

SHORT NOTE

Further evidence for the natural re-establishment of the pipit (*Anthus novaeseelandiae aucklandicus*) on Campbell Island, New Zealand

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Occurring on both Auckland and Campbell Is. (52°32.4'S, 169°8.7'E; 11,300 ha), the Auckland Is pipit (*Anthus novaeseelandiae aucklandicus* G.R. Gray) is a subspecies of the New Zealand pipit, *Anthus novaeseelandiae novaeseelandiae* Gmelin (Turbott 1990). At Campbell Is, the pipit is restricted to small offshore islets. A similarly restricted distribution of this southern subspecies to offshore stacks at Campbell Is is reported by Heather & Robertson (1996), and Foggo (1984) who suggested that this situation is caused by the effects of Norway rat (*Rattus norvegicus*) and cat (*Felis silvestris catus*) predation. Foggo (1984) noted that the inability of pipits to co-exist with rats on subantarctic islands has been demonstrated in South Georgia by Pye & Bonner (1980). Foggo & Meurk (1981) commented that it is likely that rats and cats have eliminated this species from the main island. Deliberate burning of vegetation as a farming practice in the early 19th century (Wilmshurst *et al.* 2004) may also have restricted the distribution of the pipit. Foggo (1984) collected pipits on Dent Is in 1975 and reported that they "were immediately obvious and very tame" during a brief helicopter visit to the summit of Jacquemart Is in 1980 (Foggo & Meurk 1981), adding that on each of these offshore islands the birds had fulvous plumage. Thompson *et al.* (2005) encountered pipits at 2 locations on Campbell Is in 2003 and that they were distributed more extensively in 2004, 2 main centres being around Penguin Bay in the southwest, and towards the south around Eboulé Peak.

During a brief visit to Campbell Is between 24

and 26 Jan 2007 I saw and heard pipits in various habitats, including sandy, rocky and muddy (intertidal) seashores, mixed scrubland-tussock and hilly mountain meadow vegetation on upper hill and mountain slopes. Once, an adult pipit was seen on a seashore feeding a fledgling with a caterpillar, evidence that this southern subspecies is breeding on Campbell Is. Another pipit having less fulvous plumage than a nearby adult and a short tail (about two-thirds the tail length of the adult) was suspected to be a recent fledgling. Campbell Is pipits are surprisingly approachable and, when sitting quietly, sometimes walked to within 1-3 m. Observations were made while walking (Table 1; Fig. 1). All birds were a striking lemon-yellow colour with fine streaking on the breast and neck, as reported and illustrated by Thompson *et al.* (2005) and Higgins *et al.* (2006).

Recent observations of pipits at several localities in the southern part of Campbell Is, including evidence of breeding, combined with distributional information reported by Thompson *et al.* (2005), indicate that the pipit is now well established on Campbell Is, in contrast to its restricted distribution to offshore islands reported in the earlier literature. The most obvious explanation for the presence of pipits on Campbell Is is that they have re-established naturally from the residual populations on nearby Dent or Jacquemart Is, or both. As suggested by Thompson *et al.* (2005), natural re-establishment of pipits almost certainly followed the removal of rats in winter 2001, achieved through a challenging and extensive rat control operation that was undertaken over the whole of Campbell Is by the Department of Conservation (McCelland & Tyree 2004). Natural re-establishment may be continuing to occur from

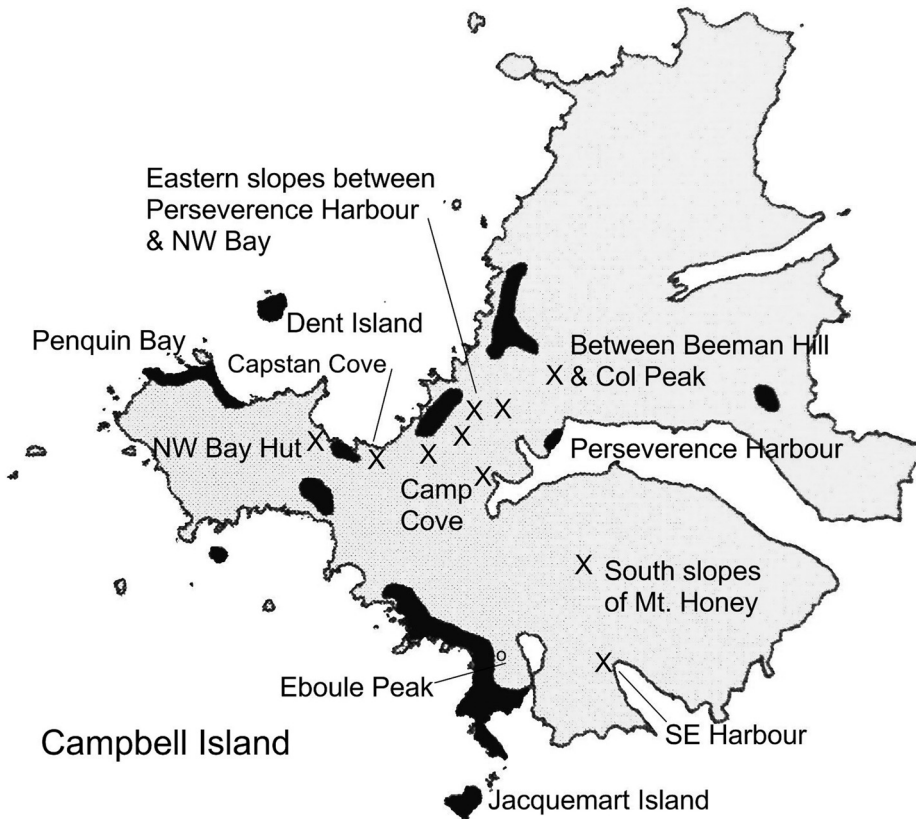


Fig 1 Map of Campbell Island showing the approximate new locations of pipits, marked with an 'x', that are recorded in Table 1. This map is adapted from Thompson *et al.* (2005), showing the general location of pipits, shaded in black, in early 2004.

the offshore islands, although some evidence of breeding suggests that population expansion may also be resulting from birds that are now established on the main island. Barker *et al.* (2005) remarked that the outlying islands in the Campbell Is group were long ago recognised as potential reservoirs for fauna and flora extirpated by rats, feral cats and sheep, adding that evidence for vulnerable bird species persisting on the outlying islands included occasional reports of pipits and Campbell Island teal (*Anas nesiotis*) on Campbell Island's coasts adjacent to offshore islands.

The observations reported here raise a number of questions about the pipit on Campbell Is. The most important is the taxonomic status relative to other New Zealand forms of the pipit. Is the Campbell Island form genetically distinct from the Australasian pipit occurring on the New Zealand mainland, and if so in what respects? Secondly, what scope exists for further colonisation and establishment of the pipit on Campbell Is as the vegetation continues to change after the removal

of rats, cats, sheep and cattle and the spread of *Dracophyllum* scrub at the lower altitudes as reported by Wilmshurst *et al.* (2004). These questions can only be answered by more extensive and intensive studies that might strengthen our knowledge of the taxonomy, biology and ecology of this colourful, adaptable and approachable bird.

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Table 1 Sight records of pipits on Campbell I. 24-26 Jan 2007. Pipits heard but not seen were not recorded. Distances walked: c.8 km (24 Jan), 12 km (25 Jan), and 4 km (26 Jan).

Date	No.	Locality	Habitat	Notes
24 Jan	2	South East Harbour	High-tide line on sandy, stony foreshore	Adult feeding fledgling.
24 Jan	1	South slope, Mt Honey	<i>Dracophyllum</i> scrubland-tussock; alt. 150 m	Mostly resting, calling, short flights.
24 Jan	1	Camp Cove, Perseverance Harbour	Sheltered intertidal (small mudflat)	Feeding amongst stones and on sandy/muddy flats. Markedly fulvous.
25 Jan	1	Northwest Bay Hut	<i>Dracophyllum</i> scrubland-tussock; 20 m	Resting & short flights. Periodic feeding amongst the tussock. Very approachable.
25 Jan	2	Capstan Cove, near Northwest Bay	At and above high-tide line on rocky foreshore	Feeding amongst stones and low herbaceous vegetation.
25 Jan	10	Eastern slopes of the ridge between Perseverance Harbour & Northwest Bay	Tussock grassland- <i>Bulbinella rossii</i> dominant mountain meadow; 100-250 m	Adults & possible fledgling (notably a short tail). Some feeding, resting, calling & short flights.
26 Jan	1	Upper slopes north of Beeman Hill and towards Col Peak	Tussock grassland- <i>Bulbinella rossii</i> dominant mountain meadow; 150 m	Not feeding. Resting, calling & short flights.

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Keywords pipit; *Anthus novaeseelandiae aucklandicus*; Campbell Is; New Zealand