## SHORT NOTES

## LONG INCUBATION PERIOD OF BLACK SWAN

Using a boat I visited the nest of a pair of Black Swans (Cygnus atratus) on 12/8/59; and though it was not possible to see the nest properly, the pen was covering at least three eggs. On 15/8/59, when I approached from dry land, there were five warm eggs and the pen was incubating. There were still five eggs at 4 p.m. on 27/9/59, and five newly hatched cygnets at 1.30 p.m. on 28/9/59. These dates give a minimum incubation period of 44, perhaps 45, days, which is rather longer than any given in the literature. Delacour and Scott (Waterfowl of the World 1, 60) allow 34-37 days; and for no species of swan is a period of more than 42 days given.

Delacour's statement that Black Swans never voluntarily leave the nest unattended is not correct. On a number of occasions the cob was seen to collect the pen; and both birds would leave and feed together for 1 to  $1\frac{1}{2}$  hours before the cob escorted her back again.

The cob never set.

When returning to the eggs the pen went through a most interesting display (v. Plate XVI) whereby the neck was bent sharply into the shape of an inverted staple, immediately on sighting the eggs. This was accompanied by prolonged hissing and a marked swelling out of the neck feathers making the neck twice its usual thickness. At first it looked like a threat display, but the angle is different. In threat display the curve is more C-shaped and directed forward. In this display the neck, shaped like an inverted U, was pointed down.

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## THE COOT COLONY AT LAKE HAYES

In a previous account, Soper and Small (Notornis VIII, 98) give details of Australian Coots (Fulica atra australis) breeding in the Arrowtown district. The colony has been periodically observed since two pairs of birds were first noticed in October, 1958, and some interesting information has been obtained.

A count made in April, 1959, revealed about forty birds, a considerable increase on the four first observed in the previous October. By winter this number had further increased to seventy-two. According to Coward (The Birds of the British Isles), Coots are capable of rearing as many as two clutches each season; the second one is not necessarily a re-nesting due to loss or desertion. It would appear that the Coots

at Lake Hayes have done this.

A count in January, 1960, showed a reduction in number to thirty-two birds, with a tendency to move away from the lake. The Coots appeared to be feeding exclusively on beds of aquatic weeds, crow-foot (Ranunculus fluitans) and milfoils (Myriophyllum spp.). Little or no calling was heard. Calling had been a significant feature of breeding the previous season, both during incubation and after; gradually tapering off as the young approached adult size. Holiday-makers moving in small boats around the willow-lined shore of the lake caused the Coots to move to another part of the lake, but it is doubtful whether this would have influenced the tendency to move away to other areas. By April the number was further reduced to sixteen. Recent counts, however (2/6/60), show an increase to fifty-two birds.



IPhoto by M. F. Soper

XVI — Black Swan (Pen). She has just returned to the nest and is shown swelling and arching her neck, an action accompanied by hissing as she sights the eggs (v. p. 61).