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A REPORT ON FOUR SPECIES OF THE GENUS MELIPHAGA IN PAPUA NEW GUINEA

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SUMMARY

As a prerequisite to any study of the species of *Meliphaga* in Papua New Guinea, accurate identification is essential. Difficulties in field identification have resulted in records such as "*Meliphaga* sp.", and very little is known of the habits of four very similar species. To ameliorate this circumstance, we have prepared a bird-in-the-hand identification chart together with a table of weights and measurements, and presented new information on the species.

INTRODUCTION

Four species of honeyeaters (the Mimic *Meliphaga Meliphaga analoga*, Slender-billed *Meliphaga* or Graceful Honeyeater *M. gracilis*, Puff-backed *Meliphaga M. aruensis*, and White-marked *Meliphaga M. albonotata*) were mist-netted regularly by my husband and I at our banding station at Kuriva, in the Central Province of Papua New Guinea. Slight differences could be seen in these olive-green honeyeaters but these became increasingly more confusing the more we tried to interpret them. We agree with Diamond (1972) that it is easy to believe "the forms of New Guinea *Meliphaga* are a hoax perpetrated by previous workers".

TAXONOMY

It was essential to name the species we were banding. Rand and Gilliard (1967) lacked sufficient detail for identifying individual species and Rand's (1936) comprehensive work (our working "bible" for the *Meliphagases*) did not recognise *M. albonotata* as a valid species. Rand considered *albonotata* to be a "color-variety of *analogae*", but it appeared to be a good species to us.

The species of *Meliphaga* (= *Ptilotis*) relevant to this report were first described as follows; *analoga* 1852 (Reichenbach), *gracilis* 1866 (Gould), *albonotata* 1876 (Salvadori), *montana* 1880 (Salvadori) and *aruensis* 1884 (Sharpe). Rand (*loc. cit.*) recognised *M. montana* as a valid species with eight subspecies occurring in the mountains of Papua New Guinea. This montane species has a brownish appearance to the upperparts and a warm buff-coloured underwing, with the exception of the race *auga*, which is greenish-olive on the upperparts with yellowish underwing. It is this race which is relevant to this study.

Mayr (1941) considered the White-marked Honeyeater *M. albonotata* to be a full species occurring in the lowlands of Papua New Guinea, and until recently all authors have followed this and recognised a high altitude species, *M. montana*, and a low altitude species, *M. albonotata*. When we netted "*M. montana*" on the Sogeri Plateau at an altitude of 730m, however, no differences could be seen between these birds and the lowland *M. albonotata*.

I then commenced collecting specimens (under permit from the Government of Papua New Guinea) of *albonotata/montana* from a number of accessible areas at altitudes ranging from sea level to 1100m (Table 1). The specimens were then compared with loan material from collections in the American Museum of Natural History, New York, and the Papua New Guinea Museum. Specimens from the following localities were examined: Mafulu (1250m), Palmer Junction (1250m) and Sturt Island (lower Fly River - 100m) for specimens described as *M. montana auga* (type from Mafulu); Karimui (1090m) for *M. auga auga*; Olsobip (500m), Brown River (10m) and Big Wau Creek Ridge (1700m) for *M. albonotata*. All these localities are on the southern side of the central cordillera of Papua New Guinea.

I was unable to find distinguishing characters between any of these birds and the lowlands *M. albonotata* from Kuriva. I consider, therefore, that all olive-green white-marked *Meliphagases* from southern and south-eastern New Guinea, within a range from sea level to at least 1700m, should be called *M. albonotata*.

White-marked *Meliphagases* (greenish-olive forms) are recorded in the literature from the northern side of the cordillera from localities such as the Vogelkop (West Irian) and the Western Highlands, Northern and Morobe Provinces of Papua New Guinea. It has yet to be determined if these will prove to be separate races of *M. albonotata*.

IDENTIFICATION

A plumage chart was prepared for use in the field and it soon became apparent that a useful pattern was being established for identifying the four species being studied at Kuriva. The information presented in Tables 2 and 3 is taken directly from our banding records and field notes and does not refer to museum specimens. It was gathered in the period January 1972 to January 1975 for Kuriva, and January 1972 to January 1977 for all other areas where mist-netting was conducted. It includes data from specimens collected by the author.

TABLE 1. Location, Altitude, Habitat and Distribution of *Meliphaga* spp. at Banding Sites.

Area	Co-ordinates	Altitude and Habitat	Species Distribution*
<u>Central Province</u>			
Port Moresby	9°28'S 147°09'E	40m, home garden	<i>gracilis</i>
Laloki River	9°19'S 147°17'E	25m, savannah and river gallery forest	<i>gracilis</i>
Brown River Forestry Reserve	9°12'S 147°13'E	10m, logged primary lowland rainforest	<i>gracilis</i> , <i>aruensis</i> , <i>analogica</i> , <i>albonotata</i>
Kuriva River	9°03'S 147°07'E	0-70m, lowland rainforest, logged hill forest, second growth	<i>gracilis</i> , <i>aruensis</i> , <i>analogica</i> , <i>albonotata</i>
Eilogo Estate, Sogeri Plateau	9°27'S 147°28'E	730m, forest edge, grasslands	<i>albonotata</i> , <i>aruensis</i>
Varirata, Sogeri Plateau	9°25'S 147°18'E	810m, lightly timbered	<i>gracilis</i> , <i>analogica</i> , <i>aruensis</i>
<u>Goilala Sub-Province</u>			
Tapini	8°20'S 146°55'E	960m, forest edge, town garden	<i>albonotata</i>
<u>Northern Province</u>			
Lejo (Popondetta)	8°44'S 148°09'E	100m, just inside primary forest	<i>gracilis</i> (<i>stevensi</i>), <i>aruensis</i> (<i>sharpei</i>)
<u>Morobe Province</u>			
Garaina, Waria Valley	7°54'S 147°07'E	730m, mountain forest edge, secondary growth, gardens	<i>albonotata</i> , <i>aruensis</i> (<i>sharpei</i>)
Wau Forestry Station	7°18'S 146°43'E	1100m, timber logged forest, bamboo stands	<i>albonotata</i>

* Except for Kuriva and Brown River, distribution figures may be incomplete because netting was discontinued after specimens of *albonotata* were obtained, or, in the case of Lejo, there was insufficient time to continue in the Popondetta area.

TABLE 2. Identification Chart.

Character	<i>M. analoga analoga</i>	<i>M. gracilis cinereifrons</i>	<i>M. aruensis aruensis</i>	<i>M. albonotata</i>
Auricular Patch	Yellow, sometimes whitish near ear; set back behind ear; elongated; av. 7 x 4.5mm	Bright yellow, edged blackish around top and narrowly between rictal line and auricular; square-shaped; av. 8 x 7mm	Pale yellow at ear, deeper yellow behind; edged blackish; elongated; from 12-15mm long, 7-8mm wide	Dull white to snow white, extending behind ear; sometimes yellow close to ear, and white posteriorly ¹ ; av. 7 x 5 mm
Lores	Dull olive-green, same as head	Darker grey or olive-grey; 'tufty' looking	Blackish olive-green	Not noticeably different from forehead
Rictal Line	Yellow and short; gap to auricular; olive-green	Yellow, not continuous with auricular, however narrow the separation	Yellow; continuous from gap to auricular, distinct	Grey-white to whitish-yellow; never extends beyond outer edge of eye
Iris	Brown; dark grey-brown; never pale grey	Grey to darkish grey, sometimes grey-brown ²	Brown to dark brown	Grey; dark grey; sometimes grey-brown ²
Legs	Yellowish brown to grey-brown	Variable; generally grey to dark grey; sometimes brownish	Grey or grey tinged brown; pinkish-brown behind	Grey; slaty-grey
Culmen	Heavy; not short like <i>aruensis</i> nor slender like <i>gracilis</i>	Black, more noticeably down-curved, narrow except laterally	Black, short and stout; small in relation to size of species	Blackish, occasionally brownish ² , broad laterally
Head	Dull olive-green	Olive-green; in good light has a 'scaly' look on crown	Olive-green	Olive-green; no blackish areas around eye

TABLE 2. Identification Chart. (Continued)

Character	<i>M. analoga analoga</i>	<i>M. gracilis cinereifrons</i>	<i>M. aruensis aruensis</i>	<i>M. albonotata</i>
Upperparts	Dull olive-green, slightly olive-brown; not as soft-feathered as <i>gracilis</i>	Uniform olive-green, deeper colour than <i>analoga</i>	Olive-green	Deep olive-green
Underparts	More uniform grey and grey-lemon washed	Grey washed olive-green and yellow; more lemon-yellow on centre abdomen	More evenly grey washed yellow; chin slightly more yellowish	Darker grey olive-green washed, sometimes olive-brown across upper breast ² ; more yellow on chin and abdomen
Underwing	Buffy to pale yellow, pale inner edges to primaries	Buffy ochraceous to pale yellow and whitish	Yellow-olive, pale inner edges to primaries	From whitish to yellowish, to olive-yellow or buffy-olive
Rump Tuft	Thick but not stiff, base feathers grey, subterminally brown, tipped olive-green	Soft, not thick, slightly powdery feel; grey tipped olive-green, sometimes brown subterminally	Very thick, slightly stiff feel, blackish broadly tipped olive-green; layered effect	Moderately thick; base feathers grey, sub-terminal brown band, tipped olive-green
White Tipping Across Flanks and Tuft Base	Generally present and sometimes extensive along flanks and across upper tail	Slightly evident in some individuals; grey-white to white	Always present; often continuous across rump and flanks, making conspicuous white line when tuft raised	Slight white terminal tipping across flanks in some individuals

¹ Considered age related; one individual similarly marked had not bred and a second one had a fully developed white auricular patch on one side and a yellow-tinged white patch on the opposite side. Indications are that nestlings fledge into adult plumage.

² Considered to be age related.

TABLE 3. Average Weights (g) and Measurements (mm) of
Meliphaga spp. Mist-Netted by T. and I. Weston

Species	No.	Weight	Wing	Tail	Culmen	Tarsus	Length
<i>ANALOGA:</i>							
Banded	26	21.0 (18-24)	78.0 (74-84)	68.4 (63-73)	18.3 (16-21)	21.0	168
<u>Specimens</u>							
*Male	4	20.5	77.5	67.0	18.0	20.5	171
*Female ?		(17-23)	(75-81)	(62-71)	(17-19)		
<i>GRACILIS:</i>							
Banded	91	18.3 (15-22)	73.1 (66-80)	60.7 (55-68)	17.5 (16-21)	21.0	152.5
<u>Specimens</u>							
Male	6	18.7	74.1	61.5	17.0	21.0	150.6
Female	3	16.3	70.3	60.0	16.3	21.3	152.4
<i>ALBONOTATA:</i>							
Banded	23	26.0 (23-29)	81.0 (72-87)	68.7 (63-76)	17.0 (15-19)	22.5	170
<u>Specimens</u>							
Male	9	26.5	83.4	71.1	17.6	23.0	174
Female	11	24.4	77.5	67.6	16.4	22.5	169
<i>ARUENSIS:</i>							
Banded	58	25.4 (22-30)	84.0 (75-93)	70.6 (64-78)	15.5 (13-18)	22.0	173
<u>Specimens</u>							
Male	1	29.0	90.0	74.0	16.0	23.0	184
Female	1	27.0	90.0	77.0	16.0	21.0	178
*?	1	28.0	85.0	70.0	14.0	23.0	178

* Specimens not able to be sexed as they were preserved in alcohol.

M. aruensis should not present identification problems in the hand nor, with experience, in the field. *M. albonotata* is fairly readily identified in an open situation but not so easily in forest edges or typical tropical regrowth. In an area where both *M. analoga* and *M. gracilis* occur, there may be problems in identification in the field. There is still some uncertainty about the status of *M. analoga* (race *analoga*) and *M. gracilis* (race *cinerereifrons*) in view of Salomonsen's (1967) changes in the taxonomy of the two species. For our banding work and for this report I have followed Mayr (1941).

While the identification chart may appear extensive, it serves two purposes. Firstly, combination of head and bill characters in any one column should help to provide accurate field identification, except in the case of a hybrid population such as *M. analoga* x *M. gracilis* at Brown River, near Port Moresby. Secondly, the specific characters together with the corresponding weights and measurements shown in Table 3 should provide positive in-the-hand identification for respective species.

It can be seen from Table 3 that on the average, females are smaller and lighter than males, and there is an overlap of measurements with small males and large females. I believe, however, that this data could be used as a guide to sexing in the field, particularly if other factors are considered. A pocket-size standard colour guide is useful in determining the muted colours of the Meliphagids, particularly when only one species is being handled and other species are not available for comparison. I found Smithe (1975) suitable and easy to use. One other point I have noted is that during field observations of the yellow-eared Meliphagids, I have experienced a refraction effect in which the yellow auricular patch may appear whitish. I have not noted this in reverse, at least not when birds are fully adult.

FOOD

The food of Meliphagids is well documented as fruit and insects but no specific differences in feeding habits have been recorded. All species are extremely active while feeding and it is difficult to observe the head pattern at this time. Second-growth berry trees such as *Pipturus* spp. and *Commersonia* spp. are favoured, together with flowering shrubs and garden trees. *M. gracilis* has been observed gleaning in the tops of coconut palms and in flower-ing creepers in forest trees up to 12m high. A captive *M. albonotata* did not respond well to a fruit diet only, and the yellow flange faded gradually over a period of three weeks to a whitish colour. *M. gracilis* has been observed feeding at higher levels than the other three species and *M. albonotata* at the lowest level gleaning in shrubs of less than 1m high in open road-side savannah.

VOICE

All four species give a frequently heard call referred to in the literature as 'kip', 'chip', 'tup', or similar. I suspect this call is of varying tone depth according to species but it is difficult to describe the differences. We have banded all four species covered in this report in an area less than 50m square

and both *M. gracilis* and *M. aruensis* have been positively identified feeding in the same tree, hence the need for caution! Diamond (1972) states that no yellow-eared Meliphaga gives a song similar to the white-eared Meliphagases.

It is my experience that *M. albonotata*, *M. aruensis* and *M. gracilis* (race *cinerereifrons*) all give a trilling call varying in tone, strength and frequency of notes. Rand and Gilliard (1967) note the call of *M. aruensis* as a "slow trill". The call of the nominate race of *M. gracilis* is well-recorded in Australian literature. Mr. G.E. Clapp of Popondetta (pers. comm.) also states that he has heard yellow-eared Meliphagases giving a trilling call and describes *M. analoga*'s call (in addition to the 'tup' call) as follows: "M. analoga has a definite alternative call (or song?) which consists of a "trill" (for want of a better word) in which the individual notes are much more widely spaced than in a normal trill. Sometimes only three notes are uttered, sometimes seven or more. A comparable call would be that of *M. lewinii* in Queensland, but *M. lewinii*'s call is delivered at a much faster pace and is more musical."

The *M. gracilis* in our home garden in Port Moresby has, in addition to the 'kip kip' and the rarely heard thin trilling call which ends in an upward note, a clear one note call similar to *Halcyon sancta*. It is repeated five to nine times or more, and its intensity increases when used as an alarm call.

BREEDING

There is little that can be added to the information already given in Rand and Gilliard (1967) except for notes on *M. albonotata*. Rand (1942) described the nests of *M. aruensis aruensis*, *M. gracilis gracilis*, and *M. montana auga* on Sturt Island in the lower Fly River. Specimens of *M. montana auga* from the Sturt Island camp have been compared with Kuriva *M. albonotata*, as noted above. Rand's description of the nest of *M. montana auga*, found in October 1936, is almost identical with Heron's (1976) description of the nest of *M. albonotata* at Bereina, Hall Sound, which is a few kilometres from Naiabui where the type of *albonotata* was collected.

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BIRD CASUALTIES IN 1975-76 AT THE BOOBY ISLAND LIGHTSTATION, TORRES STRAIT

TONY STOKES

INTRODUCTION

The attraction of lighthouses to night-flying birds is a well known phenomenon and there are many reports of casualties in collisions with them (Lockley, 1973; Durham, 1976; Avise and Crawford, 1981; Verheijen, 1981).

In 1975-76, through the Department of Transport, the Australian National Parks and Wildlife Service received quarterly returns of bird casualties at Australian lightstations as part of a survey of the effect of such lights on bird populations.

Booby Island covers 6.07 hectares and is situated off the west coast of Cape York at latitude 10°36' south, and longitude 141°55' east. It is rocky with a coastline of cliffs to 19m in height cut by waves and indentations (Warham, 1962). A very sparse grass covering is intercepted by a wide gully in the north-west with a patch of figs *Ficus* spp. and other trees of rainforest affinities (Draffan, pers. comm., Australian

Environmental Research Foundation, 1978). The birds recorded from the island are briefly mentioned by Warham (1962), Lavery and Grimes (1971), Anonymous (1976), and Draffan *et al* (in press).

Bird casualties from the Booby Island lighthouse were recorded throughout 1975 and 1976, and the results are detailed in Table 1.

DISCUSSION

The identifications and counts from Booby Island were made by the resident lightkeepers, M. and A. Hersom (January 1975 to July 1976) and R. Francis (July to December 1976). The Hersoms subsequently left the lighthouse and despite an extensive search, I have been unable to contact them. They apparently knew their birds very well (Anonymous, 1976) though some inaccurate and incomplete names appear in their reports. Mr. Francis has informed me (*pers. comm.*) that his identifications were based upon Cayley (1932). Most identifications are probably correct because the species occurrences he noted on the island were also recorded by Draffan *et al* (in press). However, other species recorded in the Table which have not been recorded previously for the island or the Torres Strait require confirmation.

Seven hundred and ninety (790) individuals of 54 species and eleven (11) unidentified or misidentified individuals were reported in the two years. Nine of the species (*Botaurus poiciloptilus*, *Porzana fluminea*, *Collocalia spodiopygia*, *Coracina lineata*, *Anas gibberifrons*, *Anous minutus*, *Calidris alba*, *Chrysococcyx basalis*, *Manucodia keraudrenii*) are new records for Booby Island and the first four species in this list have not been recorded on other Torres Strait islands.

Some weather observations (not included here) were made at the time the specimens were recorded but they are insufficient for detailed analysis. Nevertheless, the pattern appears to agree with overseas studies which found that the greatest proportion of casualties at light towers occurs in inclement weather (Durham, 1976; Avise and Crawford, 1981).

Draffan *et al* (in press) recently summarised records of avifauna on the Torres Strait islands. The following records invite comparative comments with their paper:

Australasian Grebe *Tachybaptus novaehollandiae*

- These records support the view that the species is a nomadic visitor to the islands of the south and central west Torres Strait with possibly greater movement in the wet season.

Australasian Bittern *Botaurus poiciloptilus*

- The record requires confirmation as the normal range of the species in Australia is south of Fraser Island in Queensland (Pizzey, 1980). However, since it also occurs in New Zealand and New Caledonia, occasional birds may move outside this range.

Wandering Whistling-Duck *Dendrocygna arcuata*

- These records indicate that the movements of the species in the area may be more nomadic than migratory as suggested by Draffan *et al* (*op. cit.*).

Grey Teal *Anas gibberifrons*

- The three records are from the early part of the dry season which varies with Draffan *et al*'s (*op. cit.*) report that it is a late dry season vagrant to the south-west Torres Strait.

Green Pygmy-Goose *Nettapus pulchellus*

- These records suggest that the species' occurrence in the Torres Strait is regular and not confined to winter as stated by Draffan *et al* (*op. cit.*).

Purple Swamphen *Porphyrio porphyrio*

- Although most records are from the wet season, there is evidence that the movements of this species are not restricted to it.

Superb Fruit-Dove *Ptilinopus superbus*

- Although most records of this species were between September and April, small numbers evidently move through at other times of the year.

Yellow-eyed Cuckoo-Shrike *Coracina lineata*

- Storr (1973:80) describes the species as a postnuptial nomad in Queensland, wandering in flocks from March to October but scarce north of Cooktown.

Trumpet Manucode *Manucodia keraudrenii*

- Contrary to Draffan *et al* (*op. cit.*) this record suggests that the species may move between Cape York and Papua New Guinea. However, the record requires confirmation. Draffan *pers. comm.* believes there is no movement between the Cape York and Papua New Guinea populations. He suspects that this record is a misidentification of either the Metallic Starling *Aplonis metallica* or the Spangled Drongo *Dicrurus hottentottus*. However, the Hersoms also recorded those species from the island in this survey.

The records of these two years support the value of establishing a bird observatory on the island should the opportunity arise.

Other lightstations around Australia also participated in this survey but most provided local or incomplete names which were insufficient for accurate identification. However, in general, casualties were seabirds and were considered too few to be having a significant impact upon populations.

TABLE 1. Bird Casualties on Booby Island, Torres Strait, 1975-76 (Not listed from Booby Island [*]/
Torres Strait [°]) by Draffan *et al* (in press).

Species	1975												1976														
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D			
Australasian Grebe (<i>Tachybaptus novaehollandiae</i>)						1	1	1										2									
Pied Heron (<i>Ardea pictata</i>)							1						2														
Great Egret (<i>Egretta alba</i>)							2						2										1				
Eastern Reef Egret (<i>Egretta sacra</i>)								1																			
Rufous Night Heron (<i>Nycticorax caledonicus</i>)													1	1													
Little Bittern (<i>Ixobrychus minutus</i>)																		2									
Black Bittern (<i>Dupetor flavicollis</i>)													1	1									1				
°Australasian Bittern (<i>Botaurus poiciloptilus</i>)						1																					
Sacred Ibis (<i>Threskiornis aethiopica</i>)								1															1				
Magpie Goose (<i>Anseranas semipalmata</i>)							2											4					2				
Wandering Whistling-Duck (<i>Dendrocygna arcuata</i>)			1			2	1	3					2														
Pacific Black Duck (<i>Anas superciliosa</i>)		1	1					1					1					4	1								
*Grey Teal (<i>Anas gibberifrons</i>)							3																				
Green Pygmy-Goose (<i>Nettapus pulchellus</i>)		1			2	1							1				1										
Red-backed Button-quail (<i>Turnix maculosa</i>)		2			1	5	18	8	7				112	3			2	8									
Buff-banded Rail (<i>Rallus philippensis</i>)		1	1		13	28	7	2	1				10					9	1								
Red-necked Crake (<i>Rallina tricolor</i>)																							1				
Baillon's Crake (<i>Porzana pusilla</i>)																			2	3							
°Australian Crake (<i>Porzana fluminea</i>)		2			2																		2				
Spotless Crake (<i>Porzana tabuensis</i>)					1								1														
White-browed Crake (<i>Poliolimnas cinereus</i>)	28	14	2	11	4	10							23	2	1	9	4	4									
Bush-hen (<i>Callinula olivacea</i>)	1				4	2							1	5				3	1								
Purple Swamphen (<i>Porphyrio porphyrio</i>)	1	1		2	4								21	6	12		11	4		1	1						
Ruddy Turnstone (<i>Arenaria interpres</i>)												1															
*Sanderling (<i>Calidris alba</i>)												1	2														
Bridled Tern (<i>Sterna anaethetus</i>)															1							1					
*Black Noddy (<i>Anous minutus</i>)												1	1														
Superb Fruit-Dove (<i>Ptilinopus superbus</i>)	2	3	1	2	4	4	9	36	11	11	13		1	17	3			7	18	4	3	2					
Rose-crowned Fruit-Dove (<i>Ptilinopus r. regina</i>)								2																			
Torresian Imperial-Pigeon (<i>Ducula spilorrhoa</i>)									1																		
Oriental Cuckoo (<i>Cuculus saturatus</i>)	1				1	1							4	1			1										
*Horsefield's Bronze-Cuckoo (<i>Chrysococcyx basalis</i>)					1	1																					
													1975					1976									

TABLE 1. Bird Casualties on Booby Island, Torres Strait, 1975-76 (Not listed from Booby Island [*] /
Torres Strait [°]) by Draffan *et al* (in press). (Continued)

Species	1975												1976													
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
Shining Bronze-Cuckoo (<i>Chrysococcyx lucidus</i>)													1	1	2											
Common Koel (<i>Eudynamys scolopacea</i>)						1									1											
White-throated Nightjar (<i>Caprimulgus mystacalis</i>)																								1		
Grey Swiftlet (<i>Collocalia spodiopygia</i>)						1																				
White-throated Needletail (<i>Hirundapus caudacutus</i>)		4	6															1						1		
Forest Kingfisher (<i>Halcyon macleayii</i>)						1											1	2						1		
Sacred Kingfisher (<i>Halcyon sancta</i>)					2										1		4									
Buff-breasted Paradise-Kingfisher (<i>Tanysiptera silva</i>)													1			1								1		
Dollarbird (<i>Eurystomus orientalis</i>)																	2									
Noisy Pitta (<i>Pitta versicolor</i>)																								1		
Black-faced Cuckoo-Shrike (<i>Coracina novaehollandiae</i>)						1	1																	1		
Yellow-eyed Cuckoo-Shrike (<i>Coracina lineata</i>)																								1		
Cicadabird (<i>Coracina tenuirostris</i>)						1	2																	1		
Black-faced Monarch (<i>Monarcha melanopsis</i>)					1	1											9									
Black-winged Monarch (<i>Monarcha frater</i>)																	2									
Leaden Flycatcher (<i>Myiagra rubecula</i>)						1	1								2		1	1					1			
Satin Flycatcher (<i>Myiagra cyanoleuca</i>)							2																			
Rufous Fantail (<i>Rhipidura rufifrons</i>)																	1									
Clamorous Reed-Warbler (<i>Acrocephalus stentoreus</i>)																	2	3								
Metallic Starling (<i>Aplonis metallica</i>)													16	14	1		1	2					1	1		
Spangled Drongo (<i>Dicrurus hottentottus</i>)																	2									
*Trumpet Manucode (<i>Manucodia keraudrenii</i>)														1												
Incomplete/Inaccurate Names:																										
Yellow Egret						1																				
Black-faced Honeyeater					1																					
Cuckoo															1											
Noddy														1												
White-tailed Cuckoo															1											
Egrets																2										
Spoonbill															1											
Honeyeater																								1		
Unidentified						1	1																			
													1975					1976								

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Messrs. J. Wilson and J. Lee of the Commonwealth Department of Transport, and G. Wilson and J. Forshaw of the Australian National Parks and Wildlife Service, co-ordinated the survey.

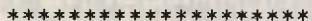
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THE SUNBIRD

POSSIBLE BURYING OF FOOD

BY THE PIED CURRAWONG STREPERA GRACULINA

H.L. BELL

The note by Walters 1979 (*Sunbird* 10: 23-24) on the burying of food by the Torresian Crow *Corvus orru* may suggest an explanation for the behaviour I have noted in the Pied Currawong *Strepera graculina* in October 1979. At my study area at Wollomombi Falls Reserve, near Armidale, New South Wales, a pair of Currawongs was nesting at the entrance to the Reserve. On 11 October I saw a Currawong on the ground at a patch of friable soil. It inserted its beak and withdrew a piece of material, resembling cheese, about 5cm long and 2cm thick. It then flew to the nest and fed the sitting bird. I saw the same thing happen later that day. During the ensuing week I saw a Currawong withdraw similar objects in the same general area about five times. In the preceding weeks I had often seen two Currawongs on the ground in this area but had not noted this behaviour.

I cannot imagine what the food was. A considerable amount of food scraps is left in the area by humans, and it is possible that the food seen dug up was such scraps secreted by the birds in the ground.

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BOOK REVIEW

SHARING A DREAM by Glen Threlfo. 1983. Threlfo, Brisbane.
80 pages.

This book is a masterpiece of bird photography. Nearly 150 colour photographs are presented, nearly all of them depicting birds. The bulk of the transparencies are devoted to the nesting activities of a handful of species, and their quality reflects the enormous quantities of energy and time the author must have invested to acquire them.

Text is minimal and confined to briefly complementing the photographs which are superb. Remarkably accurate detail is recorded, extraordinarily so for Mr. Threlfo who was restricted to using an outmoded Pentax Spotmatic camera and an antiquated Tamron telephoto lens. He has succeeded admirably in capturing on film some rare moments in the life of several species: moments which have rarely, if ever, been hitherto so recorded.

Deserving of special mention is the 'story of the Lotus Bird' which occupies the first 19 pages. The series of 38 photographs graphically illustrates the successful hatching of three Comb-crested Jacanas, including a fascinating account of the adult completely re-locating its nest and eggs after storm-damage.

The photographs of nesting Azure and Sacred Kingfishers are particularly impressive in their portrayal of colour distribution and fine detail. Glen Threlfo's infinite patience has rewarded him with rare photographs of Albert's Lyrebird at the nest. Other excellent depictions include Laughing Kookaburra nestlings at various stages of growth, and the courtship, mating and nesting of Regent Bowerbirds. Other species recorded at the nest include Pied Oystercatcher, Masked Lapwing, Pheasant Coucal, Satin Bowerbird, Green Catbird, Eastern Spinebill and Noisy Pitta.

The book concludes with a rather delightful pictorial sequence peppered with poetic prose and designed to tell us something about the impact of ravaging bushfires on wildlife. The photograph of a tree in flame is explosively brilliant.

My only criticism of the book pertains to the text which, although brief, is full of anthropomorphic analogies sometimes tending towards sentimental overkill. This is the stuff of children's books and will not endear the author to the bulk of hard-headed naturalists. Nevertheless, it should not detract from the value of this publication which lies in its beautifully presented photographic illustrations.

There is no doubt in my mind we will be hearing a great deal more about Glen Threlfo in the future. The book, published by the author himself, is well worth the investment. It can be purchased from the Queensland Conservation Council Bookshop, 147 Ann Street, Brisbane, for \$14.95; or copies signed by the author can be obtained for \$13.95 plus \$1.00 postage from Mountain Greenery Kiosk, O'Reilly's Guest House, via Canungra, Queensland 4275.

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