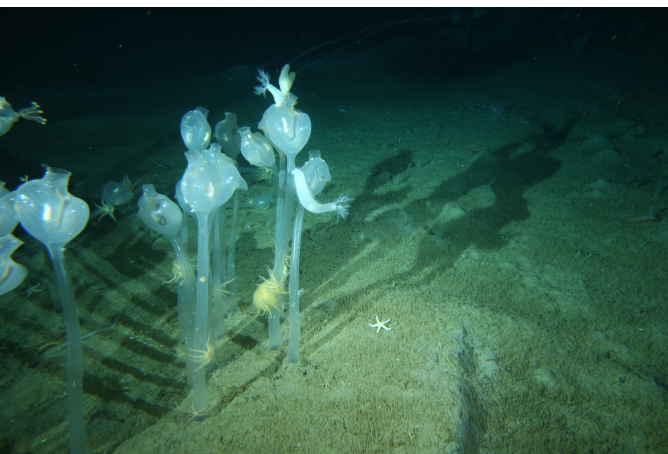




Convention on the Conservation of
Antarctic Marine Living Resources (CCAMLR)

Area Based Marine Conservation Planning in East Antarctica



The East Antarctic Marine Protected Area under consideration by CCAMLR, if agreed, would contribute to delivering on a commitment made by CCAMLR more than 14 years ago to achieve a representative system of Marine Protected Areas. The waters adjacent to East Antarctica cover a vast and remote region relatively undisturbed by human activities. East Antarctic waters include a range of diverse polar biodiversity, marine ecosystems and habitats, such as cold-water reefs, seamounts, vulnerable sea floor areas, and other diverse environments. The CAMLR Convention Area is divided into nine Marine Protected Area planning domains. Domains 6 and 7 occur in the East Antarctic region (see Figure 1). The East Antarctic Marine Protected Area has been proposed within those planning domains to put in place marine protection in support of the conservation of biodiversity in the East Antarctic.

The proposed East Antarctic Marine Protected Area has evolved since it was first proposed in 2012. There are 18 co-sponsors of the 27 members of CCAMLR. The current proposal identifies three areas: MacRobertson, Drygalski, and D'Urville Sea-Mertz (Figure 1). These areas would be scientific reference zones, their location and size determined by the foraging requirements during critical breeding periods of marine mammals, penguins and other seabirds, and by the scientific value of the areas for monitoring large-scale ecosystem processes. Once adopted

and implemented the marine protected area would allow for multiple-use and would ensure active management of fishing and research activities within it. The East Antarctic Marine Protected Area will provide a level of protection of the marine ecosystems that would not otherwise be achieved, and create more effective reference areas for the purposes of studying environmental and climate change impacts. Protecting these areas would also ensure the important ecosystems and species within them can be more resilient in the face of increasing impacts from climate change and human activities.

The Importance of the East Antarctic for Biodiversity and Climate

The Southern Ocean and its unique marine ecosystems are very important for global biodiversity and are connected to the global ocean and climate systems. Each of the three spatial management areas proposed for the East Antarctic Marine Protected Area include varied ecosystems, benthic and coastal habitats, and other features.

- The **MacRobertson** area is representative of highly productive coastal and oceanic food webs, and is important for the foraging of marine mammals, Adélie and Emperor penguins. This area also includes a diverse set of benthic ecosystems on the shelf, slope and seamounts.

- The **Drygalski** area is important for its diverse sea floor environment on the shelf and slope, particularly in relation to canyons and ice shelves. It includes the unique coastal food web adjacent to the ice shelves as well as the greater oceanic food web adjacent to the Greater Kerguelen Plateau.
- The **D'Urville Sea-Mertz** area is important for our understanding of climate change, as a site of Antarctic Bottom Water formation, which drives global ocean circulation and traps greenhouse gases. Due to this process, the area supports a range of unique habitats. Its sea floor values include a diverse set of habitats on the shelf and slope, particularly in relation to canyons, ice shelves and the Mertz Polynya, that support biodiversity and habitat values. Its other values include coastal and oceanic food webs, a nursery area for Antarctic silverfish, and the foraging ranges of marine mammals and birds, such as Adélie and Emperor penguins. This area also includes registered CCAMLR vulnerable marine ecosystems.



A Multiple-Use Management Area

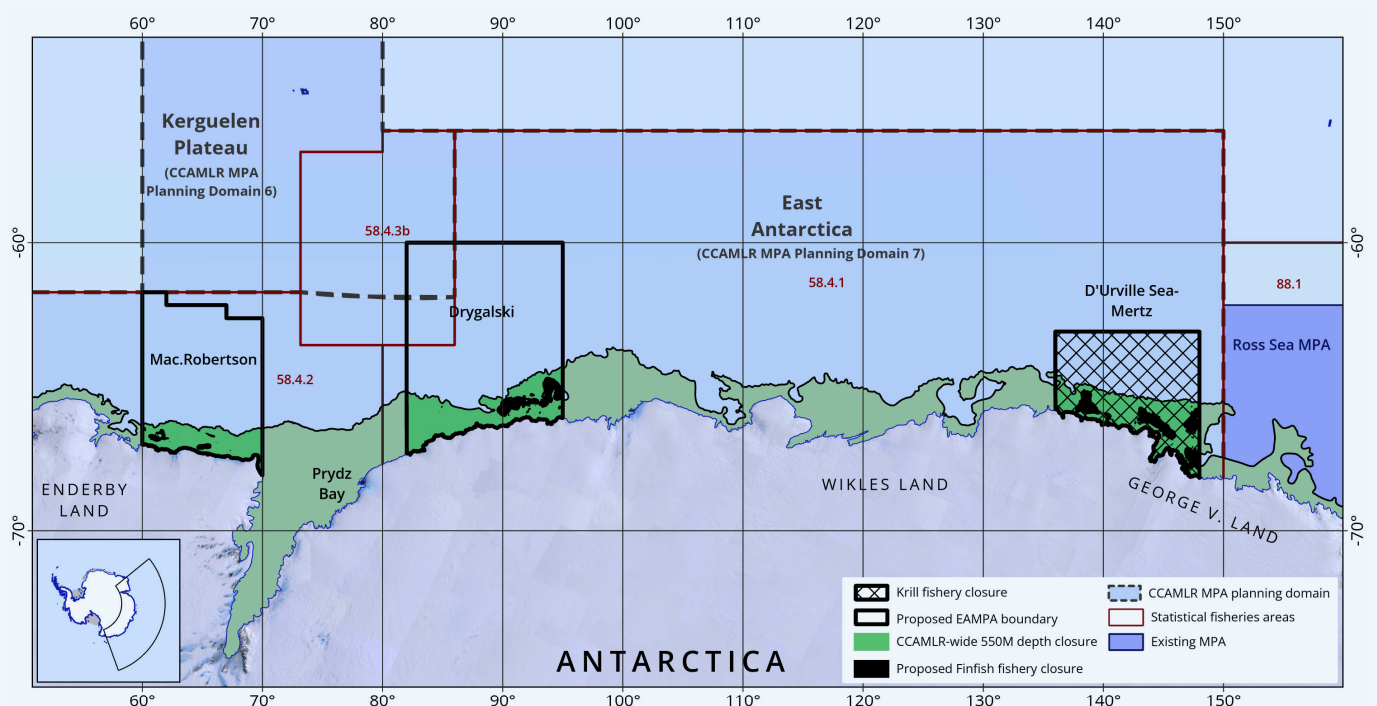
The East Antarctic Marine Protected Area is a multiple-use area with a range of activities allowed, if they are conducted in accordance with other applicable CCAMLR Conservation Measures and are consistent with the objectives of the East Antarctic Marine Protected Area. These activities include:

- **research fishing**
- **directed fishing for finfish, including toothfish (*Dissostichus spp.*)**
- **directed fishing for Antarctic krill (*Euphausia superba*)**

Some of the activities are restricted in specific zones and circumstances.

- Krill fishing would be prohibited in the D'Urville Sea-Mertz area.
- Directed fishing for finfish, including toothfish is prohibited in inner-shelf depressions and embayments deeper than 550M, which is additional to the CCAMLR wide prohibition on fishing in depths shallower than 550m.
- Transshipment would be prohibited throughout the entire area.

Figure 1: Proposed East Antarctic Marine Protected Area



Improving our knowledge of the East Antarctic Region

Improving our understanding of the marine ecosystems in the East Antarctic region is a key driver for the designation of the East Antarctic Marine Protected Area. Implementation of its research and monitoring plan (RMP) across the three management areas will provide important scientific reference zones, opportunities for collaborative research and to study Antarctic marine ecosystems where no or limited fishing has taken or is taking place. Further, it will investigate the effects of fishing, environmental variability and climate change on

Antarctic marine living resources in the East Antarctic and the overall CAMLR Convention Area. The scientific basis for the establishment of the East Antarctic Marine Protected Area has been agreed by the CCAMLR Scientific Committee. Agreement by the Commission to the conservation measure and its implementation will ensure active research and monitoring in the area by CCAMLR therefore improving the overall scientific understanding of this globally significant region.

East Antarctic Marine Protected Area - A Comprehensive Management Regime

Marine environments are inherently dynamic, and the Southern Ocean is an area that is, and will continue to, undergo rapid climate driven change. The East Antarctic Marine Protected Area proposal is based on the best available scientific evidence. It is also designed to be a flexible management measure that can adapt to changing conditions and incorporate new information over time. The proposed conservation measure creates a comprehensive and adaptive management framework, with clear timeframes for implementation and review (see Figure 2). It recognises that the Commission, with due consideration of advice by the CCAMLR Scientific Committee, may amend the conservation measure and its annexes at any time.

East Antarctic Marine Protected Area Management Regime:

- Conservation Measure
- Management Plan
- Research & Monitoring Plan

Figure 2: East Antarctic Marine Protected Area - Comprehensive Management Framework





East Antarctic MPA Objectives

- 1 To conserve ecosystems representative of the biogeographic provinces and subprovinces of the East Antarctic Planning Domain
- 2 To conserve marine biodiversity by protecting representative areas of benthic and pelagic marine ecosystems and habitats in the East Antarctic Planning Domain, including the coastal and oceanic food web to the north of the continental shelf and south of the Southern Antarctic Circumpolar Current Front with sufficient spatial extent to maintain their viability and integrity in the long term
- 3 To improve the knowledge base of the marine biodiversity including ecosystems in key areas to inform future protection measures, including their spatial extent, and to assess the effectiveness of the East Antarctic Marine Protected Area
- 4 To protect key ecosystem processes and regions responsible for the productivity and functional integrity of the ecosystem
- 5 To protect representative benthic habitats, including vulnerable marine ecosystems, innershelf depressions and embayments
- 6 To protect areas of high productivity that are important to trophically dominant pelagic prey species (including populations, life history stages), and critical foraging areas for marine mammals and birds and land-based top predators
- 7 To protect essential habitats in the reproductive and early life-cycle phases of krill (*Euphausia superba*), Antarctic toothfish (*Dissostichus mawsoni*) and silverfish (*Pleuragramma antarctica*)
- 8 To provide scientific reference zones to be used (in whole or in part) as areas within which natural variability and long-term ecosystem change can be assessed with and without the effects of fishing

This paper does not vary or substitute the terms of proposed East Antarctic Marine Protected Area (CCAMLR-SM-III/02) and is not an interpretation of the draft East Antarctic Marine Protected Area by the co-proponents.