

# Breeding status of burrowing petrels at Prince Edward Island

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*Proof of breeding of five species of burrowing petrels was obtained for the first time at Prince Edward Island (46°38'S, 37°57'E) in March 1984. Breeding has now been confirmed for a total of eight species and four other species are likely breeders at the island.*

*In Maart 1984 is die eerste keer ten opsigte van vyf spesies graafstormvoëls bewyse gevind dat hulle op Prins Edward-eiland broei. Tot dusver is vasgestel dat altesaam agt spesies daar broei, terwyl nog vier ander waarskynlik ook op die eiland broei.*

## Introduction

Breeding has been conclusively proven for only three species of burrowing petrels at Prince Edward Island (46°38'S, 37°57'E) by Berruti *et al.* (1981) who assumed that eight other species breed there as well, based on the presence of adults in burrows or caves. Further information on breeding of burrowing petrels at Prince Edward Island is given by Imber (1983). During a visit to the island in March 1984 special effort was given to obtaining proof of breeding by burrowing petrels by finding eggs or chicks or their remains.

## Methods

Five members of the Percy FitzPatrick Institute visited Prince Edward Island from 20-23 March 1984. Two nights were spent at Cave Bay in the east of the island and one night at Kent Crater west of the escarpment. Much of the island was visited on foot. Searches were made during the day in areas of petrel burrows and in small rocky caves at McNish Bay for breeding birds, chicks (alive or dead) and eggs. Avian prey remains of subantarctic skuas *Catharacta antarctica* (consisting usually of the wings joined by the pectoral girdle), were examined to discover unfledged petrel chicks with partially grown flight feathers. Occupied burrows were found and their contents investigated by means of a spotlight at night.

## Results

Evidence for breeding is given separately for each burrowing petrel species, including those previously known to breed, at Prince Edward Island.

### Blue petrel *Halobaena caerulea*

Adults were recorded in burrows in September 1979 (Berruti *et al.* 1981) and as post-moult non-breeding individuals at Kent Crater on 25 May 1983 in very large numbers (J. Cooper pers. obs.). The blue petrel was the most abundant species represented in the diet of subantarctic skuas at Prince Edward Island based on collections made in May 1982 (Adams 1982)

and in May 1983 at Kent Crater (J. Cooper pers. obs.). Breeding was conclusively proved by finding the rotten corpse of an unfledged chick at the mouth of a burrow on the lower slopes of Boggel on 20 March 1984.

### Broadbilled prion *Pachyptila vittata salvini*

Adults were recorded in burrows in April and September 1979 (Berruti *et al.* 1981) and unidentified prions (most probably of this species) were recorded as prey remains of skuas in May 1982 (Adams 1982). Birds were heard calling in burrows on 25 May 1983 (J. Cooper pers. obs.). Proof of breeding comes from the dried corpse of an unfledged chick found at the mouth of a burrow near Kent Crater on 23 March 1984.

### Fairy prion *P. turtur*

Adults were recorded entering a coastal cave in September 1979 (Berruti *et al.* 1981, Imber 1983). On 21 March 1984 adults were seen entering small rocky caves and interstices in large boulders close to the shore at McNish Bay. In one cave two birds were heard calling and one was caught. This individual was in a post-moult condition. Egg membranes and the rotten wings of an unfledged chick found in the cave represent the first proof of breeding for this species at Prince Edward Island.

### Greatwinged petrel *Pterodroma macroptera*

Chicks were found in September 1979 and adult birds were present in burrows in April and September 1979 (Berruti *et al.* 1981). This species was recorded as prey remains of skuas in May 1982 (Adams 1982) and at Kent Crater on 24/25 May 1983 (J. Cooper pers. obs.). The latter remains (seven individuals) were all of adults in post-moult condition.

### Kerguelen petrel *Pterodroma brevirostris*

Adults were recorded in burrows in April and September 1979 (Berruti *et al.* 1981) and in March 1984 and as prey remains of skuas in May 1982 (Adams 1982). Breeding at Prince Edward has not yet been proven conclusively because visits have not coincided with the presumed breeding season.

### Softplumaged petrel *P. mollis*

Adults were recorded in burrows in September 1979 (Berruti *et al.* 1981, Imber 1983) and as prey remains of skuas in May 1982 (Adams 1982). A live chick was found in a burrow among albatrosses nesting on the north-eastern cliffs on 22 March 1984.

### Grey petrel *Procellaria cinerea*

Chicks have been recorded in September 1979 and adults in burrows in April and September 1979 (Berruti *et al.* 1979, Imber 1983). An incubating grey petrel with an apparently fresh egg was found between Kent Crater and West Point on 22 March 1984.

**Whitechinned petrel** *P. aequinoctialis*

Adults were recorded in burrows in September 1979 (Berruti *et al.* 1981, Imber 1983) and as prey remains of skuas in May 1982 (Adams 1982). Remains of an unfledged chick killed by a skua were found on the north-eastern cliffs on 20 March 1984.

**Greybacked stormpetrel** *Garrodia nereis*

An adult was reported calling by a tussock in September 1979 (Berruti *et al.* 1981, Imber 1983). Breeding at Prince Edward Island has not yet been proven. Similarly, the species has not yet been proven breeding at nearby Marion Island (Williams *et al.* 1979), although adult birds having bare vascularized brood patches and enlarged gonads have been caught there (Frost *et al.* 1976, Williams & Burger 1978).

**Blackbellied stormpetrel** *Fregetta tropica*

A desiccated chick was found in September 1979, the first, and only, proof of breeding at Prince Edward Island (Berruti *et al.* 1981, Imber 1983). The species has not yet been proven as breeding at Marion Island (Williams *et al.* 1979) although adult birds having bare vascularized brood patches and enlarged gonads have been caught there (Williams & Burger 1978).

**South Georgian divingpetrel** *Pelecanoides georgicus*

No proof of breeding exists for Prince Edward Island. Van Zinderen Bakker Jnr. (1971) reported divingpetrel burrows "probably made by this species". Such unoccupied burrows were seen on Mcall Kop in September 1979 (Berruti *et al.* 1981), on Kent Crater and Moeder-en-Kind in May 1983 (J. Cooper pers. obs.) and on the slopes of Vaalkop on 22 May 1984, but they could not be ascribed to species.

**Common divingpetrel** *P. urinatrix*

Adults were recorded in burrows in September 1979 (Berruti *et al.* 1981). No proof of breeding exists for Prince Edward Island. The species may now be extinct at Marion Island due to the depredations of feral cats *Felis catus* (Van Zinderen Bakker Jnr. 1971, Brooke 1984 and references therein.)

**Discussion**

Eight species of burrowing petrels have now been recorded breeding at Prince Edward Island. a further four species are likely breeders, largely based on the presence of adult birds in

burrows. The previous paucity of breeding information for Prince Edward Island (three species) is largely due to the short duration and timing of ornithologists' visits to the island. During the period 1979-1984, ornithologists spent only 28 full or part days ashore at Prince Edward Island and most visits did not coincide with the breeding seasons of burrowing petrels (FitzPatrick Institute unpubl. data). Confirmation of breeding of Kerguelen petrels, greybacked stormpetrels and the two species of divingpetrels requires visits in the summer months from October/November onwards.

**Acknowledgements**

Scientific research at Prince Edward Island is supported financially and logistically by the Antarctic Division of the South African Department of Transport. Such research is carried out under the auspices of the South African Scientific Committee for Antarctic Research. We thank our past and present colleagues in the FitzPatrick Institute for their help in the field.

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