

DEEP SEA CORALS IN THE SOUTH ATLANTIC: NEW INSIGHTS FROM AN INTERDISCIPLINARY STUDY

In contrast to their shallow-water counterparts, azooxanthellate cold-water corals do not live in symbiosis with photosynthetic dinoflagellates. The South Atlantic holds numerous records of azooxanthellate species. These records encompass more than 60 species and grow under the influence of water masses originating in high northern and Southern latitudes. These Waters have very different properties such as nutrient concentrations, pH and temperature. With diversity in habitat and water column properties, the South Atlantic is an ideal testing ground to explore large scale controls on deep-sea coral distributions and to make use of coral researchers in the UK and BR, Kitahara (BR) is funded by FAPESP to improve our understanding of the evolution of scleractinian corals and its relationship to climate change. At the same time Professor Robinson (UK) is funded by NERC to apply geochemical techniques to deep-sea corals to reconstruct past climates and deep sea coral biogeography. Dr Taylor (UK) joins the Project as an expert in deep-sea ecosystems as well as genetic connectivity across the Atlantic and Southern Ocean. This pump-priming proposal is an ideal opportunity for these scientists to initiate a long-term partnership to build a coherent view of the long term controls on deep-sea corals. With access to samples within the South Atlantic (BR) and to the North and South (UK) we are proposing to come together in a new collaboration to share our ideas, samples, and techniques. Within the two-year program we will organize visits to exchange knowledge, establish a shared specimen database, share samples, and access to laboratories and facilities. We also plan to collaborate on writing a paper, and will seek to establish additional support to continue these efforts beyond the scope of this initial proposal.

PRINCIPAL INVESTIGATORS

MARCELO VISENTINI KITAHARA

Health and Society Institute / Federal University of São Paulo (UNIFESP)

LAURA ROBINSON

University of Bristol

ABOUT THE PROJECT

FAPESP Process 2017/50229-5

Term: Dec 2018 to Nov 2020

Regular Research Grant

UKRI – NERC

CONTACT

✉ mvkitahara@yahoo.com.br