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Second and Third Records of Snares Penguins (*Eudyptes robustus*) in the Falkland Islands

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ABSTRACT.—The Snares Penguin (*Eudyptes robustus*) breeds only on the Snares Islands, New Zealand, and is vagrant throughout the New Zealand region and southeast Australia. The only previous record outside this area was one in the Falkland Islands in 1988. We report the unusual occurrence of two Snares Penguins in the same colony in the Falkland Islands in 2008, and discuss identification issues. Vagrant penguins demonstrate the incredible dispersal ability of these flightless birds. Received 9 March 2009. Accepted 19 July 2009.

Snares Penguins (*Eudyptes robustus*) are endemic to New Zealand, breeding only on the Snares Islands (48° 00' S, 166° 33' E), and straying to surrounding islands, south-east Australia and Tasmania (Marchant and Higgins 1990, Williams 1995). They are absent from their breeding areas during winter, when they are probably pelagic and migratory. Snares Penguins are rarely observed away from the Snares Islands and their movements are poorly known (Marchant and Higgins 1990). The occurrence of at least five Snares Penguins in the Chatham Islands in January and February 2003 was considered exceptional (Miskelly and Bell 2004, Miskelly et al. 2006). The only previous record of this species beyond Australasia was an adult in the Settlement Rookery on New Island (51° 43' S, 61° 17' W) in the Falkland Islands on 10 December 1988 (Lamey 1990, Martínez 1992). We discuss the unusual occurrence of two Snares Penguins in the same colony in the Falkland Islands 20 years later.

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OBSERVATIONS

We visited daily the Settlement Rookery on New Island during the entire breeding season during the course of scientific studies of Western Rockhopper Penguins (*Eudyptes chrysocome*) (Poisbleau et al. 2008). An adult Snares Penguin was found on 30 November and 1 December 2008 (Fig. 1). The rookery was visited every day until the middle of January 2009, but the bird was not seen again. However, a second bird was observed on 24 and 25 December 2008 (Fig. 2). We captured both birds to take standard measurements (Table 1). The appearance of the birds was sufficiently different to be certain they were not the same individual; the second bird was larger, the black color of its head was duller, it had a partially gray chin, its crests were very short, the pink color of its gape and of the skin around its bill was less obvious, and its eyes were brownish (not red) even under strong light.

DISCUSSION

The identification of extra-limital Snares Penguins requires care. The following characteristics allow separation from Western Rockhopper Penguins (Shirihai 2007): a wider yellow stripe above the eye starting close to the bill, an obvious pink gape and skin along the edge of the lower mandible, a larger and more bulbous bill, the absence of a black crest on the rear crown, a shorter yellow crest less pendulous behind the eye, a bold black tip on the underside of the flipper, and an overall larger size. The large bill and overall size, and the pink gape and skin along the bill could also resemble a hybrid between a Rockhopper Penguin and a Macaroni Penguin (*Eudyptes chrysolophus*). Several instances of such hybridization have been documented in the Falkland Islands (White and Clausen 2002). However, the shape of the yellow stripe and crest of the birds that we found were typical of Snares Penguin and completely different to those of Rockhopper or Macaroni penguins or postulated hybrids between them.



FIG. 1. Adult Snares Penguin (right) next to a Western Rockhopper Penguins on New Island, Falkland Islands, 30 November 2008. Photograph by Laurent Demongin.

A Snares Penguin could also be mistaken for an Erect-crested Penguin (*Eudyptes sclateri*), a species that breeds on the Antipodes and Bounty islands southeast of New-Zealand (Marchant and Higgins 1990) and that occasionally reaches the Falkland Islands (Strange 1982, Summers 2005), including one that bred with Rockhopper Penguins on Pebble Island (120 km northeast of New Island) between January 1997 and January 2008 (Morrison et al. 2005, Arnold 2008). Erect-crested Penguins have crests that are erectile and nearly parallel when seen from the front (Marchant and Higgins 1990) while Snares Penguins have crests that droop behind the eye, and forms a V when seen from the front. Erect-crested Penguins also have a different head shape with a domed crown, and larger chin reaching closer to the bill tip (Shirihai 2007). Cases of hybridization between Erect-crested and Rockhopper penguins have been reported at the Falkland Islands (Napier 1968) but the descendants were not described. An apparent Erect-crested x Rockhopper hybrid seen next to

the Erect-crested Penguin on Pebble Island in January 2006 looked similar to the birds that we saw, but differed in having the extended chin profile of an Erect-crested Penguin, and black feather in the crest (a Rockhopper characteristic). Other details of the superciliary stripe and bare skin at the gape also matched Western Rockhopper or Erect-crested penguins rather than Snares Penguins (C. M. Miskelly, pers. comm.).

The first bird we found, based on measurements and plumage patterns, was probably an adult female whereas the second was probably an immature male. The bill of the second bird was much longer and was not as deep. The bill shapes were quite different, the first one being bulbous with parallel edges while the second was less robust and more slender. The latter bill shape is typical of immatures; the more massive bill of adults is achieved during the third or later years (Stonehouse 1971).

The weight of crested penguins varies seasonally with the heaviest birds being recorded before the molt (Warham 1975). The weight of the



FIG. 2. Immature Snares Penguin (right) among Western Rockhopper Penguins on New Island, Falkland Islands, 24 December 2008. Photograph by Laurent Demongin.

second bird we found exceeded the range of breeding Snares Penguins (Stonehouse 1971) but fit well with pre-molting immature males (Warham 1974a).

Most vagrant crested penguins are sub-adults recorded before or during their molt (Woehler

1992, Miskelly and Bell 2004), like the bird we observed on 24–25 December. The two other Falkland Islands records of Snares Penguin (including our first bird) were adults during the breeding season. However, observers rarely visit the rookeries after the end of the breeding season,

TABLE 1. Measurements (following Warham 1975) of the two Snares Penguins found in the Falkland Islands in 2008, and comparison with \bar{x} , (n), and [range] data from (a) Stonehouse 1971 and (b) Warham 1974b.

Characteristic	Bird 1	Bird 2	Adult male		Adult female	
			(a)	(b)	(a)	(b)
Flipper, mm	181	191	183 (61) [170–193]	184.0 (114)	177.3 (47) [167–187]	178.8 (82)
Bill length, mm	54.2	57.1	59.2 (68) [54–69]	59.1 (35)	52.5 (58) [49–61]	52.0 (12)
Bill depth, mm	23.3	22.6		28.2 (35)		24.2 (12)
Head and bill length, mm	122.6	127.9				
Mass, g	3,300	4,360	3,320 (41) [2,450–4,300]		2,780 (32) [2,300–3,400]	

and vagrant birds coming ashore to molt could have easily be missed.

The Chatham Islands are only ~1,400 km from the Snares Islands, and yet the presence of several Snares Penguins in 2003 was considered anomalous, possibly reflecting a changed at-sea distribution (Miskelly and Bell 2004). It is difficult to assess the reasons for the presence of this species in the Falkland Islands, ~8,000 km from the Snares Islands. However, the occurrence of penguins endemic to the New Zealand region in the Falkland Islands demonstrates their incredible dispersal ability. The opposite is also true with Western Rockhopper Penguins reported from the Snares Islands south of New Zealand (Tennyson and Miskelly 1989, Miskelly et al. 2001).

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