

# Collection of benthic organisms from the Antarctic Peninsula

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Working aboard the research vessel *Hero* from November 21, 1971, to February 8, 1972, around the Antarctic Peninsula, the author and Miss Catherine L. Lamb collected biological materials for distribution to qualified scientists through the Smithsonian Oceanographic Sorting Center, Washington, D.C. Sites were chosen for sampling primarily in cooperation with the projects of Dr. Dietland Müller-Schwarze and Dr. Jere Lipps.

During 37 days at 210 stations, 239 of 290 beam grabs were varyingly successful and 23 of 25 small Blake trawls were successful. Seven surface samples using the Isaacs-Kidd trawl yielded rich though locally monotonous hauls of Euphausiids and Pteropods. Total volume of material sent to the Smithsonian Oceanographic Sorting Center was 329 gallons containing fauna, flora, rocks, and sediments. One beam grab and one Blake trawl were lost.

Bottom topography, tight ship scheduling, and restricted ship maneuvering determined the gear used. Whenever possible, bottom trawling was done. Quite successfully, when the ship lay at anchor an outboard-motor-powered rubber boat carried the Blake trawl away from the ship until the weight of the cable prevented further travel. The gear was then lowered overboard and the ship winch dragged the fishing trawl back.

Biologically, the most rewarding areas were away from barren channels and straits. Open bays and promontories of sea islands yielded rich samples of flora and fauna in the benthos, and midwater trawls indicated that plankton also is abundant. Positive relationships were found between penguin behavior and the nearby presence of rich marine benthic communities.

Deception Island, in spite of almost continuously wretched weather, had interesting and heavy bryozoan communities lying around the exterior periphery. Within ash-covered Foster Bay, *Urechis* live abundantly with scattered local populations of sea urchins, ophiuroids and occasional priapulids. Living in muddy bays of Port Foster and Martel Inlet as well as within the vicinity of Arthur Harbor are almost commercially numerous quantities of two families of clams. The richest and most diverse biological populations exist on the varying substrate around Anvers Island and at the southern side of the Admiralty Islands, small depth changes seemingly supporting rather differing fauna. Locally abundant algae and massive communities of

tunicates, crinoids, and sponges contain scattering associations of mollusca, other echinoderms, and locally numerous nemerteans, isopods, and fishes.

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