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# Journal of Threatened Taxa

10.11609/jott.2024.16.6.25283-25494  
[www.threatenedtaxa.org](http://www.threatenedtaxa.org)

26 June 2024 (Online & Print)  
16(6): 25283-25494  
ISSN 0974-7907 (Online)  
ISSN 0974-7893 (Print)



Open Access



ISSN 0974-7907 (Online); ISSN 0974-7893 (Print)

Publisher  
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www.wild.zooreach.org

Host  
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Cover: Emperor Tamarin *Saguinus imperator*: a look into a better world through the mustache lens – mixed media illustration. © Maya Santhanakrishnan.



## First nesting record of Black-necked Stork *Ephippiorhynchus asiaticus* (Aves: Ciconiiformes) in Kumana National Park, Sri Lanka

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Black-necked Stork *Ephippiorhynchus asiaticus* is a rare breeding resident in Sri Lanka evaluated as a Critically Endangered bird species on the International Union for Conservation of Nature (IUCN) Sri Lanka Red List. It is confined to the low-country dry zone, especially to a narrow region in the southern and eastern coastal areas of Sri Lanka (Henry 1998). Kumana National Park (KNP) (6.500–6.700 N, 81.067–81.250 E), which is also a Ramsar wetland site, is an important protected area with a high diversity of avifauna (Rathnayake et al. 2012). Black-necked Stork, the tallest bird found on the island, is one of the distinct species in the park's rich assemblage of aquatic avifauna (Dewasurendra et al. 2013) and the population is less than fifty within Sri Lanka according to the IUCN Red List. Although juveniles of Black-necked storks have been observed, a nest of Black-necked stork has not been recorded within the country to this date.

The study was conducted from August 2022 to August 2023. Nesting locations were searched among the trees within the park (Choudhary et al. 2011; Chowdhury & Sourav 2012) covering all the habitat types including lagoons, inland waterbodies, villu, rocky

outcrops, sand dunes, and forests. In an expansion of four consecutive days per month, observations were conducted using binoculars during three time periods per day morning (0600–0959 h), mid-day (1000–1359 h), and evening (1400–1800 h) (Aryal et al. 2009). Following the identification of a nest, the nest's material, shape, diameter, height above the ground, position in the canopy, and active or inactive status were recorded.

An active nest of Black-necked stork was confirmed in KNP in a forest patch adjacent to the 'Kudawila' inland waterbody (6.584 N & 81.735 E) (Image 1) in January 2023. A flying Black-necked Stork that was carrying a stick from the bank of the inland waterbody was tracked and the nesting tree was located based on the observations of this nest-building behaviour. The nest was positioned on top of a Tamarind Tree *Tamarindus indica* which is one of the tallest trees in the forest patch with a height of ~24 m and DBH of 1.8 m. The nest exhibited a large, oval shape, measuring approximately 199 cm in diameter and 68 cm in depth. It was made of a mass of sticks from the outside (Image 2). The nesting tree was located 624.71 m away from the jeep trail and

**Editor:** Sriyani Wickramasinghe, Rajarata University of Sri Lanka, Mihintale, Sri Lanka.

**Date of publication:** 26 June 2024 (online & print)

**Citation:** Gunathilaka, W.D.C.N., B.K.P.D. Rodrigo, D.M.A. Kumara, E.G.D.P. Jayasekara & W.A.D. Mahaulpatha (2024). First nesting record of Black-necked Stork *Ephippiorhynchus asiaticus* (Aves: Ciconiiformes) in Kumana National Park, Sri Lanka. *Journal of Threatened Taxa* 16(6): 25486–25488. <https://doi.org/10.11609/jott.8913.16.6.25486-25488>

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**Funding:** University of Sri Jayewardenepura.

**Competing interests:** The authors declare no competing interests.

**Acknowledgements:** Appreciation is extended to the Kumana National Park staff and "The Department of Wildlife Conservation" for granting permission (WL/3/2/37/22) to conduct this research. Heartfelt gratitude goes to Mr. Samaranyake (Park Warden), and Mr. Wasantha Disanayake (Wildlife Ranger Assistant) of the Kumana National Park. Special thanks are extended to the Department of Zoology and the Wildlife Circle of the University of Sri Jayewardenepura.



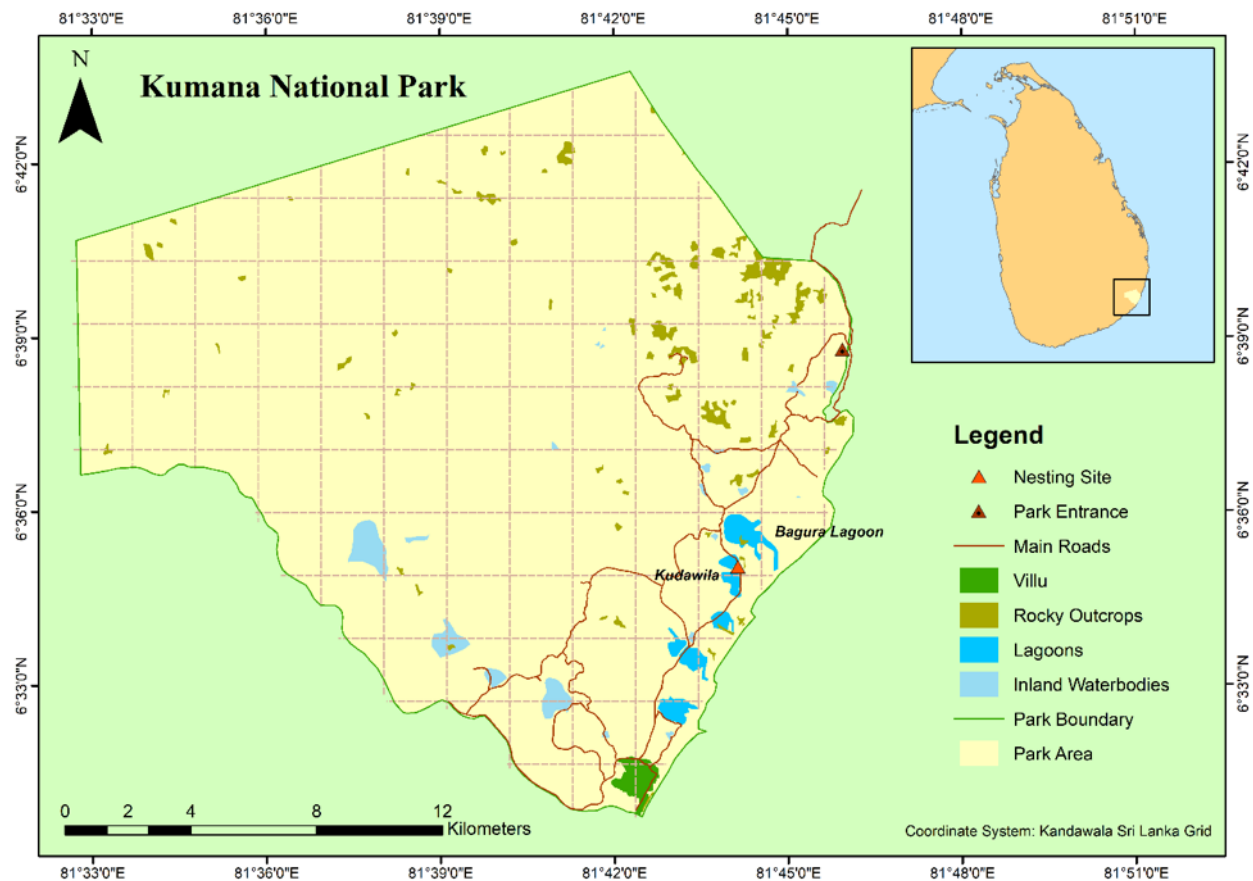


Image 1. Map of KNP with the nesting site of Black-necked Storks.

adjacent to a freshwater body. At the time of recording, the distance from the nest to the water level of the water body was measured at 388.27 m.

Since the first nest-building observation in January 2023, a male Black-necked Stork was consistently observed occupying the nest during January, February, and April, while the female bird was observed in March (Image 03) (Figure 1). During the study period, only two males and one female bird were observed within the park area. The presence of the female on the nest indicates that despite the critically low number of individuals in this population, they have successfully paired for breeding. The progression of the nest was observed by comparing photographs taken in previous months. The birds were observed standing inside the nest or on its periphery at various times.

This is the first published observation of the nesting behavior of Black-necked Stork in Sri Lanka. The park's sparse population of these birds, coupled with the discovery of the nest, underscores the critical need to preserve their habitat. When compared to the colonial nesting characteristics of Lesser Adjutant Storks,

Openbills, and Painted Storks, Black-necked Storks build individual nests (Urfi et al. 2007; Katuwal et al. 2022). These observations are confirmed by the fact that only one Black-necked Stork nest has been recorded in the area. The Black-necked Stork chose a taller and larger tree for nesting, in comparison to the recorded height ( $17.07 \text{ m} \pm 5.66$ ) and the DBH ( $98 \text{ cm} \pm 37.78$ ) of the nesting trees of the lesser adjutant stork (Katuwal et al. 2022). These measures are compatible with the body size of the Black-necked Stork, enabling to effortlessly reach the nesting sites with broad wingspan. Their choice of a lofty tree for nesting highlights their preference for undisturbed natural environments, emphasizing the importance of safeguarding these nesting sites and the pristine forest areas, particularly the towering trees within them. Furthermore, the decline in the Black-necked Stork population can be attributed to factors like habitat loss, fragmentation, habitat conversion, and human disruptions. Since a very small population is present in Sri Lanka, it is important to manage and conserve their occupied habitats especially their foraging grounds, and nesting sites. In the absence

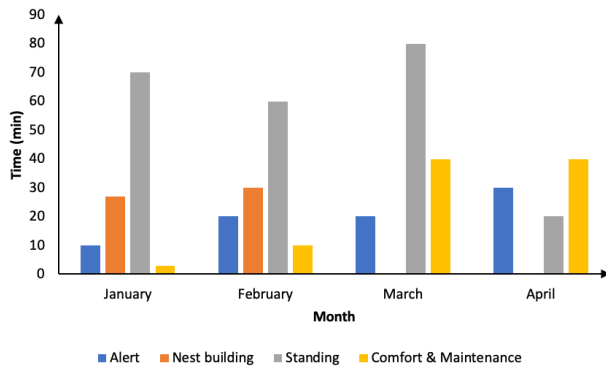


Figure 1. Activities of Black-necked Stork on the nest.



Image 2. Nest of Black-necked Stork.



Image 3. Nesting behavior of Black-necked Stork.

of no other nesting records for the species from Sri Lanka, this finding is important and provides valuable insights to expand the conservation measures for this 'Critically Endangered' bird and its associated habitats. The study will be continued and full details about habitat preference and nesting characteristics of the Black-necked Stork will be published in a forthcoming paper.

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The Managing Editor, JoTT,  
c/o Wildlife Information Liaison Development Society,  
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ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

June 2024 | Vol. 16 | No. 6 | Pages: 25283–25494

Date of Publication: 26 June 2024 (Online &amp; Print)

DOI: 10.11609/jott.2024.16.6.25283-25494

[www.threatenedtaxa.org](http://www.threatenedtaxa.org)

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