

**Marine Antarctic Biodiversity in Relation to Environmental Heterogeneity at Admiralty Bay, King George Island, and adjacent areas in the Bransfield Strait (MABIREH)**

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Refine and calibrate the taxonomy of Antarctic organisms from Admiralty Bay sampled through the Brazilian Antarctic Programme with the Polish and Peruvian data. Admiralty Bay is within an Antarctic Specially Managed Area (ASMA) that has been studied over more than 30 years by different countries and where Brazil has studied the bay for over 20 years. The Polish and Brazilian programmes have had the most comprehensive studies in that area, the Polish with greater focus on Ezcurra Inlet, and the Brazilian with greater focus on Martel and Mackellar Inlets. However, there is still much scattered unpublished information, and over time marine data has been sampled in the bay using different methodologies by researchers from different programmes, including Perú. Admiralty Bay is going to be used as a case study for SCARMarBIN (The Antarctic Marine Biodiversity Information System) gathering as much benthic information as possible through a programme led by Poland called Admiralty Bay Benthic Database (ABBED). Within the framework of the Scientific Committee on Antarctic Research (SCAR) strategic plan during the International Polar Year countries have been stimulated to optimize efforts and collaborate as much as possible towards a better comprehension of the Antarctic Region in Relation to the rest of the Planet. Considering the context set by SCARMarBIN and ABBED, taking into account the strong benthic experience within the Brazilian Antarctic Programme, this project aims to include the Brazilian metadata into ABBED. Also, it has an exploratory component in collaboration with Poland and Perú for investigating and characterizing as much as possible all different marine benthic habitats within bay from shallow to deep using standard protocols established in conjunction with the Census of Antarctic Marine Life (CAML). This would allow the Brazilian work to be comparable to others within the Bay and to that from other areas of Antarctica. Relevant information on the Brazilian Antarctic Programme shall be posted in SCARMarBIN. This would provide higher visibility to the Brazilian Antarctic Sciences along with the Polish and Peruvian. As a joint effort with the Polish, Peruvian and Belgium colleagues, during the exploratory phase the Brazilian scientists shall provide an integrated view of the marine benthos through a multidisciplinary approach. The main aim here is to analyse how biodiversity and composition of benthic communities at Admiralty Bay and adjacent areas at the Bransfield Strait are affected by environmental heterogeneity. This is to be achieved through joint multidisciplinary studies of the biodiversity and ecosystems functioning at this (ASMA), including the use of high technology for bottom photography and sampling (e.g., ROV, Box corers, others).