

White-eared Night Heron *Gorsachius magnificus* records in the Bangladesh Sundarbans: A new species for the country

The White-eared Night Heron *Gorsachius magnificus* is a nocturnal, poorly-known, globally Endangered species, primarily occurring in southern China, and northern Vietnam, where breeding has been confirmed in recent times (Pilgrim et al. 2009; Le 2015; Martínez-Vilalta et al. 2020). Populations of the species are believed to be declining for many years owing to hunting and forest clearance; for example, it has not been found on Hainan Island, China (the type locality) since 1962 (BirdLife International 2023). It is typically found in well-watered areas of forest, including areas of limestone karst, and sometimes in bamboo, with adjacent wetlands, in particular secluded rivers. The species also inhabits hill forests at moderate altitudes up to 1,300 m (Kushlan & Hancock 2005). Its feeding sites can span up to 40 km of subtropical forest areas, near various water sources such as streams, reservoirs, rice fields and irrigation facilities (Kushlan & Hancock 2005), while daytime roosts are typically in forests within 500 m of streams or inundated fields (Fellowes et al. 2001).

Here we present a significant range extension of the species to the Bangladesh Sundarbans. We describe three observations of the species, including at least two individuals, from two sites during the period between November 2022 and February 2023. Our records constitute the first report of the species for Bangladesh (Thompson & Chowdhury 2022), and shed light upon a possible wintering range of the species, and potential seasonal movements and migration.

Observations and identification

The Sundarbans is the largest single block of mangrove forest in the world, stretching along the coast of south-west Bangladesh (6,017 sq. km) and north-east India (4,000 sq. km), and parts of it are listed as a Ramsar and UNESCO World Heritage Site (Chowdhury 2020). Our three sightings are from two sites in the Bangladesh Sundarbans, both locations c.30 km apart in linear distance: Pakhir Khal (22.26°N, 89.74°E; 2 m) and Haddora Khal (22.40°N, 89.47°E; -4 m) ('Khal', meaning creek or channel). Both locations lie outside the protected areas (East, South, and West Wildlife Sanctuaries) but within Sundarbans Reserve Forest of the Bangladesh Sundarbans. The area is generally divided into three ecological zones based on soil salinity and floral composition (Siddique et al. 2017). Considering these zones, Pakhir Khal is located in a freshwater dominated zone, while Haddora Khal falls under moderately saline zone (Fig. 1). The latter is also designated as a 'Fishing Prohibited Khal'; though a number of local fishermen and nipa palm *Nypa sp.* collectors were observed in the area.

On 14 November 2022, at 0630 h SHS, DKD, AAM, RIR, and SRT photographed an immature night-heron perched on top of a *keora* tree (mangrove apple) *Sonneratia apetala* at 6 m above the ground at Pakhir Khal (c. 35 m wide). The bird showed dark brown plumage with streaking on the neck and underparts, distinct white spots on scapulars and wing coverts, and yellowish-green legs and feet [81]. The plumage was superficially similar to immature Black-crowned Night Heron *Nycticorax nycticorax*, but the bird showed noticeably larger eyes and different shape. These features led to some confusion while researching the

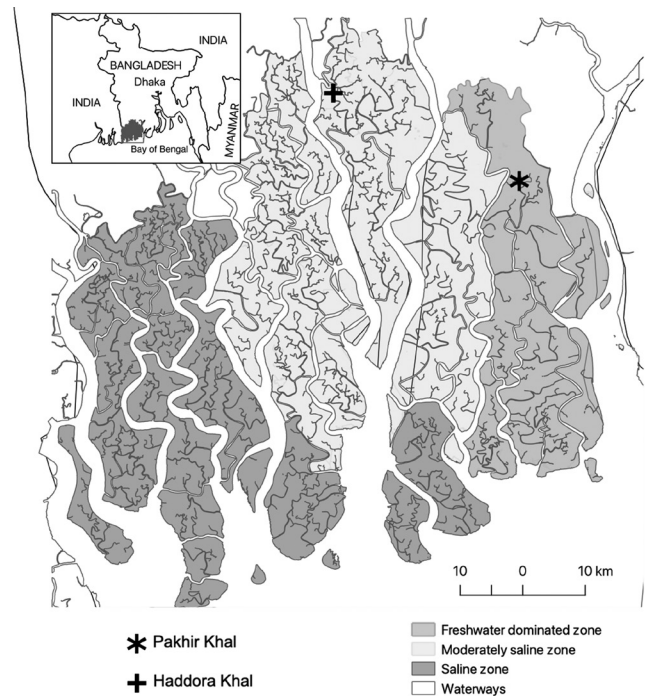


Fig 1. Bangladesh Sundarbans with different ecological zones (following Siddique et al. 2017) and White-eared Night Heron records in 2022-23.

identity of the species in the field and it was left unidentified.



81. Immature White-eared Night Heron on a *keora* tree at Pakhir Khal on 14 November 2022.

Saeed H Saeed

On 5 December 2022, NG, JB, RG, PS, AS, and SW were birding at Haddora Khal (c. 60 m wide) during a rising low tide, just before dawn, traveling in a motor-powered boat going at about 5 km/hour. At about 0522 h, NG and RG spotted a heron with their flashlights, sitting on a large low horizontal branch about 1 m off the ground along the muddy bank (west side) of the tidal creek. After careful positioning of the boat, the bird was extensively photographed [82], and subsequently identified as an immature White-eared Night Heron based on shape and structure. These were notably different from Black-crowned Night Heron, with much larger eyes, longer neck and legs, and heavier bill; in addition, the bird showed darker plumage with bolder

streaking below and prominent white spots on the wing coverts and scapulars. Its yellowish-green legs and feet were heavily coated with wet mud, suggesting that it had likely been foraging on the mud banks along the channel. The bird was observed by spotlight for the next six minutes, after which it flushed and flew across the channel, where it perched at a height of about 15 m in a tall tree. The bird was observed for the next five minutes, after which the observers left to fetch the remainder of their group. Upon returning around 0600 h the bird could not be relocated.



Andrew Spencer

82. Immature White-eared Night Heron showing prominent white spots on wing coverts and scapulars at Haddora Khal on 05 December 2022.

Upon posting of the 05 December sighting on eBird, the previous survey team revisited their November 2022 sighting from Pakhir Khal (31.75 km southeast of the December 2022 location) and confirmed that their bird was indeed a White-eared Night-Heron. Comparison of the photographs of the two sightings suggests that they were probably not the same individual based on the scapular markings.

On 08 January 2023, a brief sighting of possibly the same individual at Haddora Khal was reported, about c. 2.5 km downstream from the December 2022 location (Allport 2023). Although based only on a few seconds' view in flight, the description suggests that it matched the characteristics and features of White-eared Night Heron in structure and plumage.

On 10 February 2023, while guiding a birding tour, SUC and JAE found a White-eared Night Heron foraging on the exposed mud along the bank during receding low tide after dusk at Haddora Khal (22.38°N, 89.48°E), about 2 km downstream from the December 2022 sighting [Fig. 1]. It was soon flushed when a flashlight was shone on the bird, after which it flew towards the opposite bank. After c. 10 minutes of waiting, it was relocated perched on the other side of the bank, in a *keora* (mangrove apple) *Sonneratia apetala* at c.10 m above ground. Despite spending a total of four days in the general area and revisiting the same locality the next day, the observers did not relocate the bird. This was also the last reported sighting of the species from the area.

Discussion

Records of the species outside its known regular range are few; the first record from South Asia came from the Valmiki Tiger Reserve (TR), Bihar, India on 24 November 2016, during

camera-trap mammal surveys, an immature bird photographed near a slow flowing perennial rivulet in moist deciduous forest at 234 m asl (Shafi et al. 2018). This record is about 2,300 km west of previously reported locations in Guangxi province, China (He et al. 2007) and 1,700 km west of the sole Yunnan record (dated 28 October 2006) in China (Wu et al. 2015). An additional significant record was recently reported from Botum Sakor National Park in south-west Cambodia, again following camera-trap detection during mammal surveys, during 12–14 March 2017; images of presumably adult White-eared Night-Heron were obtained from two separate camera-traps set c. 400 m apart on the same perennial stream in lowland evergreen forest at 10 m above sea-level (Wildlife Alliance Camera Trap 2017, Gray et al. 2019). The record is approximately 1,200 km south of known locations in northern Vietnam.

The nearest confirmed records of the species to our Bangladesh records are from Valmiki TR, Bihar, India (Shafi et al. 2018), and Jinshan Yakou, Yunnan, China (Wu et al. 2015), c.762 km north-west and c.1,240 km north-east respectively to the location of our sightings. Despite the relatively wide range of the species, it still appears to be rare and patchily distributed, and combined with the difficulty of finding this nocturnal species in the relatively inaccessible habitat it prefers, it is not surprising that there are not more records from outside its core range. Both sightings of the species with photographic documentation from Haddora Khal are likely of the same individual, based on features visible in the photos, indicating its likely continuous presence in the area throughout the winter from December 2022 at least up to February 2023. With the November 2022 sighting from Pakhir Khal representing a presumably different individual, it is possible that the large expanse of Sundarbans could constitute a regular, important wintering ground for the species. Additional coverage over subsequent winters is required to prove if this is the case, though the difficulty accessing many of the remote parts of the Sundarbans, as well as the difficulty in detecting this nocturnal heron, may pose challenges to survey efforts. It may also be that the species remained undetected in the past despite many ecological surveys in the area due to lack of nocturnal surveys and the elusive behaviour of the species.

The timing of records of White-eared Night Heron to the west of their breeding range could also offer support for regular wintering in Bangladesh, consisting of individuals migrating from China. The presumed breeding season is reported to be variable, as chicks were ready to fledge by late April in Vietnam, while chicks hatched in the first half of May in China (Eames & Hung 2009). However, recent literature suggests that the breeding season is extended, starting in late February and ending in early July; and among the 18 observed nests in artificial pine forests of southern China, 88.9% of females laid their eggs in March and raised their nestlings between April and June (Jiang et al. 2017). This would suggest that any individual wintering in Bangladesh and breeding in China would likely depart around the date of the final sighting on 10 February at the latest. It is interesting to note that the Bangladesh sightings involved individuals in immature plumage, which may also have implications on the exact timing of migratory movements. This may also suggest that the three outlier records outside the breeding season, from India, Cambodia, and now Bangladesh Sundarbans, may be wintering birds from the populations breeding in China, as Vietnam birds

at one site are apparently present through the winter (JAE pers. obs). It is not fully understood whether these records represent dispersal or vagrancy, considering that all sightings involved immature individuals. Further observations are needed to elucidate any potential pattern of occurrence that might support these theories.

Recent fieldwork and targeted surveys in China and northern Vietnam have added new information on distribution and ecology of the species (Fellowes et al. 2001; He et al. 2007; Eames & Hung 2009; Pilgrim et al. 2009; Le 2015; Jiang et al. 2017). Our records show that targeted surveys in areas of appropriate habitat in South and South-east Asia, using spotlighting during dusk and before dawn, as well as increased effort on camera-trapping surveys and careful scrutiny of their primary or incidental data with respect to birds, could similarly increase the understanding of the wintering range of the species, and thus indicate conservation priority areas of this threatened species.

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A Great Bittern *Botaurus stellaris* in Jhanjimukh-Kokilamukh, Assam, India

Jhanjimukh-Kokilamukh (26.83°N, 94.18°E) is a wetland, one among the 55 Important Bird and Biodiversity Areas (IBA) (Rahmani et al. 2016), adjacent to the Brahmaputra River in Jorhat District, Assam, India. On 13 March 2022 at 0700 h, I went bird watching on exposed mudflats around the wetland in Jhanjimukh-Kokilamukh. I recorded a solitary bird over the water hyacinth plants that had invaded the wetland. Initially, the bird appeared to be closely related to Indian Pond Heron *Ardeola grayii* [83]. After consulting field guides (Ali & Ripley 1978; Grimmett et al. 2016), it became clear that the larger size buffy body and overall coloration meant that the bird was a Great Bittern *Botaurus stellaris*. The Great Bittern is a rare winter migrant to Peninsular India, especially Rajasthan and the Gangetic Plains. It is a straggler to Assam with four prior records (Table 1). The birds inhabit wetlands, where they hunt for aquatic vertebrates and invertebrates (Ali & Ripley 1978; Rasmussen & Anderton 2012).

Table 1. Records of Great Bittern *Botaurus stellaris* in Assam

Date	Location	Reference/Observer	Comments
Unknown	Kaziranga NP, Golaghat	Barua & Sharma 1999	Included in the bird checklist of Kaziranga; No photograph.
21 February 2002	Kaziranga NP, Golaghat	Artuso (2002)	eBird observation; No photograph.
8 March 2015	Sareswar Beel, Dhubri	Deka (2015)	eBird observation; No photograph.
Unknown	Brahmaputra Valley & Northeast hills	Maheswaran et al. 2021	Recorded from two biogeographic provinces of the state, i.e., Brahmaputra Valley and Northeast Hills; No details were provided, and no photographs as well.