

kowhai bloom. The less frequent observations of Pied Stilts during the winter months were indicative of the lower numbers noted on the Manawatu River bed at this time of year. The seasonal observations of Morepork are included to illustrate the lack of any obvious pattern. Moreporks were not common in the garden but, as we found in Te Kuiti, the pattern of occurrence in the vicinity of the garden was not readily explicable.

There were few extra species that we might have expected to record from the garden. Only Hedgesparrow, Bellbird and NZ Pigeon were regularly encountered elsewhere in the suburbs of the city and might have occurred in the vicinity of our garden.

We must again emphasise the limited conclusions that can result from a simple study such as this, but we commend the habit of regular recording of garden birds as a means of gaining a fascinating insight into your local avifauna!

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SHORT NOTE

Notes on the nesting and longevity of Whiteheads

While studying Whiteheads (*Mohoua albigilla*) on Little Barrier Island, Hauraki Gulf (McLean & Gill 1988, Gill & McLean 1992), I collected some incidental data on breeding that I summarise here. A recent recapture of a banded bird has increased the known longevity of Whiteheads.

Nest size and construction

An abandoned nest (Auckland Museum B2021) had an outside diameter of 100 mm and an outside depth of 90 mm. The cup was 45 mm deep and 50 mm in diameter. The body of the nest was made of fine grass and leaf skeletons, lined first with tree fern fibres and then feathers (including those of parakeets *Cyanoramphus* sp.).

Incubation

In October 1983, from 6 m distance I watched incubation at Nest WH4, which was 2 m above ground in the densely vegetated understorey beneath tall forest. (It was built precariously on leaf litter that had collected along the midrib of an upright frond of nikau *Rhopalostylis sapida*.) The birds were not banded, but in Whiteheads incubation is by the primary female alone (McLean & Gill 1988). I watched the nest for 362 min between 1000 h and 1630 h on 18 and 20 October. The nest held three eggs, which hatched on 21 or 22 October.

Spells of incubation lasted 17.5-40.0 min (mean = 28.6, s.d. = 7.95, $n = 8$). These alternated with inattentive periods of 6.0-13.0 min (mean = 8.8, s.d. = 1.91, $n = 9$). During these watches the incubating bird was twice fed on the nest by a second bird.

Nestling weight and appearance

At Nest WH4 in October 1983, two nestlings aged somewhere between newly hatched and 48 hours old weighed 2.4 g and 3.3 g. A day later they were 2.7 g and 4.0 g respectively. Another day later they weighed 3.0 g and 4.1 g. Another 12 days later the weights were 13.5 g and 19.0 g. At first examination these chicks had yellow rictal flanges and deep yellow mouth linings. The natal down was grey, distributed in patches as shown schematically in Figure 1.

There were eight main down patches (ocular, coronal, occipital, dorsal, humeral, secondary, femoral and abdominal) – exactly as in Grey Warblers *Gerygone igata* (Gill 1983). There was one minor patch (crural), which warblers also have, but no jugular down, which warblers commonly have. As the minor patches may vary, more Whitehead nestlings would need to be examined to confirm any interspecific difference.

At Nest 8 in November 1985, three nestlings about 10 days old with their primaries in pin weighed 9.4 g, 11.4 g and 13.0 g.

Brooding of nestlings

On 7 January 1985, I watched Nest 45 for 124 min (0809-1013 h). The number of nestlings was unknown but they were about 4 days old. In Whiteheads only the primary female broods (McLean & Gill 1988). During the watch there were three complete brooding spells – 17, 28 and 15 min – and respective inattentive periods were 11, 17 and 18 min.

On 25 and 27 November 1985, I watched Nest 8 for 255 min between 0924 h and 1501 h. The nestlings were about 12 days old but the number present was unknown (three before the watches but only one a few days afterwards). Brooding was by a banded female. Periods of brooding lasted 1.0-24.0 min (mean = 11.9, s.d. = 8.00, $n = 10$) and alternated with inattentive periods of 5.0-18.5 min (mean = 8.7, s.d. = 3.87, $n = 10$).

Feeding of nestlings

During the above watch at Nest 45 there were nine visits with food – three by the brooding female (unbanded) and six by the banded male. That makes 4.4 visits per hour.

During the above watches at Nest 8, food was brought to the nestling/s by the female (who either fed the chick/s and departed or fed and immediately brooded), the primary male (unbanded) and a banded male helper (age and relatedness to primary pair unknown). There was a total of 48 visits with food or 11.3 visits per hour. Three or four Grey Warblers of this age receive about 18 visits per hour from two parents and no helpers (Gill 1982).

Longevity

In August 1992, Whitehead B-41169 was recaptured along the Valley Track (Shaarina Boyd, pers. comm.). This bird had been banded along the same

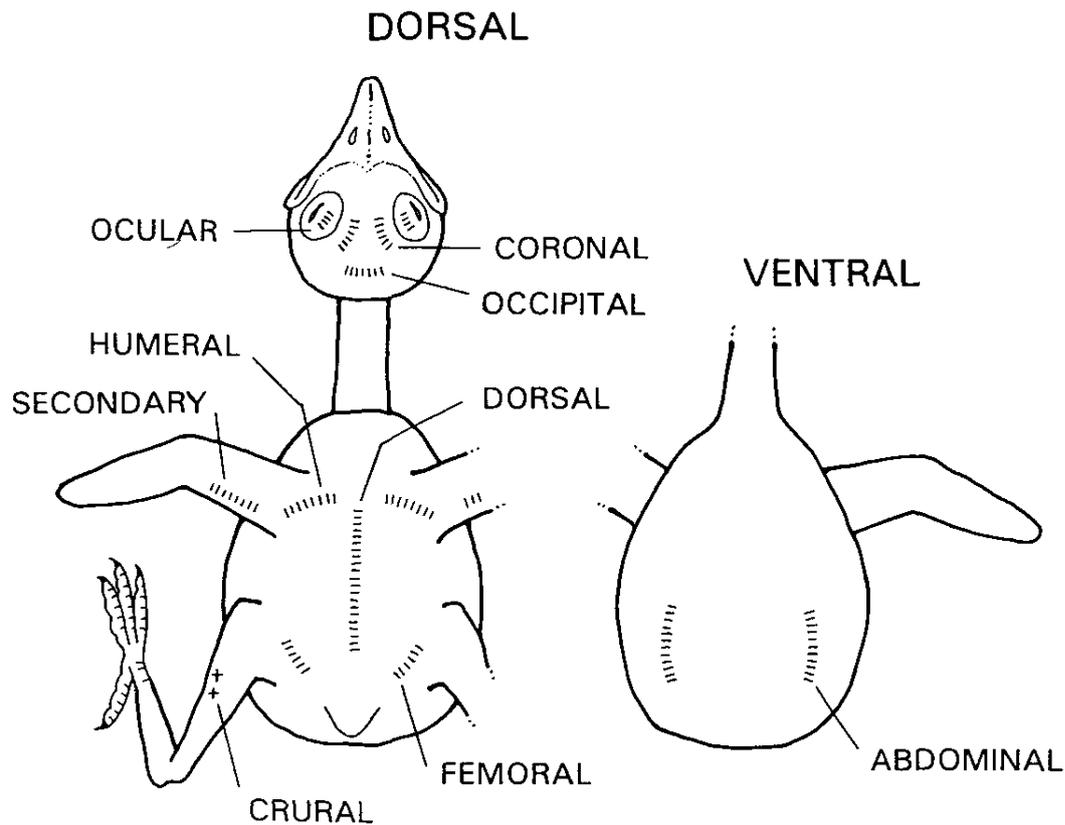


FIGURE 1 — Down-patches of the neonatal Whitehead shown schematically

track in August 1984, when it was recorded as an adult male. It could not have hatched after January 1984, which gives it a minimum life-span of 8 years and 7 months. The previous record for Whitehead longevity was 6 years and 7 months (Gill & McLean 1992).

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