

Acridiids and the absence of any membranous wing remains associated with the Hymenoptera, suggest ground feeding. The brush-tongue may of course be useful in apprehending very small creatures such as comprised the main diet of the specimen concerned. The paucity of plant remains in this specimen contrasts with the diet of the Rufous Bristle-bird (*D. broadbenti*), as listed by Lea and Gray (*The Emu*, xxxv, p. 167), for seeds or berries figured prominently in 12 out of the 13 stomachs examined."

## Nesting Notes on Plumed Tree Ducks

By A. F. D'OMBRAIN, West Maitland, N.S.W.

The following nesting notes concerning Mr. A. Bailey's Tree Ducks (*Dendrocygna eytoni*) are to be read as supplementary to those appearing in *The Emu* for April, 1945:

SEQUENCE OF LAYING			
January		P.M.	
27 to 30 . . . . .	Fixing nest.	5.45	6.30
31 . . . . .	1st egg.	6.10	6.40
February			
1 . . . . .	Fixing nest.	5.50	6.30
2 . . . . .	2nd egg.	6.5	6.35
3 . . . . .	Fixing nest.	6.15	6.45
4 . . . . .	Bird did not go near nest.		
5 . . . . .	Fixing nest.	6.25	6.40
6 . . . . .	Fixing nest.	6.20	6.40
7 . . . . .	Hawk about. Did not go near nest.		
8 . . . . .	3rd egg.	6.30	7.00
9 . . . . .	4th egg.	7.10	7.30
10 . . . . .	Fixing nest.	6.45	7.10
11 . . . . .	Fixing nest.	6.45	7.15
12 . . . . .	5th egg.	6.00	6.30
13 . . . . .	6th egg.	6.00	p.m. Stopped on nest till morning
14 . . . . .	7th egg.	6.15	to 7.15
15 . . . . .	8th egg.	5.50	to 6.40

The birds started to sit on February 15, both birds sharing in the incubation and changing shifts about every twenty-four hours. They always change between six and seven in the evening. The drake approaches the nest and stands a few yards away, looks everywhere to see that no danger threatens, gives a whistling call and is answered by the duck. On his arrival at the nest, the duck slips quietly off at one side and the drake at once enters from the other.

The nest is built under fairly dense fern, and other shrubs, alongside a brick wall, and within a few feet of the entrance to the house. When first hollowed out the nest was nothing more than a hole in the earth about four inches in depth and ten inches across, with no sign of any form of lining. It was not until the third or fourth egg

was laid that lining could be detected, although the bird appeared to be breaking off foliage from the surrounding bushes and ferns during the time it was sitting on the nest while the eggs were being laid.

It is most interesting to note that the eggs were all laid between 5.45 P.M. and 7.30 P.M., in contrast to my Black Ducks, which always laid in the early morning. It is also interesting, in view of ultimate results (two only hatched), to note that a gap of six days elapsed between the laying of the second and third egg, although I do not think this had any bearing on the results.

As the laying progressed, more and more fern leaves and dry plant stems were added by both birds. When the sixth egg was laid the bird stayed on all the morning. My ducks usually do this when nearing the completion of the full clutch.

On March 16, twenty-eight days after the last egg was laid, two ducklings were out on the pond at 8 A.M., but as one had been seen the previous day in the nest, and three pieces of shell were found some thirty yards away from the nest, it is most likely that the birds hatched out on March 15. The pieces of shell give an interesting clue, as I had never previously found any shell outside the Black Duck's nest. They appear to tramp the shells into the lining and perhaps eat some of them. It seems possible that the drake may have taken this shell away when he came off the nest. There were a few small pieces of shell in the lining of the nest, but as six of the eggs did not hatch, it can not be said with any degree of certainty that the birds make a habit of removing the empty shells.

Possibly the most interesting point concerns the absence of down lining of any sort in the nest. As both birds share the incubation so thoroughly, it is quite natural that unless they were frightened off the nest there would be no need for any covering of the eggs at all. It would be interesting to find out if they cover their eggs in their wild state when disturbed.

During the time the birds were sitting the drake was very quiet and did not move when we examined the nest from a few feet, but the duck inflated her body and hissed and darted her neck about if we inspected the nest while she was on.

The young birds are the tiniest ducklings I have seen, much resembling the young of the Black Duck, in colour and marking.

Another extraordinary observation we noticed was the tendency of the drake, more than the duck, to look after the young ducklings. At first I could not believe this possible, but we had one sure proof. The drake at present has much larger plumes than the duck—this Mr. Bailey had noted when the duck was laying, so we were able to identify

the drake positively. Their plumage is so similar at present, apart from this, that it would be impossible to distinguish the sexes.

In spite of the paternal responsibilities he has assumed, I noticed that the drake was just as clumsy as the duck with the young birds. He frequently walked on them, or knocked them over, and on the second day it was hardly surprising to find one of the ducklings dead. They appeared to be much more frail than young Black Ducks, although surprisingly active at times.

The remaining six eggs were measured and then broken open. One only had a partly-formed young bird, in a very early stage of incubation, and I cannot understand why it did not hatch with the rest, as it was a fertile egg. The rest all had the yolks intact, and were all infertile. This was most unexpected in a pair of wild birds which would hardly be likely to come from the same clutch, and also as they had hatched twelve young from the last time of nesting.

The eggs were peculiarly pointed, the apex being pointed as well, and there were no markings of any colour on the shell as mentioned by some observers. Measurements were as follows: (1) 1.93 mm. x 1.43 mm., (2) 2 x 1.37, (3) 2.03 x 1.43, (4) 2.06 x 1.43, (5) 1.93 x 1.37, (6) 1.87 x 1.37. The colour was a creamy white but they probably appeared darker than normal on account of being nest stained.

The lining of the nest lifted out in one piece. It was almost two inches thick at the centre, and measured ten inches across. It was almost entirely composed of leaves from the fern which the birds had bitten off and worked into the nest whilst sitting.

I am indebted to Mr. A. Bailey for his keen interest in supplying the nesting times, and for assistance in general observations.

**Reed Warbler in Garden.**—At Portland (Vic.) late in 1944, the Reed Warbler (*Acrocephalus australis*) was heard calling repeatedly from a garden about 100 yards from a large swamp at the back of the town. The garden is over a small hill and out of sight from the reed-bed usually frequented by the birds.

There seemed to be only one bird calling each time, and although a watch was kept on several occasions, it was well hidden in a tangle of shrubbery. Once I caught a glimpse of the bird as it flew swiftly over the hedge towards the swamp.

The owners of the garden readily identified the bird from the pictures in the bird books, and say it sometimes sits on the clothes-line well out in the open. It had been noticed in the garden for some weeks.—I. WATSON, Jolimont, Vic., 14/2/45.