FACT SHEET

Silverfish

Research Consortium for Antarctica

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Antarctic seas contain some of the most pristine and least understood ecosystems on earth which needs coordinated research to address key research questions crucial to understanding ecosystem changes and to inform conservation decision making.

What is the opportunity?

ANTARCTIC SEAS Antarctic seas contain some of the most pristine and least understood ecosystems on Earth. Marine protected areas (MPAs) are an important biodiversity conservation tool for preserving such places, however their value depends on rigorous research and monitoring to assess their efficacy, which informs adaptive management and builds greater policy support for MPAs.

Research and monitoring in the remote Southern Ocean presents many challenges: insufficient access to data and resources, lack of coordination at scale, and scarcity of integration between national Antarctic science programmes, which create the potential for research gaps. Correspondingly, there is a unique opportunity for international collaboration to create an innovative, scalable, coordinated research programme that generates critical financial and logistical resources to effectively monitor high seas MPAs.

What is Silverfish?

SILVERFISH is being designed as an independent, transformative, well-resourced consortium driving coordinated research in high seas MPAs in Antarctic seas. It will foster an inclusive and coordinated research community to resolve key research questions crucial to understanding ecosystem changes and to inform conservation decision-making.

Silverfish will initially focus on enhanced management of the world's largest MPA: the Ross Sea region MPA (2.06 million km2), designated in 2016 by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). Silverfish will support coordination of existing research and monitoring by CCAMLR members in the MPA, bridge science and policy gaps, and augment existing funding and resources to ensure the long-term sustainability of the MPA.

Through scientific excellence, innovative technology, and global partnerships, Silverfish is tailored to address the challenges facing MPA monitoring and management in Antarctic seas. In time, the Silverfish model is designed to scale to a circumpolar programme, applying the tools developed to support the expected growing network of CCAMLR MPAs, and to serve as a model to inform future high seas MPAs created in the context of the new UN High Seas Treaty.

What are Silverfish's objectives?	
Raise and Coordinate Science Funding	● Raise and coordinate international funding for priority research projects from a variety of sources and partners. ● Economise conducting research in the region through innovative private sector partnerships. ● Augment existing funding and resources to enable the Ross Sea region MPA to meet its objectives.
Coordinate Research and Logistics	● Coordinate international research efforts and analysis to fill critical knowledge gaps. ● Develop technological and logistical support capability for the delivery of innovative Antarctic science.
Elevate Science for Policy and Decision Support	● Deliver clear processes for evaluating if MPAs are producing desired results for ecosystems. ● Support priority research to meet the needs of research and monitoring plans across all research areas and geographic regions. ● Facilitate efficient and effective pathways for conducting research in the Ross Sea region MPA that CCAMLR and its scientific body can use to inform management needs.
Amplify International Collaboration	● Build innovative partnerships between governments, academic institutions, fishing and tourism industry, and civil society to deliver research based on international collaboration. ● Build and increase capacity of an inclusive and diverse research community.

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What are the benefits of Silverfish?

Through scientific excellence, innovative technology and global partnerships, Silverfish is tailored to address the challenges facing MPA monitoring and management in Antarctic seas.

Silverfish aims to deliver the following benefits for the Ross Sea region MPA:

- Design strategic partnerships and blended financing mechanisms to enable multilateral, collaborative research geared to equity and inclusion.
- Support coordination of research priorities across independent and national programmes to address the most critical research gaps through shared resources, infrastructure, and logistical support.
- Generate new independent science to support CCAMLR members in the implementation of the Ross Sea region MPA Research and Monitoring Plan (RMP).

Silverfish aims to deliver the following benefits for CCAMLR and Antarctic seas:

- Assessing the effectiveness of MPAs around Antarctica in meeting their objectives.
- Refining other ecosystem-based conservation measures relevant to established MPAs.
- Providing input into CCAMLR's scientific committee through provision of open research and monitoring data and by leveraging new financial and in-kind resources.
- Informing effective policy making and conservation management in existing and future CCAMLR MPAs.

Silverfish aims to deliver the following benefits for the Global High Seas Treaty and Biodiversity Agendas:

- Following adoption of a UN High Seas Treaty, Silverfish would serve as a model for research and monitoring of future high seas MPAs established to meet the Kunming-Montreal Global Biodiversity Framework target to protect at least 30% of marine areas by 2030.
- Support climate research that has the potential to benefit all of humanity.

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