

Submission to Bird Australia Rarities Committee, Case 1073

Species: Malayan Night *Gorsachius melanolophus*
Location: West Island, Cocos (Keeling) Islands, Indian Ocean
Observation Date: 26 January to 4 July 2015
Submission Date 2 July 2019
Submitted by: Geof Christie, Pam Jones, Ian A.W. McAllan & David J. James

Circumstances

At least one immature Malayan Night-Heron *Gorsachius melanolophus* was present on West Island in the Cocos (Keeling) Islands, IOT, between 25 January and 4 July 2015. The bird was seen and photographed periodically at a few locations on West Island, mostly at Beacon Heights and near the Sewage Depot. During its stay of >5 months it gradually moved along Sydney Rd (the main road of West Island) from south to north, a distance of 9 km. It typically foraged amongst the soft earth and grass mulch on the road verge.

It is possible that more than one bird was involved. In January 2015 there were sightings at the southern end of West Island near Scout Park and the northern edge of the township, about 6 km apart. However, GC considers that only one bird was involved. The photographic record does not show evidence of two birds.

Table 1. Dates and locations of sightings and photographs of Malayan Night Heron on West Island in 2015.

Date	Location	Photos
25 Jan 2015	Beacon Heights	Yes
26 Jan 2015	Beacon Heights	
26 Jan 2015	near Scout Park	
14 Feb 2015	Beacon Heights	
8 Mar 2015	Beacon Heights	
9 Mar 2015	Beacon Heights	
11 Mar 2015	Beacon Heights	Yes
3 Apr 2015	Beacon Heights	
21 Apr 2015	near the Sewage Depot	Yes
23 Apr 2015	near the Sewage Depot	
24 Apr 2015	near the Sewage Depot	Yes
8 May 2015	near the Sewerage Depot	
11 May 2015	northern end of West I.	Yes
29 Jun 2015	northern end of West I	Yes
30 Jun 2015	Bob's Folly Rd (near Trannies Beach)	Yes
2 July 2015	Bob's Folly Rd	
4 July 2015	northern end of West I.	Yes

Plates 1 and 2 illustrate the identification features. Plates 3-6 document the date range of the bird's stay. Plate 4 was published in 'Twitchers Corner' in June 2015 (Watson 2015) without a date.

Photographs and Identification



Plate 1. Malayan Night Heron at West Island, CKI, 11 March 2015. (Photo G Christie).

A dumpy, medium sized heron with a thick neck, heavy legs, a short and heavy bill, and finely patterned plumage has to be a *Gorsachius* night-heron, of which there are three species.

White-eared Night Heron *G. magnificus* is eliminated because all plumages show a bold black and white head pattern.

The speckled face, and the heavily vermiculated neck and upperparts plumage with small white spots or splotches are indicative of 'juvenile' or first cycle plumages in *Gorsachius* night-herons.

The black nuchal 'crest' with profuse white spots, drooping over the hind-neck, is diagnostic of first cycle Malayan and rules out the similar Japanese Night Heron *G. goisagi*.



At least four primaries (best viewed on the left wing) are broadly tipped with white on both webs, which is diagnostic of Malayan and rules out Japanese Night Heron.

The strongly barred flanks and axillaries are diagnostic of Malayan and rule out Japanese Night Heron.

Note the streaky rufous triangular facial patch. This seems to be a feature of individual variation, not present on all first cycle Malayan Night Herons, and thus some evidence at least that the photographs show a single bird.

Plate 2. Malayan Night Heron at West Island, CKI, 25 January 2015. (Photo G Christie).



Plate 3. Malayan Night Heron at West Island, CKI,
25 January 2015. (Photo G Christie).



Plate 4. Malayan Night Heron at West Island, CKI,
24 April 2015. (Photo IAW McAllan).



Plate 5. Malayan Night Heron at West Island, CKI,
30 June 2015. (Photo G Christie).

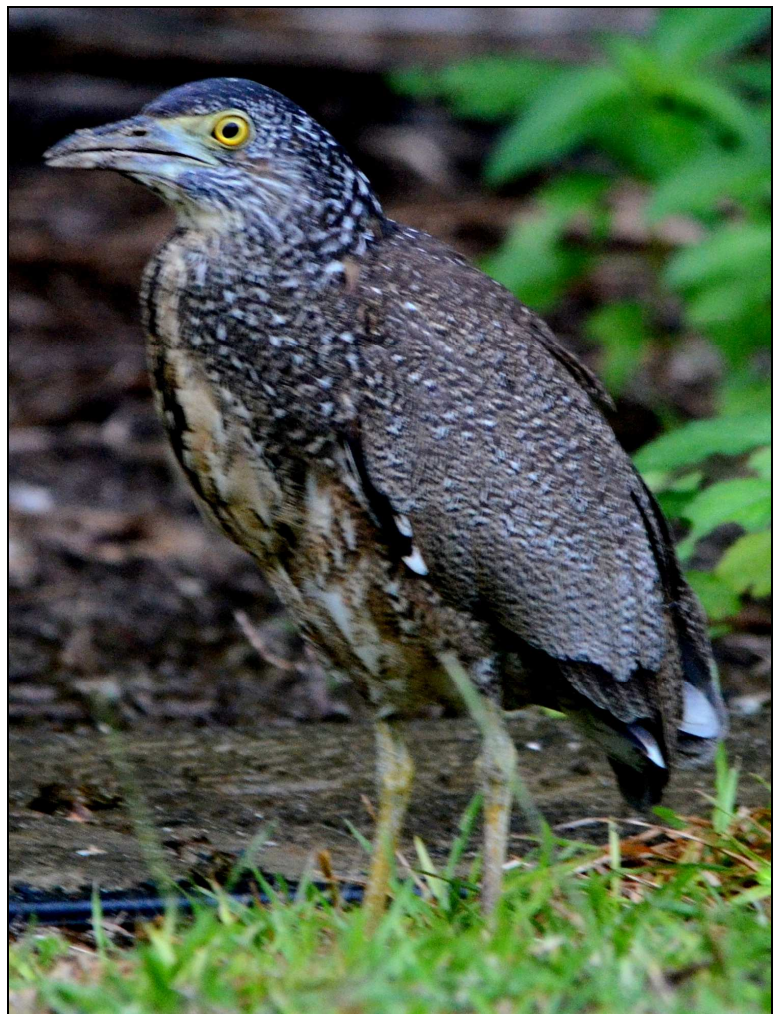


Plate 6. Malayan Night Heron at West Island, CKI,
4 July 2015. (Photo G Christie).

Moult and Ageing

The plumage sequence and moults of Malayan Night Heron have not been described in great detail. Wells (1999) deduced that they retain juvenile plumage for at least one year, and noted a single bird transitioning from juvenile to adult in November when presumed to be 15-18 months of age. Menkhorst *et al.* (2017) stated that they moult gradually to adult like plumage in the first year but with substantial variation in timing. There seems to be no good evidence for a distinguishable second cycle plumage. Thus it appears they have a simple basic moult strategy (*sensu* Howell 2010), however unlikely this seems for a large non-passerine in general and a heron specifically.

The subject bird is not adult (adults are generally rufous and more finely vermiculated dorsally and lack white spots in the nuchal crest). It started showing signs of moult in June and July with some new rufous feathers growing in on the sides of the lower neck (see Plates 5 and 6). By this time it would have been nearing about 12 months old. This is consistent with the account of Wells (1999). However, a photographic time sequence of a juvenile in Malaysia by Armad-Singh in 2019 shows a bird with more extensive signs of moult to adult plumage by March (Oriental Bird Images, e.g. http://orientalbirdimages.org/search.php?Bird_Image_ID=170771&Bird_ID=1096&Bird_Family_ID=&Location=). Evidently there is considerable variation in the timing of moult to adult plumage, as noted by Menkhorst *et al.* (2017).

Individual Variation

Malayan Night Heron appears to have considerable individual variation that apparently has not been well-documented before. In both juvenile and adult plumages there are rufous birds at one extreme and grey birds at the other extreme, apparently with continuous variation in between. Many regional books illustrate grey form juveniles and rufous form adults but overlook rufous form juveniles and grey form adults (e.g. Coates & Bishop 1987; Kennedy *et al.* 2000; Robson 2000; Brazil 2009; Phillipps & Phillipps 2009; Eaton *et al.* 2016; Menkhorst *et al.* 2017). Marchant & Higgins (1990) illustrated separate juvenile and immature plumages, but only the 'immature' is a good likeness to juvenile plumage, and it is towards the rufous end. Wells (1999) illustrated rufous adult and juvenile birds. Rasmussen & Anderton (2014) illustrated both grey and rufous juveniles, but attributed the variation to geographical populations. Full documentation of the variation is beyond the scope of this submission, especially without examining study skins. However, the birds in Plate 7 illustrate much of the variation. The subject bird appears to be intermediate, tending towards the rufous end of the spectrum. In fact most documented records from Christmas Island appear to be intermediate birds closer to the rufous end (DJJ, field observations and analysis of photos).

This discovery resolves the issue of rufous tones in several juveniles seen on Christmas Island in the past that have not reconciled perfectly with depictions of grey juveniles in the literature. For example, in BARC Submission 354, Holmes & James (2002) speculated incorrectly that the rufous tones might reflect an undescribed second or third cycle plumage.

Status

There have been three previous Australian records accepted by BARC, all from Christmas Island (BARC cases 345, 735, 872). There are also three historical sight records from Christmas Island (Stokes *et al.* 1987) that have been widely accepted as genuine (Stokes 1988; Marchant & Higgins 1990; Christidis & Boles 1994; Johnstone & Darnell 2004, 2017; James & McAllan 2014). James & McAllan (2014) listed a further six unconfirmed records from Christmas Island, including one that was not accepted by BARC (case 569). Apparently all the records from Christmas Island have involved juvenile or older first cycle birds.

This is the first BARC submission for Malayan Night Heron from CKI but it is not the first report from there. An unconfirmed report from CKI on 1 May 2011 (R. Baxter in lit.) is notable because it apparently represents the only occurrence of an adult *Gorsachius* night heron in Australian Territory. Another Malayan Night Heron was present on West I CKI in January to March 2019, which is the subject of a concurrent submission (BARC case 1074).

Variation in bare parts colours also deserves greater attention.



Plate 7. Examples of variation in Malayan Night Herons.

- A. Rufous form adult.
Puli, Taiwan, 21 March 2019. Photo by Carrie Ma (<http://orientalbirdimages.org/>)
- D. Grey form adult.
Taipei Botanical Gardens, Taiwan, 20 April 2009.
Photo by Pete Morris/Birdquest (<http://orientalbirdimages.org/>)
- C. Rufous form juvenile.
Ko Tachai, Thailand, 18 February 2013. Photo by N. Chotjuckdikul (<https://macaulaylibrary.org>)
- D. Grey form juvenile
Taipei Botanical Gardens, Taiwan, 13 April 2005.
Photo by James Eaton/Birdtour Asia (<http://orientalbirdimages.org/>)

Permissions

BARC has the permission of the authors to publish on-line this submission and/or the photographs accompanying this submission.

Contributions and Acknowledgements

The observations, photographs and identification were made by GC, PJ and IAWM. The submission was prepared by DJJ. The authors are grateful to Natthaphat Chotjuckdikul, James Eaton/Birdtour Asia, Carrie Ma and Pete Morris/Birdquest for allowing us to use their photographs.

References

- Brazil M (2009). *Birds of East Asia*, Christopher Helm, London.
- Christidis L & Boles WE (1994). *The Taxonomy and Species of Birds of Australia and its Territories*, RAOU Monograph 2, Royal Australasian Ornithologists Union, Melbourne.
- Coates BJ & Bishop KD (1997). *A Guide to the Birds of Wallacea*. Dove Publications, Alderly, Qld.
- Eaton JA, van Balen B, Brickle NW & Reindt FE (2016). *Birds of the Indonesian Archipelago. Greater Sundas and Wallacea*. Lynx Edicions, Barcelona.
- Hancock J, Kushlan J, Gillmor R & Hayman P (1984). *The Herons Handbook*, Croom Helm, Beckenham, Kent.
- Holmes G & James D (2002). 'Malayan Night Heron *Gorsachius melanolophus*, Christmas Island (near EA Research Station), 10° 29.25 S, 105° 38.75 E, 215 m asl, 7- 8 March 2002'. Unpublished submission to Birds Australia Rarities Committee (BARC Case 345).
- Howell SNG (2010). *Peterson Reference Guide to Molt in North American Birds*. Houghton Mifflin Harcourt, New York.
- James DJ & McAllan IAW (2014). 'The Birds of Christmas Island, Indian Ocean: A Review', *Australian Field Ornithology* 31, Supplement.
- Johnstone RE & Darnell JC (2004). 'Annotated Checklist of Birds from Cocos-Keeling Islands', Appendix B in Johnstone RE & Storr RM, *Handbook of Western Australian Birds, Vol. 2, Passerines*, WA Museum, Perth, 477–496.
- Johnstone RE & Darnell JC (2017). 'Checklist of the Birds of Cocos (Keeling) & Christmas Islands'. Unpublished manuscript, dated August 2017.
- Kennedy RS, Gonzales PC, Dickenson EC, Miranda HC & Fisher TH (2000). *A Guide to the Birds of the Philippines*. OUP, Oxford UK.
- Marchant S & Higgins PJ (1990). *Handbook of Australian, New Zealand and Antarctic Birds, Vol. 1, Ratites to Ducks*, Oxford University Press, Melbourne.
- Menkhorst P, Rogers D, Clarke R, Davies J, Marsack P & Franklin K (2017). *The Australian Bird Guide*. CSIRO Publishing, Melbourne.
- Phillipps Q & Phillipps K (2009). *Phillipps' Field Guide to the Birds of Borneo. Sabah, Sarawak, Brunei and Kalimantan*. Beaufoy Books, Oxford UK.
- Rasmussen P & Anderton JC (2005). *Birds of South Asia: The Ripley Guide*, Smithsonian Institution, Washington D.C.
- Robson C (2000). *A Guide to the Birds of Southeast Asia*, Princeton University Press, Princeton, NJ.
- Stokes T (1988). *A Review of the Birds of Christmas Island, Indian Ocean, Occasional Paper Number 16*. Australian National Parks & Wildlife Service, Canberra.
- Stokes T, Merton D, Hicks J & Tranter J (1987). 'Additional records of birds from Christmas Island, Indian Ocean'. *Australian Bird Watcher* 12: 1–7.
- Watson C (2015). 'Twitchers Corner'. *Australian Birdlife* 4(2): 82-83.
- Wells DR (1999). *The Birds of the Thai-Malay Peninsula, Vol. 1, Non-passerines*. Academic Press, San Diego.