

## CO-OPERATIVE BREEDING IN ROBINS OF THE GENUS *EOPSALTRIA*

In September 1978 we set up a hide at a nest of White-breasted Robins *Eopsaltria georgiana* and, after the eggs hatched, caught and colour-banded the adult pair. The day after we had marked the adults, we saw the female at the nest; another unbanded bird coming to the nest was caught and marked. We then saw the female, two other marked birds and yet another unbanded bird feeding the nestlings. Before the two nestlings fledged, we watched four colour-banded birds as well as the female, feeding them. The female brooded but we saw no attempts to do so by the other four birds at the nest. We have had no previous experience of co-operative breeding in this species and Rowley (1976, Proc. XVI Int. orn Congr.: 657-666) and Dow (in press, Emu) do not report White-breasted Robins as doing so.

We marked birds and watched them at three other nests of White-breasted Robins. At one, besides the female, there were three other colour-banded birds, and another that we could not catch attending the young. At another, there were two birds besides the female. The third had a simple pair and a clutch of one egg instead of two, as is usual. All young from these nests fledged.

We have banded 240 White-breasted Robins locally, using bands supplied by the Australian Bird Banding Scheme, CSIRO. Measurements of wings of adults have ranged from seventy-two to eighty-four millimetres, maximum chord. Females, identified by an obvious brood patch or by cloacal examination, all measured seventy-two to seventy-seven millimetres. Of the nests mentioned above, the females measured seventy-five millimetres twice and seventy-seven millimetres twice; those of the nine birds associated with them from eighty to eighty-three millimetres. Of the total sample, forty per cent ranged from seventy-two to seventy-seven millimetres, the rest being between seventy-eight and eighty-four millimetres. Thus males

may predominate in the population.

Jenkin and Waterman (S. Aust. Orn. 24: 45-48) observed three individuals of the Western Yellow Robin *Eopsaltria griseogularis* feeding nestlings in a nest at Ceduna, SA. We have also watched nests of this species. The first contained two nestlings so near to fledging that we refrained from watching them closely for fear of disturbing them but we did determine that three adults were feeding them. After the young fledged we caught them and the adults and marked them. Twenty days later the female was building again, ten metres from the ground in a slender sapling, too high to inspect. We did not know the clutch size but only one nestling fledged. The female with three colour-banded birds, none juvenile, attended it. Western Yellow Robins are not numerous in this area and we have banded too few to provide a sample for determining the sizes of the sexes. Dow (op. cit) records co-operative breeding in Eastern Yellow Robins *Eopsaltria australis*, which, if not conspecific with *Eopsaltria griseogularis* (Ford, Emu 79: 103-106), is certainly very closely related to it.

It is worth mentioning that co-operatively breeding White-breasted Robins nested in remnant forest of Karri *Eucalyptus diversicolor* with understorey of Karri-hazel *Trymalium spathulatum*, a dense shrub-layer and permanent water, whereas the simple pair with one nestling was on higher ground without water, where Karri gave way to Marri *Eucalyptus calophylla* and Jarrah *Eucalyptus marginata*. On the other hand, we found only one pair of Western Yellow Robins alongside the co-operatively breeding White-breasted Robins and two groups of Western Yellow Robins alongside the single pair of White-breasted. The habitats of the two species seemed to complement one another.

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## SOME OBSERVATIONS ON BIRDS IN IRIAN JAYA, NEW GUINEA

The avifauna of Irian Jaya has been rather little studied, the most recent observations being by Hoogerwerf (1964), King (1979), Ripley (1964), Schodde *et al.* (1975) and Yamashina (1970). The following notes are based on observations made in Irian Jaya between 9 March and 9 April 1976 by D. Bradford, T. H. Fisher, F. O. P. Hechtel, R. J. Isherwood and D. Melville.

Observations were made round Biak town (1°12'S, 136°08'E) on Biak Island, Nabire (3°22'S, 135°30'E) at the head of Teluk Sarera (Geelvink Bay), and Enarotali (3°55'S, 136°23'E) at 1,735 metres on Danau Paniai (Wissel Lakes). Observations at Biak were made close to

the town in a mixture of suburbia, cultivated land, coconut groves and secondary forest, with small areas of mangrove growing on uplifted coral. At Nabire we camped in the town and also in the primary forest about six kilometres south. A visit was made to the Boemi River about five kilometres west of Nabire. In the highlands we stayed at Enarotali and in the moss forest at about 2,000 metres near Dauwagu, some twenty-four kilometres east of Enarotali.

In the following list nomenclature follows the standard of the journal for birds on the Australian list; otherwise, Rand and Gilliard (1967).