



Adult Yellow-tailed Thornbill at entrance to nesting chamber.
The cup-shaped 'cock's nest' is directly above the nest proper.

Photo. by K. A. Hindwood.

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Nest-building Habits of the Yellow-tailed Thornbill

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The Yellow-tailed Thornbill (*Acanthiza chrysorrhoa*) normally builds a double nest. It consists of a domed structure thickly lined with feathers and having a side entrance; this is the actual nesting chamber in which the eggs are incubated and the nestlings reared. On top of the nesting chamber, but sometimes at the side of it, or even built separately, is a second nest which may be cup-shaped, partly domed or entirely roofed. Often this top nest is rather crudely built, though on occasions it is well constructed. It is never lined with feathers or other materials, such as wool or fur, to the same extent as the lower, or true nest. Rarely the top nest may be absent. Mr. A. H. Chisholm recently told me of such an instance noted near Melbourne; also that some years ago he found a nest of the Yellow-tailed Thornbill with the usual top nest and an extra nest built at the side.

The purpose of the upper, or ‘cock’s nest’, has been the cause of considerable discussion. Two generally advanced theories have been—(1) that it is built to deceive cuckoos or other enemies of the species, and (2) that it is used as a roosting place by the male bird during the day, or at night. Comments on the subject have appeared at various times in the pages of *The Emu*. D. J. Dickison, after extensive field experience with the species, is “. . . extremely doubtful whether it is possible to accept either theory as a solution to the problem.” (*The Emu*, vol. 33, 1933, p. 127). I agree with that remark.

Some notes and a photograph of an adult bird (said to be a female, but, as the sexes are similar in plumage, it may have been a male) sitting in the top chamber of a nest were published in *The Emu* in 1932 (vol. 31, pt. 3, January, p. 174, pl. 34).

Recently a pair of Yellow-tailed Thornbills built their

nest in a wild verbena (*Verbena officinalis*) shrub near my home at Lane Cove, Sydney. The nest was about a foot from the ground and the bush in which it was built was quite isolated in a grassy paddock. The situation was ideal for observation and I spent some time watching the birds.

When found, on August 3, 1946, the nest contained two eggs. Examination by torchlight that night showed that the female (presumed) was sitting; the following morning a third egg had been laid. From subsequent observations it seemed that only the female incubated the eggs; this she continued to do until August 17 when the nest and eggs were destroyed by boys. I imagine that the eggs must have been near the point of hatching because thirteen days had passed since the last egg had been laid.

Fortunately it was possible to differentiate the two birds of the pair in the field. The male, presumed from his actions in chasing another bird of his kind away from his mate and in attacking a male Blue Wren (*Malurus cyaneus*) that approached close to the nest, was a semi-albino. The markings on his head were normal; from the crown along the back the grey feathers faded to a dirty white; the rump was yellow, as in normal birds; whilst the underparts were entirely white. I had seen this bird, with a party of normal-coloured birds, on the fairway of a golf course about a mile away, some five months previously.

I watched the birds on a number of occasions. Whenever the female left the nest, the male would follow her about as she fed on the ground. He was never seen to enter the egg-chamber and sit on the eggs, though he spent much of his time collecting material which he usually added to the top nest, in which he would sit for a minute or two but never for a longer period.

The male bird, whilst apparently taking no part in the incubation of the eggs, continually added material to the top nest up to the time the nest was destroyed, two weeks after the full clutch of eggs had been laid. Occasionally he would build it into the nest proper. From earlier observations on the habits of the species I found that both sexes help to build the nest proper, and to feed the nestlings. Apparently the male, as in the case cited above, takes little, if any, interest in incubation. It seems likely that his nest-building habits continue after the eggs have been laid and that this instinct finds expression in the elaboration of the upper nest. The top nest, then, is truly a 'cock's nest' and, whatever may have been the utilitarian purpose (if any) underlying its origin, it now serves no other purpose than to satisfy his nest-building instincts. The strength of the impulse may vary a good deal in individual birds; this is obvious from the fact that the 'cock's nest' may range from a primitive structure to a well-built domed chamber. Rarely is it entirely absent.

In order to test the theory that the top nest may be used by the male bird as a roosting place at night I visited the nest with a torch on eleven nights, between the hours of 8 p.m. and 11 p.m. In no instance was the male bird in the top nest, though the female was sitting on the eggs in the lower nest, except on one warm moonlight night (August 11), seven days after the full clutch had been laid. A check visit the same night about an hour later revealed that the female was still absent. Apparently she did not incubate that night.

During my visits at night a close examination of the small bush in which the nest was built failed to reveal the presence of the male, which must have roosted elsewhere, possibly in a clump of trees about thirty yards away.

In view of my notes on the actions of the pair of birds at Lane Cove, and on previous observations on the habits of the species, I suggest that the upper chamber or 'cock's nest' is the natural outcome of the nest-building instincts of the male bird which persist after the essential nest, in which the eggs are deposited, has been completed. As the male appears to take little, if any, part in incubation, the nest-building impulse, in greater or less degree, persists until such time as the eggs hatch, after which time he is fully occupied, together with the female, in feeding the nestlings.

I think that this is a logical explanation of the additional nest, generally built on top of the nest proper, though at times adjoining it, or even separated from it a little. In any future work on the subject it is, of course, essential that the sexes should be distinguishable in life; this could be accomplished by banding or by marking the birds in some way. With the pair of birds nesting near my home this was possible because the presumed male was a semi-albino.

Deserted Cygnets.—Western Australian newspapers of October 1946 gave considerable publicity to nine young swans that were abandoned by their parents at Lake Violet, Wiluna, apparently because the lake became too salt for the birds' liking. The chairman of the local roads board telegraphed the Curator of the Museum at Perth, Mr. L. A. Glauert, who set in motion arrangements to have the birds brought to the Perth Zoo. Despatched by train, a 700-mile 36-hour journey resulted in the young birds, which were aged about three months, being released in a bamboo-shaded pool with an amplitude of food and everyone's 'solicitations'. Prompt action at both ends of the journey made the 'migration' successful.—C. E. BRYANT, Melbourne, Vic., 20/12/46.