

Early summer seal studies near the Antarctic Peninsula

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The biology of seals in the antarctic pack ice is not well documented because of the remote and inaccessible nature of the pack ice ecosystem. The crabeater seal (*Lobodon carcinophagus*), the leopard seal (*Hydrurga leptonyx*), and the Ross seal (*Ommatophoca rossi*) presumably whelp and breed in the pack ice during the early austral spring (September and November), but historically there have been few ship-supported investigations in the pack ice at that time of year. Little is known, therefore, about the reproductive or population parameters of these three species. During the early 1973–1974 austral summer, R/V *Hero* was scheduled to support seal research in the pack ice near the Antarctic Peninsula. But unforeseen shipyard delays precluded the attainment of most research objectives. The original sailing date (October 10, 1973) was delayed until November 15; the ship's later commitments necessarily were inflexible so the cruise ended on December 1, according to the original schedule.

No relevant data were collected on the aforementioned species but several short term observations of southern fur seals (*Arctocephalus gazella*) and of Weddell seals (*Leptonychotes weddelli*) are of general interest. A fur seal colony on King George Island was observed on November 18; only adult bulls were in residence at that time. Thirty-four adult males appeared to be establishing territories and only a single juvenile male was seen. This same rookery was visited in February 1970, when fewer than 30 males had established territories. It is apparent, therefore, that this King George Island colony is viable and probably is increasing in size. On November 19, about 100 Weddell seals were found hauled out on the beach at Harmony Cove, Nelson Island. The sex ratio of this group was near unity and most individuals were judged to be adults. Twenty-two blood samples were collected and these currently are being analyzed for comparison with samples collected in other antarctic areas.

Perhaps the most important result of this abbreviated cruise was the realization that R/V *Hero* can operate effectively in the fringe of the antarctic pack ice in support of early season investigations.

This research was supported by National Science Foundation grant cv-39181.