

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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KEYWORDS: Long-tailed Cuckoo, predator, nestlings, Tomtit

BRENT M. BEAVEN, *Otamatuna Mainland Island Project, Department of Conservation, P. O. Box 326, Opotiki, New Zealand*

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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

breeding area when splashing and vigorous activity was noted in the water close to where the penguins were departing for the sea. A sealion, estimated to be about three years of age, was seen to be violently shaking a penguin in the water and biting at the carcass. The sealion "played" with the dismembered carcass for 25 min, by which time all that was left was a mass of wheeling gulls and a lone flipper protruding from the water. During this period seven adult and two juvenile penguins arrived at the departure point, but waited until 07:15 h before departing for sea.

The second event occurred on the 28 May 1997 at approximately 15:45 h at the southern end of Papanui Beach on the Otago Peninsula. A group of mixed age sealions was playing on the beach and a single individual lying in the water at the edge of the tide. A juvenile penguin surfed in and its attention appeared to be focused on the large group while standing close to the single sealion in the water. The sealion lunged at the penguin catching it from the rear. It shook the bird vigorously and then started to throw the bird around in the surf. After a few minutes, the bird appeared to be lifeless. The sealion continued to throw the bird around for some minutes, eventually losing interest and deserting the carcass. An examination suggested that the bird's neck had been broken. There were extensive rips and tooth penetrations in the neck and shoulder region. The sealion did not appear to have attempted to eat the penguin.

Over the last ten years the numbers of sealions on the Otago Peninsula have increased significantly from about 20 individuals to about 45-50, with at least one individual giving birth to a pup each in two consecutive years (JTD pers obs).

The record of Moore & Moffat (1992) of predation of Yellow-eyed Penguins on Campbell Island by Hooker's sealion appears set to become the pattern for mainland New Zealand as this species recovers from its earlier decimation on the mainland.

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KEYWORDS: Yellow-eyed Penguin, predation, Hooker's sealion, behaviour

P. SCHWEIGMAN, 121 Maryhill Terrace, Dunedin, New Zealand

J.T. DARBY, Otago Museum, P.O. Box 6202, Dunedin, New Zealand

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