

# STATUS OF GREAT BARRIER ISLAND BIRDS

By BEN D. BELL

## ABSTRACT

The status of 18 species of birds on Great Barrier Island is examined following a field survey in March 1975 and a review of published and unpublished records. Little Black Shag (*Phalacrocorax sulcirostris*), Paradise Duck (*Tadorna variegata*) and Welcome Swallow (*Hirundo tahitica*) appear new to the island, whereas White-faced Heron (*Ardea novaehollandiae*), Pukeko (*Porphyrio porphyrio*) and Indian Myna (*Acridotheres tristis*) have increased over the last 10-15 years. The Brown Teal (*Anas aucklandica*) apparently remains widely distributed in suitable habitats, but the distribution and status of Kokako (*Callaeas cinerea*) is uncertain. The island supports other rare fauna and more thorough biological surveys are required.

## INTRODUCTION

The status of some Great Barrier birds has changed since Bell & Brathwaite's (1964) report and even since that of Reed (1972). This became evident following observations in March 1975 and examination of files from the Bird Distribution Mapping Scheme and the Wildlife Service. The present paper examines some of these changes, where possible in relation to the wider Auckland region.

As Bell & Brathwaite (1964) provided an annotated checklist of Great Barrier birds, most records are merely summarised in Table 1.

The 1975 survey from 5-14 March covered most of the island except the forest north of Whangapoua Beach and Katherine Bay; no offshore islands were visited. Fifty-four species were identified, plus parakeets that were only heard; 18 species are considered in more detail below.

## SELECTED SPECIES

Cook's Petrel, *Pterodroma cooki*

Bartle (1967) confirmed this petrel's presence on Mount Hobson during November-December 1966; S. Reed and party recorded 100+ there in January 1972. On 6 March 1975 remains of *Pterodroma* species were found at about 100 m a.s.l. on the South Fork track of Mount Hobson, and at about 200 m (2 birds) and 440 m a.s.l. on the Kauri Dams track. The identification of 2 birds from the latter sites was later confirmed as *P. cooki* by J. A. Bartle. The 4 birds had possibly been killed by cats, as reported by Bartle (1967): two groups of cat droppings, collected at about 200 m on the South Fork track and examined by B. J. Karl, contained remains of rat (*Rattus* sp.) and

cicadas, but no avian material. *Pterodroma* remains were also found on the saddle between Whangapouapoua and Claris in January 1976 (A. H. Whitaker, pers. comm.).

TABLE 1. Summary of bird surveys on Great Barrier Island including seabirds seen from the coast. Vernacular names follow Kinsky (1970).

	HUTTON (1868)*	BELL & BRATHWAITE (1964)*	WILDLIFE SERVICE UNPUBL.	REED (1972)	BIRD MAPPING SCHEME UNPUBL.	MARCH 1975
Northern Blue Penguin	x	x	x5		x	
Wandering Albatross	x	x4				
Black-browed Mollymawk	x					
Yellow-nosed Mollymawk	?7					
Giant Petrel	x	x4			x4	
Cape Pigeon	x	x4				
Grey-faced Petrel	x3,6	x				
White-headed Petrel	x4					
Mottled Petrel		x2				
Cook's Petrel	x	?	x	x	x	x
Fairy Prion	x	x1				
Black Petrel	x	x	x	x	x	x
Flesh-footed Shearwater		x1			x	
Buller's Shearwater		x1	x5		x	
Sooty Shearwater		x5	x5			
Fluttering Shearwater		x	x5		x	
Little Shearwater	?					
Grey-backed Storm Petrel	x4					
White-faced Storm Petrel			x5		x4	
Black-bellied Storm Petrel	x					
Northern Diving Petrel	x	x	x5			
Australasian Gannet	x	x		x	x	x
Black Shag		x	x	x	x	x
Pied Shag	x	x	x	x	x	x
Little Black Shag						
Little Shag		x	x	x	x	x
White-faced Heron		x1	x	x	x	x
White Heron		x1				
Reef Heron	x	x		x	x	x
Australasian Bittern	x1	x	x	x		x
Black Swan		x1	x1	x		
Paradise Duck			x			x
Mallard		x	x1	x		x
Grey Duck	x	x	x	x	x	x
Brown Teal		x	x	x	x	x
Australasian Harrier	x	x	x	x	x	x
N.Z. Falcon	x		x			x
N.Z. Quail	x1					
Brown Quail		x	x			
Californian Quail		x1		x		
Pheasant		x	x	x	x	x
Banded Rail		x	x	x	x	x
North Island Weka		x6	x1,6			
Pukeko		x	x	x	x	x
South Island Pied Oystercatcher		x				
Variable Oystercatcher	x	x	x	x	x	x
Pacific Golden Plover		x			x	x
N.Z. Dotterel	x	x	x	x	x	x
Banded Dotterel		x	x	x	x	x
N.Z. Shore Plover	x					
Wrybill		x		x		
Whimbrel		x2				x
Bar-tailed Godwit	x	x		x	x	x
Pied Stilt		x	x	x	x	x
Arctic Skua		x	x		x	

	HUTTON (1868)+	BELL & BRATHWAITE (1964)*	WILDLIFE SERVICE UNPUBL.	REED (1972)	BIRD MAPPING SCHEME UNPUBL.	MARCH 1975
Southern Black-backed Gull	x	x	x	x	x	x
Red-billed Gull	x	x	x	x	x	x
Caspian Tern	x	x		x	x	x
White-fronted Tern	x	x	x	x	x	x
N.Z. Pigeon	x	x	x	x	x	x
North Island Kaka	x	x	x	x	x	x
Red-crowned Parakeet	x	x1	)?sp.	)?sp.	x	)?sp.
Yellow-crowned Parakeet	x	?	)	)		)
Shining Cuckoo	x	x	x	x	x	x
Long-tailed Cuckoo	x	x1				
Morepork	x	x	x	x	x	x
N.Z. Kingfisher	x	x	x	x	x	x
Broad-billed Roller		x1				
North Island Rifleman	x			x1		
Skylark		x	x	x	x	x
Welcome Swallow					x	x
N.Z. Pipit	x	x	x	x	x	x
Hedge Sparrow		x	x		x	x
North Island Fernbird		x	x	x1	x	x
Brown Creeper	:1,6					
Whitehead	x	x6				
Grey Warbler	x	x	x	x	x	x
North Island Fantail	x	x	x	x	x	x
Pied Tit	x	x2			x	
North Island Robin	x					
Song Thrush		x	x	x	x	x
Blackbird		x	x	x	x	x
Silvereye	x1	x	x	x	x	x
Stitchbird	x					
Bellbird	x	x6				
Tui	x	x	x	x	x	x
Yellow Hammer		x	x	x	x	x
Chaffinch		x	x	x	x	x
Greenfinch		x	x	x	x	x
Goldfinch		x	x	x	x	x
Redpoll		x				x
House sparrow		x	x	x	x	x
Starling		x	x	x	x	x
Indian Myna		x	x	x	x	x
North Island Saddleback	x					
North Island Kokako	x	x1	x	x1	x	x1
White-backed Magpie		x1,8	x1,8	x		

## Key to symbols:

- |   |  |   |   |
|---|--|---|---|
| x | specifically identified  | 1 | previously reported/not seen by author                    |
| ? | uncertain identity   | 2 | previous unconfirmed record                               |
| ! | unlikely identity  | 3 | identified by later authors                               |
| + | also records of Hutton & Kirk (1868) for Arid Island               | 4 | seen at sea, Great Barrier region                         |
| * | excluding Hutton's (1868) records which are listed separately here | 5 | washed up dead on shore                                   |
|   |  | 6 | on Arid Island only                                       |
|   |  | 7 | probably Grey-headed Mollymawk - see Oliver (1955) p.168. |
|   |  | 8 | reported simply as Magpie                                 |

Bartle (1967) found 6 dead birds at and below about 240 m a.s.l., and suggested they probably breed on the lower slopes as on Little Barrier (Turbott 1961), with Black Petrels (*Procellaria parkinsoni*) confined to the summit (621 m). Reed (1972) also surmised that any burrows of *P. cooki* would be on lower slopes. However, in April 1974 7 Cook's Petrels were found on the summit and were juveniles believed to have emerged from burrows close by (P. C. Harper, pers. comm.).

Little Black Shag, *Phalacrocorax sulcirostris*

Not recorded by Bell & Brathwaite (1964), nor by Reed (1972), but one seen near Sugarloaf Creek on 13 March 1975.

White-faced Heron, *Ardea novaehollandiae*

A few reported to Bell & Brathwaite by S. Hailes in 1960 and D. V. Merton in 1963 but since then the species appears to have increased. A local resident reported a marked increase to G. Findlay and C. R. Veitch in March 1972, and although they only saw a few at Tryphena and Whangapoua, up to 18 had been reported the previous January by S. Reed *et al.*, including 12 in one map square (2974). In March 1975 at least 12 were seen scattered in groups of 1-6 in various parts of the island.

Carroll (1970) stated that a population explosion started in the Auckland area in 1961, peaked about 1966 and then subsided somewhat; the species became established at Waiheke (Kawau, Ponui and Great Mercury Islands with reports of birds on Little Barrier, Mokohinau and the Rangitoto Islands, as well as Great Barrier; at least 3 on Raoul Island in 1973 (C. Smuts-Kennedy, Classified Summarised Notes 1973).

Paradise Duck, *Tadorna variegata*

Not recorded by Bell & Brathwaite, nor by Bird Mapping Scheme observers including Reed (1972), but G. Findlay and C. R. Veitch reported a family of 5 on the lower Kaitoke Creek in March 1972; on 11 March 1975 3 seen near Okiwi airfield, and on 13 March at least 7, possibly 12, near Claris. Subsequent enquiries revealed that a pair was brought to the island from Taranaki in 1970 and a second pair from the Whitford district two years later. The original pair apparently failed to breed in their first season, but did so in later years. The population in June 1975 was reported to be 18 (G. Mason, *in litt.*). Williams (1971) did not report it from Great Barrier but noted that its northward extension in the North Island since 1950 had been aided by liberations.

Brown Teal, *Anas aucklandica chlorotis*

Its status is probably unchanged since the survey by Bell & Brathwaite. Over 350 recorded by G. Findlay and C. R. Veitch in March 1972 including over 100 in the Whangapoua Stream and over 150 in a creek at the end of Mitchener Road. In March 1975 recorded in wetlands from Whangapoua south to Medlands Beach, and local people indicated a high population was still present.

New Zealand Falcon, *Falco novaeseelandiae*

Bell & Brathwaite noted that none of their informants had seen this species and its disappearance since Hutton's day seemed likely. However, in 1960 one flew into a house at Whangaparapara (A. T. Edgar, Classified Summarised Notes 1963-70) and one heard in March 1972 by G. Findlay and C. R. Veitch in regenerating forest west of Mount Hobson; not recorded by Reed (1972), nor other Bird Mapping Scheme observers, but I saw one bird briefly near the Kaiarara hut on 8 March 1975, where staff at Port Fitzroy Forestry Headquarters reported one a few weeks earlier.

Brown Quail, *Synoicus ypsilophorus*

Recorded by Bell & Brathwaite in 1957 and 1960, and by D. V. Merton in 1963, but not since.

Californian Quail, *Lophortyx californica brunnescens*

Recorded only by D. V. Merton in October 1963 (Mabey's Road, Okiwi and Kaitoke) and Reed (1972).

Pukeko, *Porphyrio porphyrio melanotus*

Pukeko were recorded by Weetman (1889) but not by Hutton (1868). Bell & Brathwaite recorded a few in 1957, but evidently many more by 1960. In October 1963 D. V. Merton was told they were still increasing, and later observers including the author found them common, especially on the eastern side from Whangapoua to Oruawhero Bay. Carroll (1969) described local increases in parts of the Auckland area in 1962-63, and reported it was rapidly increasing on the Great Barrier, Mercury and Ponui Islands.

Parakeet *Cyanoramphus* sp.

An unidentified parakeet was heard near the summit of Mount Hobson on 6 March 1975. Parakeets appear scarce judging from a variety of reports between 1957 and 1975. Apparently only Red-crowned Parakeets (*C. novaeseelandiae*) have been definitely identified in recent years: 5 by P. C. Harper in the Mount Hobson area in December 1975 and January 1976, and others reported to A. H. Whitaker in the area behind Rosalie Bay. A local informant said birds were occasionally seen on pastoral areas, as well as in bush.

Rifleman, *Acanthisitta chloris granti*

Hutton (1868) listed the species as present at Harataongo. D. V. Merton searched for it in 1963 in both northern and central forests without success. Evidently 6 birds seen by J. & J. Hewat in a small patch of bush on the Karaka Bay road (S. Reed, pers. comm. 1972); not recorded in March 1975.

Welcome Swallow, *Hirundo tahitica neoxena*

This species not recorded by Bell & Brathwaite (1964) nor by Reed (1972). In March 1975, however, small numbers of swallows seen at Whangapoua, Okiwi (up to 12), Kaitoke (up to 5, breeding

suspected), Claris (over 10), Oruawhero, Port Fitzroy and Kaiarara Bay. Local enquiries revealed species had been present for only 2-3 years, and this confirmed by the records: none seen by S. Reed's party in January 1972, nor by G. Findlay and C. R. Veitch in March 1972; on Bird Mapping Scheme cards A. —J. Goodwin reported 3 in the Whangapoua area in January 1973\* but none in 5 other grid squares; M. N. Foggo saw several in Whangaparapara Harbour in December 1973.

Edgar (1966) examined the colonisation of New Zealand by Welcome Swallows over 1958-1965 and relatively few had been reported in the Auckland/Firth of Thames area; more records appeared in Classified Summarised Notes up to 1973, including reports of a further increase in range and numbers in Northland; in 1974, just after the first records on Great Barrier, a 'spectacular and phenomenal' increase was reported from the Auckland area (R. B. Sibson, Classified Summarised Notes 1974).

#### Hedge Sparrow, *Prunella modularis occidentalis*

Bell and Brathwaite found this species as common as on the mainland in 1960; C. R. Veitch reported few in March 1972. However, Reed noted it was a 'rather surprising omission' for her party in January 1972, and other Mapping Scheme recorders failed to record it in 1973. In March 1975 it nowhere appeared plentiful, but birds were recorded in such scattered localities as Port Fitzroy, Okiwi, Claris, Kaitoke and along the Fitzroy-Whangaparapara road.

#### N.I. Fernbird, *Bowdleria punctata vealeae*

Though Bell & Brathwaite found the Fernbird locally abundant, it was not recorded by Reed (1972) though she refers to a report for the previous week. Reported from manuka scrub between Mount Young and Whangaparapara Harbour in 1968 (M. Douglas, Classified Summarised Notes 1963-70) and A. J. Goodwin recorded 5 near Whangaparapara in January 1973. In March 1975 it was quite numerous in Kaitoke Swamp, and was also heard near the Fitzroy-Whangaparapara road and at Whangapoua.

#### Pied Tit, *Petroica macrocephala*

Though reported by Hutton (1868), this species was not observed on either Great Barrier or Arid Island by Bell & Brathwaite, although one informant thought he had seen it recently on the former. It was not recorded in March 1975 nor by other observers from 1963 to 1973, except for a Bird Mapping Scheme record of one in the Whangaparapara Harbour area in December 1973.

#### Silvereye, *Zosterops lateralis*

A common species in March 1975. A resident of the Fitzroy-

\* A report by A. J. Godwin (Classified Summarised Notes 1973) of 4 at Whangapoua estuary and 1 at Mabey's Road on 9 January 1972 presumably refers to the above records of January 1973.

Okiwi area reported thousands of Silvereyes flying down from bushes and trees to feed on open paddocks during the 1974 winter — a phenomenon he had not seen before.

Indian Myna, *Acridotheres tristis*

Bell & Brathwaite did not record any mynas in 1957 but in 1960 saw two flying over the Whangapoua Spit and later saw two (possibly the same birds) at S. Hailes' home nearby; according to Hailes a small group had been present for about a year. However, D. V. Merton saw none in October 1963 and believed the species might have failed to establish. By May 1970 R. W. H. Simpson and G. P. Adams found mynas moderately plentiful and by January 1972 S. Reed and party recorded a cumulative total of at least 70 on 7 of the 8 Bird Mapping Scheme squares they covered. It was still widespread in March 1975, with flocks of up to 16 seen in most settled areas, especially on the east coast from Whangapoua south to Oruawhero; none recorded in forest.

Mynas have spread considerably in the northern and central North Island in recent years — compare the maps of Cunningham (1948) and Bull & Gaze (1972). The occupation of the Coromandel Peninsula appeared complete by 1960 (R. B. Sibson Classified Summarised Notes 1960), and since then the species has been recorded on several offshore islands in the Hauraki Gulf. Skegg (1963) reported the first pair on Great Mercury in 1961, with 5 by late 1962 and greatly increased numbers by February 1963; Blackburn (1967) found 3 birds breeding on Cuvier Island in January 1964, but none in June 1966; Gaze (1973) reported 16 on the Poor Knights for the first time in January 1973, but by July 1975 numbers had declined to 5 (J. A. Bartle, pers. comm.) and none were seen in October; at least 24 were present on Little Barrier in January 1974 (T. R. Harty, Classified Summarised Notes 1973/74).

North Island Kokako, *Callaeas cinerea wilsoni*

Kokako were recorded by Hutton (1868). More recent but unconfirmed reports by island residents came from the Mount Hobson region (Hayson 1954, Bell & Brathwaite 1964, P. C. Harper and A. H. Whitaker, pers. comm.). However, most recent reports are from the northern forest area, for which Bell & Brathwaite (1964) mentioned records since about 1930, and D. V. Merton reported a strong colony in the Ahuriri River Catchment in 1963. Reed (1972) was told it was extremely rare in the northernmost area, and only singles were reported in the Rangiwhakaea Bay watershed by Findlay and Veitch in March 1972 and by Goodwin in January 1973. It was not recorded in March 1975 but the northern forest block was not visited.

Reed (1972) reports damage to bush in this northern area and it is to be hoped that remaining Kokako habitat has not been so reduced or modified as to threaten survival of the species there (see

review discussion of Fleming (1975) concerning size of forest areas in relation to extinction rates).

St. Paul & McKenzie (1974) believed reduction of its numbers in the Hunua Ranges was due almost entirely to predators, especially ship rats *Rattus rattus* and mynas, which 'could well cause the extinction of the species [there] and elsewhere.' This is a bleak forecast. While both these species now occur on Great Barrier, it is clearly not possible to assess their impact on Kokako until more information is available; mynas do not yet occur in substantial numbers in the forests but rats do (Daniel 1972; pers. obs.); cats are also present.

### DISCUSSION

The avifauna of Great Barrier is reasonably well documented, but there are still species such as Kokako whose status remains obscure, and the presence of Brown Quail, Yellow-crowned Parakeet, Rifleman and Pied Tit requires confirmation. Though occasional records of Hutton (1868), such as Brown Creeper, are questionable, coming from an early phase in the country's ornithological investigations, many species have seemingly disappeared, as Bell & Brathwaite (1964) pointed out. These include N.Z. Shore Plover, N.Z. Quail, Robin, Stitchbird, and Saddleback; and, from the main island, Whitehead, Bellbird and probably several seabirds now confined to offshore islands. On the other hand, Hutton made no mention of many introduced or self-introduced species now familiar, such as Mallard, Pheasant, Hedge Sparrow, Song Thrush, Blackbird, Yellowhammer, Chaffinch, Greenfinch, Goldfinch, Redpoll, House Sparrow and Starling. According to Thomson (1922), the Auckland Acclimatisation Society was most active in liberating many of these species in the 1865-1875 period, and though many established themselves rapidly, Hutton's observations in 1868 presumably predated their spread to Great Barrier. Silvereyes had apparently arrived four years previously, while White-faced Heron, Welcome Swallow and Indian Myna established only in recent years. Although the Wildlife Service has introduced wekas to Arid Island, the flightless species (except Blue Penguin) are otherwise absent, and were so in Hutton's day.

As a result of surveys by the Wildlife Service the general distribution and numbers of Brown Teal are fairly well known, and Great Barrier is clearly its major stronghold today. Wetland habitats of such species as Australian Bittern, Banded Rail, Spotless Crake, Brown Teal and Fernbird need to be preserved, and the Kaitoke Swamp and Whangapoua Creek area appear especially important.

Great Barrier is the only island on which the North Island Kokako occurs. The immediate conservation priority is to determine its distribution more accurately and to ensure preservation of existing habitats, then closer study would determine how best these habitats might be managed for Kokao over the long term. Large areas of

regenerating forest in the central part of the island might, in time, become suitable for recolonisation by these birds.

Apart from such interesting birds Great Barrier supports other rare fauna. For instance it is apparently the only locality from which the large skink (*Leiopisma homalonotum*) has been collected in recent years and *Hoplodactylus duvauceli*, New Zealand's largest gecko, also occurs on the island (B. J. Gill, G. S. Hardy, A. H. Whitaker, pers. comm.). Mr M. J. Mabey of Okiwi saw 15-20 bats in a swamp area some 25 years ago (M. J. Daniel, pers. comm.) while C. R. Veitch reported seeing native bats in the northern forest area in March 1972; the bat species has still to be identified. More detailed surveys of these and other faunal groups could reveal further records of interest. Before any changes of existing land use are implemented (see Great Barrier I. Cttee. of Inquiry 1975) further biological surveys should be carried out, so that such rare and interesting biota can be protected.

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## SHORT NOTE

### WINTER NESTING OF N.Z. PIGEON

On 24 July 1976, the Canterbury section of the OSNZ conducted a census of the N.Z. Pigeons (*Hemiphaga novaeseelandiae*) present in Christchurch city. Of the six birds found in the area, one was sitting on a nest with one egg. The nest was a flimsy structure, 2.5m above the ground, in relatively dense shrubs in the native section of the botanical gardens.

The nest was kept under observation and the young hatched between 3-6 August. By 26 August, the chick's plumage had come to resemble that of the adults. As the chick grew older, the nest began to tilt with its weight, and the chick left the nest on 9 September.

The *Field Guide to the Birds of N.Z.* (Falla *et al.* 1970) gives the period of incubation as 30 days; hence the egg was probably laid between 4-7 July. The date of laying is unusual in that Oliver (*New Zealand Birds*, 1955) recorded eggs up to May and deduced that laying had occurred in July from the sighting of a fledgling in September. Falla *et al.* (1970) record eggs as late as June-July. All records from the nest record scheme are of eggs laid between September and April.

The interesting issue is whether the bird was a late or early nester. The weather pattern at the time would indicate the latter, as on 21-22 June, Christchurch had its heaviest snowfall since 1945. From 25 June until 6 July, the weather was fine and sunny with quite warm temperatures during the day, but frosts at night, sometimes severe.

Accordingly, it is possible that this period of weather deluded the pigeon into breeding earlier than normal.

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