

A NOTE ON THE DIET OF THE AUSTRALIAN OWLET-NIGHTJAR *Aegotheles cristatus* FROM NEAR WARREN, NEW SOUTH WALES

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INTRODUCTION

The Australian Owlet-nightjar *Aegotheles cristatus* occurs widely in woodlands and dry sclerophyll forests throughout Australia (Blakers *et al.* 1984). They are one of Australia's most widespread nocturnal birds, particularly in inland regions (Hollands 1991) and are active mainly in the hours after dusk and before dawn. Owlet-nightjars are sedentary birds and occupy a territory rarely exceeding 80 hectares (Higgins 1999).

Many owlet-nightjars are killed by motor vehicles because of their unfortunate habit of resting on roads and freezing when exposed to danger. This note details the stomach contents of two birds killed in this manner. Both birds were killed by cars in June 1988. Bird No. 1 was collected at dawn on Crassus Lane, 40 kilometres north of Warren, New South Wales (31°25'15"E, 148°05'20"S), and Bird No. 2 was collected from a private road, 35 kilometres north of Warren (31°26'45"E, 148°04'00"S). The habitat was the same for each road-kill, comprising Bimble Box *Eucalyptus populnea*, White Cypress *Callitris glaucophylla*-Buloke *Casuarina luehmannii* woodland with

an understorey of fallen timber, scattered low shrubs and grasses and bare ground.

MATERIALS AND METHODS

The stomach contents of each bird were fixed in 10 per cent formalin and preserved in 70 per cent ethanol. The contents were identified with a binocular microscope and keyed out using various keys, in particular, 'The Insects of Australia' (CSIRO 1991).

RESULTS

A total of 16 arthropod taxa were identified in the stomach contents and were numerically dominated by ants (63%), spiders (14%) and beetles (12%) (Table 1). The ants were dominated by *Camponotus* spp. Most of the prey items were recovered from the stomach of Bird No. 1 which also contained *Casuarina* needles. This is the first time that several taxa have been recorded as part of the diet for the owlet-nightjar (Table 1).

DISCUSSION

The stomach contents of the two birds from Warren were similar to those examined from a wide range of localities

TABLE 1
Stomach contents of two Owlet-nightjars. *indicates items of food recorded for the first time in the diet of this species.

| Prey item | | Bird #1 (stomach full) | Bird #2 (stomach 1/4 full) |
|---|--------------|---------------------------|-------------------------------|
| Arachnida (Aranea) | Spiders | | |
| Lycosidae sp.* | | 3 | – |
| Aranea sp. 1 | | 1 | – |
| Aranea sp. 2 | | 1 | – |
| Aranea sp. 3 | | 1 | – |
| Aranea sp. 4 | | 1 | – |
| Insecta | | | |
| Formicidae | Ants | | |
| <i>Camponotus</i> (Consibrinus groups) sp. 1 | | 25 | – |
| <i>Camponotus</i> sp. 2 | | 1 | – |
| <i>Camponotus</i> sp. 3 | | 1 | – |
| <i>Polyrachis</i> 'fuscipes'* | | 2 | – |
| unidentifiable | | 1 | 1 |
| Coleoptera | Beetles | | |
| Curculionidae | | – | 2 |
| Elateridae <i>Hapatesus</i> sp.* | | – | 1 |
| Tenebrionidae <i>Pterohelaeus</i> sp.* | | 3 | – |
| Diptera (Empididae)* | Flies | 2 | – |
| Blattodea | Cockroaches | 1 | – |
| Odonata (Lestidae) <i>Austrolestes</i> sp.* | | 1 | – |
| Orthoptera (Tettigonidae) | Grasshoppers | 1 | – |
| Vegetative matter (<i>Casuarina</i> needles) | | present | absent |
| Total | | 45 | 4 |

(Lea and Gray 1935; Serventy 1936; Rose 1973; Barker and Vestjens 1986; Webb 1989; Higgins 1999). Ants are a numerically dominant component of the diet of owlet-nightjars and *Camponotus* spp. ('sugar ants') have been consistently found in the diet (Lea and Gray 1935; Rose 1974; Barker and Vestjens 1986; this study). *Camponotus* sp. is a large ant that forages mainly at night on the ground and on tree surfaces.

Owlet-nightjars are reported to forage by sallying low amongst trees or from a perch (i.e. perch-and-pounce) and occasionally by walking on the ground searching for food (Serventy 1936; Fleay 1968). The birds observed by Brigham *et al.* (1999) foraged exclusively by sallying and were not observed to forage on the ground. However, the stomach contents from one of the owlet-nightjars reported here was dominated by prey items that are frequently encountered on, or near, the ground — the ants (*Camponotus* sp.) and wolf spiders (Lycosidae). The *Casuarina* needles found among the stomach contents of one of the birds may have been ingested while gleaning invertebrates off vegetation or while feeding on the ground, since *Casuarina* needles cover the woodland floor. It is possible that the foraging behaviour of owlet-nightjars varies in response to changes in the vertical distribution of prey across its geographic range. The issue will remain unresolved until more studies of the type undertaken by Brigham *et al.* (1999) are conducted.

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REFERENCES

- Barker, R. D. and Vestjens, W. J. M. (1986). 'The Food of Australian Birds. 1. Non-passerines.' (CSIRO, Melbourne.)
- Blakers, M., Davies, S. J. J. F. and Reilly, P. N. (1984). 'The Atlas of Australian Birds'. (RAOU and Melbourne Univ. Press, Melbourne.)
- Brigham, R. M., Gutsell, R. C. A., Wiacek, R. S. and Geiser, F. (1999). Foraging behaviour in relation to lunar cycle by Australian Owlet-nightjars *Aegotheles cristatus*. *Emu* **99**: 253–261.
- CSIRO (1991). 'The insects of Australia' (2nd Ed.) (Melbourne Univ. Press, Melbourne.)
- Fleay, D. (1968). 'Nightwatchmen of Bush and Plain.' (Jacaranda Press, Brisbane.)
- Higgins, P. J. (ed.) (1999). 'Handbook of Australian, New Zealand and Antarctic Birds. Volume 4: Parrots to Dollarbird'. (Oxford Univ. Press, Melbourne.)
- Hollands, D. (1991). 'Birds of the Night: Owls, Frogmouths and Nightjars of Australia.' (Reed Books, Sydney.)
- Lea, A. M. and Gray, J. T. (1935). The food of Australian birds. Part II. *Emu* **35**: 63–98.
- Rose, A. B. (1973). Food of some Australian birds. *Emu* **73**: 177–183.
- Rose, A. B. (1974). Birds that include ants in their diet. *Aust. Birds* **9**: 26–30.
- Serventy, D. L. (1936). Feeding methods of Podargus. *Emu* **36**: 74–90.
- Webb, G. A. (1989). A note on the diet of the Australian Owlet-nightjar *Aegotheles cristatus*. *Corella* **13**: 90–91.