AUSTRALIAN FIELD ORNITHOLOGY 2009, **26**, 116–122

Grey Nightjar *Caprimulgus indicus*: First Australian Record

MIKE CARTER

30 Canadian Bay Road, Mount Eliza, Victoria 3930
(Email: pterodroma@bigpond.com)

Summary

A Grey Nightjar *Caprimulgus indicus* spent the night of 25/26 December 2003 resting aboard an Australian Customs Vessel moored at Ashmore Reef in the Timor Sea. The bird was identified from photographs received from the officer who found the bird. A submission by the author to the Birds Australia Rarities Committee, Case no. 450, resulted in acceptance of the report; this paper documents the occurrence, the first record of the species for Australia.

Introduction

Ashmore Reef is an Australian External Territory located in Commonwealth waters in the Timor Sea within the Australian Economic Exclusion Zone. The inner mooring inside its sheltered waters is ~145 km south of the Indonesian island of Roti. Whilst with George Swann conducting an ornithological survey of Ashmore Reef in January–February 2005, Paul Ford, an officer on the Australian Customs Vessel (ACV) hosting our deployment, advised that when he had been stationed at Ashmore Reef just over a year previously he had found a bird that he thought might be an owlet-nightjar *Aegotheles* sp. He had three photographs on print film of the bird, but opinions sought from other sources on its identity had not been forthcoming, so he sent to me his photographs and the details of the occurrence.

Ford found the bird on the back deck of the ACV *Storm Bay* whilst anchored at the inner mooring (12°14′S, 122°58′E) in the lagoon at Ashmore Reef on 25 December 2003 at 1630 h Western Australian time. The mooring is <1 km from West Island, one of three islands within the reef. The bird departed next morning at ~0800 h when it flew eastwards towards Middle Island. In the period immediately before this, the weather had been typical for high summer, being benign, mostly sunny with just an occasional shower or storm.

The photographs are large images of the bird in slightly different postures taken from marginally different angles showing dorsal and lateral aspects. The best of these are reproduced here (Plates 19, 21). Apart from some of the breast, virtually none of the underparts are visible, but ventral plumage is not significant in diagnosis. From these photographs, I identified the bird as a Grey Nightjar *Caprimulgus indicus*, a species not previously recorded in Australia (Christidis & Boles 1994). The Birds Australia Rarities Committee (BARC) accepted this identification, Case no. 450 (Palliser 2006). Thus the species was included in the revised Australian checklist (Christidis & Boles 2008) and, to date, this is the only Australian record. Publication of this record was delayed because on 23 August 2005 a second nightjar was photographed on the rail of another ship in the adjacent waters of the Timor Sea at 11°56′S, 125°00′E. This too was thought to be a Grey Nightjar, but was not accepted by BARC (Case no. 493), being considered more

likely to have been a Savanna Nightjar *Caprimulgus affinis* (Palliser 2008). It has since been suggested (Jeff Davies *in litt.* 31 July 2008) that that individual could have been a Spotted Nightjar *Eurostopodus argus*, and variation within immature plumages of the Spotted Nightjar is not well known.

Identification

Although obviously a nightjar, it was immediately apparent that the bird seen in 2003 was not one of the regularly occurring Australian nightjars, Spotted, White-throated *E. mystacalis* or Large-tailed *C. macrurus*, all of which have strongly marked white throat-patches (Higgins 1999), absent in this bird. Various other structural and plumage features, including the barred primaries, also combine to eliminate those species. The bird must therefore have been a vagrant. From first impressions and the location of its discovery, it was thought most likely to be a female Savanna Nightjar, a species that is on the Australian list because of its occurrence on the External Territory of Christmas Island in 1994 (Higgins 1999). The Savanna Nightjar is a common resident throughout Wallacea, including the islands of Roti and Timor situated ~145 km to the north of Ashmore Reef (Coates & Bishop 1997), so its occurrence at Ashmore Reef would not be surprising. Four other nightjars that occur in this region may also be considered as possible vagrants to Ashmore Reef. Three, Heinrich's *E. diabolicus* and Sulawesi *C. celebensis* Nightjars and the Great Eared-nightjar *E. macrotis*, are very distinctive, bearing no resemblance to the Ashmore Reef bird, so warrant no further consideration. However, the Grey Nightjar demanded serious consideration.

The following diagnosis compares Ford's photographs with illustrations, photographs and text in the following field guides and regional handbooks: Cramp (1985), MacKinnon & Phillipps (1993), Coates & Bishop (1997), Cleere & Nurney (1998), Grimmett *et al.* (1998), Kanouchi *et al.* (1998), Higgins (1999), Iozawa *et al.* (2000), Robson (2000, 2008), Hong Kong Bird Watching Society (2004), Shimba (2007), and Brazil (2009). See also Plate 20, a photograph of a male Grey Nightjar taken at the breeding grounds in May in Japan; note that the wings and tail terminate at the same point; note also the size, shape and pattern of the tertials, and the almost-black lesser wing-coverts.

There are several contradictions between the studied texts. Clearly, there are errors in some of the works, and lack of detailed information on female plumages and subspecific variation. I finally resolved the identity in favour of a female Grey Nightjar, probably a first-year bird, by reference to two Japanese photographic field guides, Kanouchi *et al.* (1998) and Iozawa *et al.* (2000). The bird is so similar to those pictured therein and different from others of the species illustrated in other regional guides that I consider that it was of the north-east Asian subspecies *Caprimulgus indicus jotaka*. This conclusion is consistent with the length of the wing of the bird, which eliminates all other subspecies except *C.i. hazarae*.

The following features are significant.

Rictal bristles Rictal bristles around the gape typical of the genus *Caprimulgus* are clearly visible (Plate 19). *Eurostopodus* nightjars lack these bristles (Cleere & Nurney 1998) so the seven members of this genus, all of which occur in the area under review, are immediately eliminated.

Structure Contrary to the situation in many other nightjars, in which the tail extends well beyond the wings at rest (e.g. Spotted and Large-tailed), in this bird

the tips of the wings and the tip of the tail terminated at a similar point (Plate 21). This occurs in the Savanna Nightjar (Higgins 1999) and Grey Nightjar (Plate 20; Grimmett *et al.* 1998; Kanouchi *et al.* 1998; Iozawa *et al.* 2000) but not in all other potentially confusable species such as European *C. europaeus*, Egyptian *C. aegyptius*, Sykes *C. mahrattensis* and Indian *C. asiaticus* Nightjars (Cramp 1985; Grimmett *et al.* (1998; Higgins 1999). (These proportions may also apply in species easily eliminated for other obvious reasons, e.g. the White-throated Nightjar, which is distinguished by obvious generic and plumage characters previously discussed). Judging from photographs that convey true proportions and from more reliable literature such as Cramp (1985) and Higgins (1999), I am of the opinion that in most field guides portrayal of this character is inaccurate. Particularly poor are the illustrations in Robson (2000, 2008) and Brazil (2009), whereas those in Grimmett *et al.* (1998) appear excellent. Although a study of the plates in Cleere & Nurney (1998) confirms this distinction, surprisingly it is not mentioned in that text as an important diagnostic aid.

This feature is critical to this analysis. Thus further consideration will concentrate on distinctions between Grey and Savanna Nightjars.

Size At my request, on a subsequent tour of duty, Ford measured the gap in the grating visible in Plate 19 adjacent to the tip of the left wing of the bird. This dimension was 32 mm. Using this as a template, the length of the wing as measured on the photograph closely approximates to six times this length, that is 192 mm. Because the wing is not pressed flat as is the practice when determining wing-length, actual wing-length for comparison with published data will be marginally longer than this. Luckily there is little angular distortion as the bird is sitting parallel, and very close to this gap. Perspective and the slight inclination of the wing will produce a foreshortening effect but the difference will be marginal. Ignoring these effects will at least provide a lower limit for length. Danny Rogers (pers. comm.) advised that the difference between wing-lengths quoted in Cleere & Nurney (1998), which are measured with the wing flattened and straightened, can be expected to be in the range of 2–5% longer than the natural chord of an unstretched wing. Thus, erring on the safe side, the bird must have a wing-length of at least 196 mm, probably >200 mm. Estimation of a maximum size is more tenuous but I tentatively suggest that 220 mm would be an upper limit.

Wing-lengths of female Grey Nightjars (see p. 120 for identification of sex) as quoted in Cleere & Nurney (1998) for the subspecies *C.i. jotaka* are 195–226 mm and for *C.i. hazarae* are 187–208 mm, so by size the bird could be either of these subspecies. However, the largest female *C.i. indicus* has wing-length of 195 mm, *C.i. kelaarti* 190 mm and *C.i. phalaena* 163 mm, so these subspecies are outside the range of this individual. Moreover, all smaller species such as Sykes's, Jerdon's *C. atripennis*, Philippine *C. manillensis*, Indian, Sulawesi, Bonaparte's *C. concretus*, Salvadori's *C. pulchellus* and, most importantly, Savanna Nightjar, are eliminated (Cleere & Nurney 1998). Wing-length of the subspecies of Savanna Nightjar that occur throughout Wallacea and the Greater Sundas is 150–172 mm. Mainland Asian populations of the Savanna Nightjar are larger and have wing-length within the above range, but their occurrence is considered unlikely to impossible.

Crown and nape In the Ashmore Reef bird these areas are grey or greyish brown with long black streaks (Plates 19, 21) typical of the Grey Nightjar. According to Grimmett *et al.* (1998: p. 441), this is one of the best distinctions from Savanna Nightjar, a species in which these areas are finely vermiculated.

White throat or spots at sides of breast The photographs show two adjacent feathers

Grey Nightjar perched on the back deck of the ACV *Storm Bay* at Ashmore Reef, 25 December 2003

Plate 19 Photo: Paul Ford

Grey Nightjar, adult male, May, Japan

Plate 20 Photo: Akira Yamamoto

Grey Nightjar perched on the back deck of the ACV *Storm Bay* at Ashmore Reef, 25 December 2003. Note tail.

Plate 21 Photo: Paul Ford

with whitish spots that form a tiny pale patch on the side of the upper breast (Plates 19, 21). This is a feature of both species, the obscurity of the mark being indicative of females (Grimmett *et al.* 1998; Kanouchi *et al.* 1998; Higgins 1999; Iozawa *et al.* 2000). According to Grimmett *et al.* (1998), the Grey Nightjar has a large central throat spot, white in males, buff in females. Presumably that is true for the two subspecies, *hazarae* and nominate *indicus*, that occur on the Indian subcontinent, but from the photographs in Kanouchi *et al.* (1998) and Iozawa *et al.* (2000) is not true of Japanese birds of the subspecies *jotaka*. In particular, the females pictured in these books are an excellent likeness to this individual.

Scapulars and lesser wing-coverts (See topography in Cleere & Nurney 1998) These are very dark, appearing blackish (Plates 19, 21) and therefore diagnostically those of the Grey Nightjar (see Plate 20). In contrast, in the Savanna Nightjar, as in most nightjars, these areas are paler and strongly mottled (Cleere & Nurney 1998; Grimmett *et al.* 1998; Kanouchi *et al.* 1998; Higgins 1999; Iozawa *et al.* 2000).

Tail The tail is grey, liberally sprinkled with rufous spots and an occasional narrow black bar. This matches well the photograph of a female Grey Nightjar in Iozawa *et al.* (2000: Plate 2, p. 89) except for the absence of the spots. I surmise that these rufous spots, which are also present on the wings, are an indication of the bird's immaturity. The illustration in Robson (2000, 2008) shows the black bars too broad in both Grey and Savanna Nightjars. Absence of any white in the tail identifies the bird as a female, and according to Cleere & Nurney (1998) also eliminates Indian Nightjar.

Tertials The photographs show one or two rather strange looking tertials in each wing. These are loose, prominent, large, spoon-shaped feathers, predominantly

pale grey with a slight brownish tinge, with black spots along the shafts. I assumed that they had been displaced or were about to be moulted out, but these feathers are equally 'displaced' and prominent in the adult male (Plate 20) and photographs of both male and female Grey Nightjars in Iozawa *et al.* (2000). I thus conclude that this is a normal feature of the species. Whereas other nightjars may have prominent tertials, I have found none in which these feathers are so markedly spatulate, and wonder if this might be a feature unique to the Grey Nightjar.

Pale spots on the wing The secondaries, the greater coverts and the outermost row of the median coverts are tipped with large, rather rounded spots in various shades of brown and buff. I have not found this illustrated in any painting of any nightjar, but they show well in the bird in Plate 20 and in the photographs of the Grey Nightjar in Kanouchi *et al.* (1998) and Iozawa *et al.* (2000). However, although the illustration of this species in Cleere & Nurney (1998) does not show these spots, they appear to be mentioned in the text (p. 230) as 'greyish-white, pale buff or pale tawny' and noted as a distinction from Large-tailed, Jerdon's, Philippine and Savanna Nightjars. I suspect that they are diagnostic of the Grey Nightjar.

Primary projection Measurements from the photographs show that the primary projection beyond the tertials is about 33% of the wing-length. In the Grey Nightjar it is 31–35.5% whereas in the Savanna Nightjar it is only 26–28.5% of the wing-length (John Darnell *in litt*., unpubl. data from museum skins and photographs).

Credibility of this occurrence

The Grey Nightjar has a widespread breeding range throughout Asia from India in the west to Japan in the east and from southern Siberia in the north to Sri Lanka in the south. The tropical and subtropical population is resident but the more northerly population is migratory, wintering in south-eastern Asia, the Philippines and Greater Sundas including Java (MacKinnon & Phillipps 1993; Grimmett *et al.* 1998; Kanouchi *et al.* 1998; Robson 2000). In Japan, where the local subspecies is *C.i. jotaka*, it is described as an uncommon summer visitor (Shimba 2007). There is only one record for Wallacea (from Halmahera) (Coates & Bishop 1997) and one, subspecies *jotaka*, for New Guinea (Irian Jaya) (Coates 1990). Thus, the species originates in the same area and undertakes a similar migration to many regular migrants and other vagrants that have occurred in Australia. Examples of the former group include many waders, Oriental Cuckoo *Cuculus optatus*, swifts Apodidae, swallows Hirundinidae and wagtails Motacillidae. Examples of vagrants to Australia include Northern Pintail *Anas acuta*, Black-capped Kingfisher *Halcyon pileata*, Brown Shrike *Lanius cristatus*, Oriental Reed-Warbler *Acrocephalus orientalis*, Arctic Warbler *Phylloscopus borealis*, Blue-and-White Flycatcher *Cyanoptila cyanomelana*, Red-throated Pipit *Anthus cervinus* and Pechora Pipit *A. gustavi*. The occurrence of the Grey Nightjar in Australia could therefore have been anticipated.

Taxonomy

Some modern texts such as Robson (2008) and Brazil (2009) treat the more eastern forms of Grey Nightjar, which includes the Japanese population, as a full species *C. jotaka*, with *C. indicus*, now referred to as Jungle Nightjar, being reserved for the smaller and resident forms that breed in India and Sri Lanka. However, Clements (2007) and Christidis & Boles (2008) retained these taxa in one species,

as treated here. Being resident, forms embraced in a revised species *C. indicus* are unlikely to occur in Australia. In any case, evidence of size and plumage would place this individual with *C. jotaka* in that revised taxonomy.

Acknowledgements

I am indebted to Paul Ford for communicating all relevant information regarding the discovery of the Grey Nightjar, for supplying the photographs and for measuring the grating. I thank Akira Yamamoto for the use of his photograph of a Grey Nightjar and Tadao Shimba for obtaining that on my behalf. I thank Andrew Silcocks for lending me Cleere & Nurney (1998); Danny Rogers for helping me to comprehend the somewhat unusual topography of nightjars; John Darnell for the information on primary projection; and Rohan Clarke, Danny Rogers and Jeff Davies for general advice and commenting on a draft of this paper. Rohan Clarke directed me to more photographs of nightjars available on the Web. I am grateful to the Australian Customs Service and the captain and crew of the ACV *Botany Bay* for hosting our visit to Ashmore Reef and the Department of the Environment & Heritage for granting permission to visit the reserve. George Swann of Kimberley Birdwatching made this all possible by inviting me to assist in his census work there.

References

Brazil, M. (2009), *Field Guide to the Birds of East Asia*, Helm, London.
Christidis, L. & Boles, W.E. (1994), *The Taxonomy and Species of Birds of Australia and its Territories*, RAOU Monograph **2**, Royal Australasian Ornithologists Union, Melbourne.
Christidis, L. & Boles, W.E. (2008), *Systematics and Taxonomy of Australian Birds*, CSIRO, Melbourne.
Cleere, N. & Nurney, D. (1998), *Nightjars*, Pica, Mountfield, Sussex, UK.
Clements, J.F. (2007), *The Clements Checklist of Birds of the World*, Cornell University Press, New York.
Coates, B.J. (1990), *The Birds of Papua New Guinea*, vol. 2, Dove, Brisbane.
Coates, B.J. & Bishop, K.D. (1997), *A Guide to the Birds of Wallacea*, Dove, Brisbane.
Cramp, S. (Ed.) (1985), *The Birds of the Western Palearctic*, vol. 4, Oxford University Press, Oxford, UK.
Grimmett, R., Inskipp, C. & Inskipp, T. (1998), *Birds of the Indian Subcontinent*, Christopher Helm, London.
Higgins, P.J. (Ed.) (1999), *Handbook of Australian, New Zealand & Antarctic Birds*, vol. 4, Oxford University Press, Melbourne.
Hong Kong Bird Watching Society (2004), *A Photographic Guide to the Birds of Hong Kong*, Wan Li Book Co Ltd, Hong Kong.
Iozawa, H., Yamagata, N. & Yoshino, T. (2000), *Japanese Bird 550: Landbirds*, Bunichi General Publisher, Tokyo (in Japanese).
Kanouchi, T., Abe, N. & Ueda, H. (1998), *Wild Birds of Japan*, Yama-Kei, Tokyo (in Japanese).
MacKinnon, J. & Phillipps, K. (1993), *A Field Guide to the Birds of Borneo, Sumatra, Java and Bali*, Oxford University Press, Oxford, UK.
Palliser, T. (2006), 'Birds Australia Rarities Committee; Rare birds in 2005', *Wingspan* **16**(3), 36–37.
Palliser, T. (2008), 'Birds Australia Rarities Committee; Rare birds in 2007', *Wingspan* **18**(3), 46–49.
Robson, C. (2000), *A Field Guide to the Birds of South-East Asia,* New Holland, London.
Robson, C. (2008), *A Field Guide to the Birds of South-East Asia,* revised edn, New Holland, London.
Shimba, T. (2007), *A Photographic Guide to the Birds of Japan and North-East Asia*, Christopher Helm, London.

Received 6 February 2009 ■