

VAGRANCY OF NORTHERN ROCKHOPPER PENGUINS *EUDYPTES MOSELEYI* TO THE FALKLAND ISLANDS

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Northern Rockhopper Penguins *Eudyptes moseleyi* nest on Tristan da Cunha, Gough, Amsterdam and St Paul islands (Williams 1995) with a maximum estimated breeding population of 348 000 pairs (Shirihai 2007). Most (>85%) of these breed on Tristan da Cunha and Gough (Shirihai 2007), although a recent population assessment suggests that the population is considerably smaller and decreasing (Birdlife International 2008). This taxon was traditionally classified as a subspecies of the Rockhopper Penguin *E. chrysocome* (hereafter Southern Rockhopper Penguin), but recent data indicate that *E. moseleyi* is a good species on the basis of its markedly different phenotype (length of crest and voice), different breeding chronology and important genetic differences (see Banks *et al.* 2006, Jouventin *et al.* 2006, Shirihai 2007). Birdlife International accepted the species split, with the conservation status of this penguin upgraded to Endangered by the International Union for Conservation of Nature and Natural Resources (Birdlife International 2008).

On 21 November 2004, while conducting fieldwork with Southern Rockhopper Penguins at the New Island South rookery (New Island, Falkland Islands: 51°42'S, 61°17'W), one Northern Rockhopper was found by RM at the top of a site known as “the Bowl.” The bird was observed for several minutes, and all diagnostic features were noted (see later in this article). On 27 and 29 November, this same individual was relocated by RM and PC less than one kilometre

from the previous location, at the edge of a rockhopper colony in thick tussock grass, where several photographs were taken. Although the whole rookery was intensively visited on a daily basis up to the beginning of March 2005, this bird was not seen again (nor in the subsequent breeding seasons), and so it seems unlikely that it remained in the area during that period.

The following noted characteristics permitted a confident identification of this bird:

- The supercilium was rather thick with a blunt anterior tip, not sharply pointed as is always the case in Southern Rockhopper (Fig. 1).
- The supercilium extended into abundant and extremely long yellow plumes, with their extremities reaching well below the black–white limit on the neck (Fig. 1).
- The black occipital crest feathers were also conspicuously long; in particular, some were overhanging the yellow plumes (Fig. 1).
- The diagnostic underflipper pattern was also observed (with extensive dark striation on the tip).
- The voice was heard once, being noted as clearly deeper than that of Southern Rockhoppers.

All these characteristics are typical of Northern Rockhoppers (Shirihai 2007). Additionally, the amount of black on the throat seemed to extend less toward the chest than on Southern Rockhopper penguins (and the white wedge on the neck was more pronounced, extending back further below the cheeks). Also, the tail feathers had a fresh look, each of them having a uniform width, being conspicuously different from the well-worn tails shown by most Southern Rockhoppers present.

There are two other records of this species from the Falklands. The first record was obtained by MM at MacBride Head (51°21'S, 57°56'W), East Falkland, where an adult (Fig. 2) was present (unpaired) at a Southern Rockhopper colony on 24 November 1995 and 31 December 1995 and again in the following season on 30 November 1996 (see also Woods & Woods 1997). A second record refers to an adult observed by MP, together with M. Sokol and E. Langlois, at Kidney Island (51°38'S, 57°45'W) on 12 December 2004, on a ledge among a mixed colony of Southern



Fig. 1. Northern Rockhopper *Eudyptes moseleyi*, New Island, November 2004. Frontal view showing length of the occipital crest and plumes. (Photo: R. Matias)

Rockhoppers with one pair of Macaroni Penguins *E. chrysolophus*. This individual was scrutinized in detail from a boat, and although no photographs were taken, it was identified using the same phenotypic characters already mentioned above—in particular, the unmistakable long, drooping, and laterally splayed yellow head plumes, reaching well below the black throat demarcation. Clearly, our records refer to Northern Rockhopper and not to Southern Rockhopper×Macaroni hybrids, which have much shorter yellow coronal plumes and narrow pointed supercilia, and which show a small fleshy pink gape like that found in Macaroni Penguins (see White & Clausen 2002, Woehler & Gilbert 1990).

Vagrant Northern Rockhoppers have been recorded in South Africa (regularly); Australia; New Zealand, including the Chatham Islands (Moors & Merton 1984, Marchant & Higgins 1990, Cooper 1992, Shirihai 2007); and recently, on the Kerguelen Islands (Dinechin *et al.* 2007), illustrating the wandering potential of this species. However, the occurrence of Northern Rockhopper Penguins on the Falklands has not been proven before (but see Shirihai 2007), these being the first documented records of this distinctive taxon on the archipelago. There are no records for Brazil, Uruguay, Argentina or Chile, ours also being the first for the Neotropical region. Unlike the general pattern of occurrence recorded for southern Africa, where most birds were moulting juveniles found mainly during January and February (Cooper 1992), the New Island individual was apparently an older subadult (according to crest length, this bird had fledged at least two breeding seasons earlier) coming to land during the pre-breeding period, apparently prospecting for a nest site. The Kidney Island individual appeared to be a mature adult and was unpaired. Given the coincidence of dates of the second and third Falklands records of Northern Rockhopper at different extremities of the archipelago, we suspect that other individuals may possibly have reached the islands during the same period, given that probability of detection of the species must be low because of a paucity of observers in an archipelago covering 4700 km² with dozens of Southern Rockhopper colonies.

It is possible only to speculate on the origin of these birds, although it seems likely that they came from the nearest (and also largest) breeding colonies of this species, those in Tristan da Cunha and Gough (Williams 1980), with a direct swim of 3875 km to the Falklands. The relevancy of Northern Rockhopper records south of the subtropical convergence (e.g. the Falklands records) has already been discussed by Dinechin *et al.* (2007). This series of records lends further support to *E. moseleyi* as a full species, because vagrancy is seemingly regular, and yet there is no evidence of genetic introgression in the Falklands population.

Because of its great similarity with Southern Rockhoppers, and because the formal split is quite recent, the Northern Rockhopper seems likely to currently be under-recorded on the Falklands and elsewhere. Less-typical individuals and younger birds are prone to go undetected. Closer attention to individuals at rookeries and a better understanding of the identification characters (especially of younger birds) will probably result in more records of this species outside its very limited breeding area.

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Fig. 2. Adult Northern Rockhopper *Eudyptes moseleyi*, MacBride Head, November 1994. Note the extremely long yellow plumes and thick supercilium and also the typical underflipper pattern. (Photo: M. Morrison)

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