

Confirmed breeding records of Asian Woollyneck *Ciconia episcopus* from Bangladesh

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Abstract Asian Woollyneck is a globally “Vulnerable” stork species found in Asia. Information on its status in Bangladesh is scanty. In this note we provide successful breeding records of Asian Woollyneck from Rajshahi and Chapainawabganj Districts confirming the breeding of the species in Bangladesh.

Keywords Bangladesh, *Ciconia episcopus*, Woolly-necked Stork.

Introduction

Asian Woollyneck *Ciconia episcopus* is a vulnerable stork species patchily distributed across South Asia and South East Asia (BirdLife International 2019). It nests on a stick platform built 10-30 m (and sometimes up to 50 m) above the ground in a tree or on artificial structures such as towers which are sometimes over water (Greeshman *et al.* 2018; BirdLife International 2019).

In Bangladesh, Asian Woollyneck was considered to be a rare winter migrant and is listed as a “Critically Endangered” species considering its small and fluctuating wintering population in the country (IUCN Bangladesh 2015). Khan (1987) mentions that Asian Woollyneck used to breed infrequently in Sunderbans, Mymensingh and Sylhet districts. However, he had no sightings of the species in a decade-long survey except for a dead bird record in Rajshahi district in 1972

(Khan 1987). Only three records of this stork were reported from the Jamuna River, Padma River and the Sundarbans between the 1990s and 2013 (Thompson *et al.* 2014). There are no breeding records for Asian Woollyneck in Bangladesh. This note provides two recent observations of breeding along with details of the nest site and the number of chicks that fledged.

Study area

Ad-hoc observations were conducted in two districts, Rajshahi and Chapai Nawabganj. Rajshahi District lies on the north bank of the Padma River opposite the Bangladesh-India border. Chapai Nawabganj is the western most district of Bangladesh bordered by the Padma River and India to the southwest.

Methods

Nests were monitored from August 2017 (Rajshahi) and September 2018 (Chapai nawabgunj) onwards after an opportunistic sighting of an Asian Woollyneck during regular birding in August 2017. Observations were carried out between August and December of 2017, 2018 and 2019 to observe nest conditions and track breeding success. Nests were observed using binoculars and photographs were taken from afar to minimize disturbance. Distances from nest site to important

Article history

Received: 24 January 2020,

Received in revised form: 22 June 2020,

Accepted: 25 June 2020,

Published online: 05 October 2020

features were estimated by the observer.

Results

Nest 1: On November 2017, we found a single nest on cell phone tower of Rajshahi district (Figure 1). This nest was 45 m above ground and located on a 65 m cell phone tower. According to local people 2017 was the first year of breeding of storks on this tower. The nest site was very close to settlements, 50 m from the Rajshahi-Nawabganj highway, 1 km to Padma River, and the tower was located on agricultural land. Number of chicks that fledged were two (2017), three (2018) and two (2019) in the three years of observation. There were two other cell phone towers within a 200 m radius of the nest within human settlements, but nesting was observed on the same tower that stood on agricultural lands. Some of the tree species that were present around the nest were *Acacia nilotica*, *Dalbergia sisso* and *Mangifera indica*.

Figure 1. A pair of Asian Woollynecks and a chick preening in a cell phone tower at Rajshahi district, Bangladesh in 2019.



Nest 2: In September 2018, the nest was observed 30 km north-west to Nest 1 near Joyandipur in Chapai Nawabganj District. Two adults with four unfledged chicks were observed in a nest on a cell phone tower which is very close to settlements and 300 m distance to Padma River. However, according to local people, this nest was subsequently disturbed during regular maintenance of the tower, and the adults abandoned the nest. None of the juveniles fledged, and this tower and nest site was not used in 2019. The most common tree species around this site were *Bombax ceiba* and *Dalbergia sisso*.

Discussion

Asian Woollyneck nests on *Bombax ceiba* (Ali &

Ripley, 1978), *Dalbergia sissoo* (Ishtiaq *et al.* 2004) and *Mangifera indica* (PG, unpublished information), all of which were present around nest sites in Bangladesh. But Asian Woollyneck seemed to prefer artificial towers likely due to the greater height of the towers and the stronger nest substrates that towers provided. Vaghela *et al.* (2015) had also observed this species breeding on towers and suggests that nesting on towers could be an adaptation to rapid development. Cell phone tower of nest 1 was on an agricultural field and may have provided prey to storks during breeding. This suggests that storks could be using towers that provide easy access to food and may have avoided other towers in the vicinity that were located inside human habitation. It is also possible that they were avoiding direct human disturbance. Asian Woollyneck also forages on human dominated landscapes such as rice paddy-fields (Sundar 2006). Asian Woollyneck used to be hunted in Rajshahi (IUCN Bangladesh 2015) but the breeding of the storks so close to human habitation suggests that hunting has reduced in this region.

We have no information on maintenance of tower of Nest 1 and assume that nesting birds were disturbed minimally, or the tower was not visited for maintenance during the breeding period. When not disturbed, cell phone towers appear to be adequate for Asian Woollynecks to nest. Therefore, an awareness program is needed that can help to reduce disturbance to storks that nest on towers. Finally, there is a need to understand why Asian Woollynecks choose cell phone towers instead of nearby trees.

Acknowledgments

MTH is thankful to Enam Al Haque, Onu Tarek, Arif Ul Anam, Dr. Reza Khan, Monirul H. Khan for continuous guidance and support. PG thanks Paul Thompson and Carol Inskipp for their comment on manuscript. We appreciate support of Md. Faruk, local student who helped during nest observation. We thank two anonymous reviewers for comments and suggestions on the manuscript.

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