

MATING AND NESTING.

1. Mating.
2. First sign of building of nests.
3. First egg; number of eggs and dates when laid.
4. Hatching. Length of incubation.
5. Length of time between hatching and leaving nest.
6. Mortality in the egg and nesting stages.
7. Second layings, if possible. Same observations as above.
8. Moulting; beginning and end.
9. Flocking, if any.

Please send communications regarding White-eyes to Prof. Marples, the Museum, Dunedin, and Blackbirds to Dr. Wodzicki, National Bank Chambers, Wellington.

INTERIM REPORT ON BANDED DOTTEREL MOVEMENTS.

Organizers: R. H. D. Stidolph and C. A. Fleming.

The Banded Dotterel occurs as a breeding bird throughout New Zealand and the Chatham Islands. It has been found regularly in South-eastern Australia and Tasmania, chiefly in the non-breeding season, and less frequently in West Australia, Norfolk, Lord Howe and Kermadec Islands. As there is no evidence of nesting in Australia, a migration is believed to occur across the Tasman. The routes taken and the times and places of arrival and departure are not known and are the chief objects of this investigation.

The aim of the investigation is to provide documented observations on the distribution of the Banded Dotterel throughout New Zealand at all times of the year. For this purpose detailed and continuous observations at stated representative localities are better than generalizations based on impressions of what happens over a wider area. If series of detailed studies from places scattered all over New Zealand are available, they will serve as a factual basis for interpretation and discussion when similar data are available in Australia. Up to the present the following series of observations are to hand, all from the North Island, to which this report is therefore restricted.

1. Wairarapa River Beds, Lake and Coasts of Palliser Bay and East Wellington. (R.H.D.S. 20 years' observations.)
 2. Manawatu and S. Hawke's Bay Rivers. (C.A.F., a summer's observations.)
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3. West Wellington coast and Kapiti. (Various workers—more details wanted.)
 4. East Cape district (incomplete—C.A.F. and R.B. Sibson).
 5. Rotorua and nearby parts of Volcanic Plateau. (M. E. Fitzgerald—4 years' notes.)
 6. Manukau Harbour. (1½ years complete, P. C. Bull. Several incomplete years, C.A.F.)
 7. Muriwai Beach. (1½ years complete, P.C.B., C.A.F. and R.B.S.)
 8. Parengarenga Harbour. (A. H. Watt, several years' notes.)

BREEDING DISTRIBUTION.

In addition to these observations bearing upon seasonal changes, there are many less extended observations allowing the breeding distribution of the species in the N.Id. to be outlined. (1) The greatest density is on the shingle-beds of rivers draining both sides of the main divide of the N.Id. from Wellington to East Cape. (2) Quite large numbers nest on the pumice uplands, river flats and lake shores of the central Volcanic Plateau. (3) Scattered and usually smaller populations breed at river mouths on dunes, spits and beaches on the coast (Wellington, Bay of Plenty, N. Auckland). There is some indication that birds of group (1) regularly begin laying in mid-August and do not have eggs later than mid-November, whereas in the other two groups no egg-dates before mid-September are known, but eggs are recorded into December and even January.

MOVEMENTS.

Towards the end of the breeding season (December) flocking of adults and young of all populations begins and most are flocked by February. At this time river-bed populations appear to move down-stream and in all localities there is a movement towards coastal lacustrine and estuarine conditions where large flocks congregate in March, April and early May. The river-beds are almost wholly vacated by mid-Feb. Rotorua loses most of its birds by March, but some stay on in the lacustrine conditions there—at least into April. Coastal breeders usually do not have to move far from breeding grounds to reach estuarine conditions. (Note: The first post-breeding movements apparently are coastwards and not necessarily northwards.)

The coastal and estuarine flocks of the southern half of the N.Id. decrease till mid-May; thereafter there are only rare records until July, but it seems probable that a few birds persist in such coastal areas throughout the winter. In N. Auckland harbours, however, flocks have been increasing while they decrease further south. The first arrivals in Manukau are in early January; but the biggest increase occurs in April, when observations (O.S.N.Z. Report I.) suggest that increasing numbers are passing through the harbour. By May, the exceptionally large flocks have given way to a lower but steady wintering population. Muriwai Beach, a little further north, also lies in the passage route of dotterels (and other migrants). Here a small breeding population is reinforced by passage birds in March-April, but the numbers are down to normal again in May and early June. In Parengarenga (Far North) the first increase is noted in late Feb.-March and fairly large numbers winter in the harbour.

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In May-June, therefore, the position is: Riverbeds totally vacated, Southern coast and Rotorua almost so: steady, fairly large, populations in North Auckland harbours, but indications that others have passed further afield.

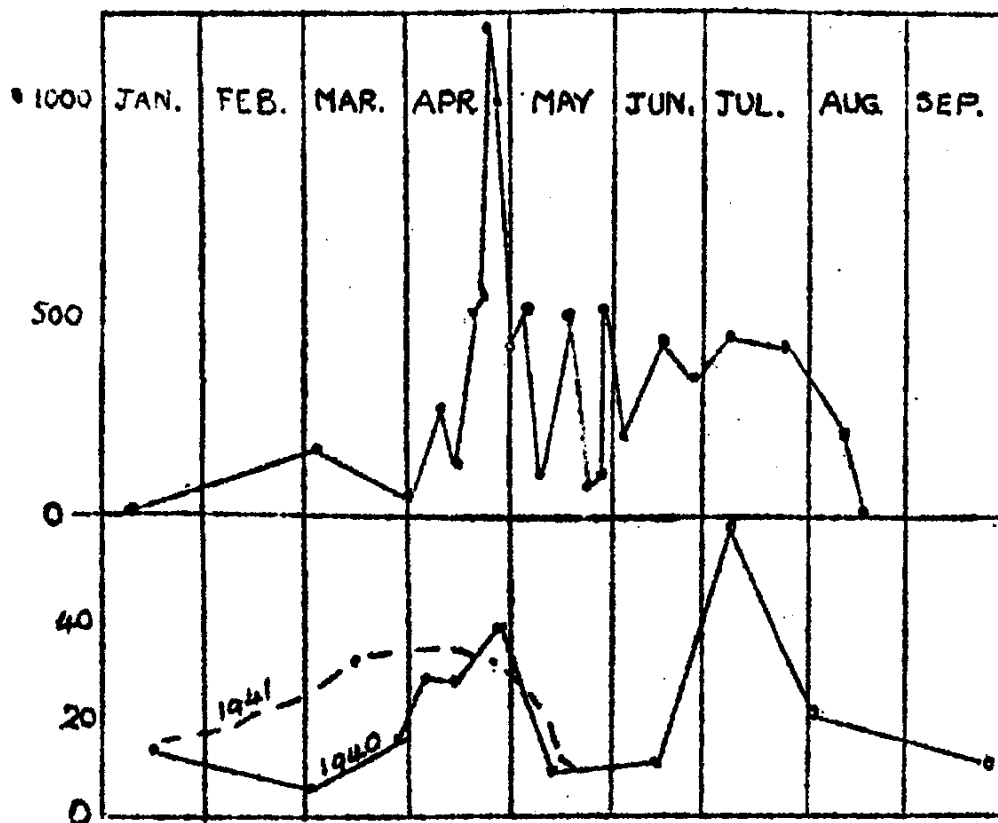
The return migration is first evident from the marked increase again at Muriwai in early July, suggesting a second, return, passage. Birds are back again at the Rotorua breeding-grounds in June, more in July, when they first reappear on Southern N.Id. riverbeds, increasing in August. There is no indication that returning birds pass through Manukau Harbour but here the last of the wintering birds disappear suddenly in August (approx. 9th), and at Parengarenga the same thing occurs at almost the same date. By September breeding is in full swing in most places.

MOULT. (Including M. E. Fitzgerald's observations on marked birds.)

Breeding adults lose colour in February and the post-breeding flocks (March-April) are almost homogeneous in immature and non-breeding plumage. Odd birds with bands have been seen in April, and the percentage of "coloured" birds in wintering flocks increases thereafter. Individual birds take approximately 25 days to gain and lose full colour (females a little later than males). Young hatched in November-December and feathered during January have acquired full colour by the following July, mating and ready to breed in their first August. The harbour-wintering birds in the North are almost all in full plumage by August, when they leave, as are first arrivals on the breeding-grounds.

DESIDERATA.

1. South Island data from representative inland and coastal localities.
2. More details from North Island, e.g., Bay of Plenty, Taranaki, etc., to ascertain limits between areas of winter scarcity (Wellington) and of winter abundance (Auckland).
3. More breeding-season data—earliest and latest egg dates for all localities: possible correlation between duration of season and extent of migration, or latitude.
4. Numbers at stated localities, at least monthly for a year, sufficient for representation by graphs, are most helpful.
5. Evidence of birds leaving or arriving from overseas is badly wanted.
6. Ultimately, leg-ringing operations will be necessary.



Upper.—Graph of numbers of Dotterel at Mangere, 1940 (P.C.B.) showing fluctuations in population wintering in Manukau Harbour. Until the peak of numbers in April, the figures probably represent birds passing through the harbour. Thereafter there appears to be a steady wintering population, the numbers fluctuating according to tidal conditions.

Lower.—Graph of Dotterel numbers at Muriwai showing the 2 periods of abundance probably due to the passage of migrant birds. A small number remain to breed.

THE TUI (*Prosthemadera novaeseelandiae*).

Details of Nesting at The Cliffs, Nelson (Mrs. P. Moncrieff).

Tuis at Astrolabe are not common like Bellbirds and have not increased. Nested in October in *Pinus radiata* at 40ft. (inaccessible). Duck feathers collected from ground in farmyard. After breeding, a rat removed lining leaving outer structure of fir needles.

The birds fed on sugared water all winter and spring. On November 12, 2 young birds near sugar cups were found, one perching precariously, the other with a stiff wing unable to fly. Adult tuis visiting sugar ignored these young short of giving brief inspection. Strongest nestling able to reach honey water and feed; later fed by adult who eyed other but did not approach. Later, injured young tried to approach parents but fell to ground, ignored by parents. Other nestling returned to nestle next to it until almost dusk when stiff-winged bird was put in warm basket but was dead next morning. The writer suspects the effect of refined sugar and this year will give nesting birds diluted honey.

Surviving young continued about syrup cups when parents took less trouble over him and on Nov. 16 abandoned squealing nestling note for broken attempts at adult sounds. After nesting tuis leave The Cliffs, but cock returns to honey pots in cold weather. 8/6/41, squealing notes like nestling indicated presence of mate. Daily since then present with 2 others, one, a young cock, attacked by old cock. 14/7/41, female systematically hunting blight off oleander trees and landed on window after flies.