

Waitaanga Bird Survey



A Brief Report

Waitaanga Bird Survey

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with Jane Hart

Cover picture by François Aries: North Island Robin (*Petroica australis longipes*), South Waitaanga Track, Waitaanga, December 2003.

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Chapter 1 – Introduction

1.1 Introduction

This report details the results of a bird survey undertaken in the Waitaanga area by Native Birds Taranaki over the two-year period from June 2005 to May 2007.

The aim of this survey was to determine the presence, distribution and estimation of the abundance of birds in the Waitaanga area.

To achieve this aim four objectives were established:

- a. Conduct 5-minute bird counts (5 MBCs) on four transects
- b. Undertake Kiwi Call Surveys at selected sites
- c. Complete Kokako Call Surveys
- d. Record other incidental occurrences of birds of interest

All activities were undertaken in accordance with accepted best practices at the time and followed accepted methods for bird observation and counting.

1.2 Survey Area

Waitaanga is located 100 km northeast of New Plymouth and approximately 60 km west of Taumarunui. Regarded by most as in Northern Taranaki but also considered by some to be Southern King Country.

Located in the northern area of the North Taranaki Ecological District, of which the landforms are mainly steeply dissected sandstone and mudstone hill country, Waitaanga plateau is one of two old elevated surfaces in the District.

Waitaanga itself is an area of farmland surrounded almost exclusively by crown land, made up of a collection of Conservation Areas and Scenic Reserves. The area falls within the Wanganui Conservancy of the Department of Conservation and more particularly the New Plymouth Area Office (now part of the expanded Taranaki Area Office). Ruapehu District Council is the Local Authority for Waitaanga whilst Horizons Manawatu/Wanganui is the Regional Authority.

Vegetation at Waitaanga is dominated by regenerating native broadleaf forest with good specimens of northern rata, lancewood, quintina and kamahi. Silver beech also persists in areas with pigeonwood, hinau, miro, pukatea and totara occurring. Podocarps, especially rimu are common in parts.

There were five main farms in the area, with 7 or 8 other smaller holdings, all involved with dry stock farming, mainly sheep with some cattle and two deer farms. There was also a large forestry block at the end of North Waitaanga Road, together with other small areas of cultivated timber.

In the past Waitaanga had supported a major milling operation with up to three saw mills in the area and a small school. But the permanent population of only about sixteen people, Waitaanga is typical of many remote and small rural areas in New Zealand.

A near full suite of pest animals can be found at Waitaanga including pigs, goats and possum and also wild deer were known to be present. Though only a stoat was observed it could be presumed that ferrets and weasels were also present together with rats and mice.

Aerial applications of 1080 in the immediate area during the time of this bird survey were undertaken by the Department of Conservation or Horizons Manawatu/Wanganui (for AHB Vector control) on three separate occasions.

1.3 Why Waitaanga?

Waitaanga was chosen for this survey mainly because of the relative ease of access, the area was known to have numerous access tracks and it was crown land that had good areas of native bush.

Availability of good accommodation, though within easy reach of New Plymouth being able to stay in the area saved on time and energy not to say costs. This was also important when undertaking Kiwi Call Surveys at night.

The near total positive response from the locals for the survey and the subsequent interest and support during the survey proved this was a good selection beyond any doubt.

Previous knowledge of the area and the relative good historical data on birds in the area were also contributing factors in selecting Waitaanga.

Chapter 2 – 5 Minute Bird Counts

2.1 Introduction

The main focus of the bird survey undertaken at Waitaanga was to ascertain the presence and relative abundance of bird species in the area. To achieve this 5 Minute Bird Counts (5 MBCs) (Dawson & Bull 1975) were completed at a number of locations.

5 MBCs have been used extensively in New Zealand and allows for broad comparisons to be made between areas. The method involves recording all birds seen or heard within an estimated 200 m radius of a point (Count Station) over a 5-minute period.

2.2 Establishment of Transects

Four separate transects of eight Count Stations (CS) each were established in May 2005, covering as wide a geographical spread of Waitaanga as possible. Selection was also based on ease of access, the time effort to complete each survey and the availability of a suitable track. The transects were located at;

- a. North Waitaanga,
- b. South Waitaanga,
- c. Dexter's Track, and
- d. NG Tucker Scenic Reserve.

Permanently marked counting stations (CS's) were established using a hip chain to measure 200m between stations, starting from a suitable pre-selected point. The CS's were marked with triangular plastic track markers coloured blue (70mm at base and 90mm high). Each marker was numbered appropriately (1 to 8) with an Allflex[®] Tag Pen.

One marker was nailed facing towards the main route of access (the road entrance) on the left hand side of the track, between 1.5 and 1.8 m from the ground. The marker was nailed with two 60mm x 2.80mm galvanized flat head nails, nailed approximately 25mm into the tree. The plastic marker was pulled back off the surface of the tree, allowing for tree growth in the future.

2.3 Counts

Counting of birds seen and heard commenced on the first weekend in June 2005 (5th and 6th) and continued till May 2007, with a total of 22 separate counts successfully completed. It had been planned to complete 24 counts over the two-year period but weather and other birding commitments precluded this from being fully achieved.

Counts were undertaken on consecutive days, mostly on a weekend, with North and South transects completed together on one day and NG Tucker and Dexter's being completed on the other. On only two occasions were three transect counts completed on the one day.

On five other occasions counts had to be abandoned totally either during the weekend or part way through a transect, always as a result of the weather (wind or rain) passing the cut off for suitability for counting.

2.3.1 Counting Conditions

The standard 5 MBC method (Dawson & Bull 1975) stated that "Extremes of weather are best avoided" and to minimize biases in the counts, parameters were set at specific levels for wind, other noise and rain, at which to abandon or not even commence counts. These were;

- a. **Wind** – the average during the five-minutes reached level 2 (Leaves and branches in constant motion).
- b. **Other noise** – the average for the five-minute reached level 2 (Loud).
- c. **Rain (precipitation)** – the average was a constant level 3 (light rain).

2.3.2 Time of Counts

Dawson and Bull also suggested "avoiding counts near dusk and dawn because of the change in the birds' conspicuousness that occurs at those times." Whilst Spurr and Powlesland 2000, suggested "Counts should be made throughout the day, centred around the solar noon (1230), rather than be made all in the morning or all in the afternoon."

Taking into consideration that only two transects could to be undertaken (normally) in the one day, the time required to travel between sites and to the first count station, and not forgetting sometime for lunch, it was decided that one count be conducted in the late morning and the other in the early afternoon

There has been and still is much debate about the timing of bird counts and a small comparison is made later in this report between morning and afternoon.

2.3.3 Observation Style

During the actual 5-minute count a standard observation style was adopted that involved remaining in the one position, except for the occasionally limited movement to ascertain and/or confirm the identity of a species observed.

A slow circling movement was undertaken so as to cover a full 360° field of view with the eyes scanning in a wave like action from the ground to treetop to check areas frequented by differing bird species.

2.4 Results

During the 24 months of the bird survey at Waitaanga a total of 704 (4 transects x 8 count stations each x 22 surveys) 5 MBC's counts were successfully completed.

Without the required knowledge and experience to undertake scientific or statistical analyses some simple and interesting results, and facts and figures emerge.

2.4.1 Total Observations

A total of 3,712 separate observations (seen or heard) were made during the 704 bird counts conducted. This resulted in a mean average of 5.27 species observed per count.

Of the 3,712 observations made 3,184 (85.7%) were native species, 110 (3%) were exotic species and the remaining 418 (11.3%) observations were of an unknown species. The relatively high number of unknowns was due mainly in part to the often short duration and length of distance to many of the mobile birds observed whose definitive identity could not be confirmed.

A point of interest is the relative evenness of the observations between the four transects (see Table 1 below). In particular the percentage of the total count between the four is closely spread between only 29% for North Waitaanga to 23% for NG Tucker.

Table 1. Comparison of observations between transects

Transect	Native	%	Unknown	%	Exotic	%	Total	%
North	904	28	126	30	37	34	1067	29
South	818	26	80	19	28	25	926	25
Dexter's	732	23	109	26	30	27	871	23
Tucker	730	23	103	25	15	14	848	23
Total	3184	100	418	100	110	100	3712	100

2.4.2 Species Observed

During the 5 MBC's 24 species of bird were observed (seen or heard), of these 17 were native species whilst the remaining 7 were exotic species. A complete list of those bird species observed is listed below in Table 2.

Table 2. Bird species observed during 5-minute bird counts

Common name	Scientific name
Native species:	
Paradise Shelduck	<i>Tadorna variegata</i>
Australasian harrier	<i>Circus approximans</i>
New Zealand pigeon	<i>Hemiphaga novaeseelandiae novaeseelandiae</i>
Shinning cuckoo	<i>Chrysococcyx lucidus lucidus</i>
Long-tailed cuckoo	<i>Eudynamys taitensis</i>
Morepork	<i>Ninox novaeseelandiae novaeseelandiae</i>
New Zealand kingfisher	<i>Halcyon sancta vagans</i>
North Island rifleman	<i>Acanthisitta chloris granti</i>
Welcome swallow	<i>Hirundo tahitica neoxena</i>
Whitehead	<i>Mohoua albicilla</i>
Grey warbler	<i>Gerygone igata</i>
North Island fantail	<i>Rhipidura fuliginosa placabilis</i>
North Island tomtit	<i>Petroica macrocephala toitoi</i>
North Island robin	<i>Petroica australis longipes</i>
Silvereye	<i>Zosterops lateralis lateralis</i>
Bellbird	<i>Anthornis melanura</i>
Tui	<i>Prothemadera novaeseelandiae novaeseelandiae</i>
Exotic species:	
Ring-necked pheasant	<i>Phasianus colchicus</i>
Eastern Rosella	<i>Platycercus eximius</i>
Blackbird	<i>Turdus merula</i>
Song thrush	<i>Turdus philomelos</i>
Chaffinch	<i>Fringilla coelebs</i>
Goldfinch	<i>Carduelis carduelis</i>
Australian magpie	<i>Gymnorhina tibicen</i>

NB - Appendix 1 lists all the bird species mentioned in this report.

2.4.3 Top Nine Species

There was a very clear division between the 'top' nine species observed (all natives) and the remaining 15 species. The North Island fantail was ninth at 115 observations but the next most common observation, the Australian Magpie an exotic species was under half of that at only 48 observations. At a total of 3,135 observations the top nine species accounted for 84.5% of all the observations (3,712) and an amazing 98.5% of the total of the native species observed (3,184). This left the remaining 8 species of natives to comprise only the 1.5% of observations.

The top nine species (in descending order) were:

- a. 1st Tui
- b. 2nd Silvereeye
- c. 3rd North Island tomtit
- d. 4th Grey Warbler
- e. 5th North Island robin
- f. 6th Kereru
- g. 7th Whitehead
- h. 8th Bellbird
- i. 9th North Island fantail

Again when a closer examination is made of the numbers and placing for the different transects some interesting information becomes noticeable. Including two equal placings at NG Tucker SR.

Table 3. Top Nine Species by Transect and Total Observations

Transect	North		South		Dexter's		NG Tucker		Total	
	No	Place	No	Place	No	Place	No	Place	No	Place
Tui	219	1st	77	5th	159	1st	188	1st	643	1st
Silvereeye	193	2nd	152	2nd	149	2nd	130	2nd	624	2nd
NI Tomtit	114	3rd	165	1st	109	3rd	114	3rd	502	3rd
Grey Warbler	109	4th	120	4th	104	4th	67	4th=	400	4th
NI Robin	38	9th	139	3rd	41	7th	36	7th	254	5th
Kereru	57	6th	58	6th	47	5th	67	4th=	229	6th
Whitehead	71	5th	35	8th	30	9th	29	8th=	165	7th
Bellbird	42	8th	13	9th	45	6th	63	6th	163	8th
NI Fantail	47	7th	45	7th	34	8th	29	8th=	155	9th

Points of interest;

- a. **Tui** – 1st place overall and also 1st on three of the four transects with the exception being South Waitaanga where only 5th.
- b. **Silvereeye** – 2nd place overall and 2nd on all four transects.
- c. **NI Tomtit** – 3rd place overall and also 3rd on three of the four transects but 1st place at South Waitaanga.
- d. **Grey Warbler** – 4th place overall and also 4th on all transects, including a 4th= with Kereru at NG Tucker SR.
- e. **NI Robin** – 5th placing overall but 3rd place at South Waitaanga 'lifted' the robin from a 9th at North Waitaanga and 7th placings at the other two transects.
- f. **Others** – all the other species ended up in various combinations of placing of no particular significance.

2.4.4 Am vs Pm (Morning vs Afternoon)

There has been and continues to be much debate about whether morning, afternoon, or a balanced combination of both is the most suitable for bird surveys.

As previously stated this survey was conducted with one count in the morning followed by one in the afternoon, except for Counts 3 and 6 (July and October 2005). On both these occasions it was not possible to do an afternoon count the first day so an extra morning count was completed on the second day.

When the four morning counts that had no corresponding afternoon count were removed it left 21 pairs where there was both a morning and an afternoon count on the same day. It was therefore possible to do a comparison between morning and afternoon counts.

A total of 3,558 observations were made during these 42 counts, of which 2,037 were in the morning and 1,521 in the afternoon, a difference of 516 or 34% more birds observed in the morning.

Perhaps more revealing is when a comparison is made as to when the species count was greater in the morning than in the afternoon. Of the 42 counts, 36 (86%) of them had more observations in the morning, 1 (2%) had an even count, whilst only 5 (12%) of the counts in the afternoon had a greater number of observations than in the morning.

2.5 Comparison with Another Study

There was known to be only one other recent bird survey conducted in the Waitaanga area. Kerry Oates (with others) from Enviro Research Ltd (then Whakamanu Wildlife Management) completed two bird surveys in the Te Waro Block, at North Waitaanga in June 2000 and September 2000.

The major difference with this survey was that the CS's were 300 m apart and that in addition to the species being recorded at the CS, also 'while walking between stations, any birds not recorded at stations, were included in the next stations total.' In essence a combination of a 5 MBC and a Walk-through Survey. But still a useful comparison can be made between surveys.

2.5.1 Total Observations

Three transects of 8 count stations being counted twice, made for a total of 48 counts. During these 48 counts a total of 479 observations were made at a mean average of fractionally less than 10, considerably higher than the mean average of only 5.27 species observed by Native Birds Taranaki (NBT).

2.5.2 Species Observed

During this survey 18 species of bird were observed (seen or heard), of these 13 were native species whilst the remaining 5 were exotic species. Whereas the NBT survey produced a total of 24 species observed, 17 native and 7 exotic.

The only species observed during Whakamanu Wildlife Management (WWM) survey and not during the NBT survey was the exotic species Redpoll (*Carduelis flammea*). A total list of species observed during the WWM surveys can be found in those reports.

2.5.3 Top Nine Species

Again there was a clear division between the 'top nine' species observed and the remaining species in the WWM survey. Though in comparison with the NBT survey there are differences in the order of the top nine, the actual species list remains very similar. See Table 4 below.

Table 4. Comparison of Top Nine Species Observed

	Native Birds Taranaki	Whakamanu Wildlife Management
Tui	1 st	7 th
Silvereye	2 nd	1 st =
North Island tomtit	3 rd	8 th
Grey Warbler	4 th	1 st =
North Island robin	5 th	5 th
Kereru	6 th	
Whitehead	7 th	4 th
Bellbird	8 th	3 rd
North Island fantail	9 th	6 th
Redpoll		9 th

Chapter 3 – Other Bird Species

3.1 Introduction

The opportunity was also taken during the periods of 5 MBCs to undertake associated surveys for other key species and specific relevant observations in other areas apart from those covered in the Transects.

The key species surveyed for included:

- a. North Island Brown Kiwi
- b. New Zealand Falcon
- c. North Island Kokako

Other observations of note/interest are included, especially if the species is not listed in the 5 MBC data.

3.2 North Island Brown Kiwi (*Apteryx australis mantelli*)

In an attempt to ascertain the presence of kiwi at Waitaanga a number of Kiwi Call Surveys were undertaken, in accordance with the Kiwi Best Practice Manual procedure.

A total of 33.5 hours of call surveys were completed at 4 sites within the Waitaanga area with no kiwi calls being recorded.

3.2.1 Un-confirmed Kiwi Sighting

On 24 June 2006 information was received that Mrs Nicola Loft a resident of Ohura had seen a kiwi on the road leading up to Waitaanga the previous evening. Mrs Loft was spoken to on 11 July 2006 and though 'un-confirmed' there is considerable confidence that it was indeed a kiwi seen.

Details of the sighting are:

- a. 7 pm Friday 23 June 2006
- b. Tongaporutu/Ohura Road (SH 40)
- c. NZMS 260 R18 E2664640 N6259170 (approx)
- d. Seen on side of road just as the tar seal starts, by 1 m bank of high grass, appeared to be startled/disoriented by vehicle lights.

3.2.2 Confirmed Kiwi Sighting

In February 2007 a resident of Ohura found a young male kiwi beside the road on the Waitaanga Saddle. The kiwi was taken to a vet clinic in Taumarunui to be given a clean bill of health before being taken back and released at the Waitaanga Saddle by DOC.



Kiwi from Waitaanga Saddle – Photo courtesy Julie Owen at VetEnt, Taumarunui

3.3 New Zealand Falcon (*Falco novaeseelandiae*)

NZ falcons were present before and during the survey period. Kerry Oates saw a pair during his bird surveys at Te Waro Block in 2000. The only other confirmed sighting of a pair was on 30 Sep 2006 when courtship flight was observed from Dexter's Track.

Numerous other single bird records were made and reported especially by Blue Cumberworth and Garry from their residences in the main Waitaanga valley.

It is confidently assumed that there are at least two, possibly three breeding pairs of NZ falcon in the Waitaanga area.

3.3.1 Un-confirmed NZ falcon Kill

On 11 Sep 06 a plucked Spur-winged Plover was found beside the farm track at South Waitaanga, though suspected to be by a NZ falcon kill, as a female had been observed in the area the month before, this record remains as 'un-confirmed'.



Un-confirmed NZ falcon kill



Confirmed NZ falcon kill

3.3.2 Confirmed NZ falcon Kill

On 19 Apr 07 whilst conducting the regular 5 MBC counts at North Waitaanga transect a confirmed kill of a plucked Wax Eye was found on the main track by Listening Post 7.

3.4 North Island Kokako (*Callaeas cinerea wilsoni*)

The presence of North Island (NI) Kokako has been recorded in the Waitaanga area in the past, with the last known confirmed record being on 8 January 2002.

A total of 16 kokako presence records for the Waitaanga area have been obtained, these being:

- a. NZ Wildlife Service Fauna Survey in 1981
- b. Department of Conservation surveys from the late 1980's
- c. Private Ornithological Group record from 2002

A limited number (11) of kokako surveys totaling 31 hours were conducted but no kokako were heard or seen.

3.5 Other Birds

In the course of conducting the more 'formal' surveys and particularly when traveling to and from the survey sites and especially at the house used for over-night accommodation and the extra time spent exploring tracks and additional areas, various other bird species were observed.

These species listed below were either un-common, rarely observed during the 5 MBCs or were not observed at all during the 5 MBCs.

3.5.1 Kaka (*Nestor meridionalis septentrionalis*)

Kaka were only ever seen and/or heard on four occasions during the period of bird surveying at Waitaanga, and only once was the record for more than one bird (that was for two only). All records were for the area north from the Tawhitiraupeka Trig.

3.5.2 Morepork (*Ninox novaeseelandiae novaeseelandiae*)

Morepork were considered to be relatively common and widespread throughout the Waitaanga area, often being heard during the Kiwi Call Surveys and on three instances were actually observed.

On the South Waitaanga 5 MBC Transect a Morepork was observed flying down the track at 1030 hrs on 28 January 2007 having obviously been disturbed from its roost. Whilst on 11 September 2005 at 1113 hours at Listen Post 8 on the same transect a Morepork was heard to call.

3.5.3 White-faced Heron (*Ardea novaehollandiae novaehollandiae*)

White-faced Herons were present but not commonly seen at Waitaanga with two birds being seen together on the stockyards beside the main road on 19 August 2005.

3.5.4 North Island Fernbird (*Bowdleria punctata vealeae*)

A Fernbird was generally heard most often in an area of wetland at the end of the North Waitaanga Road and would frequently respond to calls. Seen also on occasions.

Kerry Oates also reported Fernbird from the same wetland area during his bird surveys at Waitaanga in 2000.

3.5.5 New Zealand Pipit (*Anthus novaeseelandiae novaeseelandiae*)

Pipits were often observed at the car park area at North Waitaanga and on one occasion four birds were observed together on 7 January 2006, with two being obviously smaller and considered to be fledglings from that season's breeding.

3.5.6 Eastern Rosella (*Platycercus eximius*)

Not yet common at Waitaanga, Eastern Rosella were observed on occasion particularly along the North Waitaanga Road. One recorded observation was of 8 or 9 birds seen from this road on 19 April 2007. Also of interest was one of the reported NZ falcon sightings was of an Eastern Rosella being caught but subsequently released alive by a NZ falcon.

3.5.7 Paradise Shelduck (*Tadorna variegata*)

Paradise Shelduck were relatively common and usually observed either on the farmland at South Waitaanga and the central areas.

Five ducklings, with both parents close by were observed on one of the small farm dams at South Waitaanga on 13 October 2005.

The largest flock observed was of 34 birds (12 female) in a paddock beside the main road on 26 March 2006.



Five Paradise Shelduck ducklings on farm dam

3.5.8 Spur-winged plover (*Vanellus miles novaehollandiae*)

Spur-winged plover were resident on the farmland close to the main road through Waitaanga, with a flock of 10 being seen on 25 March 2006.

3.5.9 Ring-necked pheasant (*Phasianus colchicus*)

More often heard than seen Ring-necked pheasants were present at Waitaanga.

One encounter occurred whilst taking a break at one of the 'cut-over' blocks of exotic pines at the Waitaanga Saddle on 7 May 2006.

A cock pheasant approached the vehicle and proceeded to display and posture for over 20 minutes.



Ring-necked pheasant by Waitaanga Saddle

3.5.10 Other Species Observed

Other bird species also observed when in Waitaanga, included;

- a. Little Shag (*Phalacrocorax melanoleucos brevirostris*)
- b. California quail (*Callipepla californica brunnescens*)
- c. Pukeko (*Porphyrio porphyrio melanotus*)
- d. Yellowhammer (*Emberiza citrinella*)
- e. House Sparrow (*Passer domesticus*)
- f. Starling (*Sturnus vulgaris*)

Bird List

Names of bird species mentioned in the text (source: Robertson et al 2007)

Common name	Maori name	Scientific name
North Island Brown kiwi	Kiwi	<i>Apteryx australis mantelli</i>
Little Shag	Kawaupaka	<i>Phalacrocorax melanoleucos brevirostris</i>
White-faced heron	Matuku	<i>Ardea novaehollandiae novaehollandiae</i>
Paradise Shelduck	Putangitangi	<i>Tadorna variegata</i>
Australasian harrier	Kahu	<i>Circus approximans</i>
New Zealand falcon	Karearea	<i>Falco novaeseelandiae</i>
California quail		<i>Callipepla californica brunnescens</i>
Ring-necked pheasant	Peihana	<i>Phasianus colchicus</i>
Pukeko		<i>Porphyrio porphyrio melanotus</i>
Spur-winged plover		<i>Vanellus miles novaehollandiae</i>
New Zealand pigeon	Kereru	<i>Hemiphaga novaeseelandiae novaeseelandiae</i>
North Island kaka	Kaka	<i>Nestor meridionalis septentrionalis</i>
Eastern Rosella		<i>Platycercus eximius</i>
Shinning cuckoo	Pipiwaharauoa	<i>Chrysococcyx lucidus lucidus</i>
Long-tailed cuckoo	Koekoea	<i>Eudynamys taitensis</i>
Morepork	Ruru	<i>Ninox novaeseelandiae novaeseelandiae</i>
New Zealand kingfisher	Kotare	<i>Halcyon sancta vagans</i>
North Island rifleman	Titipounamu	<i>Acanthisitta chloris granti</i>
Welcome swallow	Warou	<i>Hirundo tahitica neoxena</i>
Whitehead	Popokatea	<i>Mohoua albicilla</i>
New Zealand pipit	Pihoihoi	<i>Anthus novaeseelandiae novaeseelandiae</i>
Blackbird	Manu Pango	<i>Turdus merula</i>
Song thrush		<i>Turdus philomelos</i>
North Island fernbird	Koroatito	<i>Bowdleria punctata vealeae</i>
Grey warbler	Riroriro	<i>Gerygone igata</i>
North Island fantail	Piwakawaka	<i>Rhipidura fuliginosa placabilis</i>
North Island tomtit	Miromiro	<i>Petroica macrocephala toitoi</i>
North Island robin	Toutouwai	<i>Petroica australis longipes</i>
Silvereye	Tauhau	<i>Zosterops lateralis lateralis</i>
Bellbird	Korimako	<i>Anthornis melanura</i>
Tui		<i>Prosthemadera novaeseelandiae novaeseelandiae</i>
Yellowhammer		<i>Emberiza citrinella</i>
Chaffinch	Pahirini	<i>Fringilla coelebs</i>
Goldfinch		<i>Carduelis carduelis</i>
House Sparrow	Tiu	<i>Passer domesticus</i>
Starling		<i>Sturnus vulgaris</i>
North Island kokako	Kokako	<i>Callaeas cinerea wilsoni</i>
Australian magpie	Makipae	<i>Gymnorhina tibicen</i>

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