

### Observation of a Long-tailed Cuckoo (*Eudynamys taitensis*) as a predator of Tomtit (*Petroica macrocephala toitoi*) nestlings

Long-tailed Cuckoos (*Eudynamys taitensis*) are widespread throughout New Zealand's mainland forests over the summer period (September-March). Despite being relatively common little is known about this cuckoo's behaviour or diet. Its diet is suspected to consist mainly of large invertebrates although lizards, small birds, eggs, nestlings, berries and fruit are also taken (Gill 1980, Heather & Robertson 1996). Like other cuckoos, Long-tailed rely on other birds to raise their chicks. In the North Island they have been reported parasitising Whitehead (*Mohoua albicilla*), Robin (*Petroica australis longipes*) and Tomtit (*Petroica macrocephala toitoi*) nests (Fulton 1904, McLean 1982, 1988).

The Otamatuna "mainland island" area (1300 ha), located in the northern part of Te Urewera National Park, has large numbers of Long-tailed Cuckoos. At 18:55 on 6 November 1996, while working in the Otamatuna area, I observed a Long-tailed Cuckoo remove a North Island Tomtit nestling from a nest.

The observation began when I heard wing movement while walking along a track and looked up to see a Long-tailed Cuckoo alight on a perch about 4 m away. The cuckoo appeared to have a feather stuck to its beak and was shaking its head in an attempt to dislodge it. A tomtit pair was close by giving distress calls. While I watched, the cuckoo flew up to the tomtits' nest, grabbed a nestling in its bill and flew off with it. Looking back to where I had initially disturbed the cuckoo (directly beneath the tomtit nest) I found a dead, partially plucked young tomtit chick on the ground. After waiting for about 10 min nothing else occurred so I left. Five minutes later I returned to find the chick gone and the tomtit pair still giving distress calls. Not seeing anything I moved on a few metres and flushed a cuckoo from beside the track. I carried on up the track to a vantage point and waited. About 3 min later the cuckoo was back on the ground where the chick had been, then flew up to the nest and was beside it for about 15 sec (head obscured), briefly hopped on the nest and flew away. The next day I climbed to the nest and found it empty with no sign of disturbance.

Four North Island Robin nests that I monitored also failed at the nestling stage in the Otamatuna area with no signs of disturbance, suggesting that cuckoos may have been responsible.

Alvarez (1994) found that Cuckoo (*Cuculus canorus*) also left no sign after preying upon clutches or broods of its host species. He suggested that predation of non-parasitised nests lowered competition for food and space and thus benefited the parasitised hosts, increasing the chances of survival of the cuckoos' offspring. Further investigation is required to determine if this is a possibility for the Long-tailed Cuckoo or whether it is simply utilising an available food source.

My observations suggest that Long-tailed Cuckoos may use native passerines not only for raising their chicks, but also as a food source. If small passerines are an important dietary component of this cuckoo, then an increase in the density of

small passerine species in the "mainland island" area of Te Urewera National Park (an expected consequence of intensive control of mammalian predators) may have a beneficial impact on the Long-tailed Cuckoo population. Further research is also required to determine the impacts that this cuckoo has on the breeding success of the *Petroica* species.

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#### Predation of Yellow-eyed Penguins (*Megadyptes antipodes*) on mainland New Zealand by Hooker's sealion (*Phocarctos hookeri*)

The furtive behaviour of Yellow-eyed Penguins (*Megadyptes antipodes*) as they leave the water has been noted by Richdale (1942), Moore & Moffat (1992). The behaviour appears perplexing in the absence of obvious predators between land and sea on the mainland of New Zealand. However, this behaviour may be explained as a result of observations made during the late spring of 1996 and the autumn of 1997 in which two Yellow-eyed Penguins were killed by Hooker's sealion (*Phocarctos hookeri*) in two separate incidents.

The first of these occurred at Sandfly Bay on the Otago Peninsula on the morning of 18 November 1996 between 06:30 h and 06:55 h. Penguins were leaving the