

A NOTE ON EASTERN GRASS OWL *Tyto longimembris* DIET FROM THE NORTH COAST OF NEW SOUTH WALES

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The Eastern Grass Owl *Tyto longimembris*, is listed as a Vulnerable and Rare species in the Endangered Species list which has been gazetted as the new schedule 12 of the New South Wales NPWS Act, 1974. It is also listed nationally as a taxon of special concern (Garnett 1992).

The two main populations in Australia are located in 'coastal eastern Qld and north-eastern NSW', and in the 'Barkly Tableland and Channel Country of western Qld and the Northern Territory' (Schodde and Tidemann 1988).

This paper reports on the diet of one pair of Eastern Grass Owls from north-eastern New South Wales between Byron Bay and Brunswick Heads. A beach ridge system divides the area into dunes and swampy swales. Sixteen pellets were discovered in October 1991, when a pair of Eastern Grass Owls was disturbed in a seasonally inundated interdunal swale among dense 0.7 m high vegetation including stunted *Callistemon pachyphyllus*, rushes (*Baumea* sp.) and *Banksia ericifolia*. Nearby, slightly higher areas were dominated by *Acacia suaveolens*, *A. ulicifolia*, *Banksia aemula*, *B. oblongifolia* and *Leptospermum* spp.

Analysis of the pellets was undertaken by A. B. Rose, and revealed the consumption of three rodent species known to be eaten by *T. longimembris* in other locales, and of two bird species not previously identified as part of the Grass Owl diet. The prey items were identified from skulls for the mammals, and skulls and feathers for the birds. The minimum number of individuals per pellet was determined by skull count. The 16 pellets contained 28 prey individuals (range 1-4, mean 1.75 individuals per pellet), most commonly one individual per pellet ($n = 8$, five *Melomys*

and three *Rattus*). In addition six pellets contained two, and two pellets contained four individuals. Of the latter, one contained four small individuals (two *Mus* and two small passerines), and the other contained four *Melomys burtoni*. This suggests a daily intake of approximately one 100 g rodent (or equivalent) per day, assuming one pellet cast by each owl per day. Table 1 shows the owl diet to contain three rodent and two bird species. The importance of terrestrial grassland rodents, particularly native species is clear: rodents 93 per cent by number (99% by biomass), versus birds 7 per cent by number (1% by biomass).

The results of this study are similar to previous findings on the Grass Owl's diet in Australia, particularly eastern coastal regions. A. B. Rose (pers. comm.) had previously recorded Swamp

TABLE 1

Diet of Eastern Grass Owl on the north coast of New South Wales, October 1991, from skull count in 16 pellets from a roost occupied by two owls.

Prey Species	Mass ^a (g)	n	% %	% Biomass	Occurred in x pellets
Grassland Melomys <i>Melomys burtoni</i>	53	17	61	60	10
Swamp Rat <i>Rattus lutreolus</i>	122	4	14	33	4
House Mouse <i>Mus musculus</i>	17	5	18	6	3
Grey Fantail <i>Rhipidura fuliginosa</i>	8	1	3.5	0.5	1
Southern Emu-wren <i>Stipiturus malachurus</i>	8	1	3.5	0.5	1
Total		28	100	100	

^a = mean or modal adult mammal weights from Strahan (1983), bird weights from S. Debus (pers. comm.)

Rat, Black Rat *Rattus rattus*, and Common Planigale *Planigale maculata*, in Grass Owl pellets from the north coast of New South Wales. Studies from coastal Queensland have recorded all the mammals reported herein, plus *Rattus sordidus*, *R. tunneyi*, *Antechinus flavipes*, Sugar Glider *Petaurus breviceps*, birds and insects (Fleay 1968; Dwyer and Wilmer 1975; Hollands 1991). Together with records from inland Australia (Brooker 1976; Parker 1977; Estbergs *et al.* 1978; Schodde and Mason 1980; Beste 1982), these make a total of eight rodent and three marsupial species. Native grassland rodents are of major dietary importance, with birds and insects incidental and insignificant.

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AN OBSERVATION OF COMMUNAL BREEDING BY SOUTHERN WHITEFACES

Communal breeding by the Southern Whiteface *Aphelocephala leucopsis* has not been recorded previously. Dow (1980) listed 39 species thus far reported as communal breeders, but the Southern Whiteface was not among them. However, because Whitefaces are always found in groups, it has been widely suspected that they may breed communally.

During a wet and unproductive banding weekend near Violet Town, Victoria on 12 September 1993, a group of us found a Southern Whiteface nest and our curiosity was aroused to find out if these particular birds were breeding communally.

Previously, we had colour-banded several Southern Whitefaces in a small grassy area of about 3 ha, bordered by Golden Wattle (*Acacia pycnantha*) and Green Mallee (*Eucalyptus viridis*). We followed the activities of several birds frequenting a clump of dead wood lying in the open and found a bird in a hollow branch, sitting approximately 40 cm back from the entrance. We then set up a telescope about 50 m from the clump.

From 12.00 noon to 12.45 p.m., we observed the following four birds visit the nest:

- Bird 1 = Yellow/red, a 1st year female
- Bird 2 = Yellow/green, an aged 2+ male
- Bird 3 = White/light blue, an aged 2+ male
- Bird 4 = Unbanded

The following visits were observed:

- Bird 1 — Four visits
- Bird 2 — One visit
- Bird 3 — Three visits
- Bird 4 — One visit

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On each visit, food could be seen protruding from the bill. Heavy rain prevented us from making further observations.

Although further observations are needed to find how general the pattern is, Southern Whitefaces appear to fit the pattern reported by Ford *et al.* (1988) who found that many communal breeders are in woodlands and feed on the ground.

Interestingly, this observation fits the pattern showing that many of the declining woodland birds in south-eastern Australia are communal breeders. It has previously been reported that Whitefaces are declining in parts of their range (Robinson 1993). Now we know that they breed communally.

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