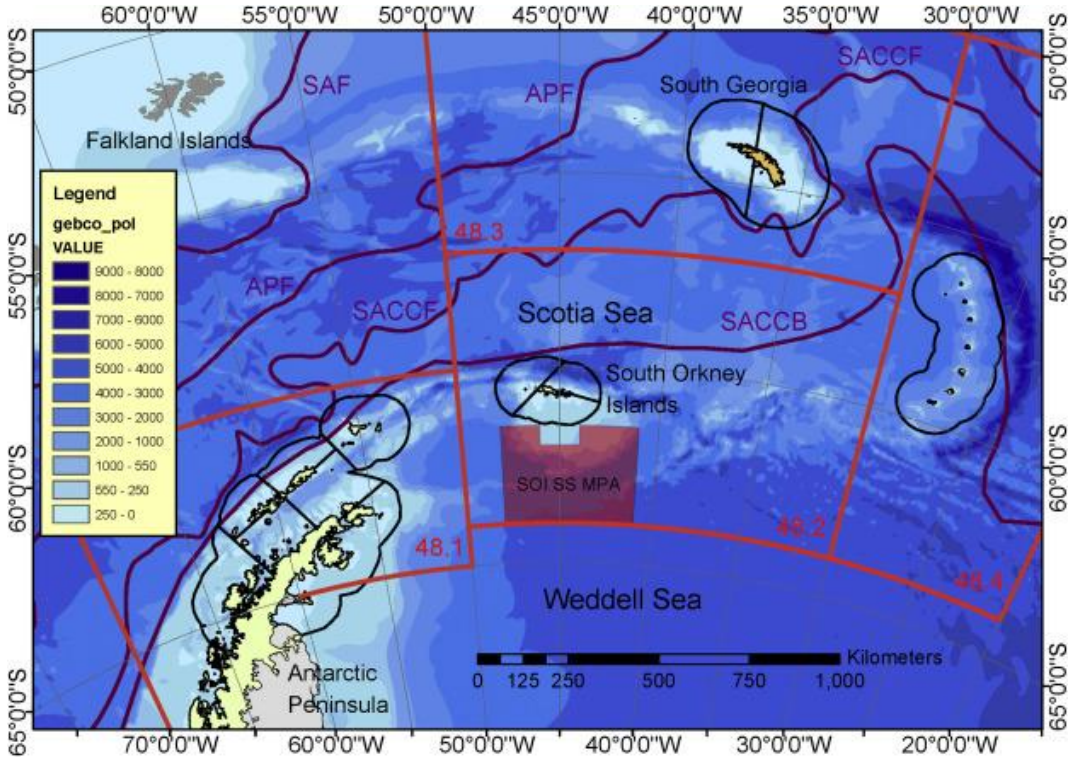


**Figure 2: South Orkney Islands Southern Shelf (SOISS) MPA**. Adopted in 2009, alongside the Parties' mutual commitment to develop a representative system of MPAs in the Southern Ocean, the South Orkney Islands Southern Shelf (SOISS) MPA is the world's first MPA established on the high seas and the first MPA within the CCAMLR system. Within this 94,000 km² area, commercial fishing is strictly prohibited, as are any transshipment, discarding or discharge activities by fishing vessels. *Source: Trathan & Grant, 2020.*

The weakness of this system is that it needs to be broad enough to be applied in areas with different contexts and a variety of challenges, yet it cannot impose any specific measures for the practical implementation of the scheme. The role of local stakeholders and scientific knowledge is therefore crucial in developing targets and indicators suited to the environment to be protected. Within the CCAMLR framework, decisions are taken by representatives of each country with voting rights at the annual Commission meeting. As the Commission must reach a unanimous decision, this requires full agreement among 27 Members that sometimes hold differing views on conservation, the MPA tool and its

[1] Edgar *et al.*, 2014; Grorud-Colvert *et al.*, 2021

purpose, as well as the role and prerogatives of the CCAMLR. Indeed, according to the Food and Agriculture Organisation of the United Nations, the CAMLR Convention is a conservation agreement, with certain powers of a regional fisheries management organisation (RFMO). This dual approach is clearly acknowledged in the report of the Commission's 21st annual meeting: "*the Commission recognises that, as a conservation organisation, it has a responsibility to manage fisheries in the Southern Ocean, which confers upon it the attributes of an RFMO*" (CCAMLR-XXI, Para. 15.2). Article II, paragraph 2, of the Convention reflects this idea very well, as it stipulates that the term *conservation* includes the concept of *rational use*. CCAMLR has therefore adopted conservation tools relating to fishing activities, limiting the impacts of these activities on ecosystems. Holistic conservation tools such as MPAs may appear superfluous to some Members that have a less conservationist comprehension of the Convention.

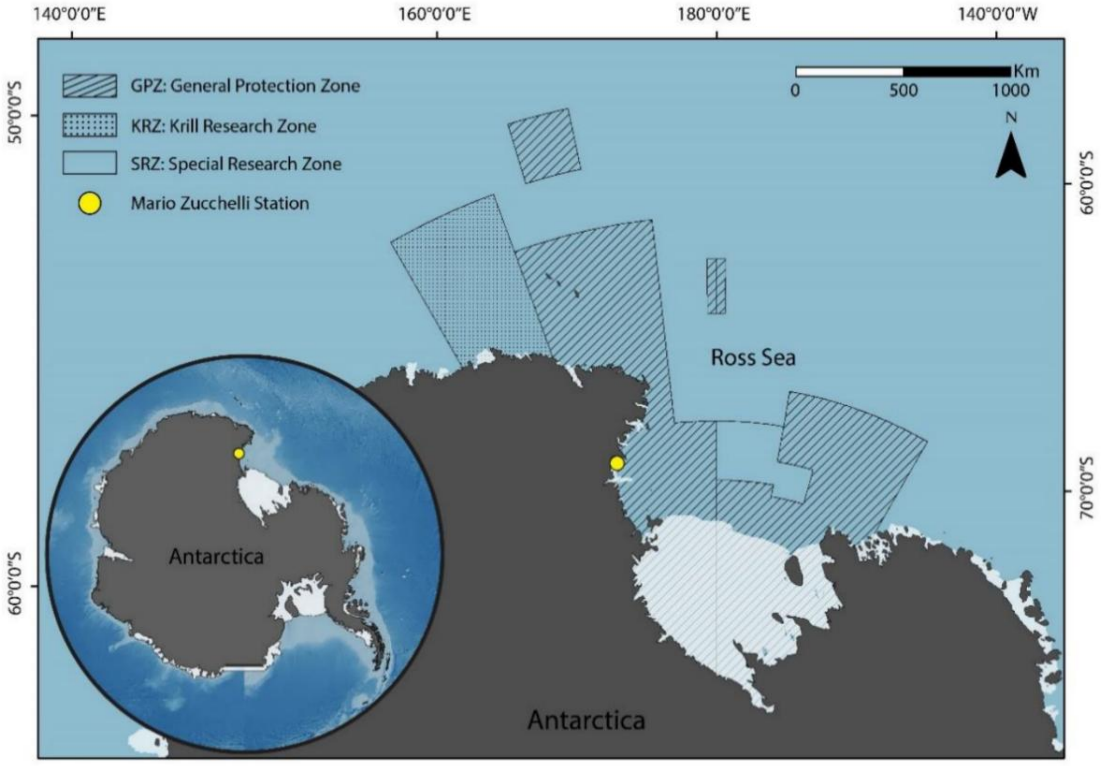


**Figure 3: Ross Sea Region MPA (RSrMPA).** The RSrMPA is the second, and most recent MPA, to have been adopted by CCAMLR members. Unlike the SOISS MPA, adopted prior to the 2011 general framework, the RSrMPA is of limited duration and can only be extended if all members agree. The default scenario is therefore that the measure will cease to exist when it expires at the end of the 2051–2052 fishing season, 35 years after its introduction. The Ross Sea region MPA is the largest in the world, covering 2.09 million km². *Source*: *Castellan et al., 2021.*

At CCAMLR level, three conservation measures (CM) relating to MPAs have now been adopted: one covering the southern shelf of the South Orkney Islands (CM 91-03, 2009) and one covering the Ross Sea region (91-05, 2016), in addition to a measure setting out the general framework for establishing CCAMLR MPAs (CM 91-04, 2011).

The MPA in the East Antarctic region (EAMPA), proposed jointly by France and Australia as early as 2012 has not yet been adopted. Initially conceived as a representative system of MPAs for the East Antarctica, the project is based on a zoning approach that evolves in line with the state of scientific knowledge. Seven zones were identified in 2010 when the project was presented to the working groups: four zones for their benthic ("marine animals or plants that live on the seabed or skim along the seabed") ecosystems and three zones for both pelagic ("near the surface and in the water column") and benthic components. Since 2012, the EU and nine of its Member States (including UK at that time) have supported the measure, which aims to establish "a multiple use system in which activities, such as fisheries, can be undertaken when those activities do not undermine the objectives of individual MPAs or the Representative System of Marine Protected Areas as a whole" (CCAMLR-XXXI/36), adapting it in particular to the present standards established by Conservation Measure 91-04.

The concept of a *MPA's representative system* is very important for understanding the originality of the East Antarctic MPA project, which takes into account the specific characteristics of small-scale zones assigned their own conservation objectives whilst remaining compatible with the general objectives of the Southern Ocean MPA's representative system. In 2014, the proposal moved away from the original draft, retaining only four of the seven initial zones. In the drafters' view, this set of four zones constituted a first step towards establishing the representative system for the East Antarctica. Over the following two years, the proposal drifted further and further from its original premises, with a reduction in 2015, to just three zones of *scientific reference* ("specific areas where scientific activities enable the monitoring of natural variability and long-term changes in living marine resources and ecosystems in the Southern Ocean"), essential for ensuring sustainable fishing and establishing long-term conservation measures, namely MacRobertson zone, Drygalski zone and D'Urville Sea-Mertz zone (Figure 1) where activities are permitted by default unless the Commission has issued a prohibition. The 2012 proposal presented to the Commission specified, on the contrary, that certain activities could take place within the established zones only after the system was in place and provided that its values, in terms of conservation objectives, were not undermined. It therefore provided for authorisation of krill and toothfish fisheries only outside the designated MPAs, with data guaranteeing equivalent fishing success based on the *spillover effect* ("when species become abundant within a MPA, they tend to disperse into neighbouring unprotected areas"). In 2017, the proposal included a ban on krill fishing in the D'Urville Sea-Mertz area. The three zones are now considered as geographical areas within a single MPA that contributes to the Southern Ocean

representative system, rather than separate MPAs. The proposal has not undergone any further significant changes to date, apart from the support received from other CCAMLR members. As of today, the members supporting the project of East Antarctic MPA proposed by Australia, the EU and its eight Members States, are as follows: India, New-Zealand, Norway, the Republic of Korea, Ukraine, the United States of America, the United Kingdom, and Uruguay, which is 18 Members.

The promotion of the East Antarctic MPA project within the French political framework relies on the leadership of the Ministry for Europe and Foreign Affairs, supported by the institutions that make up the delegation (Ministry of Ecological Transition, Directorate General for Maritime Affairs, Fisheries and Aquaculture, The French Southern and Antarctic Lands, etc.). It is worth noting that for other member countries, the instability of the proposal over several years, followed by several sessions without any progress, has led to a decline in interest and in consideration of the project. The proposal appears to lack a clear framework or long-term support from the original parties, particularly France, in a context where other MPA proposals such as the Domain 1 MPA around the Antarctic Peninsula and the Weddell Sea MPA project are at the heart of numerous discussions within CCAMLR bodies. In 2016, the decision to establish the Ross Sea MPA was based on strong political mobilisation, marked by the direct involvement of the highest levels of state authorities in advocating for the measure. As a matter of fact, one of the factors that swayed the opposition's stance in favour of adopting the Ross Sea region MPA was, in the case of China, the direct negotiation between President Barack Obama and President Xi Jinping, and in the case of Russia, a meeting between Secretary of state John Kerry and Minister of foreign affairs Sergueï Lavrov. The East Antarctic MPA project is still on the French government Agenda, appearing as a priority in the recently revised *French Polar Strategy for 2030*, in line with President Macron's statements at the 43rd Antarctic Treaty Consultative Meeting in 2021. Nevertheless, we must allocate the necessary resources to meet our ambitions, both financially and strategically, as the complexity of France's activities in Antarctica has so far prevented the identification of the institutions and actors that would drive the implementation of the MPA should it be adopted. This need for clarity regarding resources also applies to the necessity to fund research programmes to expand the baseline data underpinning the MPA measure, as well as to anticipate the needs for the future research and monitoring plan. Research activities in East Antarctica have been expanding in recent years driven by China, a highly engaged member within negotiating bodies and in activities carried out in the Southern Ocean, whether industrial or scientific. These research programmes are being carried out in areas included in the initial East Antarctic MPA proposals and may therefore offer

interesting opportunities to expand the baseline data whilst demonstrating that interest in the region continues to grow.

East Antarctica is in many respects a highly promising area for developing conservation measures such as MPAs. Indeed, as direct anthropogenic pressures are relatively low, the area represents a key site for providing comparative data on the state of ecosystems before and after the implementation of management measures. The virtual absence of direct anthropogenic pressures could allow for the analysis, free from confounding factors, of the impacts of environmental changes on ecosystems—a situation found only very rarely on a global scale. However, to assess the measure's effectiveness, sufficient baseline data and long-term monitoring programmes in the area are still required. Indeed, the EAMPA proposal has been subject to criticism, particularly regarding the quality, dated nature and exhaustiveness of the scientific data on which it is based. Such data are difficult to collect in an ice-constrained high-seas area, where research deployment costs are high and logistical constraints are significant. Data are often scattered, poorly standardised and difficult to access. These difficulties make the production of indicators, and ultimately the implementation of conservation policies, complex in a context where international cooperation is essential.

With this in mind, efforts are focused on consolidating an integrated scientific approach, based on the development of operational tools and the identification of coordination mechanisms between research communities and the institutions responsible for implementing the management plan. These initiatives aim to establish a framework for producing robust and actionable indicators capable of consistently informing a research and monitoring plan. This tool will enable the centralised planning and coordination of long-term ecosystem monitoring within the defined area and, ultimately, allow for the assessment of the effectiveness of management measures and their adjustment where necessary.

Beyond disagreements over the substance of the measures, it would be naive to think that geopolitics has no bearing on the adoption of conservation policies in the Southern Ocean. The systematic nature of certain objections to the proposed Marine Protected Area in East Antarctica is evidence of this. Geopolitical tensions considerably diminish the prospects of an MPA being established in the near future. Despite these obstacles, the French scientific community is continuing its efforts to enhance the MPA project, which is considered crucial for the preservation of East Antarctica and southern marine ecosystems. Scientific work continues on several fronts: refining the MPA's zoning to take account of the latest research findings, updating baseline data in order to respond in

good faith to criticism from CCAMLR members, and implementing a strategy based on the development of a clear and viable research and monitoring plan. The implementation of the research and monitoring plan is based on three key pillars: the provision and sharing of data and algorithms, ensuring the reproducibility of research results; the implementation of key ocean, climate and biodiversity variables constituting international standards; and the collective development of indicators by drawing on tools developed in broader contexts such as Galaxy Ecology, an initiative led by the National Biodiversity Data Centre and steered by the Muséum national d'Histoire naturelle.

Thus, in an increasingly divided world, multilateral diplomacy continues to rely on international scientific cooperation to strengthen common interest in support of the conservation objectives for the Southern Ocean. The good news is that, according to a recent survey, the conservationist front within CCAMLR—namely, the number of Members sponsoring one or more MPA projects in the Southern Ocean—appears to be growing[2].

**Marc ÉLÉAUME[3] and Laureen EON**[4] for POLAR WATCH[5]

[2] According to Bénédicte Caremier, "20 out of 27 CCAMLR Members formally co-sponsoring one or more proposals, but outreach continues to bring on board additional Members" in *Designation of new marine protected areas in Antarctica*, 9 May, 2025. www.sdgs.un.org

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[5] The opinions expressed in this article are the responsibility of the authors.

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# THE ANTARCTIC

## CHALLENGES OF DEVELOPING MARINE PROTECTED AREAS IN THE SOUTHERN OCEAN

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ISSN 2981-2739