

Opihi River Bird Survey 2023



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Surveyors: Fourteen surveyors took part – Anna Clearwater, Helen Greenep, Zedekaia Chapman, Jean Jack, Anna Gardiner, Ben Coventry, Donna Field, Frances Schmechel, James Schaap, Jen Dodson, Jim Jolly, Karen Miles, Miles Burford, and Philip Grove.

Survey Date: Thursday 2nd November 2023.

The Opihi river provides habitat to specialised river bird species. While the habitat is not the largest, most intact or representative of those found in the region it contributes to the network of river bird habitat; providing resilience to the environment which supports several threatened river bird species.

Threatened, At-Risk and Uncommon indigenous river bird species which have been recorded to occur within these habitats of the Opihi River include (observation dates noted in brackets where infrequent): Banded dotterel, Australasian bittern (*Botaurus poiciloptilus*) (2011), black stilt (*Himantopus novaezelandiae*) (2006; 2011; 2014), black-billed gull, South Island pied oystercatcher, black-fronted tern, Caspian tern (*Sterna caspia*), New Zealand pipit, red-billed gull (2011), South Island pied oystercatcher, white-fronted tern and wrybill (*Anarhynchus frontalis*) (1987). Black-fronted dotterel, which are Naturally Uncommon, have also been recorded to occur.

The 2023 river bird survey on the upper and lower reaches of the Opihi River was the third in a scheduled set of three annual spring (breeding season) surveys. This was the seventh year of ECan surveying the lower Opihi river birds and the fourth year surveying the upper Opihi. The river survey was abandoned in 2020 and 2022 due to flows and for surveyor safety forcing this set of three surveys to be surveyed over a 5-year period (2019, 2021, 2023). Weather conditions were overcast, with light winds and moderate temperatures. Flows leading up to the survey was quite variable (up to 20 cumecs; too high for survey though not high enough to push birds off the river) the Opihi SH1 gauge on the day read 9.5 cumecs. This flow provided safe travel to surveyors for most sections of the river, although it was noted that the reach from Raincliff to Hanging Rock was not surveyed due to high flow, making crossings unsafe. As in the preceding 2021 survey, counts were recorded against a set of predetermined kilometre markers. This year a braided river survey 123 app was piloted for a subset of surveyors for in-field data entry. This approach allows a subset of data to be analysed at finer spatial scales than previously collected and reduces data entry effort (Figure 3).

This survey was the first time we attempted to record all bird species observed along the river. This allows the bird counts to be considered 'complete' surveys and incorporated into a national ornithological atlas study¹.

Survey data will be shared with the local braided river bird advocacy group BRaid², the Department of Conservation (who collates all braided river bird count datasets into a national dataset) and made accessible to the public via eBird³.

Tables 1 & 2 present total counts of river bird species recorded in 2023 alongside previous counts (since 2011) for the upper and lower river survey reaches respectively. As in other years, bird numbers and species diversity were lower within the upper survey reach near Fairlie with duck species (paradise shelducks and mallard/ hybrids) dominating the counts. Waders included pied stilt, one South Island pied oystercatcher and spur-winged plover (Figure 1). Gulls and terns were absent, while Australasian harriers were infrequently encountered.

Below the Opihi Gorge, species additional to those recorded in the upper reach included banded dotterel, black-fronted dotterel, Canada geese, black-billed gull, southern black-backed gull, and black-fronted tern. Breeding colonies recorded in the lower sections of the Opihi including a 300 strong colony black-billed gulls, and a small black-fronted tern colony. Many non-river bird species were recorded along the shrubland, grassland or forested margins along the river. A total of 25 non-river bird species⁴ were recorded along the river survey including native birds such as fantail, grey warbler, shining cuckoo and kotare. Prominent exotic birds recorded along the river were chaffinches and California quails. The diversity and count of birds increased towards the river mouth.

The river mouth continues to be a hotspot for tern and gull activity with large numbers of black-billed gulls, southern black-backed gulls and a large colony of 350 white-fronted terns recorded (Figure 2). Large numbers of ducks and black cormorants were also recorded at the river mouth.

Table 1 River bird survey counts within the upper Opihi River (Stoneleigh Road to Opihi Gorge Road). *NR – Birds were not recorded during these survey years.

Species	Year*			
	2011	2014	2021	2023
Waders				
Pied stilt	18	4	15	7
South Island pied oystercatcher	3	5	10	1
Spur-winged plover	4	0	3	3
Gulls and terns				
Black-billed gull	0	0	3	0
Cormorants				
Black cormorant	0	0	4	0
Little pied cormorant	1	1	0	0
Waterfowl				
Duck species	19	31	35	23
Paradise shelduck	10	17	18	24
Other				
Australasian harrier	0	0	4	3
Kingfisher	0	0	6	0
White-faced heron	1	6	11	1
Magpie	NR	NR	NR	2
Passerine	NR	NR	NR	3
Welcome Swallow	NR	NR	NR	4
California quail	NR	NR	NR	3

¹ The New Zealand Bird Atlas project. See <https://ebird.org/atlasnz/home>

² <http://braid.org.nz/>

³ <https://ebird.org/newzealand>

⁴ Species not dependent on riverine and coastal habitats.

Table 2 Count of adult river bird species within the lower Opihi river (excluding the river mouth). *NR – Birds were not recorded during these survey years.

Species	Year					
	2011	2013	2014	2019	2021	2023
Waders						
Banded dotterel	0	16	0	3	3	8
Bar-tailed godwit	0	0	0	0	4	0
Black stilt	1	0	1	0	0	0
Black-fronted dotterel	3	20	15	14	2	10
Hybrid stilt	0	0	0	1	0	0
Pied stilt	133	113	62	81	123	81
Royal spoonbill	0	0	0	0	1	0
SI pied oystercatcher	25	49	11	44	33	11
Spur-winged plover	30	33	17	94	28	13
Variable oystercatcher	0	0	0	0	1	0
Gulls and terns						
Black-billed gull	300	1621	1	500	309	314
Black-fronted tern	159	82	129	36	210	47
Caspian tern	0	0	1	0	0	0
Southern black-backed gull	79	12	19	23	117	54
White-fronted tern	6	0	0	0	16	0
Cormorants						
Black cormorant	13	12	8	15	10	3
Cormorant species	0	0	0	0	0	5
Little cormorant (little black shag)	1	4	6	10	0	3
Little pied cormorant	0	0	0	0	2	9
Pied cormorant	0	0	0	3	11	2
Spotted cormorant	0	0	0	0	92	0
Waterfowl						
Australian coot	1	0	0	0	0	0
Canada goose	6	6	1	0	4	0
Duck species	136	106	149	107	0	41
Grey teal	8	0	2	0	0	0
Mallard/Hybrid	56	16	0	0	151	142
NZ Shoveler	0	0	0	1	0	2
Paradise shelduck	37	40	37	34	47	98
Scaup	0	0	0	1	0	0
Heron						
Australasian bittern	1	0	0	0	0	0
White-faced heron	7	25	14	17	15	15

Table 3 Count of adult non-river bird species within the lower Opihi river (excluding the river mouth). *NR – Birds were not recorded during these survey years.

Species	Year					
	2011	2013	2014	2019	2021	2023
Passerine						
Bellbird	NR	NR	NR	NR	NR	1
Blackbird	NR	NR	NR	NR	NR	36
Chaffinch	NR	NR	NR	NR	NR	160
Dunnock	NR	NR	NR	NR	NR	16
Fantail	NR	NR	NR	NR	NR	28
Goldfinch	NR	NR	NR	NR	NR	24
Greenfinch	NR	NR	NR	NR	NR	21
Grey warbler	NR	NR	NR	NR	NR	3
House sparrow	NR	NR	NR	NR	NR	2
Magpie	NR	NR	NR	NR	NR	2
NZ pipit	6	1	0	0	0	1
Passerine species	NR	NR	NR	NR	NR	134
Redpoll	NR	NR	NR	NR	NR	12
Rock Pigeon	NR	NR	NR	NR	NR	32
Shining cuckoo	NR	NR	NR	NR	NR	4
Silvereye	NR	NR	NR	NR	NR	9
Skylark	NR	NR	NR	NR	NR	4
Songthrush	NR	NR	NR	NR	NR	20
Sparrow	NR	NR	NR	NR	NR	4
Starling	NR	NR	NR	NR	NR	7
Welcome Swallow	NR	NR	NR	NR	NR	15
Yellowhammer	NR	NR	NR	NR	NR	23
Other Birds						
Australasian harrier	1	5	3	3	8	6
California quail	NR	NR	NR	NR	NR	49
Kingfisher	11	7	7	1	8	30
Pukeko	2	7	0	0	0	0

Table 4 Count of adult river bird species at the river mouth). *NR – Birds were not recorded during these survey years.

Species	Year					
	2011	2013	2014	2019	2021	2023
Waders						
Banded dotterel	0	0	3	14	0	8
Bar-tailed godwit	0	0	0	0	4	0
Black-fronted dotterel	0	0	0	0	0	7
Pied stilt	3	2	21	3	4	21
Royal spoonbill	0	1	14	6	0	15
SI pied oystercatcher	1	3	1	1	2	0
Spur-winged plover	1	3	3	0	3	2
Variable oystercatcher	0	1	1	2	1	3
Gulls and terns						
Black-billed gull	32	40	66	88	2	131
Black-fronted tern	3	0	0	1	50	0
Red-billed gull	2	0	0	0	0	0
Southern black-backed gull	36	70	87	53	116	133
White-fronted tern	10	0	292	252	0	350
Cormorants						
Black cormorant	0	5	2	1	5	52
Cormorant species	0	0	0	0	0	3
Little cormorant (little black shag)	7	0	1	0	0	0
Pied cormorant	0	6	1	0	11	0
Spotted cormorant	0	0	0	1	92	0
Waterfowl						
Black swan	0	0	0	0	0	3
Canada goose	0	0	0	4	2	11
Duck species	33	15	0	42	0	93
Grey teal	0	0	1	0	0	0
Mallard/Hybrid	0	0	0	0	15	0
NZ Shoveler	0	2	1	0	0	0
Paradise shelduck	0	8	9	2	0	4
Scaup	0	0	0	0	0	6
Black swan	0	0	0	0	0	3
Heron						
White-faced heron	0	0	0	0	0	2

Species ● Pied stilt ● SI pied oystercatcher

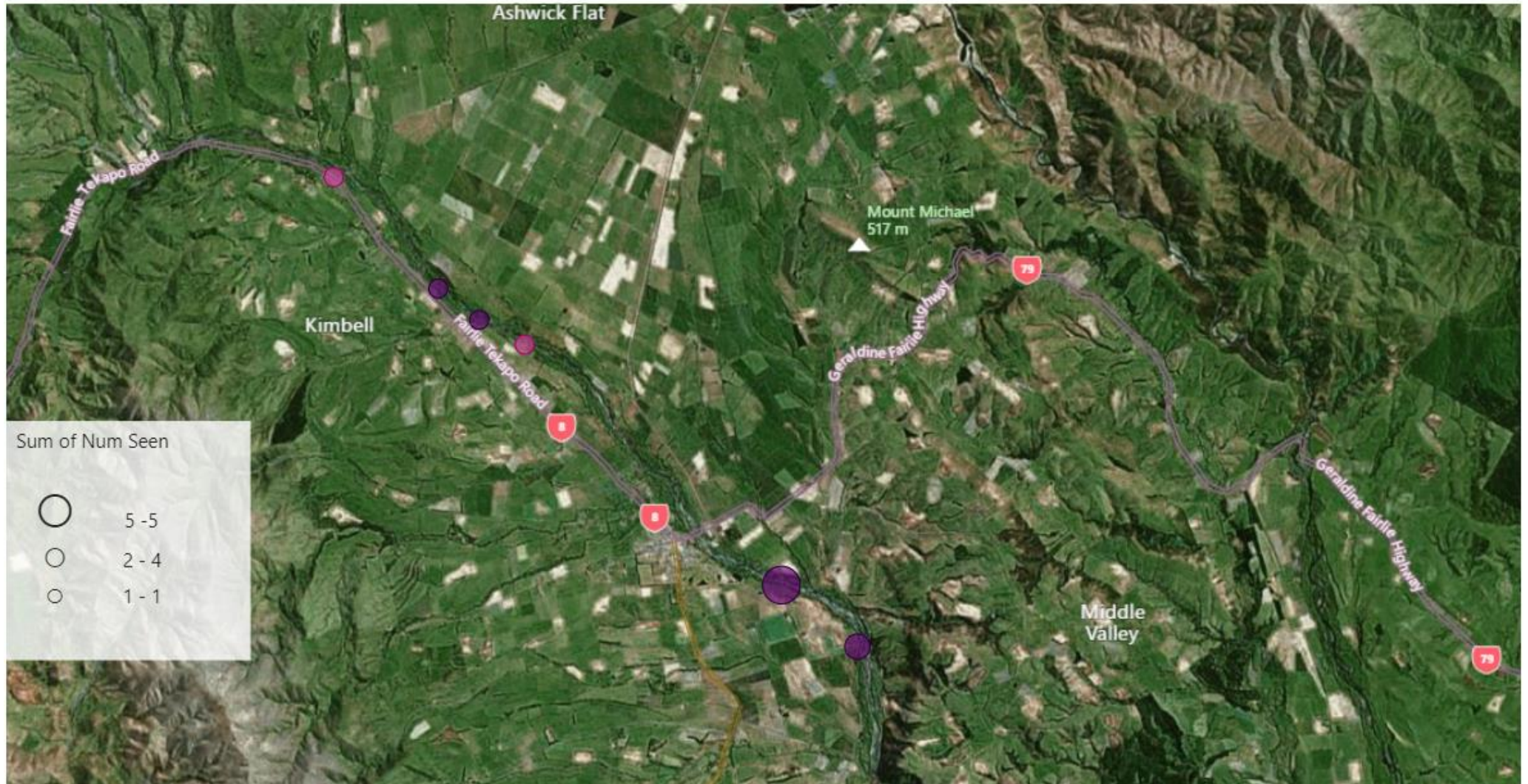


Figure 1 Upper Ophi river bird survey observations 2023 from Stoneleigh Road to Ophi Gorge. Counts of adult river birds are shown as pie charts and are proportional to the total number of birds counted.

Species ● Banded dotterel ● Black-billed gull ● Black-fronted dotterel ● Black-fronted tern ● Pied stilt ● SI pied oystercatcher ● Southern black-backed gull ● White-fronted tern

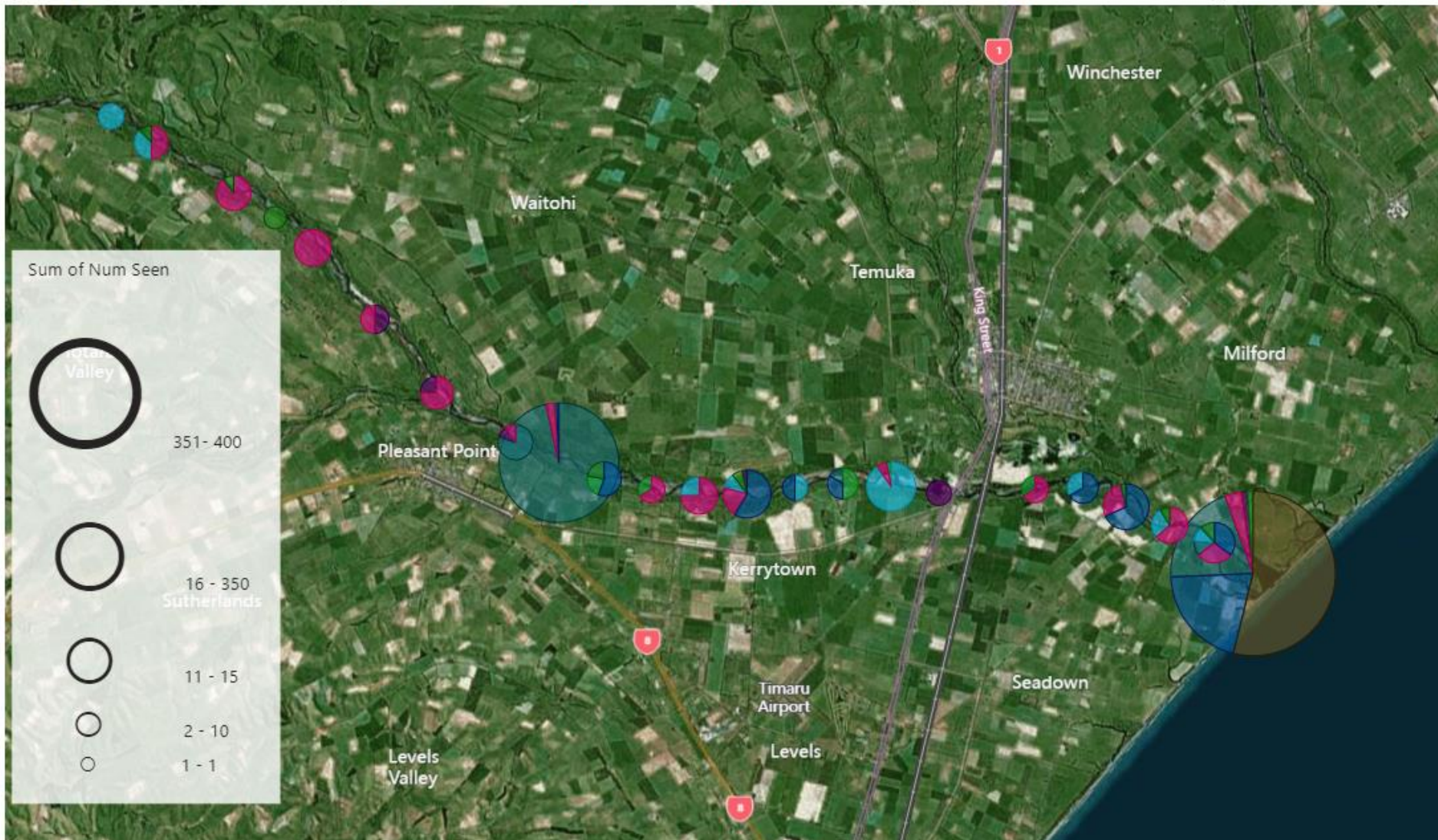


Figure 2 Lower Ophi river bird survey observations 2023 from Hanging Rock bridge to the river mouth. Counts of adult river birds are shown as pie charts and are proportional to the total number of birds counted.

Braided River Bird Field Capture - BraidedRiverBirdData

River Bird Species

- Banded dotterel
- Black-fronted tern
- Paradise shelduck
- SI pied oystercatcher
- Pied stilt
- Black-fronted dotterel
- Black-billed gull

No. of adults (default is 1)

- > 300
- 220
- 150
- 70
- < 0



Figure 3 Recorded observations of bird counts along river KM sections 19 – 24 (start of the Pleasant Point bridge to SH1 bridge section).