

BENTHOS OF THE SCOTIA ARC SHALLOWS

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The archipelagos of the Scotia arc span terrestrial zones of the sub-, maritime-, and peninsular Antarctic regions. In the sea, the fauna and conditions are temperate at one end of the arc (Tierra del Fuego and Falkland Islands) and Antarctic at the other end (Antarctic Peninsula). The shallow benthos is well known at some localities and has virtually never been studied at others. These near-shore shallow water habitats in the arc are in a strong gradient of ambient temperatures, disturbances (such as ice and wave action) and large-scale events (such as tectonic movement). Warming trends are now being reported from around this region; it is increasingly being exposed to seasonally high UV levels and the few marine invaders to enter Antarctica have all been found in the shallows here. The Scotia arc is clearly a key region to monitor environmental change and organism response and the shallows represent the obvious zone to monitor. We report the first SCUBA survey of benthos around the arc, categorising the shallow communities from Adelaide Island (southern Antarctic Peninsula), through the islands of the northern Antarctic Peninsula, the South Orkney Is., South Georgia, the Falkland Islands and Tierra del Fuego. We discuss substrata, energy, dominant and common taxa and some aspects of community structure.