

DISCOVERY OF A BREEDING COLONY OF ELLIOT'S STORM-PETRELS (*OCEANITES GRACILIS*, HYDROBATIDAE) IN CHILE

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Descubrimiento de una colonia de reproducción de la Golondrina de mar chica (*Oceanites gracilis*, Hydrobatidae) en Chile.

Key words: Chile, conservation, islands, *Oceanites gracilis*, Elliot's Storm-petrel.

Breeding colonies of oceanic birds can be somewhat elusive, especially those that nest in burrows, caves, or crevices, and those that return to their colonies under the cover of darkness. Because of their small size and pelagic habits, storm-petrel populations are among the most poorly known marine birds (del Hoyo *et al.* 1992). Here we report the first discovery of a breeding colony of Elliot's Storm-petrels (*Oceanites gracilis*) from Isla Chungungo off the coast of central Chile.

There are several islands of varying size off the coast of Chile that potentially serve as important breeding sites for several species of marine birds. From 6–11 January 2002, we conducted a survey on Islas Chungungo and Tilgo, located near the coast of north-central Chile. The area has a Mediterranean climate (cold and humid winters, hot and dry summers) with oceanic influences, and the vegetation is primarily a Mediterranean steppe shrubland (Gajardo 1994).

Isla Chungungo is located approximately 1.5 km off the coast of north-central Chile in

La Higuera County, Coquimbo Region (29°24'S 71°21'W), and has a maximum elevation of 33 m. The vegetation on the island is dominated by low shrubs such as *Nolana sedifolia*, *Frankenia chilensis*, and *Calandrinia capitata*; herbs such as ice plant *Mesembryanthemum crystallinum*; the columnar cactus *Eulychnia breviflora*, and the small barrel cacti *Neoporteria chilensis* and *Opuntia* sp.

We discovered three breeding sites located in small horizontal crevices ranging from 1–2 m in width, up to 15 cm in height, and approximately 1–2 m deep; all three were located from 0.5–2.0 m above the ground. These sites were located on the northeastern part of the island and generally faced north to northwest. The crevices were in protected areas among rocky outcrops and not directly facing the ocean.

In the smallest crevice we found one egg, one chick, and an incubating adult each separated by about 30–40 cm. On the same day at about 23:00 h, another adult returned and commenced feeding the chick. In the largest

crevice, we found an incubating adult and six scattered eggs, and in the third crevice we found three scattered eggs. We interpret these isolated eggs to correspond to individual nests, considering that storm-petrels usually lay a single egg, and that they often leave their nests unattended for periods of time (del Hoyo *et al.* 1992). All eggs were white, oval in shape, and with no visible spots or markings.

The only published breeding record for this species is that of Marin (1982) and Schlatter & Marin (1983). Marin found an incubating bird on a nest located on the ground, beneath a bush, in August (southern winter) 1979 on Isla Chungungo. After three days of surveying, we encountered no such nests and to our knowledge there are no storm petrels that breed in the open (del Hoyo *et al.* 1992).

This island is occupied all year by a colony of Humboldt Penguins (*Spheniscus humboldti*). In addition to nesting under rocks, these penguins also dig burrows under bushes for nesting. This burrowing behavior causes extensive soil alteration and erosion, and likely inhibits storm-petrels from nesting in such places. The extensive number of penguin burrows and the limited number of crevices similar to those occupied by the storm-petrels could be a limiting factor for the nesting of Elliot's Storm-petrels, both here and on other islands.

We found no evidence of rodents or marsupials (e.g., *Thylamys elegans*, Didelphidae) on the island. However, we encountered one short-tailed snake (*Tachymenis chilensis*, Colubridae). This mildly venomous species can reach up to 410 mm in length and could be a potential predator of storm-petrel chicks (Donoso-Barros 1966, Cei 1986). According to local fisherman, some reptile species were translocated among the islands and the mainland during the late 1980's in response to an open market or "poder comprador" for these species. Therefore, we do not know whether the snake is native to the island or was recently introduced. In either case, its poten-

tial impact on the storm-petrels warrants further investigation.

The discovery of breeding storm-petrels is important because Isla Chungungo is a potentially rare, and the only known, breeding site for Elliot's Storm-petrels. No breeding colonies have been documented although this species is suspected to breed on the Galapagos Islands and islands off the coast of Peru (Murphy 1936). Elliot's Storm-petrel is considered threatened (insufficiently known category) by Chilean standards (Hunting Law, Livestock and Agriculture Service, SAG 1998) and data deficient by the red list of the International Union for Conservation of Nature (Hilton-Taylor 2000). The protection of this and other such islands and their habitats is therefore important for the conservation of Elliot's Storm-petrels and potentially several other species currently under investigation.

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