

BIRD MONITORING 2008
(Five Minute Bird Counts)

KARIRI POINT; Te Rua a Umukaria

LAKE TARAWERA



View of Kariri Point – south side.

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For Environment Bay of Plenty.

SUMMARY

A series of five-minute bird counts were undertaken at Kariri Point in November 2008, repeating counts carried out three years earlier in November 2005. Results of the 2005 and 2008 bird counts can be compared with initial (baseline) counts undertaken in 2003, (although fewer counts were taken in the initial 2003 survey). See Figure 1. Pg 5.

Repeated bird counts could, over time, show increases in both the species present, (types of birds) and their relative abundance, (numbers of birds). This could suggest that the environment has improved for birds due to ongoing control of rodents and possums in the area.

The Lake Tarawera Care Group (LTCG) has been carrying out regular pest control on and around Kariri Point since 2003, using fixed wax baits in bait stations targeting rodents and possums. This work has been sponsored by Environment Bay of Plenty. (EBOP)

INTRODUCTION

Kariri Point (Te Rua a Umukaria) is a peninsula on the western side of Lake Tarawera, approximately 15 hectares in size. The land tenure is divided; part council reserve, part Maori land, and part private property. A mausoleum for the Spencer family stands on a high point in the forest.

The Iwi for this area is Tuhourangi.

A grassed reserve, car park, and swimming beach are on the Northern side of the peninsula. Boat sheds, car park area, toilet block, boat ramp and jetty are on the southern side of the peninsula. Approximately 1.25 hectares of undeveloped private property, (presently well vegetated) is situated in the middle, between the two grassed reserve areas, and adjoining the forested peninsula.

The peninsula itself is covered in mostly native vegetation. Forest canopy is low and dominated by Mahoe (*Melicytus ramiflorus*), with some mature Robinia /Black Locust trees, (*Robinia pseudoacacia*) standing above the Mahoe (Robinia is the main exotic plant present). Sub-canopy species include Kawakawa / Pepper tree (*Macropiper excelsum*), Hangehange (*Geniostoma ligustrifolium*), Karamu (*Coprosma robusta*), Rangiora (*Brachyglottis repanda*),

Five-finger (*Pseudopanax arboreus*), Pate (*shefflera digitata*), Mangeao (*Litsea calicaris*), Kohuhu (*Pittosporum tenuifolium*), Tree Fushia /Kotukutuku (*Fushia excorticata*), Wheki ponga (*Dicksonia squarrosa*), and Ponga / Silver fern (*cyathea dealbata*). The dominant sub-canopy species is Kawakawa. Several ground fern species are present, but generally the forest floor is open and clear with sparse leaf-litter and few seedlings growing. Kariri Point is a popular boat launch area, used and visited by many people throughout the year.



Looking towards Kariri Point across car park area & boat sheds.

METHOD

Standard five-minute bird count methodology, (Dawson and Bull; 1975) was used for this survey.

Count stations spaced approximately 200 metres apart around the peninsula were used to survey birds from. Observations of birds seen or heard within a 100 metre radius of a count station over a five minute period were recorded. The time, date, and weather conditions (Sun, wind, temperature, and precipitation) were recorded at each count station, and for each count carried out. The same count stations were used for this survey as were used in 2005, with the addition of one, and located using a G.P.S. *See Appendix 2. Pg 10*

Bird counts were carried out between 9.00am and 1.00pm (NZ standard time) to be consistent with previous counts, and to avoid both the dawn chorus and the quiet afternoon periods. All counts were undertaken on days with fine, calm weather conditions.

In 2003 - eight counts were made from six count stations, on one day.

In 2005 - fourteen counts were made from six count stations over two days.

In 2008 - fourteen counts were made from seven count stations over two days.

RESULTS

25 species of bird were observed over two days in November, at fourteen count stations. A total of 254 birds were counted, with an average of 18 birds per count station (this includes water birds). *See Table 1. Pg 6*

In 2005, 11 species of bird were observed over two days in November, at fourteen count stations. A total of 128 birds were counted, with an average of 9.14 birds per count station. (Unsure if water birds were included)

In 2003, 17 species of bird were observed on one day in October at six count stations. A total of 77 birds were counted, with an average of 12.8 birds per count station.

Results of the 2008 counts show a substantial increase in species recorded, and bird numbers counted. Over half the species counted were native birds, a mix

of water birds, forest passerines, and introduced garden/farmland passerines. Tui, Shining Cuckoo, Silvereye, Grey Warbler, Blackbird, and Chaffinch show an increase in number with each survey. Kereru were counted for the first time in 2008.

One extra count station was added for the 2008 survey, to give better coverage of the Peninsula. See map, *Appendix 3. Pg 11*

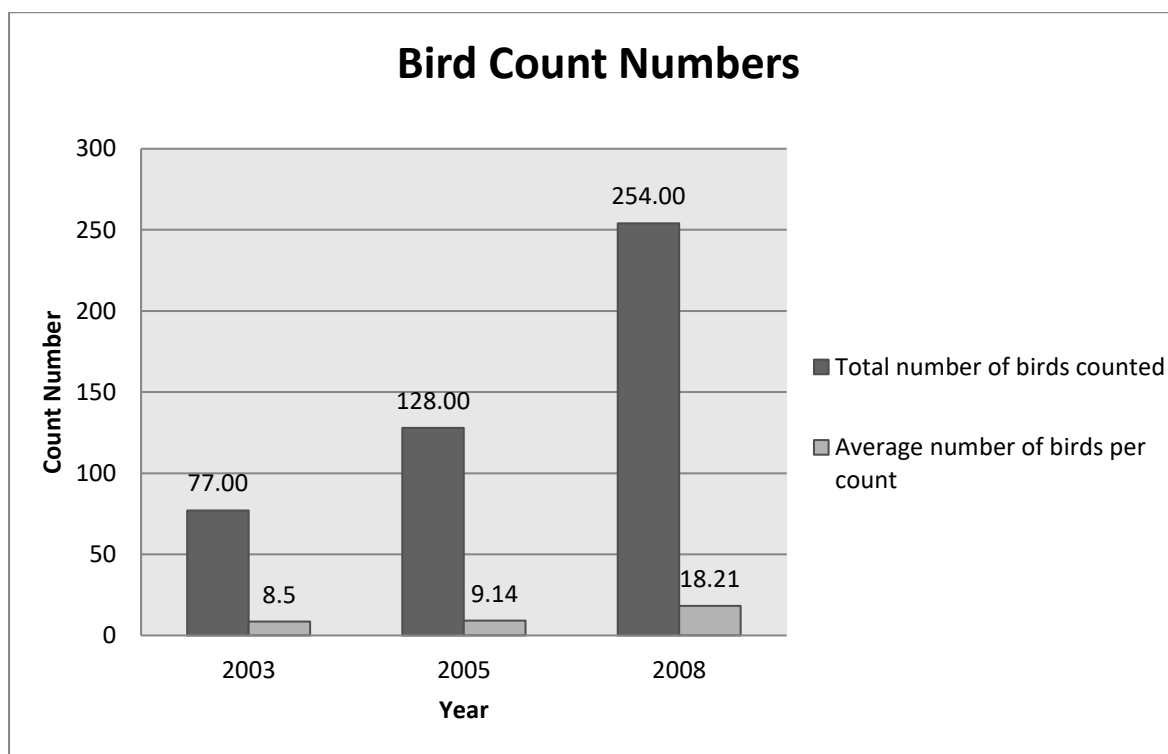


Figure 1. Bird Count Results, 2003 - 2008.

(NB. 2003 data collected from six count stations, whereas 2005 and 2008 data collected from fourteen stations)

Table 1: 2008 Bird Count Results

	BIRD SPECIES RECORDED	NUMBERS COUNTED	AVERAGE PER COUNT
1	Kereru	3	0.21
2	Tui	38	2.71
3	Kingfisher	7	0.5
4	Bellbird	6	0.42
5	Shining Cuckoo	10	0.71
6	Silvereye	26	1.85
7	Fantail	8	0.57
8	Grey Warbler	21	1.5
9	Californian Quail	2	0.14
10	Myna, Indian	1	0.07
11	Blackbird	37	2.64
12	Song Thrush	6	0.42
13	Starling	4	0.28
14	Yellowhammer	2	0.14
15	Chaffinch	42	3
16	House Sparrow	6	0.42
17	Hedge Sparrow	2	0.14
18	Black-backed Gull	3	0.21
19	Black Swan	2	0.14
20	Black Shag	1	0.07
21	Pukeko	1	0.07
22	Australasian Coot	3	0.21
23	Mallard Duck	3	0.21
24	Scaup	19	1.35
25	Dabchick	1	0.07

CONCLUSION

An increase in the number of birds counted, (abundance) and an increase in different bird species counted, (presence) does suggest that conditions have improved for birds at Kariri Point.

Ongoing rodent and possum control since 2003 should be allowing plants to grow more vigorously, (without constant leaf, flower, and fruit browse) thereby creating better habitat and more food for birds.

Ongoing pest control will help ensure Kariri Point is safer for birds to live and breed in, as the likelihood of predation by these pests, especially during the breeding season will be greatly reduced.

Because of the small size of this area, (approximately 15 ha) and therefore the low number of count stations, (six in 2003, six in 2005, and seven in 2008) results of bird counts can only suggest possible changes and trends.

ACKNOWLEDGEMENTS

My thanks to Ian Phillips of EBOP, and Bob Scopes of Lake Tarawera for providing me with information. Special thanks to Bob Scopes for showing me around Kariri Point also.

I would like to acknowledge the Lake Tarawera Care Group for their ongoing pest control efforts.

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Table 2: Bird Species Observed – 2003-2008

Number of Species	Common Name	Scientific Name	2008	2005	2003
1	Kereru	<i>Hemiphaga novaeseelandi</i>	3	0	0
2	Tui	<i>Prosthemadera novaeseelandiae novaeseelandiae</i>	38	14	3
3	Kingfisher	<i>Halcyon sancta vagrans</i>	7	2	7
4	Bellbird	<i>Anthornis melanura oneho</i>	6	6	1
5	Shining Cuckoo /	<i>Chrysococcyx lucidus lucidus</i>	10	4	0
6	Silvereve	<i>Zosterops lateralis lateralis</i>	26	0	3
7	Fantail	<i>Rhipidura fuliginosa placabilis</i>	8	16	3
8	Grey Warbler	<i>Gerygone igata</i>	21	14	8
9	Black-backed Gull	<i>Larus dominicanus dominicus</i>	3	0	0
10	Shag, Little	<i>Phalacrocorax melanoleucos brevirostris</i>	1	0	0
11	Pukeko	<i>Porphyrio porphyrio melanotus</i>	1	0	0
12	Australian Coot	<i>Fulica atra</i>	3	0	0
13	Mallard Duck	<i>Anas spp</i>	3	0	0
14	Scaup	<i>Aythya novaeseelandiae</i>	19	0	3
15	Dabchick	<i>Poliocephalus rufopectus</i>	1	0	2
16	Black Swan	<i>Cygnus atratus</i>	2	0	11
17	Magpie	<i>Gymnorhina tibicen (sp)</i>	0	0	2
18	Californian Quail	<i>Callipepla californica</i>	2	2	0
19	Myna	<i>Acridotheres tristis</i>	1	0	3
20	Blackbird	<i>Turdus merula</i>	37	20	8
21	Thrush, Song	<i>Turdus philomelos</i>	6	10	4
22	Starling	<i>Sturnus vulgaris</i>	4	2	1
23	Yellowhammer	<i>Emberiza citronella</i>	2	0	0
24	Chaffinch	<i>Fringilla coelebs</i>	42	38	5
25	Greenfinch	<i>Carduelis chloris</i>	0	0	4
26	House Sparrow	<i>Passer domesticus</i>	6	0	9
27	Hedge Sparrow	<i>Prunella modularis</i>	2	0	0
		<i>Total Bird Numbers →</i>	254	128	77
		<i>Total Bird Species →</i>	25 spp	11 spp	17 spp

APPENDIX : 1

NAMES OF BIRD SPECIES OBSERVED: 2003 - 08

	Common and Maori Name	Scientific Name
1	Kereru /Kukupa / NZ Pigeon	<i>Hemiphaga novaeseelandi</i>
2	Tui	<i>Prothemadera novaeseelandiae novaeseelandiae</i>
3	Kingfisher, NZ / Kotare	<i>Halcyon sancta vagrans</i>
4	Bellbird / Korimako	<i>Anthornis melanura oneho</i>
5	Shining Cuckoo / Pipiwharauoa	<i>Chrysococcyx lucidus lucidus</i>
6	Silvereeye / Touhou	<i>Zosterops lateralis lateralis</i>
7	Fantail / Piwakawaka	<i>Rhipidura fuliginosa placabilis</i>
8	Grey Warbler / Riroriro	<i>Gerygone igata</i>
9	Black-backed Gull / Karoro	<i>Larus dominicanus dominicus</i>
10	Shag, Little / Kawaupaka	<i>Phalacrocorax melanoleucos brevirostris</i>
11	Pukeko / Swamp hen	<i>Porphyrio porphyrio melanotus</i>
12	Coot, Australian	<i>Fulica atra</i>
13	Mallard Duck	<i>Anas spp</i>
14	Scaup, NZ Papango	<i>Aythya novaeseelandiae</i>
15	Dabchick, NZ / Weweia	<i>Poliiocephalus rufopectus</i>
16	Black Swan	<i>Cygnus atratus</i>
17	Quail, California	<i>Callipepla californica</i>
18	Myna, Indian	<i>Acridotheres tristis</i>
19	Blackbird	<i>Turdus merula</i>
20	Thrush, Song	<i>Turdus philomelos</i>
21	Starling	<i>Sturnus vulgaris</i>
22	Yellowhammer	<i>Emberiza citronella</i>
23	Chaffinch	<i>Fringilla coelebs</i>
24	Sparrow, House	<i>Passer domesticus</i>
25	Sparrow, Hedge / Dunnock	<i>Prunella modularis</i>
26	Greenfinch	<i>Carduelis chloris</i>
27	Magpie, Australian	<i>Gymnorhina tibicen (sp)</i>

APPENDIX : 2

Count Stations

Count Stations	G.P.S Co-ordinates	Location	Number of Bird Species Recorded (2008)
1	E2807428 N6328557	Open area, grass reserve, near lake.	17
2	E2807539 N6328368	Under forest canopy	12
3	E2807539 N6321178	Under forest canopy	10
4	E2807475 N6328112	Under forest canopy	13
5	E2807423 N6328262	Under forest canopy	10
6	E2807419 N6328458	Under forest canopy	10
7 (new for 2008)	E2807327 N6328417	Open area, grass reserve, near lake, boat ramp.	11

APPENDIX : 3

Kariri Point
(Te Rua a Umukaria)



Aerial photo of Kariri Point, showing bird-count stations (red dots).