

Man.—Burning of long grass and other activities known to destroy some nests. Shooting in some localities—was at worst before brown duck showed signs of diminishing.

Stoat and Weasel.—No data on first appearance in North Auckland. Definitely in Waipu area in 1939. In Whangarei area for long period. Possibly would account for killing of sitting ducks. Suggest brown duck suffers more than grey duck because latter flies to nests.

Still believed to be watersheds in North little affected—near Kaitaia; near Bay of Island; Ngunguru.

After disappearance (as in whole North Island), odd birds or pairs—very rare—turn up at various times in scattered localities (Auckland Domain; Lake Takapuna, Cambridge Lake). Small numbers believed to persist and breed on few peninsular-like areas and islands (Whangaparoa—present in 1939. East Coast District—doubtful second-hand records in 1936—Mayor Island, 1936).

4. BLACK TEAL (*Fuligula novaezelandiae*).

(a) Summary from extensive observations of M. E. Fitzgerald:

Rotorua-Rotoiti-Waikato Districts.—In clean fresh waters, shunning muddy creeks and swamps. Dive for food, even day-old chicks going down 6–8 feet. Young at 3 months old are very dark brown—almost sooty black, then males rapidly assume mature glossy head and yellow eye. Only change in females throughout the year is a lightening or fading as the summer advances. Prenuptial white frontal band of female appears in April and is at full from June to nesting time (Nov. to Jan.), usually fading during incubation.

Nesting: One record of interest. Female hatched on January 10th, which went to nest and laid her first egg on December 1st following.

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Incubation is 30 days. Generally mobs are together; in autumn and winter they are in parties of 20 to hundreds of birds at selected feeding grounds—in spring move off to nesting places. Eggs average 3oz. in weight. Clutch 5–6 laid on alternate days. Nests in colonies and very close to water. Older birds begin to lay in October and if nest is destroyed will try again. Yearlings wait till December.

(b) Notes by C. A. Fleming:

The population of Rotorua-Rotoiti area appears to be in a healthy state and increasing. The flock seeking sanctuary in a bay near the Ward Baths in May (shooting season) is some gauge of the population.

May, 1933—estimated 100 birds present

May, 1934—uncounted but numbers greater

April, 1939 (before shooting commenced)—estimated 500 near Ward Baths and at same time saw three flocks (estimated 300, 20 and 5 respectively) on the north shore of Rotoiti.

May, 1939—Ward Bath flocks counted as 410 birds about 15 of the females had well developed frontal patches of white—many had none.

The birds repairing to Cambridge Lake in the non-breeding and shooting season appear to have markedly decreased. These birds are believed to breed at Horahora.

May, 1933—‘hundreds’—probably over 100, at Cambridge Lake.

May, 1937—20 counted.

May, 1939—about the same number (20); uncounted.

5. OYSTERCATCHERS (*Haematopus* spp.).

In the absence of a critical field study of oystercatchers in all parts of New Zealand it is assumed that three species or distinct forms, besides the Chatham Island bird, can be recognised.

(a) The inland pied oystercatcher (*Haematopus finschi*) nesting on riverbeds and uplands of the South Island, migrating in winter to the coasts and to North Island estuaries.

(b) The Black oystercatcher (*Haematopus unicolor*) frequenting mainly rocky coastline from Stewart Island north along the west coast of the South Island and up the east coast of the North Island to the Bay of Plenty.

(c) The North Island oystercatcher (*Haematopus reischeki*) which is a coastal breeder on sandy shores along the whole west coast of the North Island and down the east coast to the Bay of Plenty. It is a bird of variable plumage, some being black like *unicolor*, a few pied, but larger and having less white than *finschi*, and many intermediate (R.A.F.)

From reports, the following summary is culled:—
Pied Oystercatcher (*Haematopus finschi*).

Nests on riverbeds reported from Mossburn and Lumsden (D.M.). Glenary, Waikaia, where the birds were first noted for the season on 4 August, 1939 (G.S.G.). Rakaia, Waimakariri, Ashley, Waiau, Hurunui (E.F.S. and R.A.F.). Winter flocks in Canterbury begin to increase from a non-breeding nucleus about mid-December, reaching a maximum in winter—about 3,000 at mouth of Waimakariri, June 1940 (R.A.F.). Flock of 150 at Waitati 25/8/38 had decreased to 100 by 4/9/38 (B.J.M.). Pair seen on Hokitika River and 16 at Okarito in January, 1940 (R.B.S.). Large flocks, several hundred birds, on Kaipara Harbour, February, 1940 (G.A.B.).

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6. BANDED DOTTEREL (*Charadrius bicinctus*.)

Reports indicate that this species is still an abundant breeder from North Auckland to Southland.

It is estimated that there are about 100 pairs breeding in the northern block which is cut off by the sandy isthmus of the Ninety Mile Beach, the nesting sites being mainly inland from the sandy beaches. After the nesting season numbers are much increased and scattered flocks frequent beaches and Parengarenga Harbour. The period of increase is during late February and early March at which time small parties have been met with at night sleeping along a roadside. (A.H.W.).

Observations on Ninety Mile Beach itself give an estimate of 150-160 birds scattered along the shore, more concentrated at stream outlets 9th to 15th May, 1940 (R.B.S.).

Pairs are reported nesting in ploughed fields in the Whangarei district (S.D.P. and W.S.). Many coastal breeding records from Bay of Plenty. at Matata nests of 10 pairs averaged 400 yards apart (S.D.P.). Nesting activity at other North Auckland localities are summarised by Mr. C. A. Fleming as follows:

Nov. 22, 1938, 3 pairs in full colour; nesting suspected, one flood-destroyed nest found.

9/5/39, 8 birds on breeding ground—1 with fair bands associated with 1 with none. 3 others faint bands, rest with none.

5/6/39, not seen at Muriwai (public holiday).

17/6/39, not on breeding ground but 3 encountered 2 miles up beach (1 well banded, 1 fainter, 1 barely showing trace).

7th and 29th/7/39—Both dates in very windy weather and no birds seen at breeding ground.

Early August, 1939, E. G. Turbott recorded 1 pair of dotterel in full plumage on breeding ground.

16/9/39, pair in full plumage feeding vigorously on breeding ground. Female just distinguishable with less distinct bands.

24/10/39, male darting at female and running chases—courtship? December, 1939. About six birds breeding (chicks on December 24).