

Survey of invertebrate and microbial diversity of the Prince Edward Islands system

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The volcanic Prince Edward Islands (Marion and Prince Edward), which are South Africa's only sub-Antarctic territories are important breeding grounds for marine top predators, including several globally threatened species. The islands are subject to the highest level of protection of any South African natural area under the National Environmental Management: Protected Areas Act and access to the islands is restricted to research and conservation management activities only. Their terrestrial and marine ecosystems are relatively simple with significant endemism across a broad range of taxa. Evidence of significant changes in climate together with long term ecological data underscore the importance of the Prince Edward Islands system for monitoring the response of specialized polar ecosystems to climate change. Central to this is the availability of high quality information on the diversity and distribution of endemic and alien species on the islands, particularly those that are fundamental to the functioning of the island ecosystems. In this study we propose to conduct a baseline biodiversity survey of invertebrate (mainly arthropods) and microbial diversity of terrestrial habitats on Marion and Prince Edward Islands, as well the marine microbiota of the island system.