

SHORT NOTE

Grey-faced petrel (*Pterodroma macroptera gouldi*) breeding on Little Barrier Island, New Zealand

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The grey-faced petrel *Pterodroma m. gouldi* is a widely distributed winter-breeding species around the northern North I of New Zealand with large breeding colonies on islands within the Hauraki Gulf (Hen I, Mokohinau I) and Bay of Plenty (Alderman Is, Mercury I, Whale I) (Taylor 2000; Imber *et al.* 2003). Though historically present on Little Barrier I (Hauturu) there have been no observations of the species breeding at this location since the 1940's (Hamilton 1961).

On 23 Oct 2009, whilst installing acoustic monitoring devices along the cliff tops of Ngatamahine Point on the northern side of Little Barrier I (36° 10' 04" S 175° 5' 25" E), we discovered a burrow containing a grey-faced petrel chick. We returned to the site on 10 Nov 2009 and found a further 7 burrows in the immediate area of approximately 100 m², from 4 of which we confirmed the presence of grey-faced petrel chicks by removing them by hand. The remaining 3 burrows showed signs of activity (guano and lack of debris at burrow entrance), but required excavation for further investigation.

Despite concentrated searches for breeding grey-faced petrels on Little Barrier I during the 1970's (M. Imber & D. Veitch, *pers. comm.*) and

1990's (C. Smuts-Kennedy & T. Green, *pers. comm.*), this appears to be the 1st observation of the species breeding on Little Barrier I in over 60 years. P.C. Bull reported extensive breeding burrows near sea cliffs and inland cliffs near the coast in 1945 (Turbott 1947). In Dec 1946, Sibson (1947) reported the remains of a cat-killed fledgling grey-faced petrel, while in Jun 1947, J.W. St Paul found an unlaidd egg in the remains of a cat-killed bird (McKenzie 1948). The most likely explanation for the apparent 60 year absence of breeding grey-faced petrel on Little Barrier I is feral cat *Felis catus* predation, which can have severe impacts on winter-breeding seabirds such as grey-faced petrel (Cooper *et al.* 1995). Sibson (1947), Turbot (1947) and McKenzie (1948) all documented the severe impacts of feral cats on adult and fledgling grey-faced petrel on Little Barrier I with "remains of birds eaten by cats, at all points visited" (Turbott 1947). Given the level of predation, it is likely that grey-faced petrel were either in severe decline or locally extinct by the time cats were eradicated in 1980.

It is unclear if our observations represent an expansion of grey-faced petrel that had survived at the time of cat eradication on "cat-proof" cliff habitats, or a recolonisation of the island from other populations. Regardless, the presence of breeding grey-faced petrel in non-cliff coastal forest that was

Received 19 Nov 2009; accepted 16 Dec 2009

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formerly inhabited by feral cats provides further evidence of the benefits of predator eradications to the fauna of Little Barrier I.

ACKNOWLEDGEMENTS

We thank Paul Sagar and David Seldon for insightful comments regarding this manuscript.

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Keywords grey-faced petrel; *Pterodroma macroptera gouldi*; Little Barrier Island; recolonisation; New Zealand