



Whanganui Region

Field trip to Koitiata Lagoon and Reserve 10 March 2019

(report compiled by Peter Frost, Birds NZ Regional Representative, Whanganui)

Background

On Sunday 10th March, 7 members of Birds New Zealand joined a Whanganui Museum Botanical Group field trip to Koitiata, a small coastal settlement at the mouth of the Turakina River. In all, 19 people took part in the excursion (some are members of both groups). The vegetation of the area around Koitiata was first surveyed in 1967 by Tony Druce (DSIR Botany Division). Since then at least 17 further visits have been made, not including the present one, most of which have been led by Colin Ogle (Whanganui Museum Botanical Group). Building on Druce's initial surveys, Colin continues to maintain a list of plants recorded from the area (see [http://www.nzpcn.org.nz/publications/Wanganui Plant List 25, Koitiata \(Turakina Beach\)-101005.pdf](http://www.nzpcn.org.nz/publications/Wanganui%20Plant%20List%2025,%20Koitiata%20(Turakina%20Beach)-101005.pdf) [October 2010 version]). Prior to the field trip, the local plant list comprised 356 plant species and one hybrid (*Coprosma propinqua* x *C. robusta*), only about a third of which (32.5%, including the hybrid) are native. The rest are adventive (non-native, deliberately or accidentally introduced). Nevertheless, both the coastal dunes and the swamp east of Koitiata (referred to here as the Koitiata Reserve) still retain a natural character.

There are around 20 checklists of birds for Koitiata Lagoon and the Turakina R estuary on eBird (<https://ebird.org/newzealand/>). These list around 50 species, including some that are rare or otherwise notable because of the large numbers occasionally recorded. They include Grey Teal (*Anas gracilis*), with 100–250 being recorded in some years in autumn; Banded Dotterel (*Charadrius bicinctus*), with 46 once being recorded in winter; Black-fronted Dotterel (*Elseya melanops*), a regionally rare species, with up to 25 present in autumn and winter; and Fernbird (*Megalurus punctatus*), often heard in the swamp east of the township. Another species that has been reported by Koitiata residents, but so far not recorded on any eBird checklists, is Australasian Bittern (*Botaurus poiciloptilus*), a rare species but one for which the swamp adjacent to the lagoon and east of Koitiata appears to be suitable habitat.

From a botanical perspective, the main aims of the field trip were to explore the area, to search for any additional species to those already known to occur and, more specifically, to look for several species that are considered local specialties: e.g., sand iris (*Libertia peregrinans*), tiny sedge (*Isolepis basilaris*) and dwarf mazus (*Mazus novaezeelandiae*). For the birders, the aims were to survey the birds present in the Koitiata Lagoon (mudflats) and the Reserve (swamp), focusing specifically on the presence and numbers of Black-fronted Dotterel on the mudflats, and of Fernbird in the swamp. Fig. 1 shows the locations of these two areas and the survey tracks. Fig. 2 presents an aerial view of the Turakina R mouth and its relationship to the lagoon and old river channels.

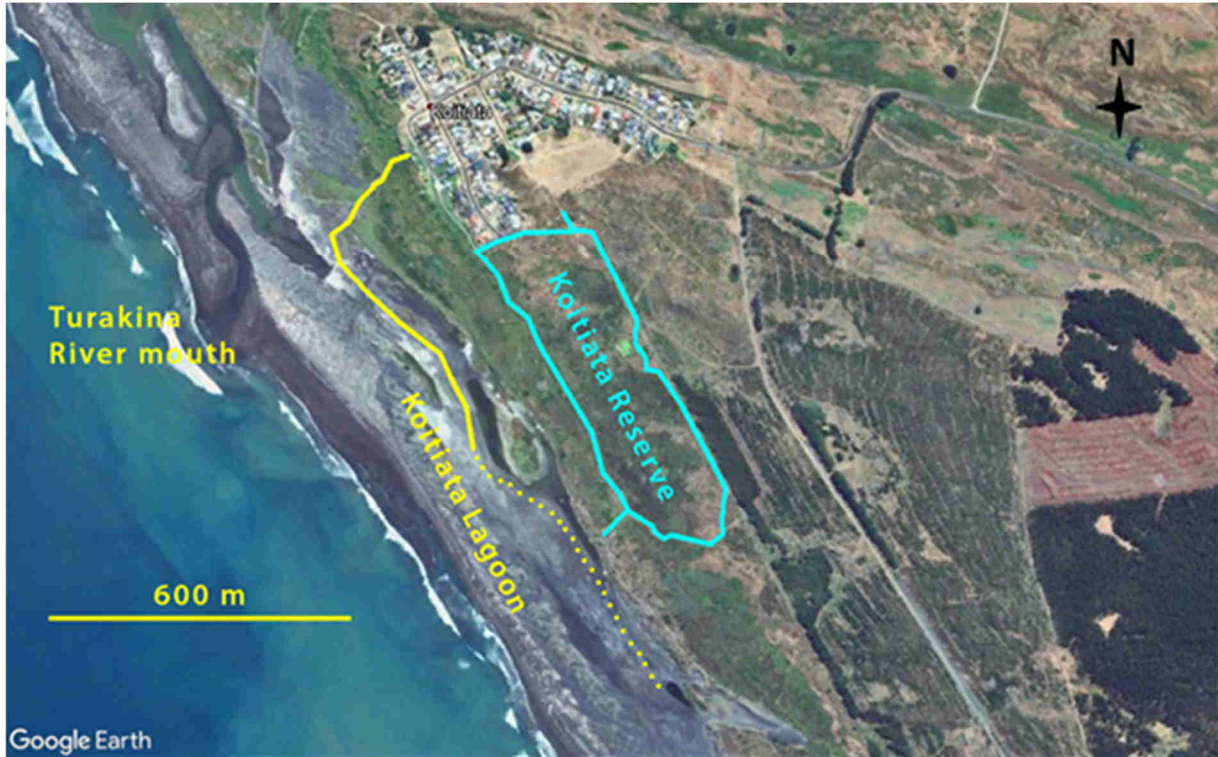


Fig. 1 Google Earth image showing the location of the Koiitiata Lagoon and Reserve relative to Koiitiata township and the Turakina R mouth. The areas covered during the survey of these areas are marked in yellow and pale blue respectively. The yellow dotted line indicates an extension to the main survey route taken by three members of the party.



Fig. 2 Aerial view over the Turakina R mouth (A) showing the lagoon (B) and old river channels (C and D). Reproduced from *In, Out and Around Manawatū*, a guide to good aviation practice (GAP) published by the Civil Aviation Authority (https://www.caa.govt.nz/assets/legacy/safety_info/GAPs/Manawatu_GAP.pdf)

Koitiata Lagoon

Koitiata Lagoon lies in what appears to be an old bed of the Turakina River and is separated from the sea by a series of barrier dunes that formed initially as a sandspit seaward of the river mouth, forcing it south-eastwards as sand built up along the spit. But the position of the river mouth is dynamic, falling back periodically when the river breaches the barrier dunes during large floods, then being shifted south-eastwards again by the extending sandspit. (Have a look at the time-series of images on Google Earth, <https://www.google.com/earth/>, to see the changes that have occurred over the past 14 years.) The lagoon appears to have formed during one or more of these cycles and is currently cut off from the river by sand drift aided, in the past, by the construction of a ford to allow people access to the sea shore. The resulting 2.0-km long depression is currently a large sparsely vegetated mud flat in which there are couple of semi-permanent pools, maintained primarily from runoff and seepage from the adjacent swamp. The water level in the depression varies, being greatest after high incident rainfall and, less often, by flood water from the Turakina River overflowing into its old channel. Much of the dune system at the northern end of the lagoon was destroyed in a massive storm in July 2008, which allowed the sea to flow into the lagoon for a while, leaving behind much woody debris.

A total of 18 species were recorded on the lagoon during our survey, including 33 Pied Stilt (*Himantopus leucocephalus*), 45 Banded Dotterel, 9 Black-fronted Dotterel (Fig. 3) and 2 Red Knot. The Black-fronted Dotterel were observed foraging primarily around the edge of the largest pool in the lagoon. In contrast, the Banded Dotterel ranged over the mud flats, either resting or actively pursuing insects, presumably flies, which were numerous over the mud, especially where there was mudwort (*Limosella lineata*; Fig. 4). Welcome Swallows (*Hirundo neoxena*) were also active over the mudwort lawns, likely for the same reason. Perhaps because of the limited area of water, duck numbers were low and no geese or swans were seen. A full list of species and the numbers recorded are given in Table 1.



Fig. 3 One of 8 adult Black-fronted Dotterel seen foraging around the edge of the largest pool in Koitiatas Lagoon. At least one immature bird was also seen.

Table 1. List of birds seen on Koitiata Lagoon and around Kotiata Reserve, Sunday, 10th March 2019

		Location	
		'Lagoon'	'Reserve'
eBird Checklist (see <a href="https://ebird.org/newzealand/view/checklist/<no.>">https://ebird.org/newzealand/view/checklist/<no.>)		S53660214	S53660342
Time (start)		09:45	12:45
Duration (hr)		1.92	2.00
Distance (km)		1.4	2.0
Mallard	<i>Anas platyrhynchos</i>	8	
Grey Teal	<i>Anas gracilis</i>	2	
New Zealand Dabchick	<i>Poliiocephalus rufopectus</i>	1	
Ring-necked Pheasant	<i>Phasianus colchicus</i>		4
Pied Stilt	<i>Himantopus leucocephalus</i>	33	
Banded Dotterel	<i>Charadrius bicinctus</i>	48	
Black-fronted Dotterel	<i>Elsyornis melanops</i>	9	
Wrybill	<i>Anarhynchus frontalis</i>	2	
Bar-tailed Godwit	<i>Limosa lapponica</i>	1	
Red-necked Stint	<i>Calidris ruficollis</i>	2	
Black-billed Gull	<i>Chroicocephalus bulleri</i>	4	
Red-billed Gull	<i>Chroicocephalus scopulinus</i>	2	
Southern Black-backed Gull	<i>Larus dominicanus</i>	7	
Caspian Tern	<i>Hydroprogne caspia</i>	2	
Australasian Harrier	<i>Circus approximans</i>	1	1
Grey Warbler	<i>Gerygone igata</i>		4
New Zealand Fantail	<i>Rhipidura fuliginosa</i>		2
Skylark	<i>Alauda arvensis</i>	2	
Welcome Swallow	<i>Hirundo neoxena</i>	49	1
Fernbird	<i>Megalurus punctatus</i>		2
Silvereye	<i>Zosterops lateralis</i>		9
Song Thrush	<i>Turdus philomelos</i>		1
European Starling	<i>Sturnus vulgaris</i>	6	1
Chaffinch	<i>Fringilla coelebs</i>		5
European Greenfinch	<i>Chloris chloris</i>		1
European Goldfinch	<i>Carduelis carduelis</i>	1	2
Yellowhammer	<i>Emberiza citrinella</i>		1
House Sparrow	<i>Passer domesticus</i>		2



Fig. 4 Koitiata mud flats showing recent growth of mudwort *Limosella lineata* (inset A). The two field-trip members are Royce Johnson and Bruce Peterson.

Koitiata Reserve

Despite spending more time around this area, we recorded relatively few birds, only 13 species. This paucity was perhaps partly a reflection of the time of day. As the days shorten, birds tend to forage intensively to build up energy reserves to sustain them through the coming night, rather than advertising their presence. Silvereye (*Zosterops lateralis*) was the most numerous species, possibly because of abundant fruiting by the shrub *Coprosma robusta* on which Silvereyes feed. The most notable record was of Fernbird, one of which was heard by Colin Ogle and another, assumed to be a different bird, which responded to a playback of the species' call. A survey is needed to document the abundance of this species around Koitiata, where there seems to be much suitable habitat (Fig. 5). Such a survey should be carried out in spring, when the birds are advertising their territories and likely to respond quickly to playback of their calls.



Fig. 5 Members of the Whanganui Museum Botanical Group and Birds New Zealand in a sedge-dominated part of the swamp that forms much of the Koitiata Reserve. The Koitiata sewerage pond is in on the right.

A survey to establish the status of Australasian Bittern in the swamps east and south of Koitiata would also be useful. There are anecdotal reports from local people of the species being seen and heard, but it is unclear if these are resident birds or seasonal visitors. Movement through the vegetation is difficult because of the density of the swamp vegetation, so a survey using playback may be the only feasible means of surveying the area.

Checklists for both surveys have been lodged with eBird. The checklist numbers are given in Table 1. Thanks to all who participated and contributed their observations.

Field trip participants

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