



Birds New Zealand (Whanganui Region)
Report of a field trip to Paengaroa Scenic Reserve, Mataroa, Taihape
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Introduction

Paengaroa Scenic Reserve (107 ha), established in 1913 under the provisions of the 1903 Scenery Preservation Act, is located at Mataroa, 7.4 km WNW of Taihape. The vegetation comprises mixed mid-altitude forest situated on a predominantly south- and southwest-facing hillslope above the Hautapu River. The land rises moderately steeply from 520 m altitude alongside the river to its highest point, 706 m, over a horizontal distance of 770 m, a net gradient of 25 % (but one that is both shallower and steeper in places). Together with 13 ha of similar forest on adjacent Railcorp land, it forms one of five 'mainland islands' managed by the Department of Conservation, with the support of local community volunteers. These mainland islands are small areas of reasonably intact native vegetation containing a diversity of native and endemic flora and fauna that are isolated within a 'sea' of largely human-modified land, protected by some combination of fencing, geographical features and intensive management to control pests and non-native predators (DOC 2004).

The forest at Paengaroa is unique and nationally significant for the number of divaricating shrub species found there, including some threatened species (e.g., *Coprosma obconica* and *Pittosporum obcordatum*, both ranked as Nationally Vulnerable). Another understorey shrub, *Olearia gardneri*, is classed as Nationally Endangered. Several other rare and nationally threatened species, mostly understorey shrubs and plant parasites, also occur. The canopy is a mix of various broadleaf species (e.g., black and white maire *Nestegis cunninghamii* and *N. lanceolata*; ribbonwood *Plagianthus regius*; narrow-leaved lacebark *Hoheria angustifolia*; kowhai *Sophora godleyi*; and several mahoe species, including *Melycitus ramiflorus*, *M. lanceolatus*, and *M. micranthus*), with scattered emergents of matai *Prumnopitys taxifolia*; kahikitea *Dacrycarpus dacrydioides*; tōtara *Podocarpus tōtara*; and, less commonly, rimu *Dacrydium cupressinum* and miro *Pectinopitys ferruginea* (Ogle 2017). Several canopy tree species—tawa *Beilschmiedia tawa* (only one juvenile seen in 1999), northern rata *Meterosideros robusta*, rewarewa *Knightia excelsa*, titoki *Alectryon excelsus*, and in the understorey, kawakawa *Piper excelsum*, are notably absent (Ogle 2017). Overall, 262 plant species have been recorded, including 53 species of ferns and one lycopod (Druce & Ogle 2018).

Paengaroa was the site of one of the early bird reintroduction experiments when, in March 1999, 40 North Island Robin *Petroica longipes*, were reintroduced to Paengaroa. The robin population grew initially when rats, *Rattus rattus* and *R. norvegicus*, were being controlled through the deployment and maintenance of poison-bait stations, but declined rapidly once baiting was stopped in March 2002. Numbers fell to just 4 pairs in September 2004 (Armstrong et al. 2006), and subsequently to just a single male (Doug Armstrong, pers. comm.).

Bird survey

I carried out a brief 3.7-hour survey of birds on 26 January 2020, during a field trip to Paengaroa organised by the Whanganui Museum Botanical Group. To minimise disturbance, I operated independently of the group, although a checklist of birds seen and heard during that group's activities was compiled by Sue Moore, a member of Birds New Zealand. Her results, made over 3 hr and 1.2 km travel distance, mostly along the river terrace above the Hautapu R, are incorporated here because she recorded several species that were not noted in my survey (see eBird checklist <https://ebird.org/atlasnz/checklist/S63788544>).

The survey consisted of walking a 3-km circular track (S2) through the forest in the east, up from the north bank of the Hautapu R (520 m) to an altitude of 676 m near the summit of the reserve (706 m), before returning on the western side to the start of the circuit on the river bank (Figure 1). The survey was broken up into eight sections of between 130 and 460 m length (average 270 m), each

covered at an average speed of 14 m/min (range 11–17 m/min), except for the last 370 m section which was covered more quickly (37 m/min). The surveyed sections were generally not contiguous, to avoid surveying the same individuals in two adjacent sections (but not always successfully so, however, as two records of a single Shining Cuckoo, *Chrysococcyx lucidus*, show). Despite the slow walking speed, most birds were detected first by their calls. The list of species noted, along with the total numbers recorded and their frequency of occurrence across all eight checklists, are given in Table 1. The table includes, separately, the birds recorded by Sue Moore, and a short list of birds seen or heard in a 5-minute bird count made at the start of field trip around the Mataroa settlement.

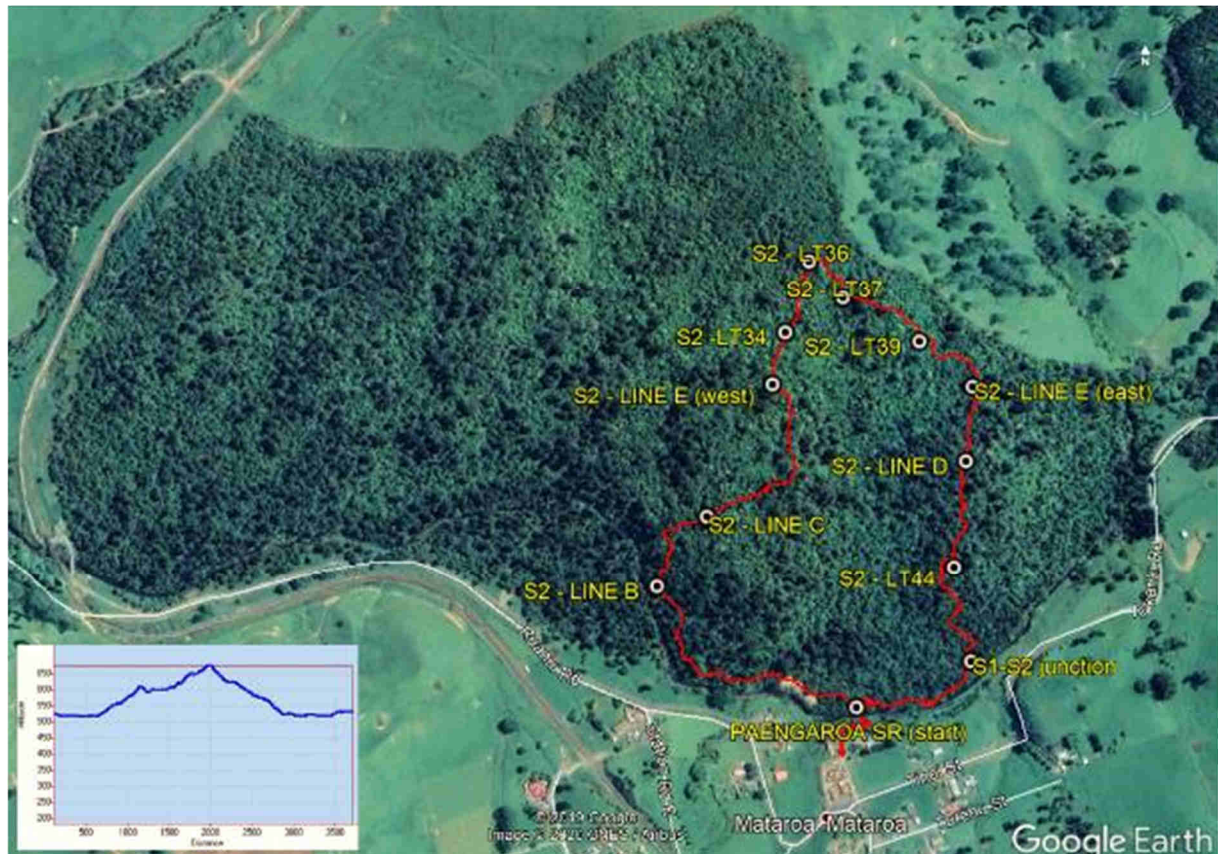


Figure 1. Google Earth image of Paengaroa Scenic Reserve showing the location of the track surveyed on 26 January 2020. The inset shows the elevation profile of the track that was followed, from 520 m at the start, along the Hautapu R, up to 676 m near the top of the reserve (S2–LT36), before descending on the western side back to the start.

Discussion

The number of species and individuals recorded was smaller than initially expected. On reflection, this is likely to have been due to the time of year, time of day, and weather. The survey was carried out at the end of the breeding season, a time when adults generally become quite covert, either because they are being accompanied by vulnerable juveniles or they are undergoing their post-breeding moult. Most of the calls heard were contact notes rather than advertising calls. One surprise was hearing the full call of Shining Cuckoo *Chrysococcyx lucidus*, which seems late in the season, although this burst of calling only happened intermittently over about a 15-minute period in the early afternoon.

Forest birds are generally most vocal early in the morning, becoming much quieter from about midday onwards. This survey started around 11 a.m., which may account for the relatively few birds heard calling. The day was also hot (~26 °C) and this probably further suppressed bird activity. Moreover, the ground layer (litter and duff) was extremely dry and non-systematic sifting through it revealed very few insects.

Several species were searched for specifically—Rifleman *Acanthisitta chloris*, Whitehead *Mohoua albicilla*, and North Island Robin—but were not recorded. It is not known if the last reintroduced North Island Robin is still alive. In any event, my survey apparently did not cover the area known to have been inhabited by this individual. Whiteheads are conspicuous during spring, at the start of the breeding season, and can be noted at other times if one encounters a group, when they are readily attracted by ‘pishing’ or some other made-up alarm call. The absence of this species is probably more apparent than real, reflecting the generally covert behaviour of birds in the post-breeding period. Rifleman are difficult to detect at the best of times. On several occasions, high-pitched notes were heard but no Rifleman were seen; the noises were quite likely to have been insect calls.

Table 1. Numbers of different species noted during the forest survey (8 sectors across 3.1 km over 3.7 hr: individual checklists are listed in the Appendix), along with their frequency of occurrence (number of lists in which a species was noted). Also included is the list of species recorded by Sue Moore over a 3 hr 3 min. period covering 1.2 km (eBird checklist S63788544), and a 5-minute bird count carried out at the start of the field trip (10h55-11h00) in the Mataroa Settlement (eBird checklist S63790007).

Species	Forest survey		Sue Moore’s eBird list	5-minute bird count
	Total birds recorded	Presence in lists	Total birds recorded	Total birds recorded
Paradise Shelduck (<i>Tadorna variegata</i>)	0	0	0	3
Kererū (<i>Hemiphaga novaeseelandiae</i>)	5	3	1	0
Little Shag (<i>Microcarbo melanoleucos</i>) ¹	0	0	12	0
Black Shag (<i>Phalacrocorax carbo</i>)	0	0	2	0
Shining Cuckoo (<i>Chrysococcyx lucidus</i>) ²	2	2	0	0
Sacred Kingfisher (<i>Todiramphus sanctus</i>)	2	1	0	0
New Zealand Falcon (<i>Falco novaeseelandiae</i>) ³	1	1	1	0
Tui (<i>Prosthemadera novaeseelandiae</i>)	13	7	2	0
Bellbird (<i>Anthornis melanura</i>)	3	1	0	0
Grey Warbler (<i>Gerygone igata</i>)	10	6	4	0
Australian Magpie (<i>Gymnorhina tibicen</i>)	0	0	1	1
New Zealand Fantail (<i>Rhipidura fuliginosa</i>)	2	2	2	0
Silvereye (<i>Zosterops lateralis</i>)	26	7	6	0
European Starling (<i>Sturnus vulgaris</i>)	1	1	0	0
Eurasian Blackbird (<i>Turdus merula</i>)	1	1	0	0
House Sparrow (<i>Passer domesticus</i>)	4	1	4	1
Chaffinch (<i>Fringilla coelebs</i>)	3	3	1	0
European Greenfinch (<i>Chloris chloris</i>)	1	1	0	2
European Goldfinch (<i>Carduelis carduelis</i>)	19	6	1	2

Notes

¹ Small colony of 8 nests on Hautapu R, 6 of which were occupied including 1 ad incubating; 1 x 4 small, naked chicks; 1 x 3 big fluffy chicks; 1 x 1 large chick; 1 ad plus 1 chick

² Likely to have been the same bird recorded in both lists

³ Same bird heard by both observers

In summary, this is an ecologically interesting, botanically diverse forest that, despite its relatively small size, merits further visits at other times of the year, particularly in spring, when birds are likely to be more vocal and easier to detect.

Acknowledgements

My thanks to Colin Ogle and the Whanganui Museum Botanical Group for organising the field trip; to Sue Moore for sharing her eBird observations with me; and to Michael Hutchins for additional information on the bird species occurring at Paengaroa. Thanks also to all those who took part in the field trip for their company and interest.

References

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Ogle, C.C. 2017. *Paengaroa Scenic Reserve & Mataroa*. Unpublished brochure prepared for the Whanganui Summer Programme. Whanganui Museum Botanical Group, Whanganui, NZ.

Appendix

Links to the individual checklists produced during this survey

1. <https://ebird.org/atlasnz/checklist/S63790007> (5-minute bird count at the start)
2. <https://ebird.org/atlasnz/checklist/S63790070>
3. <https://ebird.org/atlasnz/checklist/S63790137>
4. <https://ebird.org/atlasnz/checklist/S63790222>
5. <https://ebird.org/atlasnz/checklist/S63790309>
6. <https://ebird.org/atlasnz/checklist/S63790357>
7. <https://ebird.org/atlasnz/checklist/S63791391>
8. <https://ebird.org/atlasnz/checklist/S63791459>
9. <https://ebird.org/atlasnz/checklist/S63791552>