

A Blyth's Hornbill *Rhyticeros plicatus* on Dauan Island, Torres Strait, Queensland, February to March 2024: A new bird species and family for Australian Territory

Richard Baxter^{1*}, Tanya Hattingh² and Alison Nisbett³

¹Wallsend, NSW 2287, Australia. Email: cookilaria@yahoo.com

²Frankston VIC 3199, Australia. Email: hattingh@ozemail.com.au

³Emerald VIC 3782, Australia. Email: alison.nisbett@gmail.com

*Corresponding author

Abstract. A Blyth's Hornbill (also known as Papuan Hornbill) *Rhyticeros plicatus* was observed on Dauan Island in the Torres Strait, North Queensland, on 22 February 2024, and again on 28 and 29 February and 7 and 8 March. A submission to the BirdLife Australia Rarities Committee resulted in acceptance of the record (Case no. 1326). Here we document the occurrence, the first confirmed record for Australian territory of this species, which has a wide range in lowland forests from the Moluccas, New Guinea, the Bismarck Archipelago, and as far east as the Solomon Islands.

Introduction

The Torres Strait and its islands are of considerable ornithological interest, including for biogeography and migration, as they represent the remnants of a land bridge which linked New Guinea and Cape York, Australia, before rises in sea level 10,000 years ago (Draffan *et al.* 1983; Clarke 2010). As some of the northern islands are close to New Guinea, they can be sources for new records for species in Australian Territory (e.g. Carter *et al.* 1997; Lansley 2004; Clarke *et al.* 2010). Blyth's Hornbill *Rhyticeros plicatus* (also known as Papuan Hornbill) is a species that could be expected to occur on these islands, as it is known to fly over the sea and has colonised many islands in its range (Poonswad & Kemp 1993; Mayr & Diamond 2001; Dutson 2011).

Here we describe observations of an adult male Blyth's Hornbill on Dauan Island in the Torres Strait, North Queensland, on 22 February 2024 and again on 28 and 29 February, and 7 and 8 March 2024, the first documented record of this species for Australian Territory. This is also the first record of its taxonomic family (hornbills: Bucerotidae) for Australia.

Observations

Initial observation

A birding tour group led by RB and consisting of TH, AN and others (see acknowledgements) visited Dauan Island, 10.6 km south of the Papua New Guinea (PNG) mainland (Figure 1), on 22 February 2024. The group had been on a boat-based birding tour of three northern Torres Strait islands, namely Boigu, Saibai and Dauan, with Dauan being the final stop. All members of the group landed on Dauan at 0600 h and walked west towards an area of mangroves adjacent to a helicopter landing pad (-9.2443, 142.3156) (Figure 2). From that area many swifts *Apus* spp. and possibly swiftlets *Aerodramus* spp. were noted in the vicinity of a telecommunications tower at the

top of Mount Cornwallis (-9.253, 142.3206), which is the highest point on the island (295 m above sea level).

The group walked to a football field (-9.4112408, 142.5300983), which is the nearest point to the mountain that is easily accessible and scanned the ridgeline for some time observing a group of 50 Pacific Swifts *Apus pacificus*. At 0911 h, a large bird was seen travelling north above the ridge and RB immediately recognised it as a male Blyth's Hornbill and alerted the group. About 15 seconds later it descended to the eastern side of the ridge and out of sight. After 15 minutes it returned to the western side of Mount Cornwallis (-9.41667, 142.533), where the entire group had extended views of the bird in flight and several photographs were taken (Figure 3). The bird was not seen to land during this sighting on 22 February.

By 0930 h, the sun had risen sufficiently for the group to have clear and well-lit views as the bird flew past. It was hot and humid with a temperature of 31°C, 75% humidity, and a north-westerly wind of 7 km/h. The ridge was ~650 m away from the observers and 260 m high. About 20 minutes later, the hornbill made a further pass, which was nearly identical to its first path. On this third pass, it landed in dense forest on the western side of the hill but, using both binoculars and scopes, we were unable to

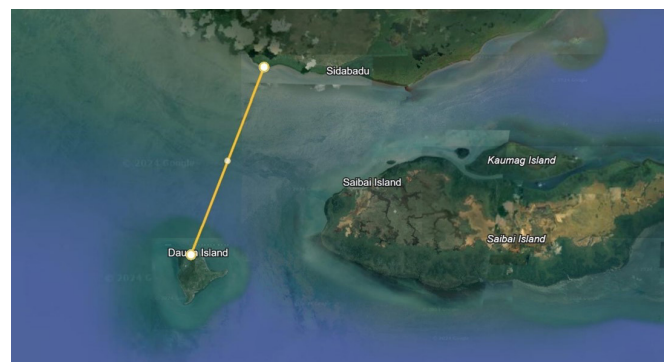


Figure 1. Location of Dauan Island, 10.6 km from the Papua New Guinea mainland to the north (indicated by yellow line: Saibai Island lies to the east). Source: Google Earth



Figure 2. Locations of geographic features on Dauan Island as described in this article. The yellow line shows the line of sight and the distance (500 m) from the football field to the ridge. Source: Google Earth



Figure 3. Blyth's Hornbill over Dauan Island, Torres Strait, 22 February 2024. Photo: Tanya Hattingh

locate the perched bird. The entire group was successful in obtaining photographs of the bird and all agreed on the identification as a Blyth's Hornbill.

Further observations

On 28 February, RB arrived on Dauan Island (again by boat) with another group of ten birders and anchored on the northern side of the island. The group arrived in the late afternoon and the anchorage provided good unobstructed views of the ridge, although this was ~1 km away. Spotting scopes were erected on the top deck and at c. 1700 h that afternoon the Blyth's Hornbill was again seen flying along the ridge. As on the previous sighting, it crossed to the far side of the ridge where it could not be seen.

The following morning (29 February), soon after 0600 h, the group walked to the football field where the first observation had been made and spent more time observing the hornbill and saw it land several times (Figure 4).

RB arrived on the island for a third time on 7–8 March 2024 with another group of ten birders and the hornbill was



Figure 4. The Blyth's Hornbill perched, Dauan Island, 28 February 2024. Photo: Nick Thompson

still present and displaying similar behaviour of cruising north–south along the ridge and occasionally landing, although it was never observed to feed when perched.

Habitat

Dauan is a small island (364 ha), ~3 km long and with a maximum elevation of 295 m; >90% of its vegetation consists of mangroves, vine forest, *Melaleuca* swamp forest, fan palm *Livistona* dominant woodlands and rainforest. This forest in parts extends from the summit to the island's lower slopes. The island is continental and, along with the nearby Mabaduan Hill in PNG, forms the northern end of the Great Dividing Range. The bird was only seen flying above or not far below the ridge, where the rainforest is thickest and where the island's tallest trees are found (Figure 5).



Figure 5. Habitat utilised by the Blyth's Hornbill seen on Dauan Island. Photo: Richard Baxter

The diet of Blyth's Hornbill consists of fruits, small animals such as geckos, bee honeycomb and large insects (Kemp & Kirwan 2020). Dauan's vegetation contains several species of rainforest fruiting trees spread over a large area of the island. The forest supports a healthy population of Torresian Imperial-Pigeons *Ducula spilorrhoa* and fruit-doves *Ptilinopus* spp. as well as other less-common species such as Papuan Eclectus *Eclectus polychloros* and Channel-billed Cuckoo *Scythrops novaehollandiae*. Although the Blyth's Hornbill was not observed to feed during our three visits to the island, large numbers of Torresian Imperial-Pigeons were observed to feed in fruiting trees.

Suitable food trees occurring on Dauan include: Downy Satinash *Syzigium puberulum*, which grows to 15 m in height and produces fleshy, stoneless fruits; Scaly Ash *Ganophyllum falcatum*, an evergreen rainforest tree that grows to 32 m high and produces ovoid fruits that are consumed by fruit pigeons; White Fig *Ficus virens*, which grows to 30 m and produces edible figs; and Native Mangosteen *Garcinea warrenii*, which grows to 15 m and bears edible fruits. Other vine forest and rainforest fruiting species on the island include Rose Tamarind *Arytera divaricata*, Curtain Fig *Ficus macrocarpa*, Mango *Mangifera indica*, Native Prune *Pouteria sericea* and Umbrella Tree *Schefflera actinophylla*.

Behaviour

The closest that any birders could approach the bird was ~500 m, when, without losing any altitude, it looped out from the top of the ridge over the forest towards the township and then back along the same route. On two occasions, it was heard to call in flight. On 22 February, it was mobbed by 20–30 Pacific Swifts on each occasion that it approached the telecommunications tower on the

summit of Mount Cornwallis: the swifts flew towards it until it turned around and flew back along the ridge. When seen to land, it perched on the branches of large rainforest trees just below the ridge line (Figure 4).

Description

We photographed the bird on 22 February and others obtained many more photographs on the subsequent visits to Dauan Island. Most plumage characters are revealed in these photographs (Figures 3, 4, 6). RB also recorded a detailed field description. This, augmented by a study of the photographs, is given below.

Structure: The structure of the bird was similar to that of many of the world's hornbills, with the large, long down-curved bill immediately evident. The bill did not have a large projecting casque as is apparent in other Asian hornbills, such as Wrinkled Hornbill *Rhabdotorrhinus corrugatus* or Oriental Pied Hornbill *Anthracoceros albirostris*; instead, from a distance, the low casque could barely be seen, particularly as it was the same colour as the bill. The casque also appeared to be damaged. The tail was medium in length, neither particularly short nor long.

Both African and Asian hornbills (particularly the larger species such as Blyth's) have a distinct languid flight style on long broad wings, and this flight style was evident on every occasion that the bird was seen. There was no discernible difference in flight speed and the distinctive noisy 'whooshing' wingbeats made by this and other large hornbill species could not be heard.

Size: The bird's size was immediately obvious in comparison with two nearby Whistling Kites *Haliastur sphenurus*. It was longer (estimated to be slightly less than 1 m in length) and its wingspan (150–170 cm) was greater than that of the Kites. From a distance, its body



Figure 6. Blyth's Hornbill, Dauan Island, 29 February 2024. Photo: Nick Thompson

also appeared less 'bulky' in flight than the nearby Kites, appearing to be all head, neck, wings and tail.

Bare parts: In flight, the legs appeared to be yellowish but the feet could not be seen. The bill was pale yellow and, in flight, the casque appeared to be the same colour as the bill. It was only when the bird was perched and viewed through the scope that the yellow-and-brown-wreathed casque could be seen more clearly. This is also visible in the photographs. The base of the bill was reddish brown. The bare skin on the throat usually appeared white when the bird was in flight, and only at certain angles could any light blue be seen. At no time in flight could any blue be seen around the eye; rather, the area appeared white and the eye colour could not be seen because of the distance. The light-blue bare skin around the eye and on the throat could be seen by RB when viewed through the scope when the bird was perched.

Plumage: This is best appreciated by a study of the photographs. The crown, nape and neck were golden orange in colour. The wings were black and the mantle, back, and rump all appeared black. The breast, belly and flanks were all black, as were the thighs and vent. The tail was seen well and when the bird was in flight always appeared golden, which was perhaps because of the light conditions at dawn and dusk during our visits. When the bird was perched in the shade, the tail appeared white. The secondaries were in poor condition.

Identification: Although superficially very similar to other Asian hornbills, identification of the Dauan Island bird as a male Blyth's (Papuan) Hornbill was straightforward, particularly as it was well seen, photographed, and is the only hornbill within range, as well as the only hornbill occurring in Melanesia.

Discussion

The observations were made in the peak of the wet season and the weather conditions in the days preceding our observations had been intensely monsoonal across the Northern Torres Strait, with daily rain, predominantly northerly winds, and almost daily localised thunderstorms, which during our visit always built up over mainland PNG.

During the years 2002 to 2014, RB visited the islands at the end of the dry season (September/October) when

the weather was hot, still and dry. During these visits, very little movement of PNG birds was observed apart from the resident Gurney's Eagles *Aquila gurneyi* near Saibai Island. Since 2016, RB has made 17 week-long trips to the islands in the wet season (January–March) and has observed a significantly greater movement of fruit-eating species. Stephan's Emerald Dove *Chalcophaps stephani*, Pink-spotted Fruit Dove *Ptilinopus perlatus*, Orange-fronted Fruit Dove *P. aurantiifrons*, Coronated Fruit Dove *P. coronulatus* and Zoe's Imperial Pigeon *Ducula zoea* have all been found on the islands during this time, perhaps as a result of a paucity on nearby PNG of fruiting trees, which might also have contributed to the wanderings of Blyth's Hornbill in search of food.

A submission was made to the BirdLife Australia Rarities Committee and was accepted (Case no. 1326), making this the first record of Blyth's Hornbill (or any hornbill) in Australia. Blyth's Hornbill occurs in eastern Indonesia from the northern Moluccas east across New Guinea to the Bismarck Archipelago and the Solomon Islands. It is the only Australasian hornbill species. Several subspecies of Blyth's Hornbill have been described, with the head and neck colour of the male varying from dark rufous in the west to golden yellow in the eastern part of its range, which would suggest that the Dauan bird originated from the east of PNG and thus most likely was *Rhyticeros plicatus jungei*.

Age can be determined by the number of wrinkles on the casque, with one crease added each year until an age of c. 6 years. The casque on the Dauan bird appeared to have 6–7 dark wrinkles, which would indicate an adult bird. Adult females have a black head and neck, so the bird must have been an adult male.

No regular movements or migration have been reported for this species, although it has been observed to occasionally wander to islands outside its regular breeding range (Kemp & Kirwan 2020). The sighting is not unexpected: RB has long predicted its arrival and has been searching for the species on the northern Torres Strait islands for 22 years.

The addition of Blyth's Hornbill to the list of bird species occurring in the Torres Strait adds to our knowledge of the birds in this area and interaction between the New Guinea mainland and northern Torres Strait Islands (Draffan *et al.* 1983; Carter 1999; Clarke 2004; Lansley 2004; Clarke *et al.* 2010; Niland *et al.* 2022). It adds a new family (hornbills: Bucerotidae) to the list of bird families recorded in Australia. At the higher taxonomic level of bird orders, only one other species in the order Bucerotiformes has been recorded in Australia, namely the Eurasian Hoopoe *Upupa epops* (family Upupidae), which has occurred as a rare vagrant (Onton *et al.* 2012).

The two nearby northern Torres Strait islands of Boigu and Saibai are low-lying mud islands, on which the dominant vegetation is mangrove forests and low vine scrub. They do not support the large numbers and variety of fruiting trees found on Dauan and hence, despite being much larger, would possibly not be a favourable feeding destination for Blyth's Hornbill.

In RB's conversations with local New Guinea residents over the previous 20 years, it is evident that they know of Blyth's Hornbill and that it regularly occurs along the southern New Guinea coastline. Contrary to this, however,

the residents (including local indigenous rangers) of Boigu and Saibai do not recall ever seeing this species previously on either island and the species is not known to have been kept in captivity on Boigu, Saibai and Dauan islands.

Whilst on Dauan during the time of the sightings, RB was informed by a local council ranger that he had seen the hornbill while he was hiking to the summit of Mount Cornwallis about a month earlier. This ranger had not previously observed the species on the island. In conversations with local Dauan Island residents at the time, they were genuinely interested in the sighting and eager to see photographs of the bird.

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