

grasses and ferns and a very soft, thick inner lining of rufous material with a texture of wool but probably consisting of material from the inflorescences of sedges, it being not far from swampland. It measured (mm): 65, internal diameter; 90, external diameter; 35, depth inside; 60, depth outside. The single pyriform egg was ivory-white in colour and measured 23.5 x 17.2 millimetres.

While I was measuring and photographing the nest and egg the adult, which had been incubating, flittered round within a radius of twenty metres, flying

from bush to bush and uttering the typical 'pew-pew' bi-syllabic call of the species. Neither nest nor egg was collected and I could not revisit it.

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MARbled FROGMOUTH IN THE CONONDALE RANGE, SOUTH-EASTERN QUEENSLAND

On the night of 28 October 1976, we heard an unfamiliar call from inside rainforest bordering Booloumba Creek in the Conondale Range, south-eastern Queensland (26°38'S, 152°35'E), approximately 130 kilometres north of Brisbane. GJR traced the call and, using a spotlight, located a frogmouth. The bird was perched three metres above the ground on a vine hanging low from a Strangler Fig *Ficus watkinsiana*. It had its back turned and wings outstretched, displaying a series of four to seven rows of conspicuous white spots on each wing. The bird was brownish-fawn in coloration and surprisingly small. The head was turned and bright-orange eyes were observed. The bird was identified as a Marbled Frogmouth *Podargus ocellatus*. The call was first heard at 21:50 and approximately every half-hour thereafter in the same vicinity. At least two birds were calling simultaneously on at least three occasions. The call consisted of a series of six to ten 'caw-caw' notes repeated in rapid succession and descending in volume. It was repeated for several minutes immediately before dawn and would sometimes be preceded by one or two loud 'coo' notes.

A Marbled Frogmouth was seen about 100 metres from the first site at 00:45 on 30 October after again tracing the source of the call with a spotlight. It was perched on a dead branch in the creek and permitted our approach to within four metres. In addition to features mentioned, a white eyebrow was seen. Underparts appeared to be of somewhat paler though similar coloration (brownish-fawn) to upperparts but with a generally blotched appearance and irregular dark streaking. Another call was heard during the same night, presumed to belong to *P. ocellatus*. It was a soft 'koo-loo', of two notes closely joined. It was repeated several times for some minutes. The call appears to be similar to or identical with that described in similar terms by Mac-

gillivray (1918) for the Marbled Frogmouth. Both calls were heard regularly on the nights of 5 and 6 November with C. Corben and A. Smyth but no birds were located. They were heard during several visits to the same locality from that time until mid-December. We returned to the same area on 25 April 1977, when one bird was heard before dawn for several minutes.

Habitat in which the bird was recorded was closed forest. Chief emergent trees were Rose Gum *Eucalyptus grandis*, Brush Box *Tristania conferta* and Quandong *Elaeocarpus grandis*. Tree-fern *Cyathea* sp and Piccabeen Palm *Archontophoenix cunninghamii* were common in the area. It is believed that this habitat has close affinities with the lowland rainforests of the 'big scrub' of north-eastern New South Wales, now largely cleared (J. P. Stanton, pers. comm.).

The Tawny Frogmouth *Podargus strigoides* is much larger and more robust than *P. ocellatus*. The length of *P. strigoides* ranges from 340 to 460 millimetres, with smaller specimens belonging to the northern race *P. s. phalaenoides*; *P. ocellatus* ranges from 330 to 380 millimetres (Reader's Digest 1976). The Papuan Frogmouth *P. papuensis* is much larger than both species (450 to 540 mm). Tawny Frogmouths are generally greyish-brown, streaked black on the upperparts and grey with darker streaks on the underparts. This species, however, has a rarer phase in which some parts of the plumage are replaced by rufous-brown. To our knowledge there are no specimens of this species with the brownish-fawn coloration noted in *P. ocellatus*. The wing spots of *P. strigoides* are fainter and more obscure and, from our experience, are difficult to note in the field compared to those of *P. ocellatus*. The eyes of the Tawny Frogmouth are always yellow but those of the Marbled are orange. The Papuan Frogmouth has

red eyes. The calls of both *P. papuensis* and *P. strigoides* consist of a series of low 'oom' notes of even tone and repeated in succession, with those of *papuensis* being louder and more resonant than *strigoides*. The Marbled Frogmouth has a completely different call from both species.

The birds seen in the Conondale Range almost certainly belong to the southern subspecies *Podargus ocellatus plumiferus* rather than the northern race *P. o. marmoratus*. Comparison of skins of both forms of *P. ocellatus* in the Queensland Museum reveal that *marmoratus* is noticeably smaller, slighter in body and longer-tailed than *plumiferus*. Our impressions of the birds seen are consistent with those features, which are seemingly diagnostic of *plumiferus*. Furthermore, Slater (1970) notes that, on present knowledge, *P. o. marmoratus* is confined to Cape York in northern Queensland and *P. o. plumiferus* to south-eastern Queensland and north-eastern New South Wales.

To our knowledge there are only five published records of this subspecies from Queensland to date. Mathews (1916) records a specimen from 'southern Queensland', which he describes as *Cyphorhina plumifera neglecta*, and noted (1941) that the type-specimen of this form had been collected in the scrub country of southern Queensland from near the MacPherson Range. Welsh (1933) described the nest and eggs but no localities were given. His address was given as Warwick, Queensland. Wigan *et al.* (1938) mentioned finding the remains of *P. o. plumiferus* during the unofficial RAOU camp-out at Bunna Burra, Lamington Plateau, south-

eastern Queensland in October 1937. One wing, the head and tail were removed and the identity was subsequently confirmed. A Queensland Museum report (Vernon 1975: 89) contains a photograph of *P. o. plumiferus* found at Mt Tambourine in south-eastern Queensland, donated by D. H. Fleay. The bird is now a specimen in the Queensland Museum (Reg. No. QM 012757).

The area in which the Marbled Frogmouths were seen in the Conondale Range is part of a proposal for a 31,000 hectare Conondale National Park, which has been supported by a number of Queensland conservation and naturalist organizations. The rain-forests of the Conondale Range are currently being utilized for forestry development, principally the clearing of natural forests and replanting with monocultural Hoop Pine *Araucaria cunninghamii* plantations.

REFERENCES

- MACGILLIVRAY, W. 1918. Ornithologists in North Queensland, Part 3. *Emu* 17: 180-212.
- MATHEWS, G. M. 1916. *Austral Avian Rec.* 3(3): 53-68.
- . 1941. Nomenclature matters. *Emu* 40: 425-427.
- READER'S DIGEST. 1976. *Complete Book of Australian Birds*. Sydney: Reader's Digest.
- SLATER, P. 1970. *A Field Guide to Australian Birds. Non Passerines*. Sydney: Rigby.
- VERNON, D. P. 1975. *Birds. In The National Estate in the Moreton and Wide Bay-Burnett Regions, South-East Queensland and Recommendations on its Management*. P. Mather (Ed.). Brisbane: Qld Mus.
- WELSH, C. W. 1933. Eggs of Plumed Frogmouth. *Emu* 32: 193.
- WIGAN, M. L., J. M. GRAY, and W. HEATHCOTE. 1938. The Queensland Campout. *Emu* 37: 250-257.

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