

ECOLOGY OF ORUAWAIRUA ISLAND

MARLBOROUGH SOUNDS, NEW ZEALAND

IV THE VERTEBRATES

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ABSTRACT

During three visits 33 species of birds and five other species of vertebrates were seen on and about Oruawairua Island. The most conspicuous, and probably most abundant, forest birds were the silvereye, bellbird, grey warbler and fantail.

INTRODUCTION

This paper gives the species of vertebrates seen on and about Oruawairua Island (also known as Blumine Island) in Queen Charlotte Sound during visits by the University of Canterbury Biological Society (9-12 November 1978 and 1-5 February 1980) and a combined party from the Wildlife Service, Department of Internal Affairs and Ecology Division, Department of Scientific and Industrial Research (25-27 February 1981). The university group concentrated on the northern, southern and western parts of the island and the W.L.S./D.S.I.R. party made their

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observations on the eastern part. Forty 5-minute bird counts were carried out.

### BIRDS

Given below is a list of the species of birds seen during the three visits to the island (Table 1). The nomenclature and order of the birds listed follow the "Annotated Checklist of the Birds of New Zealand" (Kinsky 1970) and "Amendments and Additions to the 1970 Annotated Checklist of the Birds of New Zealand" (Kinsky 1980).

TABLE 1. SPECIES OF BIRDS SEEN DURING THREE VISITS TO ORUAWAIRUA ISLAND

Species	9-12 Nov.1978	1-5 Feb.1980	25-27 Feb.1981
<i>Eudyptula minor</i> (little blue penguin)	x*	-	x
<i>Sula bassana</i> (Australasian gannet)	-	x	x
<i>Phalacrocorax varius</i> (pied shag)	x	x	x
<i>P. melanoleucos</i> (little shag)	x	x	x
<i>Leucocarbo carunculatus</i> (king shag)	x	-	-
<i>Strictocarbo punctatus</i> (spotted shag)	-	x	x
<i>Circus approximans</i> (Australasian harrier)	-	x	x
<i>Gallirallus australis</i> (weka)	x	x	x
<i>Haematopus unicolor</i> (variable oystercatcher)	-	x	-
<i>Larus dominicanus</i> (Dominican gull)	x	x	x
<i>L. novaehollandiae scopulinus</i> (red-billed gull)	-	x	-
<i>L. bulleri</i> (black-billed gull)	x	-	-
<i>Hydroprogne caspia</i> (caspien tern)	-	-	x
<i>Sterna striata</i> (white-fronted tern)	-	x	x
<i>Hemiphaga novaeseelandiae</i> (N.Z. pigeon)	x	x	x
<i>Nestor meridionalis</i> (kaka)	-	-	x
<i>Eudynamys taitensis</i> (long-tailed cuckoo)	x	-	-
<i>Ninox novaeseelandiae</i> (morepork)	x	x	x
<i>Halcyon sancta</i> (N.Z. kingfisher)	-	-	x
<i>Acanthisitta chloris</i> (rifleman)	-	x	x

Species	9-12 Nov. 1978	1-5 Feb. 1980	25-27 Feb. 1981
<i>Anthus novaeseelandiae</i> (N.Z. pipit)	-	-	x
<i>Prunella modularis</i> (hedge sparrow)	-	x	x
<i>Finschia novaeseelandiae</i> (brown creeper)	-	x	-
<i>Gerygone igata</i> (grey warbler)	x	x	x
<i>Rhipidura fuliginosa</i> (fantail)	-	x	x
<i>Petroica macrocephala</i> macrocephala (yellow-breasted tit)	-	x	x
<i>Turdus philomelos</i> (song thrush)	x	x	x
<i>T. merula</i> (blackbird)	x	x	x
<i>Zosterops lateralis</i> (silveryeye)	x	x	x
<i>Anthornis melanura</i> (bellbird)	x	x	x
<i>Prosthemadera novaeseelandiae</i> (tui)	x	x	x
<i>Fringilla coelebs</i> (chaffinch)	x	-	-
<i>Carduelis chloris</i> (greenfinch)	-	x	-
<i>C. flammea</i> (redpoll)	-	x	-

\*x = species seen and/or heard, - = species neither seen nor heard.

The bird list is unlikely to be complete, particularly for the more mobile seabirds. No night-time visits were made to the tips or summit of the island so any shearwaters and petrels that may nest on the island would have been undetected. Almost certainly fluttering shearwaters (*Puffinus gavia*) feed about the island's coasts. No robins (*Petroica australis*) were seen during the visits, although the species was recorded by a Royal Forest and Bird Protection Society party on the island from 25-26 February 1961. This sighting was perhaps of an individual that had emigrated from the nearby mainland; robins have been recorded from two localities on the mainland north of Picton (Bull *et al.* 1978) but not on the adjacent Arapawa Island. Robins were also formerly present on nearby Pickersgill Island, but disappeared in the 1950s or early 1960s (B.D. Bell pers.comm.). Wekas were first reported on the island in September 1972 (Jolly 1981), and are now sparsely scattered over it. This species is quite capable of swimming across narrow stretches of sea (Wright 1981), and so may have swam to the island from the adjacent Arapawa Island. It is also possible they were introduced to the island.

Forty 5-minute stationary bird counts were made in the forest and about the coast during two of the visits. During each count a record was kept of the species either seen or heard.

The data reflect both abundance and conspicuousness of the species.

TABLE 2. RESULTS OF 5-MINUTE BIRD COUNTS MADE DURING TWO VISITS TO ORUAWAIRUA ISLAND AND IN TOTAL.

Species	1-5 Feb.1980 (n=23)	25-27 Feb.1981 (n=17)	Total (n=40)
silvereye	20	15	35
bellbird	18	15	33
grey warbler	8	8	16
fantail (pied and black morphs)	11	4	15
N.Z. pigeon	3	10	13
blackbird	2	10	12
weka	5	4	9
Dominican gull	5	3	8
yellow-breasted tit	4	4	8
rifleman	3	3	6
tui	2	1	3
Australasian gannet	2	0	2
hedge sparrow	0	1	1
red-billed gull	1	0	1
pied shag	1	0	1
spotted shag	1	0	1

The most conspicuous and probably most abundant species were the silvereye, bellbird, grey warbler and fantail (Table 1). Of interest is the greater conspicuousness of fantails on the eastern side of the island, which is mainly covered in scrub (Conner, Powlesland and Conner 1981), and New Zealand pigeon and blackbird in the mature forest of the western side. Species that seemed more numerous from casual observation than the results of 5-minute counts suggest were the timid song thrush and hedge sparrow.

#### OTHER VERTEBRATES

A gecko, identified by B.J. Gill as *Hoplodactylus maculatus*, was found in the dead leaves of a flax at the high tide level near the cottage site (see Fig. 1 of Conner and Conner 1981, page of this volume). A short-finned eel (*Anguilla australis*), about 300 mm in length, was seen in a small stream adjacent to the cottage site during the February 1980 visit. Also, a

galaxiid about 150 mm long was seen in the stream just north of the cottage site. In September 1963, M.A Crozier caught a specimen of *Galaxias fasciatus* from the stream next to the cottage site (L. Pierce pers. comm.).

A stoat (*Mustela erminea*) dropping was found by the February 1981 party on Oruawairua Island. Probable sightings of this species were made both during this visit and that of February 1980. Three mice (*Mus musculus*) were trapped in February 1981, but although rat and mustelid traps were baited and set none were caught.

While on the island in November 1978, a shed four-point deer antler and the faecal pellets of a young fawn were found at the head of Waterfall Stream. Red deer (*Cervus elaphus*) and pigs (*Sus scrofa*) have been previously reported on the island by the Royal Forest and Bird Protection Society (recorded in reports to the Marlborough Sounds Maritime Park Board after visits to the island during 25-26 February and 29-30 July 1961), and by Bell and Roderick (1963) and Horgan (1970). Although much of the island was tramped over during the February 1980 visit, no sightings of these animals nor sign of their presence was found.

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