### DOES THE BLUE DUCK BLUSH?

The Ruakituri River, which joins the Hangaroa River at Te Reinga, 47 miles south of Gisborne, has a good number of Blue Duck (Hymenolaimus malacorhynchus) throughout its length. On a day in January, 1963, a trip through the four miles of steep gorge above the Erepiti Bridge, 12 miles upstream from Te Reinga, produced 18 birds, in parties of twos and threes. This was between 5 a.m. and 8 a.m., whereas from 11 a.m. onwards not a Blue Duck was visible on the same stretch of water, for the reason that during the heat of the day, the birds take shelter in crevices among the boulders. afternoon I stepped down a boulder bank in order to fish a pool, when a Blue Duck fluttered out between my legs and landed on the pool about ten feet away. The colour of the bill of the adult bird, at least in the breeding season, is very pale salmon pink, so that I was amazed to note that the bill of this particular bird was a brilliant "shocking" pink, with a few blotches of slightly paler colour. It is well known that the Little Blue Penguin (Eudyptula minor) "blushes" in its feet, which change from white to pale pink when the bird is agitated or upset; and Dr. R. A. Falla states (pers. comm.) that the feet and bill of the Royal Albatross (Diomedea epomophora) show a pink colour in similar state. The obvious explanation of the colour in the bill of this particular Blue Duck is that confusion or fright caused a rush of blood to the bill. Such an observation will be unusual, as the species is so completely unafraid of man. Unfortunately the bird flew after a minute or less, so that the recession of the colour was not observed. A. BLACKBURN

## COLOUR VARIATION AND LAYING SEQUENCE IN GULLS' EGGS

While carrying out field studies in the breeding of the Blackbacked Gull (Larus dominicanus) at Napier in 1959, D.H.B. found that the variability of the ground colour and markings of eggs within a single clutch appeared to be consistent with the order in which the eggs were laid. Preston (1957) had previously observed this to occur in eggs of the Laughing Gull (L. atricilla) and the Common Tern (Sterna hirundo).

Unfortunately, a party of school children destroyed the majority of clutches under observation at Napier before sufficient data could be collected to justify statistical analysis. Nevertheless, based on 58 nests in which the order of laying of all eggs was known, and a further 11 in which the last egg was known, D.H.B. felt that the last egg could be identified in more than 90% of the clutches, though the variation between first and second eggs was less well-marked so that these could be separated with less confidence. In extreme cases, the ground colour of the first egg was brown or dark olive in tone, the markings consisting of dark blotches and spots, particularly at the larger end. The last egg, on the other hand, was almost invariably grey, the markings consisting of small spots and what Preston aptly calls "scribbles." The second egg was either intermediate between the first and second, both as to ground colour and markings, or else tended to resemble the first egg, sometimes sufficiently so to make it difficult to decide the order of their laying, had this not already been known. Occasionally the third egg in a clutch was found to resemble the second in certain other clutches, but in no case in the group of clutches under study were the "scribbles" found on any but a third egg.

In November 1961, E.W.D. and D.H.B. began a study of a colony of Black-billed Gulls (L. bulleri) on the Ashley River, Canterbury, a week or so prior to what proved to be the start of hatching. A variation in pigmentation similar to that noted in L. dominicanus was found to occur, and the eggs were then marked (with "Maruzen" ink) X, Y, and Z in what was judged to be the order of laying. This was on November 19, and the colony was visited frequently in evenings and week-ends up to December 3, and again on December 9, covering most of the hatching period. This proved to be a fairly difficult test of the theory, as there were only eight 3-egg clutches and 44 of 2 eggs only. Of these we were able to determine the hatching order of six of the former and 26 of the latter. In the 6 3-egg clutches, the hatching sequence proved to be XYZ in three cases, XZY in two cases and YZX in one case. In the 26 2-egg clutches, the hatching sequence was XY in 24 and YX in the other two.

Until it can be proved that the eggs in a clutch of Black-billed Gulls hatch invariably in the sequence in which they are laid, this test cannot be regarded as conclusive, but we suggest that it justifies further investigation by anyone with suitable opportunities to work

with large colonies of gulls or terns.

## REFERENCE CITED

Preston, F. W., 1957: Pigmentation of Eggs: Variation in the Clutch Sequence. Auk, 74 (1): 28-41, 4 text-figs., 6 tables, plates 2-4.

\_ E. W. DAWSON & D. H. BRATHWAITE

#### \*

#### BLACK-FRONTED DOTTEREL NEAR OAMARU

On 9/10/63, laden with photographic gear, I was crossing the Kakanui River near its junction with the Kauru, a few miles from Oamaru, when I noticed a small dotterel which looked unfamiliar; but I gave it only fleeting attention. When I returned about 4 p.m. and was recrossing the river, I flushed the bird again. It had a distinctive flight and markings, quite different from those of a Banded Dotterel (C. bicinctus). I spent the next two hours watching it and trying to secure satisfactory photographs. Some of these I was later able to submit to Dr. R. A. Falla, who was able to identify the bird at once as a Black-fronted Dotterel (C. melanops).

\_\_ IAN L. McVINNIE

# NORTH ISLAND FIELD STUDY WEEK-END ROTORUA, 25th - 28th OCTOBER, 1963

When the visitors arrived they learned with regret that the R.O. for Volcanic Plateau, Mr. C. D. Blomfield, had been ill for some time and had gone to hospital. However, Raymond Jackson had been appointed Acting R.O. and he and a band of local stalwarts had performed a prodigious amount of work and organisation and the situation had been well and truly saved. The use of the Tourist Dept's. Social Club Hall had been given free of charge and it was the rendezvous for meetings and the assembly point for outings. On the Friday evening when most members had arrived F. E. Gee welcomed the visitors and outlined the programme. Before midnight all of the thirty-three visitors