

# SAERI NEWS

## Dr Tabitha Pearman joins SAERI as a Post-Doctoral Research Fellow

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New starter Dr Tabitha Pearman, joined SAERI this month to work with the Falkland Islands Fisheries Department and Consolidated Fisheries Ltd to conduct research into the impact of Patagonian toothfish long-lining on Vulnerable Marine Ecosystems (VMEs).

The Patagonian long-line toothfish fishery is a Marine Stewardship Council certified fishery that fishes in the deep waters (> 600 m) off the Falkland Islands. VMEs are groups of species, communities, or habitats that may be vulnerable to the impacts of fishing activities that result in significant adverse impacts to the ecosystem integrity. The Fisheries Agricultural Organisation

International Guidelines for the Management of Deep-sea Fisheries in the High Seas provides guidance for defining and identifying VMEs. Criteria for VME designation include being unique or rare, fragile, structurally complex, having functional significance (for example being a spawning ground) and being comprised of fauna with life-history traits that make recovery difficult. Example fauna that comprise VMEs include cold-water corals, sponges, and cold-seep communities.

The aim of the VME project at SAERI will be to describe and map VMEs presence, monitor the impacts of the long-line fishery on VMEs and recommend management strategies. Due to remote location of the deep-sea the project will utilise fisheries samples and photography data from cameras deployed on long-lines to build predictive habitat maps of VMEs surrounding the Falkland Islands. Predictive mapping establishes relationships between the occurrence of fauna and the environment, which is then used to predict where fauna will occur beyond those locations where they have been sampled. Improving our understanding of where deep-sea habitats (including VMEs) occur and how they are connected will better help us determine the impacts of long-line fishing.

*Mixed cold-water corals occur on coarse sediment with stalked crinoids, brittle stars, sea urchins and sponges. Water depth 1294 m. Image: Noble Energy Falklands Limited*

Tabitha joins SAERI from the National Oceanography Centre University of Southampton (NOCs) where she completed a PhD in 'Habitat Mapping of Cold-Water Corals in Submarine Canyons'. Prior to this she worked for over nine years in marine environmental survey. During this time, she gained field experience in leading habitat mapping and baseline surveys of benthic communities and undertaking benthic fauna identification, skills she hopes to bring to the VME project. We are delighted to have her on the team!

