

**BREEDING BIRDS AT DUTHOIT POINT, NELSON ISLAND, SOUTH SHETLAND ISLANDS,
ANTARCTICA**

NESTOR R. CORIA¹, MARCO FAVERO², PATRICIA SILVA² & RICARDO J. CASAUX¹

¹*Instituto Antártico Argentino, División Biología, Cerrito 1248, 1010 Buenos Aires, Argentina*

²*Universidad Nacional de Mar del Plata, Laboratorio de Vertebrados, Funes 3350, 7600 Mar del Plata, Argentina*

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The islands of the Scotia Arc are an important breeding area for Antarctic and Subantarctic seabirds. Several extensive surveys have been carried out at South Georgia (Prince & Payne 1979, Prince & Croxall 1983), South Sandwich Islands (Cordier *et al.* 1981), South Orkney Islands (Poncet & Poncet 1985, Rootes 1988) and South Shetland Islands (Shuford & Spear 1987, 1988, Jablonski 1984, 1986, Trivelpiece *et al.* 1987, Favero *et al.* 1991, Aguirre 1995). In addition penguin populations in the region have been summarized (Croxall & Kirkwood 1979, Woehler 1993). However, despite the fact that the South Shetland Islands have been extensively surveyed, there exists a lack of recent information for many localities. The aim of this paper is to assess the breeding population size and distribution of bird colonies at Duthoit Point, Nelson Island in the South Shetland Islands.

Surveys were undertaken during 4-8 January 1994 at Duthoit Point (62° 19'S, 58° 48'W), Nelson Island, South Shetland Islands (Fig. 1). Numbers of pairs were estimated by direct counts with 8x binoculars and a monocular telescope (12-36x).

Counts were made during the incubation periods of Southern Giant Petrels *Macronectes giganteus*, Pintado Petrels *Daption capense*, Wilson's Storm Petrels *Oceanites oceanicus*, Blackbellied Storm Petrels *Fregetta tropica*, Subantarctic Skuas *Catharacta antarctica*, South Polar Skuas *C. maccormicki* and Greater Sheathbills *Chionis alba*

and during the brooding period (N1, following Croxall & Kirkwood 1979) for Gentoo Penguins *Pygoscelis papua*, Adélie Penguins *P. adeliae*, Imperial Cormorants *Phalacrocorax atriceps*, Kelp Gulls *Larus dominicanus* and Antarctic Terns *Sterna vittata*. Distribution of breeding colonies was plotted with help of aerial photographs taken from a plane at 200 m.

Twelve species were founded breeding into the study area and are discussed separately below. Breeding colonies were mainly distributed along the shoreline with only a few located on a c. 30-m high plateau (Fig. 1).

Gentoo Penguin *Pygoscelis papua*

A total of 1828 pairs scattered in eight groups was counted, making this the most abundant breeding species in the area. Chicks were mostly in crèches when counted. Shuford & Spear (1987) reported a population of 850 pairs at Duthoit Point. Comparing both censuses, our results represent an increase of 115% in six years. However, results are not fully comparable because Shuford & Spear's count was classified as A3 (count of total adults with an accuracy of ± 10 to 15%) by Woehler (1993).

Adélie Penguin *Pygoscelis adeliae*

Only one nest with two chicks was observed

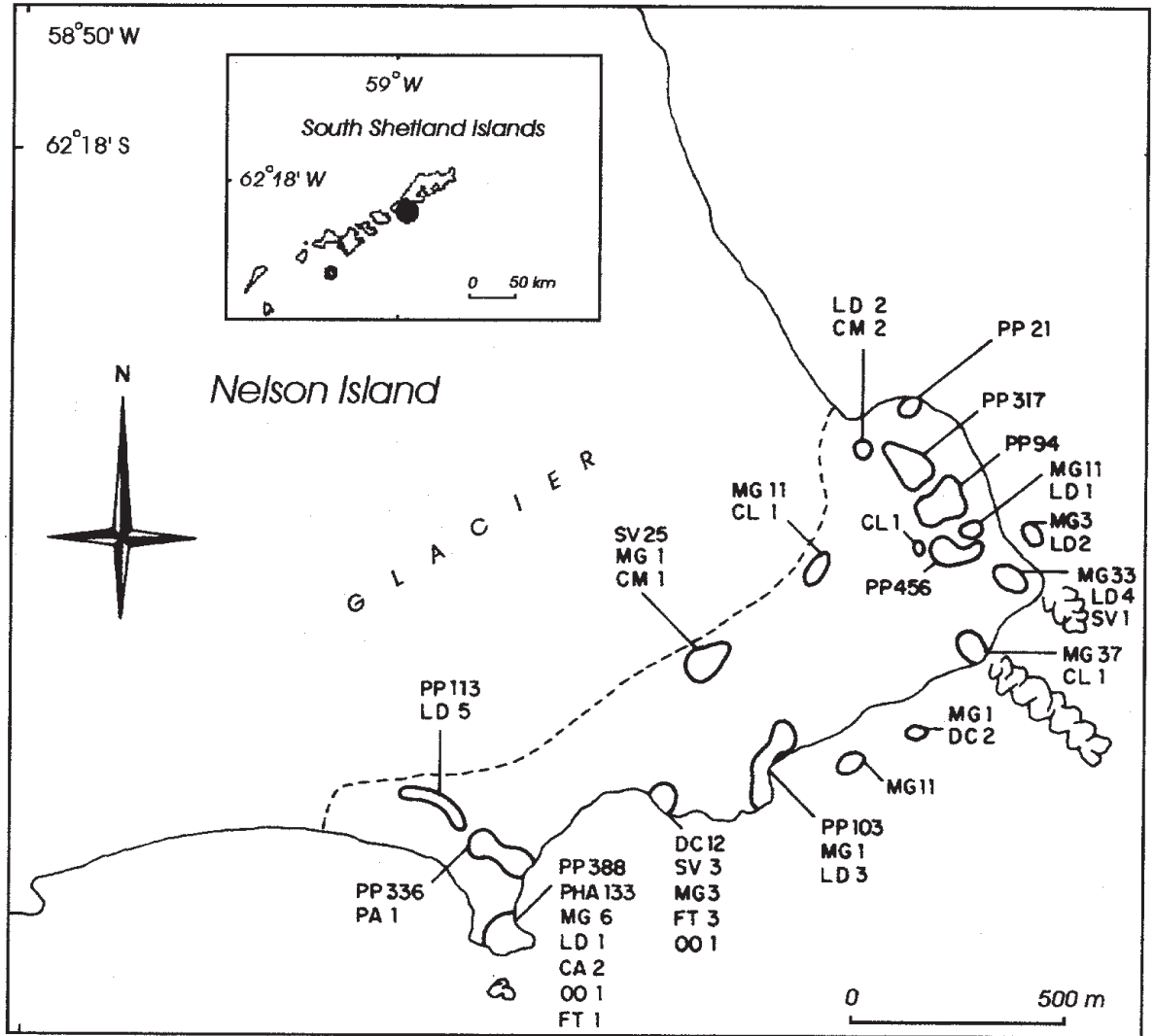


Figure 1

Distribution and abundance (pairs) of breeding species at Dutoit Point: PP *Pygoscelis papua*, PA *Pygoscelis adeliae*, MG *Macronectes giganteus*, DC *Daption capense*, FT *Fregetta tropica*, OO *Oceanites oceanicus*, LD *Larus dominicanus*, SV *Sterna vittata*, CL *Catharacta lonnbergi*, CM *Catharacta maccormicki*, PHA *Phalacrocorax atriceps*, CA *Chionis alba*.

located within the Gentoo Penguin colony. The chicks were about two weeks old, being almost three weeks younger than those at the Stranger Point colony on King George Island, located 10 km away.

Southern Giant Petrel *Macronectes giganteus*

Of the 118 nests found, 91% were distributed along the coast, and the rest on a plateau. Nest aggregation was as follows: single in three cases, small colonies (up to six nests) in three cases and large aggregations (more than seven nests) in five cases.

Pintado Petrel *Daption capense*

Fourteen pairs were observed divided in two groups. Twelve nests were located on a rocky promontory on the shore. The other two bred in an offshore rock.

Wilson's and Blackbellied Storm Petrels *Oceanites oceanicus* and *Fregatta tropica*

At least two pairs of Wilson's Storm Petrels and four of Blackbellied Storm Petrels were present at Duthoit Point. Probably total populations were underestimated due to their nocturnal activity patterns.

Imperial Cormorant *Phalacrocorax atriceps*

A total of 133 breeding pairs was found in a single colony located in the southern area among Gentoo Penguins. On February 1991, the total population was 163 pairs (Casaux & Barrera Oro, 1993), which represents a decrease of about 18% in three years. The average body mass of chicks was 1382 g (SD=508 g), which suggests chicks were approximately 22 days old (range 15 to 27 days) (M. Favero unpubl. data). The number of chicks per nest in 62 pairs checked was 1.68 ± 0.9 , less than those observed in 1991 by Casaux & Barrera-Oro (1993) at the same colony (1.99 chicks/nest).

Kelp Gull *Larus dominicanus*

Eighteen pairs were observed breeding along the coast and on isolated offshore rocks. During the census the chicks were close to fledging.

Subantarctic and South Polar Skuas *Catharacta antarctica* and *C. maccormicki*

Five pairs of Subantarctic Skuas and one of South Polar Skua were recorded. The nests of Subantarctic Skuas were found near breeding Gentoo Penguins, whereas the nest of the South Polar Skua pair was located on the plateau, 300 m from the penguin colony. This distribution matches that reported for King George Island (Peter *et al.* (1990).

Antarctic Tern *Sterna vittata*

Of a total of 29 nests, 86% were grouped on the plateau, the rest being scattered on the coast.

Greater Shearbill *Chionis alba*

Two nests were observed breeding close to the Gentoo Penguin colony. During the survey they were frequently seen foraging within the cormorant colony.

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