SHORT NOTES

Eastern Striated Pardalote eating lizard

Although carnivorous, the species of *Pardalotus* are regarded as insectivores. McKean (in H. J. Frith (Ed.), Birds of the Australian High Country) listed many sorts of insects and spiders as their food. Lea and Gray (Emu 35: 253-256) gave details of similar items and included vegetable matter; they described cicadas taken as being very small.

On 20 November 1974 while making a regular census in dry sclerophyll forest in Black Mountain Reserve, ACT, I saw an Eastern Striated Pardalote *Pardalotus ornatus*, perched three metres above the ground on a lower branch of *Eucalyptus rossii*, with a large object in its beak. This was a small skink, which was alive and vigorously struggling. As the skink arched itself round the head of the bird I could estimate its length as about sixty millimetres without the tail, which had been shed.

The bird beat the lizard on the branch five or six times, then ran its entire length through its beak. As the reptile still struggled, the process was repeated, in all seven times until the lizard was limp and inert. The bird then quickly swallowed it head first with seeming difficulty, after which it remained perched, its beak closed and apparently the lizard completely ingested.

I could not identify the lizard but from general appearance and size of the legs it was probably of the genus *Leiolopisma*, regarded as terrestrial. Pardalotes are not generally thought to feed on the ground nor have I ever seen them do so in my surveys at Black Mountain, where stripe-crowned pardalotes are recorded on every count. However, I have an old field record for Seymour, Vic., where during the whole of August 1953 parties of up to twenty *P. ornatus* were seen daily (?feeding) on the ground under *E. melliodora*.

Almost certainly all these Pardalotes in my study area were breeding by November, though I found no nest where I made this observation. Perhaps the need for increased protein may have prompted this unusual occurrence or it may merely have been opportunistic predation.

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29 November 1974.

Incubation period in the Hardhead

Published information of breeding in the Hardhead *Aythya australis* is little. Frith (1967) lists the incubation period for a single clutch as twenty-five days. This report provides details of one nest found by Mr M. Clayton of the Division of Wildlife Research CSIRO, at Angora Swamp, a swamp among living Red Gums *Eucalyptus camaldulensis* of about 200 hectares thirty kilometres west of Booligal, NSW.

The nest closely resembled and may in fact have originally been the nest of a Coot *Fulica atra*. Coots' nests were numerous in the swamp at the time. It was a loosely woven mound of stems and leaves of lignum *Muehlenbeckia cunninghamii* and rushes *Juncus* approximately 200 millimetres across and about 170 millimetres high resting on fallen eucalypt sticks in thirty millimetres of water on one side and at the base of a living Red Gum approximately twelve metres high and one metre thick at the base. This and several, similarly sized trees nearby shaded the nest. The nest was placed in a small patch of green vegetation, a mixture of sparse lignum stems and rushes approximately 1.5 metres across and 0.6 metres high. The lining of the nest-cup (160 mm across, 80 mm deep) contained five or six green gum leaves. At no time during incubation was there more than a sparse layer of down. Even near the completion of incubation the stems and leaves of the nest proper were clearly visible between small tufts of grey (Royal Horticultural Society London, colour code 201 D) down.

The dates and times of visits to the nest and details of nest contents, egg measurements (in millimetres) and Floatation Index*, were as follows:

19 September 1974, 10:00; 3 eggs: 57.2 x 42.0, FI 20; 57.3 x 41.5, FI 15; 57.2 x 41.1, FI 10. A female Hardhead was flushed from near the nest.

21 September 1974, 17:00; 2 eggs had been added: 58.5 x 40.3, FI 10; 57.9 x 40.3, FI 10. Again a female Hardhead was flushed from near the nest.

25 September 1974, 18:00; 1 more egg had been added bringing the clutch to six: 59.5 x 41.2, FI 10.

*FI. Floatation Index is a measure of length of incubation (Braithwaite, Aust. Wildl. Res. in press) based on the angle that the long axis of the egg makes with the horizontal when the egg is immersed in water or, if the egg floats, the angle that the long axis makes with the vertical. The Index values range from about five when an egg is fresh to about 120 just before hatching.

15 October 1974, 19:30; six eggs were still in the nest. The female Hardhead was flushed from the nest when the boat approached to within ten metres. Flotation indices of the eggs from 1 to 6 were: 115, 105, 100, 105, 105, 100.

24 October 1974, 08:00. The clutch had hatched leaving one egg next to the nest. This egg had nearly hatched. A chick had partly emerged but appeared to have died within the last twenty-four to forty-eight hours. There was no sign of putrefaction and the cornea of the eyes showed only the first indications of opacity. The membranes inside the hatched shells were not yet dry. It was estimated that the young probably had hatched and left the nest within the previous forty-eight hours.

If incubation began with the laying of the second last or last egg of the clutch, about 21 or 22 September, and hatching occurred on 22 or 23 October, the incubation period was between 30 and 32 days.

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6 March 1975.

First record of the Marsh Crake for the Northern Territory

There appear to be no previous records of the Marsh Crake *Porzana pusilla* from the Northern Territory (cf. Storr 1967, Spec. Publ. W. Aust. Mus. 4). During July 1974, three specimens were procured by TOW on a billabong about one kilometre south of the deserted station of Kapalga on the western bank of the South Alligator River (132° 26′, 12° 37′). Measurements of specimens (mm) are: CSIRO Reg. No. 17673, sub-adult ♂, 19 July 1974: wing 84.0, tail 45.0, tarsus 24.7, exposed culmen 15.8, weight 35 grams; CSIRO Reg. No. 17674, adult ♂, 19 July 1974: wing 81.0, tail 43.0, tarsus 24.8, exposed culmen 15.4, weight 30 grams; CSIRO Reg. No. 17677, sub-adult ♂, 25 July 1974: wing 79.0, tail 42.0, tarsus 24.5, exposed culmen 15.6, weight 31.5 grams. A fourth specimen was collected on 3 September 1974 by J. L. McKean at Holmes Jungle, Darwin (130° 57′, 12° 24′), but was unfortunately lost in cyclone Tracey on 25 December 1974.

The billabong at Kapalga where the specimens were taken is semi-permanent, about 400 metres in diameter, and carries a stand of paperbark *Melaleuca* round its perimeter and a platform-like growth of *Sesbania* about two metres high in its centre. It was fringed by scattered groups of *Sesbania* and open ground grazed by buffalo *Bubalus bubalis;* the water's edge was covered with reeds and water-lilies, giving way to patches of open water towards the dense floating mass of *Sesbania* in the centre. On both visits (19 and 25 July) fifteen to twenty Marsh Crakes, similar numbers of White-browed Crakes *Poliolimnas cinereus* and up to ten Land Rails *Rallus philippensis* were seen sheltering on the platform of *Sesbania* during most of the day and venturing out singly, in pairs or in groups of four or five to feed through the reeds and about the vegetated fringes of the billabong at dusk and in the early morning.

Up to five birds were seen at Holmes Jungle swamps on 2 and 3 September 1974 by J. L. McKean and H. A. F. Thompson. They were found only in clumps of Bullrush *Typha* which grew only in areas of fresh water even though other reed-beds of *Scirpus* seemed equally attractive. Further searches of the reed-beds up to March 1975, have failed to reveal any more birds.

The specimens of the Marsh Crake were all referable to the southern, Australian, race *palustris* Gould, 1843. Most were immature, had much fat laid down and possessed inactive gonads. This, together with the observed disappearance of Marsh Crakes from the Kapalga and Holmes Jungle swamps in September, suggested that they were wintering migrants from the south. Thus Marsh Crakes probably wander and winter in the swamps of the coastal plains of the Northern Territory wherever circumstances are suitable.

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26 May 1975.