

SHORT NOTE

Confirmation of Kermadec petrels breeding on the southern Kermadec Islands

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The breeding status of the Kermadec petrel *Pterodroma neglecta* at some sites in the New Zealand biogeographical region has been unclear. There are published records of its nesting on Phillip Island (Norfolk Island group) and Macauley and Herald Islets (both Kermadec Island group), and former nesting records from Norfolk Island itself and Raoul Island (the largest island in the Kermadec group) (Merton 1970; Holdaway *et al.* 2001). Curtis and Cheeseman Islands are listed as nesting sites for this species by Marchant & Higgins (1990) but the reference used, Robertson & Bell (1984), does not name these islands as breeding sites. Another publication (Imber 1985) includes three Kermadec Islands (Haszard, Curtis and Cheeseman) as breeding sites but the source of this information is not given. Additionally, breeding status on Macauley Island has a confused history because confirmation of breeding was based on mis-identified specimens (AJDT pers. obs.). Here we present confirmed breeding records from four of the southern Kermadec islands.

Macauley Island

Merton (1970) summarised possible early records of the Kermadec petrel from Macauley Island and 'confirmed' breeding on the basis of "the remains of two fledglings" found there in 1966. However, what are presumed to be these two specimens in the Museum of New Zealand (skeletons MNZ 15897 and MNZ 15937) were re-identified as white-naped petrels *Pterodroma cervicalis* by AJDT in 1997. In 1966, the white-naped petrel had not been dis-

covered on Macauley Island, so these specimens constitute the first records from this island.

Breeding of Kermadec petrels on Macauley Island was confirmed on a visit between 20 - 30 November 1970, when the species was observed laying between 22 and 25 November; fewer than 50 pairs were estimated to be present (Bell 1970; J.C.Yaldwyn pers. com., male skins MNZ15951, MNZ15952, egg MNZ15857). A photograph of a bird in flight at Macauley Island in November 1970 appears in Lindsey (1986: 196), with an incorrect date in the caption. On 17 October 1972 one Kermadec petrel was heard calling on the western side of Macauley Island (Veitch 1972). In November 1980 similar numbers to those recorded in 1970 were noted ashore but nesting was not underway (BDB pers. obs.). During visits to this island during 15 - 24 September and 23 November - 6 December 1988, fewer than 50 pairs were present and freshly laid eggs were found on 25 November (Tennyson & Taylor 1990). Between 21 - 26 July 2002, one corpse was found and at least three birds were flying about the island but no breeding was noted (RPS pers. obs.).

Haszard Islet

A female incubating a fresh egg was found ashore on 27 November 1970 by J.C.Yaldwyn (skin MNZ15953) and another incubating bird was ashore on 19 November 1980 (P.J.Moors pers. obs.). One was flying about the islet's slopes on 15 September 1988 (AJDT & G.A.Taylor pers. obs.). On 21 and 22 July 2002, up to six were flying over the islet and on 21 July two were seen on the ground on inaccessible eastern cliffs and one was incubating above the western shoreline (RPS & P.Dilks pers. obs.).

Curtis Island

One nearly fledged juvenile, collected on 16 April 1929 by A.T.Pycroft, is held in the Auckland Museum (B1699). This specimen has been previously over-looked in publications, although we suggest that it is the large, unidentified chick referred to by Guthrie-Smith (1936: 173), contra Merton (1970) and Jenkins (1979), who suggested that Guthrie-Smith was describing a wedge-tailed shearwater *Puffinus pacificus* chick. Guthrie-Smith was on the same expedition as Pycroft and he had just seen numerous Kermadec petrels (which he called "Winter Petrels") incubating eggs at the Herald Islets but he saw only one Kermadec petrel chick there, which he estimated to be one week old (Guthrie-Smith 1936). Thus, because of its large size, Guthrie-Smith may have assumed that the Curtis Island chick could not be a Kermadec petrel. However, the species has a breeding season at the Kermadec Islands that can extend throughout the year (Veitch & Harper 1998). There are no other records of the Kermadec petrel ashore on Curtis Island, despite several more recent visits, including a 31-day bird research trip in October-November 1989 by AJDT and G.A.Taylor.

Cheeseman Island

A single, nearly-fledged chick was found on 26 July 2002 (RPS & T.Greene pers. obs.).

DISCUSSION

This information documents Kermadec petrels having bred on four southern Kermadec islands and clarifies earlier records. The breeding range of the species in the New Zealand region is now known to extend nearly 200 km south of its major breeding colonies on the Herald Islets. However, very few Kermadec petrels occur at each of the southern Kermadec island nesting sites, so the combined nesting population for all these islands is likely to total fewer than 50 pairs.

Breeding records from the southern Kermadec islands show that laying occurs at several times of the year. Using incubation and fledgling period estimates (Marchant & Higgins 1990), the near-fledged chick on Cheeseman Island in July 2002 suggests a late January-early February laying date; the incubating bird on Hazienda Island in July 2002 indicates a June-July laying date; while all other records indicate an October-November laying period. A widespread laying period was also found on the Herald Islets but the spring peak of laying at the southern Kermadec islands is more similar to

the peak laying period at the extinct Raoul Island colony (Veitch & Harper 1998).

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