

The sudden increase between April 4 and April 6 is probably explained by the arrival of birds from their breeding grounds, coinciding by good luck with a time when they were under observation.

It is interesting to speculate upon the origin of these Black Billed Gulls in the Firth of Thames. It seems probable that they came from Rotorua. If this is so the Rotorua population must run into several hundreds. On September 9 and 10, I counted about 200 Black Billed Gulls in the evening on the rocks behind the Ward Baths, and by day a few birds had been seen at Hamurana Springs and Okere Inlet, and two pairs at Rotomahana. Yet, on October 12, 160 or more were still present at Miranda. Confirmation of a movement away from Rotorua comes from Mr. C. A. Fleming who was at Rotorua in mid-April, 1941. He says that of 135 gulls counted, only 8 were Black Billed. In all, there were 400 or more gulls but no higher percentages of Black Billed were noted.

I have been told that there is a small and rather inaccessible lake on Tongariro where "small" gulls nest. These might well be *Larus Bulleri*, and if so, they might be expected to winter in the Firth of Thames or the Bay of Plenty.

Lastly, in view of the fact that the Firth of Thames is a favourite wintering place for many South Island birds, e.g., Wrybills, Oystercatcher and probably Stilts, the possibility must not be ruled out, that some of the South Island Black Billed Gulls also find their way there.

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NOTE ON BIRDS OF THE TAUPO DISTRICT. By K. A. Wodzicki.

The undersigned spent in the beginning of March 5–12 March, 1942 some time at Full James Fishing Camp; it is situated on the south bank of the Waikato River, within 10 miles of Taupo on the edge of the Kaingorea Plains. [Kaingaroa Plains.]

This country consists mainly of a scrub manuka forest, on poor volcanic soil, the left bank of the river chiefly being covered with large afforested areas of introduced pine trees. Another area some distance from Full James is also covered in this afforestation, and together these two afforested areas amount to several thousands of acres.

The Waikato River still retains at this point the character of a powerful mountainous stream, with many picturesque rapids. Further down, about 20–25 miles from Taupo this river comes into a flat type of country, slows its current and forming large belts has more suitable swampy conditions for many water and wader birds. Finally, 7 miles south of Taupo there are the famous Rotokaua Sulphur Fields with the Rotokaua Lake.

The bird life in this district is largely connected with these various biotops forming thus in an area of a few miles distance very different ecological conditions. Our outings covered a radius of about 10 miles along the Waikato River or to the south, and also in other directions. The following is a list of birds observed in the above-mentioned various areas of that territory:—

A.—MANUKA AND AFFORESTED AREAS.

1. CALIFORNIAN QUAIL (*Calipepla californica*).—Especially well adapted to the manuka scrub forest country, keeping close to roads or other open spaces. Along 5–6 miles of road there were 4 parties of 8–12 each, including both adults and some of the juveniles already flying. They frequently visit the roads and Full James Camp was regularly visited by one party in the morning; they seem to keep to their respective territories.
2. NEW ZEALAND HARRIER (*Circus gouldii*). Whilst plentiful close to Lake Taupo, less abundant in this region. However, saw 4–5 birds within a 10 miles radius of Full James.
3. PIPIT (*Anthus novaeseelandiae*). Ranks third in this district. Especially abundant close to open roads, firebreaks and other cleared spaces. During a half-day tramp at least 30 birds observed.

4. GREY WARBLER (*Gerygone igata*). Is much less abundant; no more than 6-7 birds observed during the trip mentioned above. Noted a very incomplete melody of song as compared with birds in Wellington district at the same time of year.

5. NORTH ISLAND TIT (*Petroica toi-toi*). Scarce; only two birds seen.

6. PIED FANTAIL (*Rhipidura flabellifera*). This form of the fantail represents one of the most numerous species in the manuka country. Mostly in small flocks of 5-7 birds including several juvenile. More abundant in small gulleys and close to the Waikato,

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but plentiful elsewhere; in one day's tramp about 50 birds were observed.

7. WHITE-EYE (*Zosterops lateralis*). Comes next in numerical order, moving everywhere in small parties.

8. BELLBIRD (*Anthornis melanura*). Saw one adult and one young bird, but about 4-5 birds within a radius of 10 miles still singing, some of them inside the edge of afforested areas.

9. CHAFFINCH (*Fringilla coelebs*). Is scarce in the manuka country but rather plentiful in afforested areas, which forms one of its favourite haunts on the Continent.

B.—WAIKATO RIVER AND ROTOKAUA LAKE.

1. BLACK SHAG (*Phalacrocorax carbo*). Is fairly plentiful; every day 5-6 either roosting or flying along the river to and from Lake Taupo, and also saw several on Lake Rotokaua.

2. WHITE-THROATED SHAG (*Phalacrocorax brevirostris*). One odd bird seen.

3. PARADISE DUCK (*Casarca variegata*). One pair on Puete River estuary but without young.

4. GREY DUCK (*Anas superciliosa*). Several birds flying along the river every day; about one hundred birds, both adults and juvenile on Rotokaua Lake; most of them in moult, but very cautious like the Paradise Duck; probably a lot of shooting is going on.

5. SHOVELLER (*Spatula rhynchotis*). About 100 birds on Lake Rotokaua, though for the great distance this record must be considered as probable only.

6. BLACK SWAN (*Chenopsis atrata*). Rather scarce as only 8 birds observed on Lake Rotokaua.

7. BITTERN (*Botaurus poiciloptilus*). Single bird on Puete River estuary.

In concluding these few field observations, I wish to stress the following points which may be of interest from a more general viewpoint. Of the 17 species of birds observed in this part of the Taupo district six only belong to introduced species and only two of them—the White-eye and the Californian Quail—seem to find suitable conditions in the primitive manuka scrub forest and are represented in respectively larger numbers. And finally, besides the presence of more or less ubiquitous Harrier and some of the water birds, the Fantail and the Pipit are the two species which seem best adapted to these peculiar ecological conditions.

NOTES ON CUCKOOS. By B. J. Marples.

In addition to the two common New Zealand cuckoos, the Shining Cuckoo (*Lamprolaima lucidus*) and the Long-tailed Cuckoo (*Urodynamis lucidus*) Oliver in his "New Zealand Birds" mentions a single occurrence of an Oriental Cuckoo (*Cuculus optatus*) at Te Anau in 1902. On September 17, 1951, a specimen of the Pallid Cuckoo (*Heteroscenes*

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pallidus was sent in for identification from Craig Flat, on the banks of the Molyneux River some five miles above Beaumont. It was a male weighing