

# Winter populations of marine birds on the Argentine Coast: R/V *Hero* Cruise 72-3b

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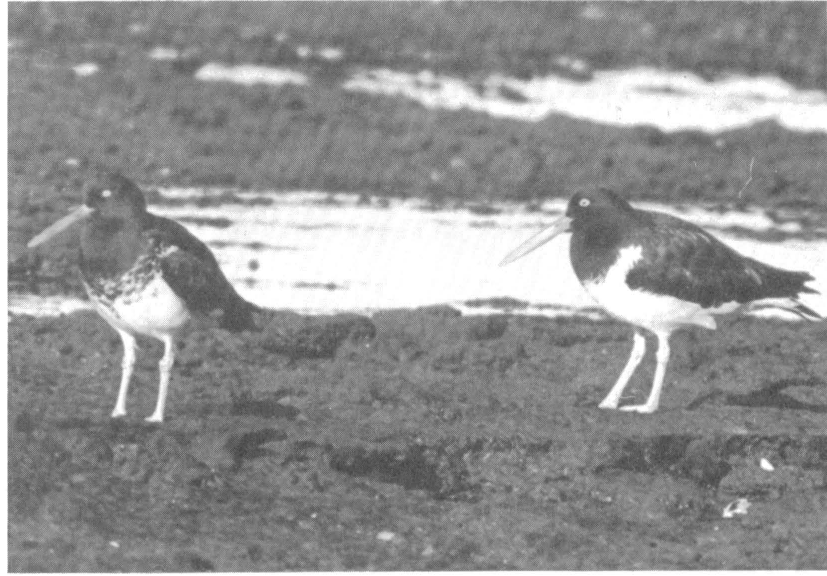
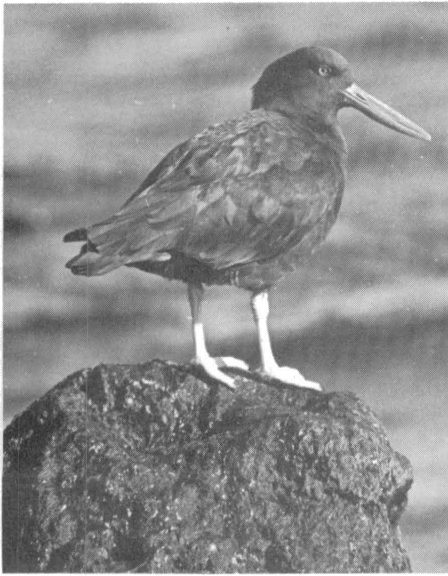
On July 26, 1972, R/V *Hero* left Buenos Aires, Argentina, in support of ornithological studies along the coast of Argentina. The primary purpose of this research was to compare the effects of widely differing environmental conditions — the shallow continental shelf waters of Argentina versus the deep water coast of Chile — on the distribution and winter ecology of pelagic birds. Jehl (1973) previously had studied seabird distribution in Chilean waters in 1970 and in Argentina in 1971 (Cummings *et al.*, 1971). He was assisted in 1972 by Mr. Jon Winter, San Diego State University, and Sr. Maurice Rumboll, Field Naturalist, Department of Ornithology, Museo Argentina de Ciencias Naturales "Bernardino Rivadavia," Buenos Aires. Cooke and Mills (1972) quantified seabird distribution along the coast of Argentina in summer, and it was hoped that the present research also would provide comparative information on differences in seasonal abundance and ecology, periods of migration, and other biological data.

From July 26 to August 1, seabird distribution was studied quantitatively along the edge of the continental shelf between 35° and 43° S. Specimens of several species were collected for food studies. On July 29, near 39°22' S. 55°22' W., we encountered a spectacular concentration of seabirds including 10,000 black-browed albatrosses (*Diomedea melanophris*) and 4,000 cape pigeons (*Daption capensis*) in association with large schools of pilot whales (*Globicephala melaena*). Apparently, a small zone of upwelling along the continental slope caused the concentration. Later that afternoon we found a similarly large aggregation of birds feeding on fish scraps from a large trawler. In that flock were many wandering albatrosses and royal albatrosses, including two birds that had been color-banded.

*Hero* arrived at Puerto Madryn on August 1, and the next day Dr. W. C. Cummings, Dr. J. R. Fish, and Mr. P. O. Thompson (Naval Undersea Research and Development Center, San Diego) joined



Part of an immense flock of black-browed albatrosses (*Diomedea melanophris*) and other sea birds encountered near 39°22'S. 55°22'W. on July 29, 1972.



Left: Black oystercatchers occupy rocky shores along the coast of Argentina. Right: In Golfo San José, black oystercatchers hybridize with American oystercatchers (right). A typical hybrid is shown on the left in this photograph.

the ship to study the behavior and bioacoustics of marine mammals.

From August 4 to 19, *Hero* was stationed in Golfo San José. Ornithological research there was concentrated on censusing the avifauna of the entire bay shore; additional studies were conducted on land as time permitted. Near-shore censuses were made from Zodiac boats, and approximately 100 of the bay's 130 kilometers of shore were thoroughly censused. There are no comparable studies on densities of birds along the Argentine coast in winter (Jehl, Rumboll, and Winter, in press).

Emphasis was given to studies of the comparative ecology of the four species of cormorants that inhabit the bay and to the ecological interactions of the three species of oystercatchers that winter there. Two species of oystercatchers (*Haematopus palliatus* and *H. ater*) hybridize in the area, and small collections were made to determine the extent and history of the hybrid zone.

We continued studies begun in 1971 on the Magellanic plover (*Pluvianellus socialis*). The Valdés Peninsula is at the northern edge of the winter range for this rare shorebird, whose known breeding grounds are confined to Tierra del Fuego. This species possesses behavioral and morphological adaptations that are lacking in typical plovers. Further, it can use habitats (the upper beach, tidal pools) that other plovers avoid. Most unusual is its habit of using its feet to dig for food. Information on winter behavior and ecology may clarify the evolutionary relationships of this rare species.

In 1971, we found that two species of gulls (*Larus dominicanus* and *L. maculipennis*) associated with

right whales (*Eubalaena glacialis*) apparently feed on whale parasites. Observations made in 1972 support this interpretation. The gulls were attracted to areas where whales were breaching and, presumably, dislodging parasites.

Sr. Rumboll investigated the food preferences of Magellanic penguins (*Spheniscus magellanicus*) and continued his extensive research on migration of the upland goose (*Chloephaga picta*), a serious agricultural pest in parts of Argentina.

After disembarking the mammal research party at Bahía Blanca on August 22, we continued censuses of marine birds and mammals as far south as the Strait of Magellan. We also entered many of the larger bays to make further studies of the hybrid zone in oystercatchers. The cruise ended in Punta Arenas, Chile, on August 30.

We are grateful to Pieter J. Lenie, master of *Hero*, and the entire crew for their unfailing support of this research. Cmdr. Alfredo Yung and Lt. Arturo Cancela, both of the Argentine navy, eased our work in Buenos Aires, and Lt. Arturo Cancela helped as a shipboard observer.

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