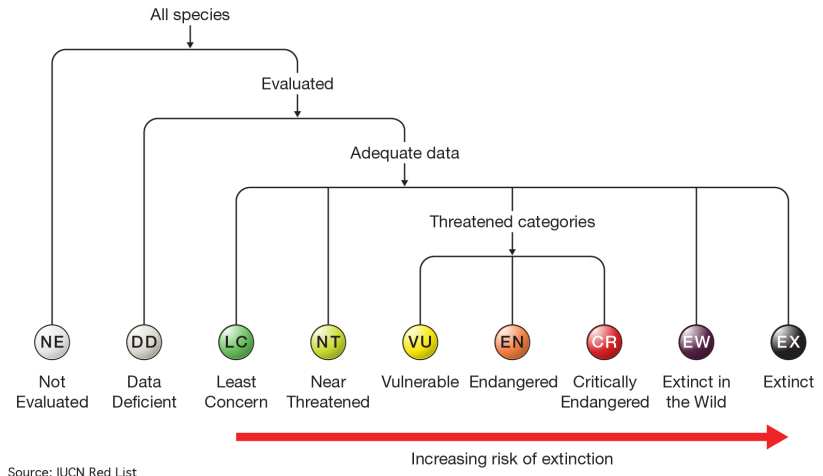


# Conservation status of wildlife of Bangladesh

Originated in the Pleistocene epoch, Bangladesh is the largest delta in the world, the Bengal Basin, formed by the Ganges, Brahmaputra, and Meghna (GBM) river system which covers more than 1.5 million km<sup>2</sup> (Byomkesh et al. 2009). Also, Bangladesh is at the junction of the Indo-Himalayas and Indo-China sub regions where the species of two biogeographic realms overlap. Because of its geographic location at the eastern end of the Indian subcontinent, Bangladesh is a transitional zone for the flora and fauna of the subcontinent and that of southeastern Asia (Stanford 1991); however, Bangladesh has been endowed with a rich plant and animal diversity because of its fertile alluvial land and moderate climatic condition. The climate of Bangladesh is the subtropical monsoon climate; its natural forests are classified on the basis of three major vegetation composition: evergreen to semi-evergreen hill forests, deciduous Sal forests and mangrove forests (Mukul 2008). Because of these

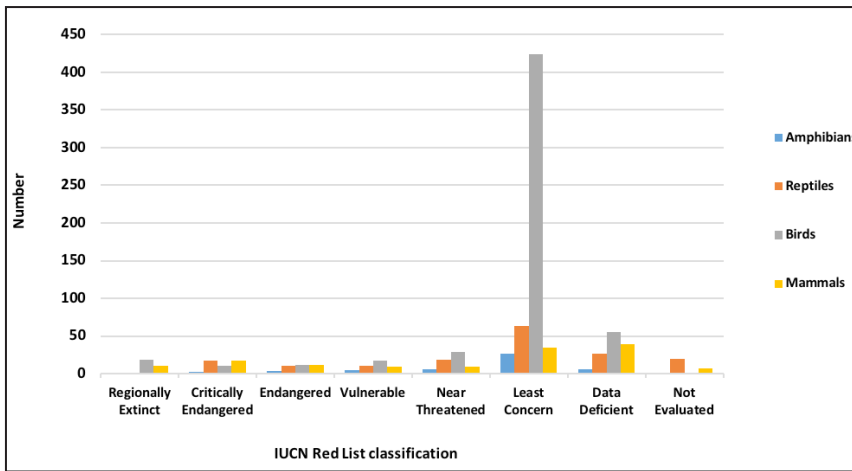


diverse habitats, Bangladesh has a rich wildlife diversity as it provides for a wide variety of habitats that act as ideal foraging habitat and breeding sites for many wildlife species. Owing to the tremendous population pressure, a notable area of Bangladesh forests has been transformed into crop fields, human habitation, industrial, and commercial purposes, which are responsible for destroying wildlife habitats. The habitat loss caused by agriculture, logging, wood harvesting, livestock farming, and infrastructure development are some of the primary threats to wildlife in Bangladesh.

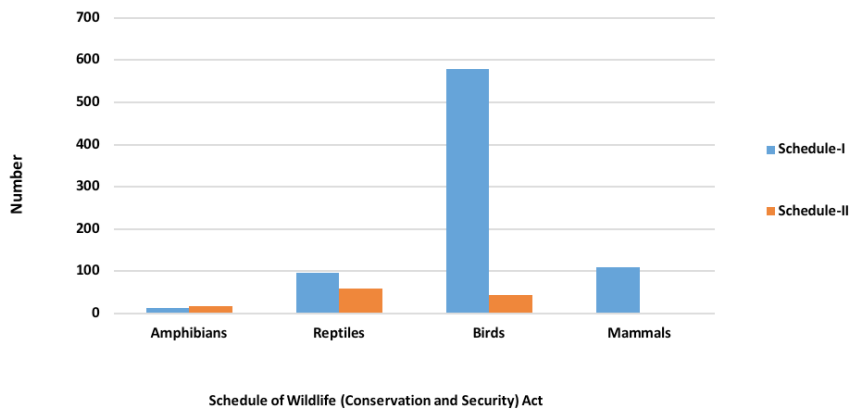
A total of 49 species of amphibians have been

recorded in Bangladesh, of which four cryptic species (*Fejervarya asmati*, *Hoplobatrachus litoralis*, *Microhyla mymensinghensis*, and *M. mukhlesuri*) have been reported that have not yet been reported from other neighboring countries (Howlader 2011; Hasan et al. 2014), so these frogs can be considered as endemic to the country.

A total of 566 species of birds and 167 species of reptiles (3 orders and 25 families) have been recorded (IUCN Bangladesh 2015). Also, Bangladesh supports roughly 26% of the southern Asian mammals and 2.4% of all the mammalian species of the world (IUCN Bangladesh 2015). Seventy percent



**Figure 1. Conservation status of wildlife of Bangladesh as per the IUCN Red List Categories.**



**Figure 2. Conservation status of wildlife of Bangladesh as per the Wildlife (Conservation and Security) Act, 2012.**

of the mammalian species of Bangladesh belong to three groups, viz., bats (Order Chiroptera, 27%), carnivores (Order Carnivora, 22%), and rodents (Order Rodentia, 21%). Herbivores and cetaceans combined constitute 14% while other six orders constitute the rest of the mammalian community in Bangladesh (IUCN Bangladesh 2015). In an overall proportion, however, conservation status of wildlife of Bangladesh is unknown.

### Materials and Methods

The current conservation status of wildlife has been gathered from the IUCN Red List of Threatened Species 2015, the Wildlife (Conservation and Security) Act, 2012 and official website of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

### Results and Discussion

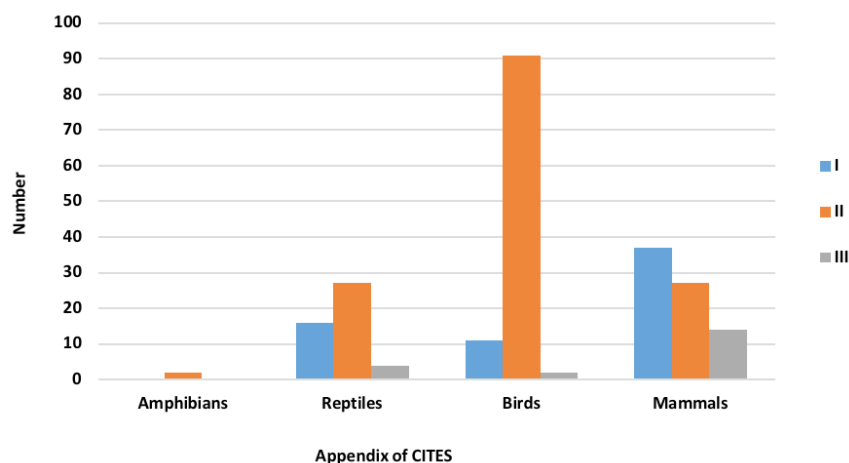
As per IUCN Red List of Bangladesh 2015, a total of

49 species of amphibians, 167 species of reptiles, 566 species of birds, and 138 species of mammals have been classified (Figure 1). There is no extinct amphibian species in Bangladesh. Two species are Critically Endangered (CR), three Endangered (EN), five species Vulnerable (VU), six species Near Threatened (NT), 27 species Least Concern (LC), and six species are Data Deficient (DD). The status of reptiles is as follows: one species (*Crocodylus palustris*) is Locally Extinct, 17 CR, 10 EN, 11 VU, 18 NT, 63 LC, 27 DD, and 20 Not Evaluated (NE). Among birds, 19 species (*Arborophila rufogularis*, *Pavo cristatus*, *Pavo muticus*, *Francolinus pondicerianus*, *Francolinus gularis*, *Asarcornis scutulata*, *Rhodonessa caryophyllacea*, *Antigone antigone*, *Houbaropsis bengalensis*, *Sypheotides indicus*, *Leptoptilos dubius*, *Ardea insignis*, *Pelecanus philippensis*, *Sarcogyps calvus*, *Actinodura egertoni*, *Paradoxornis flavirostris*, *Paradoxornis guttaticollis*, *Paradoxornis ruficeps*, *Certhia himalayana*) are Locally Extinct, 10 CR, 12 EN, 17 VU, 29 NT, 424 LC, and 55 DD. Amongst the mammals, 11 species (*Hyaena hyaena*, *Canis lupus*,

*Boselaphus tragocamelus*,  
*Bos javanicus*, *Bubalus arnee*,  
*Dicerorhinus sumatrensis*,  
*Rhinoceros sondaicus*,  
*Rhinoceros unicornis*,  
*Rucervus duvauceli*, *Antelope cervicapra*, *Melursus ursinus*) are Locally Extinct, 17 CR, 12 EN, VU, nine NT, 34 LC, 39 DD, and seven NE.

As per the Wildlife (Conservation and Security) Act, 2012, there are 32 species of amphibians are listed under the Schedule I to II (Figure 2) of which 14 species are in Schedule I and 18 species in Schedule II. In Reptiles, 154 species are listed under the Schedule I to II (Figure 2) of which 96 species are in Schedule I and 58 species in Schedule II. In birds, 622 species are listed under the Schedule I to II (Figure 2) of which 578 species are in Schedule I and 44 species in Schedule II. In mammals, 113 species are listed under the Schedule I to II (Figure 2) in where 100 species are in Schedule I and three species in Schedule II.

As per the CITES, only two species of amphibians of Bangladesh are listed under Appendix II (Figure 3). In Reptiles, 47 species are listed under Appendix I–III (Figure 3) out of which 16 species are listed in Appendix I, 27



**Figure 3. Conservation status of wildlife of Bangladesh as per the CITES.**

species in Appendix II, and four species in Appendix III. In birds, 104 species are listed under the Appendix I–III (Figure 3) of which 11 in Appendix I, 91 in Appendix II, and two in Appendix III. In mammals, 78 species in Appendix I–III (Figure 2) of which 37 in Appendix I, 27 in Appendix II, and 14 in Appendix III.

#### References

- Byomkesh, T., N. Nakagoshi & R.M. Shahedur (2009).** State and management of wetlands in Bangladesh. *Landscape and Ecological Engineering* 5: 81–90.
- CITES (2009).** Convention on International Trade in Endangered Species of Wild Fauna and Flora - Appendices I, II & III, 1–21pp.
- Hasan, M.K., M.M.H. Khan & M.M. Feeroz (2014).** *Amphibians and Reptiles of Bangladesh - A Field Guide*. Arannayk Foundation, Dhaka, Bangladesh, 191pp.
- Howlader, M.S.A. (2011).** A new species of *Fejervarya* (Anura: Dicroglossidae) from Bangladesh. *Zootaxa* 2761: 41–50.
- IUCN Bangladesh (2015).** Red List of Bangladesh Volume 4: Reptiles

and Amphibians. IUCN, International Union for Conservation of Nature, Bangladesh Country Office, Dhaka, Bangladesh.

**Mukul, S.A. (2008).** Biodiversity Conservation Strategies in Bangladesh: The State of Protected Areas. *Tiger Paper* 34(4): 28–32.

**Rashid, H. (1991).** Geography of Bangladesh, Second Revised Edition. The University Press Limited, Dhaka, Bangladesh, ix+529pp.

**Stanford, C.B. (1991).** The Capped Langur in Bangladesh: Behavioral ecology and reproductive tactics. Contributions to Primatology Vol. 26. S. Karger, Basel.

**Wildlife (Conservation and Security) Act (2012).** Schedule I & II. Act No. XXX of 2012.

#### **Naim Khandakar<sup>1</sup> & Kamrun Nahar Jeny<sup>2</sup>**

<sup>1&2</sup> Department of Zoology, Jagannath University, Dhaka 1100, Bangladesh. Email: <sup>1</sup>naim.jnu.2014@gmail.com (corresponding author)

Citation: Khandakar, N. & K.N. Jeny (2020). Conservation status of wildlife of Bangladesh. *Zoo's Print* 35(5): 104–106.