

FIRST RECORD OF THE BROWN HAWK-OWL *Ninox scutulata* FROM AUSTRALASIA

On 6 January 1973 a carcass of a Brown Hawk-Owl *Ninox scutulata* was found on Ashmore Reef, an Australian Territory on the edge of the Australian continental shelf about 300 kilometres north-west of Admiralty Gulf, Kimberley Division, Western Australia. Identified as a 'Boobook', it was given to the Australian National Wildlife Collection, CSIRO, Canberra, via the Australian Museum, Sydney, for preparation as a skeleton. When checking its identity before preparation, we realized that the bird was a new species for Australia and the Australasian Region and sent it to Mrs M.K. LeCroy for comparison with material of *Ninox scutulata* in the American Museum of Natural History. She confirmed our provisional identification. It has now been preserved as a mummy, registration number 36762.

Its characters are: a uniform brown dorsum with reduced white spotting on scapulars, white ventral surface with dark-brown drop-like streaks,

contrastingly barred tail and barred under wing-coverts. With a wing of 226 millimetres, primaries 7 and 8 longest and sub-equal, and primary 6 slightly shorter than 9 but much longer than 5, it appears to be of the eastern Asian subspecies, *N.s. japonica* (Temminck and Schlegel) *sensu lato*, which migrates to the Indonesian and Philippine archipelagos during the boreal winter (Hartert 1918, Vögel palaäarkt. Fauna II: 993; Peters 1940, Check-list Bds World IV: 141) and has been known to reach Buru and Wetar. Hartert and Peters refer the migrants to the nominate subspecies but as Eck and Busse (1973, Eulen, die rezenten und fossilen Formen: 140) point out, that name applies to a sedentary form in the Indonesian archipelago.

This record was submitted to the RAOU Record Appraisal Committee, considered by it as Submission No. 17 and unanimously accepted on 21 July 1980.

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SITE-FIDELITY IN SOME BIRDS OF THE UNDERSTOREY IN KARRI FOREST

Earlier work (Wooller and Brooker, 1980, Emu 80: 165-166) has suggested that the composition of the bird community found in the understorey of Karri forest in south-western Australia is largely unaffected by controlled burning and that many individuals remain in an area after fire. A further study was undertaken to examine whether this sedentary behaviour was also characteristic of small birds in a forest fairly undisturbed by fire or logging for over forty years.

Birds were caught in mist-nets placed along an overgrown track off House Brook Road in the Big Brook State Forest near Pemberton in south-western Australia. Twenty nets were used for six days between 7 and 17 May in 1979 and 1980; the weather was very similar in both years. The main large trees present were Karri *Eucalyptus diversicolor* with small numbers of Marri *E. calophylla* and understorey dominated by *Casuarina decussata*, *Bossiaea laidlawiana* and *Trymalium spathulatum*.

Nine of the twelve different species caught in each year were the same in both years (Table I). These nine species were caught most often and, apart from one Grey Fantail, were the only species recaptured, which suggests that they compose a fairly stable community within the understorey. All these species were insectivores, apart from one honeyeater (probably also insectivorous) and a finch. Many of the remaining species were caught only as itinerant groups (e.g. silver-eyes and cuckoo-shrikes).

Of those birds banded in 1979, fifteen were recaptured within that ten-day period and eleven were recaptured the following year, which suggests that many individuals of the most common species are sedentary. In particular, the recapture rates of White-breasted Robins and White-browed Scrubwrens indicate a high degree of site-fidelity in these species, a trend also apparent in the earlier study (Wooller and Brooker, op. cit.). It is clear from other sources (e.g. 'Re-

TABLE I

Numbers of birds banded and recaptured in the Big Brook State Forest, near Pemberton, south-western Australia, in May 1979 and 1980.

Species	No. banded	1979 No. recaptured	No. banded 1979, recaptured 1980	No. banded	1980 No. recaptured
White-browed Scrubwren <i>Sericornis frontalis</i>	17	5	3	18	9
White-breasted Robin <i>Eopsaltria georgiana</i>	9	4	3	17	8
Red-winged Fairy-wren <i>Malurus elegans</i>	10	1	2	11	5
Inland Thornbill <i>Acanthiza apicalis</i>	7	1	1	31	5
Golden Whistler <i>Pachycephala pectoralis</i>	8	2	1	15	2
White-naped Honeyeater <i>Melithreptus lunatus</i>	3	1	1	14	2
Red-eared Firetail <i>Emblema oculata</i>	2	1	—	1	—
New Holland Honeyeater <i>Phylidonyris novaehollandiae</i>	3	—	—	1	—
Grey Shrike-thrush <i>Colluricincla harmonica</i>	1	—	—	1	—
Black-faced Cuckoo-shrike <i>Coracina novaehollandiae</i>	6	—	—	—	—
White-browed Babbler <i>Pomatostomus superciliosus</i>	4	—	—	—	—
Scarlet Robin <i>Petroica multicolor</i>	2	—	—	—	—
Silvereye <i>Zosterops lateralis</i>	—	—	—	15	—
Red Wattlebird <i>Anthochaera carunculata</i>	—	—	—	3	—
Grey Fantail <i>Rhipidura fuliginosa</i>	—	—	—	1	1
Total individuals:	72	15	11	128	32
Total species:	12	7	6	12	7

covery Round-up' in *Corella*) that many birds are very sedentary and S. Marchant (pers. comm.) has found that individual robins, whistlers, shikethrushes, fantails, scrubwrens, fairy-wrens and thornbills may remain within a small area for many years.

It is unlikely that the proportions of the species caught reflect their true abundances. For example, the agility of the Grey Fantail enables it to avoid the nets and results in it being under-represented in catches. Little can be inferred from the greater number of birds caught in 1980 compared with 1979 because the study was so

short. However, the rates of recapture were higher in both years of this study (21% and 25%) compared with those in the earlier work (12% and 14%), which implies that individuals in the less disturbed forest were more sedentary than those elsewhere.

We are grateful to students in the 1979 and 1980 Field Ecology courses at Murdoch University for their help, to the Forests Department for their co-operation and to Dr P. Christensen and Mr I. Rowley for their helpful comments. The Australian Bird-Banding Scheme provided equipment for banding.

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TWO SPECIES OF MEGAPODE LAYING IN THE SAME MOUND

Three species of megapode occur in rainforests between at least 750 and 1,500 metres altitude on the southern slopes of Mt Sisa (lat 6° 9' S, long 142° 45' E), Southern Highlands Province, Papua New Guinea. They are, in order of increasing size, the Common Scrubfowl *Megapodius freycinet*, the Wattled Brush-turkey *Aepypodius arfakianus* and a species of *Talegalla* (possibly the Brown-collared Brush-turkey *T. jobiensis*.) My identification of the last is based upon calls, seeing eggs and recorded distribution (Rand and Gilliard 1967, *Handbook of New Guinea Birds*). The Etolo People, who live in this area, name the birds as Ae:o (said to be onomatopoeic), Gi:e and Aro (also Ogabulo) respectively. They capture some in deadfall traps set for large mammals and use the eggs as an important source of protein (R. Kelly 1977, *Etolo Social Structure*). An active mound becomes the property of the person who finds it and is visited regularly for as long as it yields eggs. They describe mounds of Aro (*Talegalla*) as composed of leaves, twigs and moderately large sticks and those of Gi:e (*Aepypodius*) as being made of leaves and twigs only. They say that Ae:o (*Megapodius*) never makes a mound but lays its eggs in mounds of either of the other species. Rand and Gilliard note for the Molucca's Scrubfowl *Eulipoa wallacei*, which usually migrates to sea beaches to lay eggs in the sand, that 'it

has been suggested that this species may occasionally lay an egg in the humus mound of a *Megapodius*'. The behaviour described by the Etolo has not been recorded in ornithological literature. Indeed, Rand and Gilliard imply that the species mentioned are separated either altitudinally or by habitat. Here I give notes on breeding and provide some support for Etolo statements concerning the use of the same mound by different species.

Table I summarizes information on the dimensions of eggs.

Most of my data concerning eggs are based upon offers (usually accepted) to purchase. For *Aepypodius* at Bobole (altitude 1,100 m, population 108) I saw forty-two eggs from March 1979 to April 1980. These were offered in all months except March, July, August and November of 1979. At Namisado (altitude 900 m, population 33) visits of seven days in May and September 1979, of two days in January 1980 and of six days in March 1980 produced offers of thirty-two eggs in May and of ten in March. (Another six eggs offered in March were not unwrapped from their moss-lined leaf packages and could not be assigned to species). Apparent differences in abundance of eggs between Bobole and Namisado may, in part, be related to the

TABLE I

Dimensions (mm) and weights (g) of eggs of megapodes.

	<i>Megapodius</i>	<i>Aepyodius</i>	<i>Talegalla</i>
Length			
n	7	27	
Mean	79.3± 1.1	91.1± 5.1	No data
Range	77.8–81.2	82.2–98.8	
Weight			
n	7	27	
Mean	50.9± 1.5	59.4± 2.8	No data
Range	48.5–52.9	51.0–64.2	
Width			
n	8	37	3
Mean	117.1± 7.4	192.0±22.3	233.3±1.2
Range	108–129	120–213	232–235

density of the human population. *Aepyodius* appears to breed through most of the year. Note that Kelly (op. cit.) reports offers of eggs, species not indicated, from April to September.

Four eggs of *Talegalla* were offered or obtained in January 1980. In primary forest at Magidobo (altitude 1,450 m), which was visited each month, *Talegalla* were heard calling from November through February. A collapsed mound, which was first observed in June 1979 and identified from descriptions by the Etolo as that of *Talegalla*, was repaired between October and December. This mound was maintained until at least late February. In mid-March 1980 the accumulation of litter on the ground nearby indicated that the bird had stopped maintaining it. A *Talegalla* called regularly, at night and by day, from near this mound. At lower alti-

tudes (750 to 1,000 m) *Talegalla* were calling in late March and early April. These few data concur with statements by the Etolo that *Talegalla* has a short breeding season.

For *Megapodius* thirteen eggs were offered for sale or obtained in March and May 1979 and from January to April 1980; again, a short breeding period is suggested. One egg, in April, was said to come from an *Aepyodius* mound; another, in May, was offered with a batch of *Aepyodius* eggs. Three eggs in February and one in March were said to come from *Talegalla* mounds. I obtained the three eggs for January from the mound at Magidobo. This mound (250 cm across x 80 high) became my temporary property when I found it actively used on 18 December. On that occasion I did not disturb it. By 2 January it had been raided; I was told that leaves taken from a nearby sapling showed that eggs had been wrapped and so taken by man. On this date I recovered one *Talegalla* egg and one *Megapodius* egg. On 21 January there were no eggs but there was evidence that a snake may have raided the mound. On 28 January I recovered two *Megapodius* eggs; on 18 February I disturbed a *Megapodius* digging a hole down from the top of the mound in preparation for laying and on 25 February there was one *Megapodius* egg. On 10 March the mound had no eggs and appeared not to be actively used.

My data show that at least *Megapodius* and *Talegalla* will lay eggs in the one mound. I did not establish the details of this mound sharing behaviour but have no reason to doubt the knowledge of the Etolo in this regard.

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