

## SHORT NOTES

### Possum in a kiwi burrow

Both possums and kiwis use natural dens or excavated burrows. Only kiwis excavate their own burrows. Possums occupy already dug burrows or natural dens, modifying them for their needs.

The little information available on kiwi/possum burrow occupancy relates mainly to the Little Spotted Kiwi (*Apteryx owenii*) on Kapiti Island, where possums were found occupying previously used kiwi burrows (Reid, Jolly, pers. comm.). Even less is known of possums using burrows of Brown Kiwis (*A. australis*) (Reid, McLennan, pers. comm.).

On Stewart Island some Brown Kiwi burrows are short and open. A burrow I found at Mason Bay in 1985 measured c. 60 cm deep and c. 25 cm wide at the entrance, sloping slightly down to an enlarged nest chamber c. 30 x 30 cm. Guthrie-Smith (1914, *Mutton Birds and Other Birds*) described four Stewart Island Brown Kiwi burrows as "quite shallow with their entrance tunnels short." Lengths given were three nests 2ft. 6ins. (75 cm) deep and one 1ft. 9 ins. (52 cm) deep.

In June 1984 at Mason Bay I was shown a burrow by Tim Te Aika which was c. 55 cm deep and c. 25 cm wide at the entrance, sloping down to an enlarged area occupied by a female Brown Kiwi. This burrow was 200 m distant from the 1985 breeding burrow and probably in an adjacent territory. After a wait of four days while I set up photographic equipment, I kept an evening watch on the burrow. I photographed the kiwi as it left the burrow and found it paid little attention to my hide, camera or flashlight. Exit times were 7 p.m. on 18 June, 6.25 p.m. on the 19th, 6.30 p.m. on the 20th and 6.30 p.m. on the 21st. Dusk was at about 5.45 p.m. The time the kiwi spent at the burrow entrance after emerging varied from four minutes' preening on a warm still night to leaving immediately on a night with sleet falling. I stopped watching the burrow 15-20 minutes after the kiwi had left.

On 22 June the kiwi left the burrow at 6 p.m., and by 8 p.m. a heavy frost had set in. Some of the other kiwis in the area started calling at 5 p.m. half an hour earlier than usual. All calling ceased at 7 p.m. On a torch search from 9.30 to 11.30 p.m. I saw no kiwis, which was unusual. Slight frosts at Mason Bay are common in winter but not heavy frosts. On checking the burrow at 11 p.m., I found a half-grown male possum in residence. Next morning the possum was still there and no kiwi. I evicted and killed the possum. No kiwi was in the burrow by day until the 27th, when a female was curled up asleep. After I left on the 27th, the burrow was checked periodically by Tim Te Aika, who found a male and a female in residence. A preliminary nest was started, but the burrow was abandoned in December without an egg being laid. This burrow had been used by kiwis for breeding in the past.

During further visits in October 1985 and February 1986, I found no kiwis or possums in the burrow but it did not appear totally disused. During the four weeks I have spent at Mason Bay I saw only two other possums.

Natural dens for possums are plentiful, especially in the red tussock (*Chionochloa rubra*) and flax (*Phormium tenax*) in the pasture area where this burrow was located.

My thanks to Tim & Ngaire Te Aika for their help and showing me the burrow and checking it after I left.

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### A Tahiti Petrel (*Pseudobulweria rostrata*) from Gau Island, Fiji

The bird fauna of Gau Island, which is roughly at the centre of the Fiji archipelago at 18° 00' S, 179° 16' E, is reasonably well known (Watling 1985). It includes two species of petrel, the Collared Petrel *Pterodroma leucoptera brevipes*, which breeds, in large numbers, and the Fiji Petrel *Pseudobulweria macgillivrayi*, which is apparently endemic to Gau and has recently been rediscovered, having been presumed "lost" since 1855 (Watling & Lewanavanua 1985). We now report the presence of a third species, the Tahiti Petrel *Pseudobulweria rostrata* on the island.

On 29 September 1987 we found the cat-killed remains of an adult *P. rostrata* at 620 m a.s.l. on a track following the steep-sided NW ridge of Qilai (a subsidiary peak of the island's main summit, Delaco; see Watling (1985) for a general description of the island's topography). The remains were estimated to be 2-3 weeks old and hard to measure, being in an advanced state of decomposition. The following measurements were noted, however: culmen 32 mm, tarsus 45.5 mm, mid-toe and claw 55.4 mm, wing 285 mm. These measurements are in reasonable agreement with the measurements quoted by Murphy & Pennoyer (1952). The blunt ends to the latericorn plates of the bill, which usefully distinguish *Pseudobulweria* from *Pterodroma* (Imber 1985), were distinctly obvious.

Previously the only record of *P. rostrata* on land in the Fiji group is of an immature female which flew into a light on Taveuni island on 9 October 1972 and considered by Bourne (1981) to have been reared locally. Jenkins (1986) has reviewed records of *P. rostrata* in Fijian waters, to which we can add the following:

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| 10 May 1986 | 1 bird 2 miles S of Rewa delta, Viti Levu.   |
| Aug 1986    | I. Watkins found a bird dying in Suva harbour, Viti Levu. The bird is preserved as a formalin-mummified specimen in the Fiji Museum, Suva. |
| 21 Nov 1986 | 4 birds 5 miles E of Taveuni.  |
| 10 Sep 1987 | 1 bird, probably this sp., S of Fiji at 21° S, 177° E.   |
| 9 Oct 1987  | 1 bird, probably this sp., 10 miles W of Gau.  |