

The Sedentary Nature of Passerine Birds in Woodland at Moruya, New South Wales

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Results of nest site fidelity from colour-banded passerines at Moruya, New South Wales, between 1975 and 1981 are presented. Data are given for eight species and size of territory is discussed.

It is clear from records published in Recovery Round-up (*Aust. Bird Bander* and *Corella passim*) and other reports (e.g. Wooller and Milewski 1981) that small passerines of woodland and forest often pass their lives in the same place. What this exactly means in terms of area and distribution of nests is less often recorded except in special studies or for individuals traditionally using the same site in holes year after year or long-lasting nests (raptors). From 1975 to 1981 I have annually found the nests of colour-banded* individuals of several passerine species and give details below.

To save space, the following conventional arrangement is used:

- (a) Identification of individual or pair (♀RW = female Red-White).
- (b) Years in which nests found (1975-81).
- (c) Total number of nests in all years (25).
- (d) Longest distance between any two nests (200 m).
- (e) Approximate area within which all nests occurred (2.25 ha).
- (f) Mates according to year, if necessary (♂KO, 1975-76;).

I collected this information at Maulbrooks Road, Moruya, NSW, in about 20-30 hectares of woodland and forest which was almost totally burned out in April and August 1980 before the breeding season had started.

Eastern Yellow Robin *Eopsaltria australis*

♀RW. 1975-81 incl. 25. 200 m. 2.25 ha. ♂KO, 1975-76; 7, 1977; ♂WB, 1978-81. WB had itself been reared in 1975 by a neighbouring pair almost within the area occupied by RW and may have been the mate in 1977. If the years 1975 and 1976 are excluded, i.e. after

RW had been somewhat displaced by the pair recorded next, she had 21 nests in about 1.5 ha, 140 m apart at most.

♂R/GR x ♀YRR. 1979-81 incl. 8(?)9. 130 m. 0.5 ha. This pair probably arrived in the territory in 1977 but was not banded until 1978.

♂YO. 1976-81 incl. 17. 140 m. 1.0 ha. ♀YG, 1976; ♀MB, 1977-80; unbanded ♀, 1981.

♀OB. 1976-80 incl. 17. 135 m. 1.25 ha. ♂OG, 1976; ♂WK, 1977; ♂WB/R, 1978-80. This female disappeared, probably died, during the 1980 breeding season.

These are the individuals for which my records are most complete; at least three other males and five other females have bred in the same small areas throughout the period but I have not found their nests each year. Indeed, I have records for only two females that suggest any substantial changes once the birds have established themselves in a territory. In 1979 RRR had five nests in one small area; in 1980 she was nesting about 250 m distant from it but was back in the original territory in 1981. Female R/OK nested four times in 1979 in one area, probably as a first-year bird and was mated to R/YK, which was known to be a year old; in 1980 she was mated to RGB, which was two years old, and nesting about 300 m distant.

Golden Whistler *Pachycephala pectoralis*

♂YK x ♀KY. 1976-79.

8. 140 m. 0.5 ha. YK died accidentally in a mistnet in September 1979; KY then mated with an unbanded bird, probably the bird banded as BG after breeding. KY and BG occupied the territory in 1980 but, because it had

* Bands used were provided by the Australian Bird-banding Scheme, Division of Wildlife Research, CSIRO.

been almost entirely burned, probably did not nest; in any case KY, looking sickly when last seen on 19 December, probably died. In 1981 BG, mated to an unbanded female, had at least two nests in the same area.

♀GY. 1977, 1978, 1981. 7. 170 m. 0.8 ha. The male(s) was unbanded.

♀RB. 1977-79. 5. 150 m 0.5 m. ♂BW in 1979 and probably in the two previous years, when unbanded. The fire disrupted this pair; RB disappeared and BW was found, perhaps breeding, 500-600 m distant.

Eastern Whipbird *Psophodes olivaceus*

♀WR. 1975, 1977-79. 5. 350 m. 4.0 ha. ♂GR, 1979 but probably also in previous years. Both birds survived the fires in 1980 but disappeared late in the subsequent breeding season without having bred.

White-browed Scrubwren *Sericornis frontalis*

♂BW. 1976-77. 2. 50 m. This bird was banded in 1975 and was still in the same territory in 1980 and 1981 but I could not find its nests after 1977.

♂KO. 1978, 1979, 1981. 4. 130 m 0.6 ha. ♀GG, 1970; ♀R/WR, 1979; ♀R/WW, 1981. This male was banded on 24 November 1975 and has been in the same territory ever since though I did not find its nests each year.

♂RK x ♀WY. 1978-79. 2. 100 m.

Brown Thornbill *Acanthiza pusilla*

♀BW. 1976-78. 3. 95 m. 0.2 ha.

♀OR. 1976-78. 4. 110 m. 0.25 ha.

♂BG. 1976, 1978. 2. 140 m.

♂KW. 1978, 1981. 2. 130 m.

♂BY. 1978, 1979. 2. 85 m.

Yellow-faced Honeyeater

Lichenostomus chrysops

♀GG. 1977-78. 4. 130 m. 0.5 ha.

R/RR 1978, 1979, 1981. 5. 165 m. 0.3 ha.

YR 1977-78. 4. 60 m. 0.25 ha.

Both R/RR and YR were attending the same nests in 1978 but I was not sure of their sexes.

Eastern Spinebill *Acanthorhynchus tenuirostris*

♀OB. 1976, 1977, 1981. 3. 65 m. 0.3 ha.

Pied Currawong *Strepera graculina*

♂PdG. 1979-1981. 4. 200 m. 1.0 ha.

Gaps in these records, e.g. Golden Whistler GY for 1979 and 1980, occur almost certainly because I did not search for or failed to find nests. It must be stressed that some individuals and species, e.g. Yellow-faced Honeyeaters, did not nest at all in 1980 after the fires, because their nesting sites had been destroyed.

For all species mentioned, I have less complete information for other individuals, which suggests sedentariness, and have little doubt that individuals of most non-migratory species rarely leave their territories once they have been established. The full size of territories is, of course, larger than the areas given above, which refer only to the areas within which nests were found; it doubtless varies according to habitat and certainly differs from species to species; for instance, Eastern Yellow Robins have territories less than half the size (± 2 ha.) of those of Eastern Whipbirds (5-10 ha.) here at Moruya. Individuals of some species, e.g. Eastern Yellow Robins and Golden Whistlers, probably rarely leave their territories during their lives; individuals of other species certainly range outside them during the non-breeding season, either joining foraging flocks of mixed species (thornbills) or concentrating at sources of nectar (honeyeaters). Pied Currawongs leave the breeding area almost completely. Nevertheless members of most species return to the same small areas to breed, even individuals of those that are total migrants (Rufous Whistler *P. rufiventris*).

I have observations on individual Grey Shrike-thrushes *Colluricincla harmonica*, Grey Fantails *Rhipidura fuliginosa*, Spotted Quail-thrushes *Cinclosoma punctatum*, Striated Thornbills *A. lineata*, Lewin's Honeyeater *Meliphaga lewinii*, New Holland Honeyeaters *Phylidonyris novaehollandiae* and Olive-backed Orioles *Oriolus sagittatus* that support this view of sedentariness but they are no great improvement on what is already published.

Reference

- Wooller, R. D. and A. V. Milewski (1981), 'Site-fidelity in some birds of the understorey in Karri forest', *Emu* 81: 171-173.

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