



Image courtesy of the
EAF-Nansen project

Improved knowledge on South East Atlantic ecosystems supporting deep-sea fisheries management in the areas beyond national jurisdiction (ABNJ)

IN JANUARY AND FEBRUARY 2015, the research vessel *Dr Fridtjof Nansen* conducted a 29-day research cruise in the South East Atlantic Fisheries Organisation (SEAFO) Convention Area. The cruise was a collaboration between SEAFO and the Food and Agriculture Organization of the United Nations (FAO), and supported by three projects: the EAF-Nansen project¹, the FAO-Norway Deep Sea fisheries project², and the ABNJ Deep Seas project³ under the FAO-led Common Oceans programme funded by the Global Environment Facility.

Scientific team

An international team of 10 scientists from eight countries and organizations⁴, with the majority representing the SEAFO Contracting Parties, participated on the cruise.

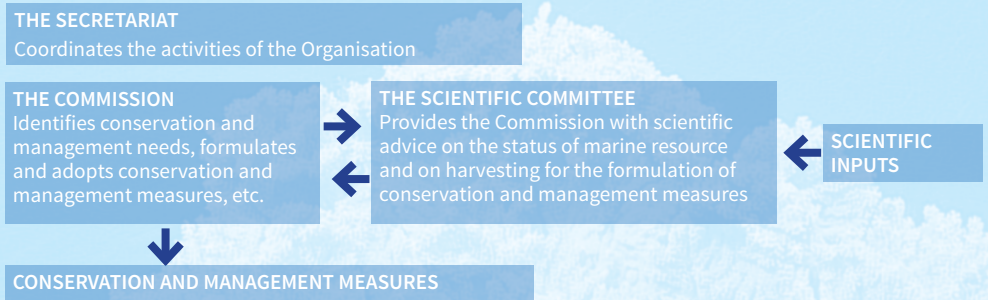
Cruise objective

The overall objective of the cruise was to conduct basic mapping and identification of vulnerable marine ecosystems (VMEs) and fisheries resources on selected seamounts and seamount complexes in the SEAFO Convention Area. Some of the areas surveyed are currently closed to fishing while others are open to fishing for Patagonian toothfish, alfonsino, pelagic armourhead (boarfish), and deep-sea red crab.

Key results

- The summit depths of several seamounts were considerably deeper than previously thought;
- As a consequence, many summits are deeper than the primary depths of distribution of the fish resources and potential fishing areas are smaller than originally considered by SEAFO; VME indicators (mainly corals) were present on all of the surveyed seamounts;
- There was diversity among the seamounts in terms of taxonomical composition and density;
- In general, the density of VME indicators increased towards the upper slopes of the seamount, in some cases leading to rich coral gardens present along the summit margins of seamounts.
- SEAFO's target fisheries (alfonsino, pelagic armourhead, and deep-sea red crab) were often observed in video records;
- Estimation of their abundance using hydro-acoustics was difficult due to the rugged topography of the bottom and the benthopelagic distributions of the target species, making them difficult

SEAFO decision-making process



to distinguish from the seafloor in the hydroacoustic outputs.

While the videos revealed lost fishing gears and trawl door skid marks in some previously fished areas (Valdivia and Vema), no evidence of adverse impacts to the surrounding benthic communities were observed. Areas with high densities of both live and dead coral that may be regarded as candidate VMEs located within subareas open to fishing (i.e. on Valdivia) also appeared intact.

Incorporating knowledge into fisheries management decisions

During the 11th Annual Meeting of the SEAFO Scientific Committee (October, 2015), the preliminary results from the research cruise were presented and used to formulate advice and recommendations to the Commission:

- Including the continuance of existing closures where VME indicators had been observed, and the preservation of existing fishing areas where no evidence of VME indicators was found; and
- In the fishing areas where VMEs were observed, it was recommended that these should be closed to all fishing gears or that only pot fishing be permitted.

At the 12th Annual Meeting of the Commission, Conservation Measure 30-15⁵ was approved which maintained existing seamount closures. The Commission adopted that:

1. Schmitt-Ott, Wüst, and Vema seamounts remain closed;
2. Valdivia Seamount Complex and Ewing Seamount on the Walvis ridge remain open for fishing; and
3. An area southeast of the Valdivia Bank containing VME's (coral gardens) be closed for all fishing gear except for pot and longline gears.



- 1 The EAF-Nansen Project "Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries" (<http://www.fao.org/in-action/eaf-nansen/en>)
- 2 FAO-Norway Deep Sea fisheries project "Support for the implementation of the International Guidelines on the Management of Deep-sea Fisheries in the High Seas" (<http://www.fao.org/fishery/topic/16160/en>)
- 3 ABNJ Deep Seas project: "Sustainable fisheries management and biodiversity conservation of deep-sea living marine resources and ecosystems in the ABNJ" (www.commonoceans.org).
- 4 Angola, Namibia, South Africa, Spain, USA, Norway, the European Union and FAO
- 5 Conservation Measure 30-15 on Bottom Fishing Activities and Vulnerable Marine Ecosystems in the SEAFO Convention Area