

Notes on The Rock-Warbler

By K. A. HINDWOOD, R.A.O.U., Willoughby, N.S.W.

A striking point among many extraordinary habits associated with the curious little Rock-Warbler (*Origma rubricata*) is the adaptability which it manifests in the choice of nesting sites. Many unusual positions have been recorded at various times in *The Emu*, principally in Vol. V., 1906, p. 233; Vol. XXVI., 1926, pp. 20, 22; and Vol. XXVII., 1927, p. 125; of interest also are the notes occurring in a letter sent to me by Mr. J. C. Wyburd, Superintendent of Caves, Jenolan, N.S.W. Mr. Wyburd writes of the bird:—

"... to get to the foundation of their nest on the point of a stalactite or from a crevice in the roof they do their work upside down. A pair built their nest right over the dynamo in the engine shed here and would rest on the engineer and eat from his hand, but if strangers were present would not come into the building at all; one pair built their nest in the carpenter's shop, suspended from a whitewash brush, and they love to get under the eaves of a house or shed and suspend their nest from the ridge board of roof. I have seen the *Origma* nest in some very queer places."

During the latter part of 1928 Mr. Norman Chaffer observed a pair of Rock-Warblers building in his boathouse at Roseville, near Sydney. As the shed was invariably closed the birds apparently gained access through some small opening in the boards. Not the least remarkable thing about this nest was that, later, it contained an egg of the Fan-tailed Cuckoo (*Cacomantis flabelliformis*), which the Rock-Warblers successfully hatched.

One must concede to the Fan-tailed Cuckoo a degree of intelligence in discovering this nest, which could only have been accomplished by watching the intended foster-parents building. It is scarcely possible that the Cuckoo chanced upon one of the birds going to the nest during the limited period when it contained fresh eggs; in other words, when it could have been successfully parasitized. Moreover, the semi-darkness of the situation did not seem to have deterred the Cuckoo.

In the neighbourhood of Middle Harbour, Sydney, the Rock-Warbler appears to be the favourite fosterer of the Fan-tailed Cuckoo. A. J. North's notes (*Nests and Eggs*, Vol. I., Pt. IV., 1904, p. 311, *et seq.*) indicate how frequently *Origma* is duped. Therein are records of some fifteen nests of the Rock-Warbler containing either an egg or young of the Fan-tailed Cuckoo. Later many such instances are recorded by other naturalists.

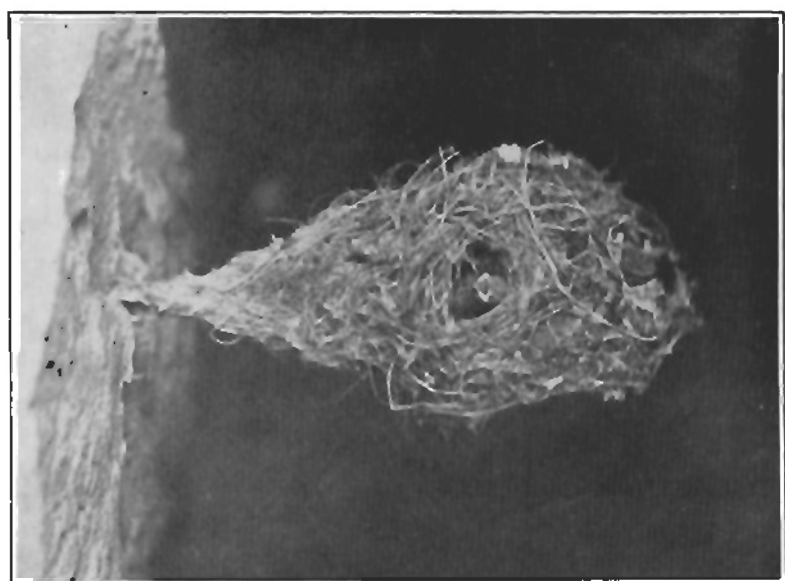
On October 13, 1929, I observed, at Middle Harbour, two pairs of Rock-Warblers in different areas each feeding a young Fan-tailed Cuckoo; both Cuckoos could fly well and from their appearance had left their respective nests at least a week. Usually terrestrial, the Rock-Warblers in both cases fed the noisy Cuckoos in trees from ten to twenty-five feet above the ground.

The preceding remarks relative to Cuckoos open some interesting points for discussion. From a study of the habits of the many Australian Cuckoos it seems fairly evident that along somewhat broad lines, generally, and exclusive of "chance" combinations, various species of Cuckoos have their favourite fosterers. A good case in point is that of the Black-eared Cuckoo (*Owenavis osculans*) and the Speckled Warbler (*Chthonicola sagittata*). Further, from printed records and from my own observations I feel almost certain that in restricted areas a particular female Fan-tailed Cuckoo will endeavour to parasitize, year after year, one species of bird, but this does not necessarily mean that in another area the same species will be duped.

Thus we may deduce that Cuckoos, whether migratory or nomadic, usually return to the same locality to lay; also it seems probable that young Cuckoos possess an instinct prompting them to return to the territory of their birth and dupe birds of the species (or perhaps the genus) by which they were themselves reared. Indeed this must be so in the majority of instances. How else can we account for the fact that probably about 70 per cent. of the foster parents of the Pallid Cuckoo (*Cuculus pallidus*) are Honey-eaters?

An unusual set of Rock-Warblers' eggs was examined at Waterfall, N.S.W. on October 20, 1929. The three eggs were sparingly sprinkled with minute black specks, having the appearance of dust; they were then on the point of incubation, one in fact being already chipped. On visiting the nest a week later it was found lying on the floor of the rock shelter, empty and broken. As the structure was barely a foot from the ground attached to a shelving ledge of sandstone, it may have been pulled down by a goanna (*Varanus varius*) possibly attracted by the squeaking of the young birds. One of these destructive reptiles had been seen nearby.

It is interesting to note here that North, referring to the eggs of the Rock-Warbler, states that several sets taken, especially those which contained an egg of the Fan-tailed Cuckoo, had the larger ends of the eggs sparingly peppered with almost invisible markings of purplish-red. I doubt, however, whether any sound deduction can be drawn from



Nest of Rock-Warbler.

Photom. by K. A. Hindwood, R.A.O.U.



Nestling Square-tailed Cuckoo (*Cacocyanthus pinnatus*) about thirty hours old. It is at this stage of its growth that it ejects the other occupants of the nest.

the fact that North sometimes found the Cuckoo's egg in combination with the spotted eggs of *Origma*.

The latest I have known immature Rock-Warblers to be in the nest was instanced by a colleague finding a nest, under a culvert at Waterfall, containing three almost fully grown young which vacated their home on December 18, 1929.

Observations on The Habits of Cuckoos

By K. A. HINDWOOD, R.A.O.U., Willoughby, N.S.W.

During recent years careful and accurate field work by English and European ornithologists has added much to our knowledge of the furtive and secretive ways of female Cuckoos, and has dispelled the many hypotheses which seem to have been the outcome of the merest speculation. Whilst such observations and the resultant conclusions mostly concern the European Cuckoo (*Cuculus canorus*), it is obvious that they can be applied with slight modification to parasitic Cuckoos inhabiting other regions of the world.

The manner in which the Cuckoo deposits its egg in the nest of its host has frequently been discussed. There is ample evidence that in many instances the egg is laid on the ground, transferred to the bill, and in this way taken to the nest; this would seem to be the method generally used where it is difficult or impossible for the Cuckoo to enter or sit on the nest. With more accessible nests, especially cup-shaped structures, a Cuckoo will often, though not invariably, lay its egg in the nest. This has been proved by Edgar Chance (*The Cuckoo's Secret*, 1922), who photographed and filmed an English Cuckoo in such circumstances. Also it has been suggested, not without circumstantial evidence, that the Cuckoo, whilst clinging to the side of a domed nest, or the opening of a hollow limb, will bring its oviduct to the nest-entrance and in this way deposit her egg.

As far as I am aware there are no other field observations that indicate a fourth method; thus Mrs. E. H. Linton's remark (*The Emu*, Vol. XXIX, 1930, p. 305) concerning the actions of a Fantailed Cuckoo (*Cacomantis flabelliformis*), which took its egg to the nest of the intended fosterer clutched in its foot is of outstanding interest. One would scarcely suspect that the Cuckoo possessed a sufficiently precise sense of touch in its claws to enable it to perform what is obviously an exacting achievement. Similarly, the control of its flight to allow