

BAR-HEADED GOOSE

First record of migratory bird *Anser indicus* in Gangdua Dam of Bankura District, West Bengal, India



Bar-headed Goose in Gangdua Dam (24 March 2016). a,b,c - a flock of eight individuals of Bar headed Goose, d - southwestern view of Gangdua Dam, Bankura, West Bengal, India. Photo: Ananya Nayak

IUCN Red List:
Least Concern
(BirdLife International, 2018)

Aves
[Class of Birds]

Anseriformes
[Order of screamers and waterfowl]

Anatidae
[Family of ducks, geese and swans]

Anser indicus
[Bar-headed Goose]

Species described by Latham in 1790

The bird life of West Bengal is very rich with 861 reported species including some extremely rare ones (Rahmani et al. 2016). Gangdua Dam or Sali Reservoir (23.405°N & 87.082°E) was constructed on river Sali in Gangajalghati Block of Bankura District in 1978. With a length of 1,494m, the dam mainly serves local farmland irrigation and as a drinking water supply project. A large number of terrestrial and aquatic birds are attracted to the wetland due to the wide variety of habitats occurring near it. The dam is a wintering ground for some migratory bird species. No comprehensive and critical study, however, has been conducted so far on the avian species of the dam.

The Bar-headed Goose *Anser indicus* is a monotypic species with a global population of <60,000 individuals in the wild and is distributed throughout India, Bangladesh, Mongolia,

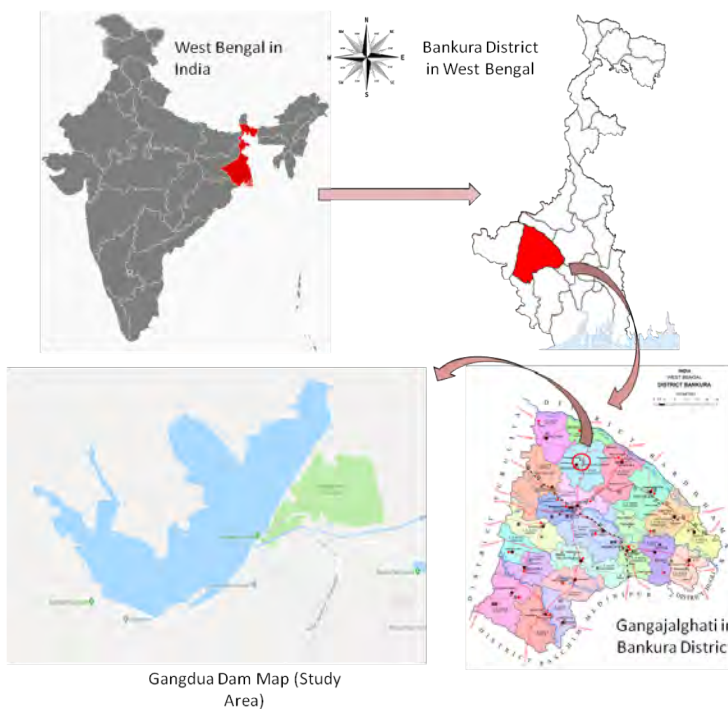
and areas of western and central China (Zhang et al. 2011; Takekawa et al. 2013). The breeding range of this migratory bird extends from Kyrgyzstan to central China, up to Mongolia (Wurdinger 2005; Takekawa et al. 2013). India has a number of wintering grounds that attracts nearly 25–50 % of the world population of this visitor (Javed et al. 2000; Takekawa et al. 2013). To reach its winter terminus in India, these birds migrate over 5,000km from its breeding range in China and Mongolia (Hawkes et al. 2014).

Global Distribution:
 Native: Afghanistan, Bangladesh, Bhutan, China, India, Kazakhstan, Kyrgyzstan, Mongolia, Myanmar, Nepal, Pakistan, Russia, Tajikistan, Thailand, Uzbekistan, Viet Nam.
 Introduced: Canada, Spain
 Vagrant: Guam, Japan, Laos, Micronesia, Palau (BirdLife International 2018)

A number of satellite-controlled studies confirmed that the Bar-headed Goose can fly over the Himalaya at altitudes greater than 5,000m, making it one of the highest flying birds with physiologic traits adapted for sustaining flight at high altitude (Hawkes et al. 2011; Zhang et al. 2011; Takekawa et al. 2013; Scott et al. 2015). Further anecdotal reports support its flying over the highest peaks in the Himalaya, including Mount Everest (Takekawa et al. 2013; Hawkes et al. 2014). Several studies reported that some of its populations are facing many threats in the wild as a result of wetland loss in over-wintering areas, severe climate change-induced habitat alteration on portions of its breeding range, hunting pressure, and susceptibility to diseases like the highly infectious avian influenza H5N1 (Gole 1997; Wang et al. 2008; Takekawa et al. 2013; Batbayar et al. 2014).

The Central Asian Flyway (CAF) covers a large continental area of Eurasia between the Arctic Ocean and the Indian Ocean and comprises several important and overlapping migration routes for different species of waterbirds, most of which extend from Siberia to southern and southwestern Asia (Mundkur 2006). A study by Palm et al. (2015) showed an estimated migration route that includes many districts of West Bengal as the flight corridor of Bar-headed Goose in the CAF.

Previous studies reported the occurrence of Bar-headed Goose and several other migratory species



Gangdua Dam in Gangajalghati block of Bankura District, West Bengal, India (Source: Maps of India & West Bengal from Wikipedia; Bankura District from Census of India 2011, Government of India; Gangdua Dam from Google)

in different parts of southern Bengal districts (Mazumdar et al. 2007; Sinha et al. 2011, 2012; Khan et al. 2016). None of the studies, however, reported the presence of Bar-headed Goose in any part of Bankura and Purulia districts. The present study reports the first sighting of the Bar-headed Goose from Bankura District of West Bengal.

On 24 March 2016, at 11.20h, the author first noticed a flock of eight geese swimming in the Gangdua Dam of Bankura District, West Bengal. A few images were taken using a Sony DSC-H400 compact camera with 63x optical zoom to support further identification. The birds were identified based on physical features with the help of standard field guides (Ali 2002; Grimmett et al. 2011). The geese were again observed on 25, 27, and 28 March. No Bar-headed Goose, however, was documented in the author's next visit to the dam on 04 April.

A flock of 11 Bar-headed Geese was spotted again in the afternoons of 12 and 13 March 2017. This time no photographic documentation was made. Birds were identified using a binocular (Olympus 10×50). A large body of anecdotal evidence collected from the local villagers suggests that these geese have been visiting the dam for several years. The author visited the dam regularly from December to April 2018 but could not find any Bar-headed Goose.

Recently, a number of anthropogenic disturbances were noticed in and around Gangdua Dam such as crop residue burning, water pumping activity from the middle of the dam, overnight fishing, the establishment of a cell tower near the dam, and tourist overcrowding at the newly established ecologic park. These activities might constitute the underlying cause for the distraction of these birds from visiting the dam last year. Further studies are needed to establish the complete migratory route of these birds in Bankura and other southern Bengal districts. Finally, there is an urgent need for generating public awareness to restore the ecologic balance of the dam, making it a safe zone for Bar-headed Goose and other migratory birds.

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