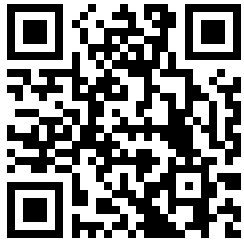

Red List of Threatened Animals of Bangladesh

IUCN
The World Conservation Union

Red List of Threatened Animals of Bangladesh

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PREFACE

One of the major activities of IUCN - The World Conservation Union is to monitor the status of ecosystems and species throughout the world, which is manifested in the publication of the Red Lists of Plants and the Red Lists of Animals. Updated at regular intervals, the Red Lists of Animals are traditionally developed to:

- provide scientifically based information on the status of the vertebrate species;
- draw popular attention to the magnitude and importance of the threatened biodiversity;
- influence national and international policy and decision making;
- provide information towards guiding the actions aimed at conserving animal biodiversity; and
- create awareness among the policy makers of the government and non-government organisations, groups and the general mass.

IUCN's Red List Categories reviewed and adopted in 1994 were designed to assess the level of threats to the species at the global level. In the 1st World Conservation Congress, held in Montreal, Canada, in October 1996, it was resolved that "the global IUCN Red List Categories and Criteria when applied to populations at the regional, national and sub-national levels may provide misleading identification of the status of these populations". Taking this into account, IUCN Bangladesh took initiatives to develop a National Criteria and then went forward to prepare a definitive list of the vertebrate animals of the country together with evaluation of their status on the basis of those criteria.

One of the outputs of this exercise is published as the Red List of Threatened Animals of Bangladesh. In conducting this study, IUCN's Global Criteria were found not to be quite appropriate mainly due to scarcity of data and also because it aimed to capture the local aspects of distributional characteristics. A species may no longer be available in Bangladesh but its number may be high at global level. Hence the National Criteria had to be developed. This effort, we may say, is the beginning of integrated studies on the threatened animals in Bangladesh, which will help us eventually in developing a strategy to conserve the natural heritage of this country.

Bangladesh, having an area of 147,570 sq km, houses 266 inland fishes, 442 marine fishes, 22 amphibians, 109 inland reptiles, 17 marine reptiles, 388 resident birds, 240 migratory birds, 110 inland mammals and 3 marine mammals (Table 2 & 3). This is undoubtedly an extraordinary situation that such a great diversity still exists in an unusually overpopulated (130 million with more than 800 people per sq km) country with a very limited range of

habitats. Unfortunately, there was no stock-taking and monitoring of this wealth. We have already lost more than a dozen vertebrate fauna during the last century, for example, Nilgai (*Boselaphus tragocamelus*), Wolf (*Canis lupus*), Common Peafowl (*Pavos cristatus*) and Marsh Crocodile (*Crocodylus palustris*). This review of the status of the vertebrate fauna revealed that 54 inland fishes, 8 amphibians, 58 inland reptiles, 41 resident birds and 40 inland mammals have come under different categories of threat in Bangladesh.

A series of publications, including this Red List of Threatened Animals of Bangladesh, will not only provide the profile of all the threatened species, their habits and habitats, but will also include the threats to them and suggest necessary conservation measures. These books would be the basis for a countrywide conservation education programme. Moreover, it will help in creating awareness among the community about protecting our rich biological heritage. The species profile can also be used as a field-guide. At present, there is no guide available as a ready reference. Such data base or handy reference hopefully, in the near future, will aid in formulating policy matters like development of legislative framework, strengthening the control of export of threatened animals, establishment of conservation priorities, etc. We hope that the present publications will form a basis for understanding how we could share this land with other life forms, because the existence of humans is directly dependent on the survival of other living beings.

September 2000

Ainun Nishat
Country Representative
IUCN Bangladesh

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INTRODUCTION

The Red Lists of plants and animals, all over the world, are an inventory of threatened species whose numbers are dwindling due to various reasons. The species are usually categorised under different levels of threat towards extinction, such as, Vulnerable, Endangered and Critically Endangered and so on. Such categories of threat levels provide an assessment of the likelihood of extinction under the current circumstances. Thus, listing of a species in a higher risk category implies its higher level of threat towards extinction. These lists are also designed to generate attention to the disappearing species and the conservation needs to protect them.

Late Sir Peter Scott had innovated the concept of having such an inventory of threatened species back in 1963 as "a register of threatened wildlife that includes definitions of degrees of threat" (Scott *et al.*, 1987). After that, Species Survival Commission (SSC) of IUCN, for the last 30 years, has been assessing globally the status of species and subspecies. They have periodically published the Red Data Books on the status of global biodiversity under different categories of threat.

The global criteria for assessing extinction risks to species were reviewed and adopted by IUCN in 1994. Adopting these criteria, to assess the global status, the "1996 IUCN Red List of Threatened Animals" and the "1997 IUCN Red List of Threatened Plants" have been published. The relative objectivity of the new listings has made them an excellent tool for observing changes in status over time and for providing a more systematic and transparent approach to listing. The new method has attracted the attention of the wildlife agencies, management authorities as well as the media. However, there are also some difficulties experienced with the new assessment system such as the assessments of harvested species, long-lived species (e.g. elephants and marine turtles) and the status of small and very narrowly distributed endemic plants and invertebrates. Soon it was recognised that the 1994 criteria were not designed to be used at a national or regional level. Accordingly, the 1st World Conservation Congress held in Montreal in 1996 agreed that separate guidelines would be developed for application at the national levels.

IUCN Bangladesh took the initiative to prepare a Red List on the threatened vertebrates at the national level by realising that the rich biodiversity of Bangladesh was under increasing threat and there existed very little data on the actual status of the threatened species. Towards this, the first task was to develop and adopt a criteria or methodology for Bangladesh. After developing a National Criteria for Bangladesh, the Red List of Threatened Animals was prepared. At one point, it was felt that the list may not be conducive enough for creating

sufficient awareness among all concerned. Thus, together with the list, four separate Red Books on fishes, amphibians and reptiles, birds and mammals are being published. These four supplementary books include a brief account of the animals, which will come under the Threatened List, including their short descriptions with illustrations, habits, habitats, distribution, threats, conservation status, conservation needs and extra-territorial distribution. On the other hand, the present list depicts the current status and distribution of all the threatened fishes, amphibians, reptiles, birds and mammals of Bangladesh. The Bengali version of the books are also in the process of publication.

The Need for the Red Book at National Level

The status of biological resources of a region or country is an important element in setting up a development strategy. Moreover, it indicates the health of a land since the biological wealth provides the lifeline for human survival. Article 7(a) and 7(b) of the Convention on Biological Diversity (CBD) encourage the Contracting Parties to *identify components of biological diversity important for its conservation and sustainable use having regard to the indicative list of categories set down in Annex I* and to *monitor, through sampling and other techniques, the components of biological diversity identified pursuant to sub-paragraph (a) above, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use.* As a signatory to the CBD, one of the obligations of Bangladesh is to undertake studies to identify the threatened biodiversity and to monitor them. Publication of the Red List will be a step forward to meet the obligations of Bangladesh towards the CBD.

The Global Red List may not explicitly describe the status of a particular species at the country level. The taxa not listed on a global scale might be worth including in the Threatened List within a particular region where their populations are very small or declining. For example, Leopard, *Panthera pardus*, is not threatened globally but has been categorised as Critically Endangered in Bangladesh. National level listing is thus necessary to address these gaps and inadequacies of the global listing. It provides scope for countrywide study and conservation priorities. Moreover, it pinpoints the status of species together with its habitat, ecosystem health, threats to its survival, needs for existence and constraints for conservation at the national as well as the local levels. The criteria for the Threatened Categories are to be applied to a taxon whatever the level of conservation action affects it. It is important to emphasise that a taxon may require conservation action even if it is not listed as threatened.

Goals of the Red List

The goals of the National Red List are similar to the goals of the Global Red List. The basic goals are to:

a) provide scientifically based information on the status of species and subspecies at the national level;
b) draw the attention of the national policymakers to the magnitude and importance of threatened biodiversity;
c) influence national, regional and international policy and decision making; and
d) provide information to guide actions towards conserving biological diversity.

Criteria for Categorisation

In developing the National Red List, the 'Global Threatened Categories' have been adopted. These are Vulnerable, Endangered and Critically Endangered. To be listed under these categories, plant or animal species have to pass through a range of quantitative criteria. The categorisation process is expected to be applied to wild populations living in their natural territories. This process is also applicable to the populations resulting from introductions. The Global Criteria are designated by block letters, from A to E (Appendix 1). So for each category, there are five sets of criteria (A-E) and each has some measurable indicators. Meeting any of these criteria qualifies a taxon for listing at that level of threat. The application of IUCN Global Criteria thus requires a valid scientific footing. In other words, it demands some measure of quantitative data or at least informed estimates or objective assessment.

The Global Criteria were not followed to develop the National List of Threatened Animals. The main constraint in adopting the IUCN Global Criteria was the unavailability of quantitative data since not much had been done on the fauna of Bangladesh. Hence, the National Criteria were developed to work on the basis of qualitative data. We have in hand the qualitative data on the distribution, habitat condition, human attitude, intrinsic characters of the species, etc. However, the National Criteria were not independent of the Global Criteria. The Global Criteria (Baillie and Groombridge, 1996) as well as Sri Lankan National Criteria (Dela, 1999) were consulted to develop our National Criteria. The draft criteria and the threshold level for every category were then placed before the advisers and the specialists for necessary modifications and changes. In this process, the criteria were finalised.

In developing the criteria, seven aspects were considered, viz., (a) extent of occurrence, (b) suspected change in population in the last 20 years, (c) habitat fragmentation, (d) habitat

condition, (e) habitat status, (f) human impact, and (g) intrinsic capacity to adapt. Each factor was considered independent of other factors. The details of the National Criteria have been mentioned in the Methodology chapter.

Based on the identified criteria, a total of five categories have been devised in the context of Bangladesh. These are Critically Endangered, Endangered, Vulnerable, Data Deficient and Not Threatened. These categories are in descending order of extinction risk, i.e., Not Threatened has no apparent threat of extinction contrary to the Critically Endangered which represents the highest risk of extinction in the immediate future. Data Deficient category has been put in place for species that has inadequate information to make a direct, or indirect, assessment of its risk of extinction in Bangladesh. It is also important to recognise that this category indicates that data are inadequate to determine the degree of threat faced by a taxon, not necessarily that the taxon is poorly known. Moreover, this category is not a Threatened Category, although it indicates a need to obtain more information on a taxon to determine the appropriate listing (Methodology chapter).

The categorisation of a particular species has been based on a scoring system. All the vertebrates of Bangladesh were passed through the National Criteria to evaluate their status. The average total score decides whether a species is threatened or not. For each species, individual data sheet with a map of occurrence has been prepared, thereby establishing a permanent record that can be assessed in the future. The scoring system is also being explained in the Methodology chapter.

Due to lack of scientific as well as detailed information, marine fishes, marine reptiles, marine mammals, and migratory birds could not be evaluated. Many of these animals spend part of their life in Bangladesh territory and evaluation of their status within a national framework will not be realistic. However, a list of these animals, known to be reported inside the country, has been included with their global status for ready reference. To prepare a list of the extinct species, IUCN Bangladesh reviewed existing literature and consulted the leading wildlife biologists and the naturalists working in the field. Moreover, IUCN Bangladesh had to depend on the experiences of the Subject Matter Specialists, Editors and the Advisers.

After evaluating all the animal species of Bangladesh, the list was presented to the experts and advisers. Many Data Deficient species were then upgraded to Threatened Categories on the basis of their inputs. Some of the species were also excluded from the Threatened List or changes were made in their Threatened Category as the experts and advisers suggested. However, all of them may not have agreed with all the entries in the list.

References for Species Names

For scientific names, English names, local names and the order of the species, a number of publications have been consulted. Local names were collected from both published and unpublished sources. Local names have at times seemed confusing, as, in many cases, it represents more than one species. For example, all green pigeons like Pin-tailed Green Pigeon, Orange-breasted Green Pigeon and Yellow-footed Green Pigeon, are locally known *as "Horial"*. In some cases, the local names could not be found. This would be overcome in the next edition of this book. To avoid the confusion, valid scientific names have been strictly scrutinised and included in the book. For scientific names, the latest publications have been considered as references. In some cases, the older version has also been included.

The author's name is given at the end of the scientific name. The scientific name of a species consists of two parts, the first part is the generic name and the second part represents the specific epithet. The author's name in round brackets means that this particular author gave only the specific epithet and the generic part was given by some other author in the past. For example, the scientific name of Bengal Tiger is *Panthera tigris* (Linnaeus, 1758). This means that Linnaeus gave only the "*tigris*" part in 1758 and the "*Panthera*" part was given by some other author. In fact, the original scientific name of this species was *Felis tigris* Linnaeus, 1758; which means Linnaeus had given the whole name in 1758. Later on, in 1816 Oken coined the generic part "*Panthera*" and renamed the animal *Panthera tigris* (Ellerman and Morrison-Scott 1966). On the other hand, the author's name without round brackets means that both the parts, i.e., the whole scientific name was given by the author himself. For example, the scientific name of the Estuarine Crocodile is *Crocodylus porosus* Schneider, 1801; which means Schneider gave the whole name in 1801.

Talwar & Jhingran (1991), Das & Dutta (1998) and Das (1994), Inskipp *et al.* (1996), and Baillie & Groombridge (1996) were followed for classification, English names and scientific names of the fishes, amphibians and reptiles, birds, and mammals respectively.

Data Preservation and Updating

Listing of the threatened species is a continuous process. Data have to be checked, rechecked and updated with the latest field information periodically. In view of that, all raw data are preserved in IUCN Bangladesh Country Office, the Bangladesh National Library and the Bangladesh National Museum so that access to those data is ensured. This depository will be the foundation for future studies on species as well as for future improvements in the methodology. In fact, there is immediate need for field study to evaluate the status of the species categorised under Data Deficient category. Proper study will reveal their actual status

and/or threat level. Hopefully, the data will be revised periodically at an interval of 5 years or so.

Organisation of the Book

The book begins with the Preface followed by Acknowledgments, Introduction, and Salient Geographical Features of Bangladesh, Methodology and Status of Vertebrates of Bangladesh. After these, the lists of all threatened vertebrates of Bangladesh are given with their global and local status. The IUCN Global Categories and Criteria, and a sample scoring sheet have also been given in the Appendices. The Bibliography is given at the end of the book.

Summing up

Publication of this series of books is not the end of the journey. It is rather the beginning of a fresh look into the area related to conservation of biodiversity in Bangladesh. We hope that this will create countrywide awareness and enhance conservation programmes for threatened species. The Red Books may contribute in the policy matters in Bangladesh such as the development of future legislation, the control of exports, establishment of conservation priorities, etc.

SALIENT GEOGRAPHICAL FEATURES OF BANGLADESH

Location and area

Bangladesh lies between latitudes 20°34′ and 26°38′N, and longitudes 88°01′ and 92°41′E. It is almost entirely surrounded by India, which borders Bangladesh to the west, north and east. Bangladesh shares a portion of its south-eastern border with Myanmar. The Bay of Bengal lies to the south. The total area of Bangladesh is 147,570 sq km.

Climate

The tropical monsoon climate of Bangladesh is characterised by marked seasonal variations. Abundant rainfall during the monsoon (July-October) is followed by a cool winter period (November-February) and then a hot, dry summer (March-June). In the hot season, the average maximum temperature is 34°C and minimum is 21°C. Average maximum temperature in the winter is 29°C and the minimum is 11°C. The rainfall in the region shows great temporal and spatial variations. 70-80% of the annual rainfall occurs in the monsoon season. The average annual rainfall recorded within Bangladesh varies from about 1100 mm in the extreme west to 5690 mm in the north-eastern corner of the country.

Hydrology

Bangladesh has an exceptional hydrogeographical setting. Three mighty rivers, the Ganges (the Padma), the Brahmaputra and the Meghna, drain a catchment extending over Bhutan, Nepal, India, Bangladesh and China. The total area of the Ganges-Brahmaputra-Meghna drainage basin is about 1.5 million sq km of which approximately 62% is in India, 18% in China, 8% in Nepal, 4% in Bhutan, and 8% in Bangladesh. Ninety percent of the total incoming water falls into the Bay of Bengal through lower Meghna estuary of Bangladesh. The rate of water flows through Bangladesh is vast. The outflow is second only to that of the Amazon River System in South America. In both breadth and total annual volume, the Padma-lower Meghna river is the 3rd largest in the world. In the last 100 km run to the sea the combined Ganges, Brahmaputra and Meghna rivers form a single flow, that is two and a half times the rate of the Mississippi.

Physiography

Bangladesh can be divided into three main physiographic divisions. The Tertiary Hills are situated in Chittagong, Cox's Bazar, and the Chittagong Hill Tracts, and the greater Sylhet districts. These hills are formed mainly of sandstone, shale and clay. The average altitude of the hills is 450 m. The highest peak of the country is Tajindong at about 1300 m. The Pleistocene terraces were formed 25,000 years ago. The total approximate area of these terraces is 13,500 sq km spread over different areas of the country. The average height of the terraces from the adjacent flood plains is 6-25 m. The recent plains comprise 124,266 sq km of the country (about 86%). The recent plains can be further classified into 5 types: piedmont plain, flood plain, deltaic plain, tidal plain and coastal plain.

Forest resources

In the past three decades, the stock of forest trees has declined at an alarming rate. Though a current forest inventory is unavailable, it is estimated that the forest cover has been reduced more than 50% since the 1970s. Estimates in 1990 revealed that Bangladesh had less than 0.02 ha of forest land per person - one of the lowest forest to population ratios in the world. Presently less than 8% of the country is under forest cover. Total area of mangrove forest is about 4000 sq km. There are 15 protected areas in the country which is occupying about 1.5% of the total area of the country. Bangladesh possesses a rich biodiversity, specially in the forested and wetland areas. There are about 5000 species of flowering plants in the country.

METHODOLOGY

The process of identification of the threatened species at the global level started in the 1960s. As information were compiled and awareness on the threatened animals were growing, it was realised that there must be a well defined and agreed categorisation for the assessment of species. The need to revise the categories had been strongly recognised since 1984 when the Species Survival Commission (SSC) held a symposium titled 'The Road to Extinction' (Fitter & Fitter, 1987). IUCN - The World Conservation Union under the aegis of the SSC initiated a process of revising the Red List Categories in the early 1990s. This led to the development of new Categories and Criteria for the Red List which was adopted by the IUCN Council in 1994 (Appendix 1). This set of criteria is still in use by IUCN/SSC. The Red List Categories, whether used at the global, regional or national level, reflect the extinction risk of a taxon but not necessarily a particular priority for conservation. This point is very important to recognise nature and quality of categorisation at the regional and national levels.

Since the Global Criteria was not designed with the intention that it will be used at the regional, national and sub-national levels, it may provide a misleading indication of the status of those populations. Then the SSC started thinking about the regional, national and sub-national assessments. The Convention on Biological Diversity (CBD) also emphasised the urgency to focus on the national level. The following Articles of the CBD are relevant to this:

a) Article 6, which requires Contracting Parties to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity[1];
b) Article 7, which requires Contracting Parties to identify and monitor the status, and threats to components of biological diversity within their territories[2];

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[1] The full text of **Article 6** of CBD: General Measures for Conservation and Sustainable Use
Each Contracting Party shall, in accordance with its particular conditions and capabilities:
(a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, *inter alia*, the measures set out in this Convention relevant to the Contracting Party concerned; and
(b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

[2] The full text of **Article 7** of CBD: Identification and Monitoring: Each Contracting Party shall, as far as possible and as appropriate, in particular for the purposes of Articles 8 to 10:
(a) Identify components of biological diversity important for its conservation and sustainable use having regard to the indicative list of categories set down in Annex I;
(b) Monitor, through sampling and other techniques, the components of biological diversity identified pursuant to subparagraph (a) above, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use;
(c) Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques; and
(d) Maintain and organize, by any mechanism, data derived from identification and monitoring activities pursuant to subparagraphs (a), (b) and (c) above.

c) Annex I, which emphasises the need to include a focus on the threatened species in national programmes to identify and monitor components of biological diversity[3].

The use of these guidelines will be at the discretion of countries and is not intended to supersede either existing guidelines or future guidelines a country may wish to develop.

Following the discussion on the regional issue of categorisation held in Gland, Switzerland (March, 1995), and in Cambridge, England (December, 1995), IUCN Bangladesh took the initiatives to assess the inland and resident vertebrates at the national level. The work started in 1997 by the selection of resource personnel which is followed by the collection and analysis of information on the vertebrates. In the second phase in 1998, a set of National Criteria was developed on the basis of the type of data collected so far. The National Criteria have seven factors (a - g under "National Criteria" sub-heading).

Due to paucity of quantitative data, the approach of IUCN Global Criteria could not be followed. Moreover, the actual national status of a species is not properly highlighted if the Global Criteria are followed. The Global Criteria are followed to assess the global status of a species. Therefore, it was necessary to prepare National Criteria on the basis of qualitative information on the distribution, habitat condition, human attitude, intrinsic characters of the species, etc. To prepare a format of Bangladesh National Criteria, IUCN Global Criteria (Baillie and Groombridge, 1996) and Sri Lankan National Criteria (Dela, 1999) were consulted. The draft criteria and the threshold level for every category were then placed to the advisers and specialists who then debated and brought in modifications and changes. Then the proposed National Criteria and the outcome of categorisation were sent to Simon Stuart of the IUCN Species Survival Commission (SSC) for comments and suggestions, which were later incorporated. At this stage, the National Criteria of Bangladesh and its methodology were formally presented in the "Applying the IUCN Red List Criteria at the National Level: a Regional Consultative Workshop for South and Southeast Asia" in Sri Lanka for peer review. After reviewing all comments, the Advisers finalised and adopted the Bangladesh National Criteria.

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[3] The full text of **Annex I** of CBD: Identification and Monitoring

1. Ecosystems and habitat: containing high diversity, large numbers of endemic or threatened species, or wilderness; required by migratory species; of social, economic, cultural or scientific importance; or, which are representative, unique or associated with key evolutionary or other biological processes.
2. Species and communities which are: threatened; wild relatives of domesticated or cultivated species; of medicinal, agricultural or other economic value; or social, scientific or cultural importance; or importance for research into the conservation and sustainable use of biological diversity, such as indicator species; and
3. Described genomes and genes of social, scientific or economic importance.

Besides the absence of qualified data, scantiness of reference material and lack of 'defensible' information are the other constraints in following a rigorous test. Thus in developing a modified set of criteria (National Criteria) it was decided that to go for a less quantitative and practical approach. The application of IUCN Global Criteria (Appendix 1) requires a valid scientific basis, i.e., some measure of quantitative data or at least informed estimates or objective assessments. A document only based on subjective personal perception loses, to a greater extent, its validity as a Red Book. The main constraint in adopting the IUCN Global Criteria was the unavailability of some measure of quantitative data or at least informed estimates or objective assessments on the risk of species' extinction as nothing much had been done on the fauna of Bangladesh.

But due to the dearth of quantitative information for any of the criterion, it was almost impossible to evaluate any vertebrate species, which could fall under the critically endangered category, which may eventually have fallen within the data deficient category. At the same time, the species would not qualify for inclusion in the endangered or vulnerable category for the same reason. So, after evaluating the IUCN Global Criteria and the approach adopted by IUCN Sri Lanka, a set of criteria for Bangladesh (Table 1) has been prepared to evaluate the vertebrate fauna of Bangladesh. These are based on relatively objective and reasonably measurable indicators in the absence of some form of quantitative data or objective assessment. The categorisation is based on a scoring system; the average total score decides whether a species is threatened (critically endangered, endangered or vulnerable) or not. For each species, individual data sheet with a map of occurrence (on the opposite side of the sheet with grids) has been prepared, thereby establishing a permanent record that can be assessed in the future. These sheets will be preserved by IUCN Bangladesh for future reference work.

IUCN Bangladesh reviewed the existing literature and consulted the leading wildlife biologists, and the naturalists working in the field for the preparation of the list of extinct species. The entire vertebrate fauna of the country have been passed through the National Criteria.

IUCN Global Categories and Criteria

1996 IUCN Global Categories and Criteria are as follows:

Categories

Extinct (EX): A taxon is Extinct when there is no reasonable doubt that the last individual died.

Extinct in the Wild (EW): A taxon is Extinct in the wild when it is known only to survive in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

Critically Endangered (CR): A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future.

Endangered (EN): A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future.

Vulnerable (VU): A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future.

Lower Risk (LR): A taxon is Lower Risk when it has been evaluated, does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable.

Data Deficient (DD): A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution is lacking. Data Deficient is therefore not a category of threat or Lower Risk.

Criteria

Criteria (use any of the A to E)	**Critically Endangered**	**Endangered**	**Vulnerable**
A. Declining Population Population decline rate at least using either 1. population reduction observed, estimated, inferred or suspected in the past or 2. population decline projected or suspected in the future based on: a. direct observation b. an index of abundance appropriate for the taxon c. a decline in area of occupancy, extent of occurrence and/or quality of habitat d. actual or potential levels of exploitation e. the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites	80 % in 10 years or 3 generations	50 % in 10 years or 3 generations	20 % in 10 years or 3 generations

Criteria (use any of the A to E)	Critically Endangered	Endangered	Vulnerable
B. Small Distribution and Decline or Fluctuation			
Either extent of occurrence	<100 km^2	<5,000 km^2	<20,000 km^2
or area of occupancy	<10 km^2	<500 km^2	<2,000 km^2
and 2 of the following 3:			
1. either severely fragmented: (isolated subpopulations with a reduced probability of recolonisation, if once extinct) or known to exist at a number of locations	=1	≤5	≤10
2. continuing decline in any of the following:	any rate	any rate	any rate
a. extent of occurrence			
b. area of occupancy			
c. area, extent and/or quality of habitat			
d. number of locations or subpopulations			
e. number of mature individuals			
3. fluctuating in any of the following:	>1 order/mag.	>1 order/mag.	>1 order/mag.
a. extent of occurrence			
b. area of occupancy			
c. number of locations or subpopulations			
d. number of mature individuals			
C. Small Population Size and Decline			
Number of mature individuals	<250	<2,500	<10,000
and 1 of the following 2:			
1. rapid decline rate	25 % in 3 years or 1 generation	20 % in 5 years or 2 generations	10 % in 10 years or 3 generations
2. continuing decline and either			
a. fragmented or	any rate	any rate	any rate
b. all individuals in a single subpopulation	all sub-pops ≤50	all sub-pops ≤250	all sub-pops ≤1,000
D. Very Small or Restricted			
Either 1. number of mature individuals	<50	<250	<1,000 area of occupancy <100 km^2 or number of locations <5
or 2. Population is susceptible	(not applicable)	(not applicable)	
E. Quantitative Analysis			
Indicating the probability of extinction in the wild to be at least	50% in 10 years or 3 generations	20% in 20 years or 5 generations	10% in 100 years

Bangladesh National Categories and Criteria

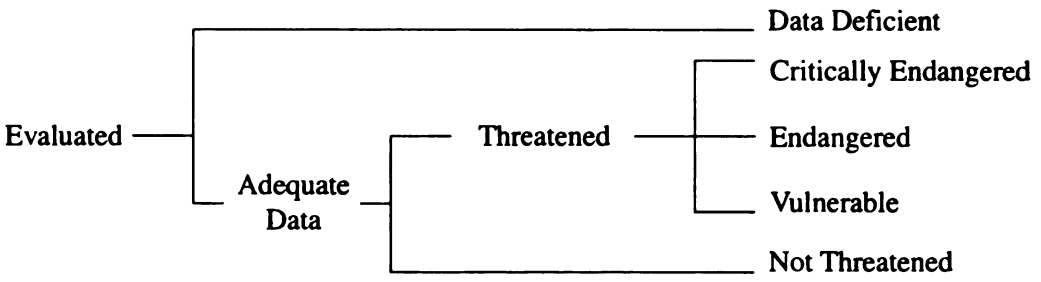
The National Categories of Threatened Animals are based on the Global Threatened Categories of IUCN. Bangladesh National Criteria were developed on the basis of qualitative data due to the lack of quantitative ones.

The National Categories and Criteria are as follows:

Categories

The definitions of these categories are:

1) *Critically Endangered (CR)*: A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in Bangladesh in the immediate future.
2) *Endangered (EN)*: A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in Bangladesh in the near future.
3) *Vulnerable (VU)*: A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in Bangladesh in the medium-term future.
4) *Data Deficient (DD)*: A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction in Bangladesh.
5) *Not Threatened (NO)*: A taxon is Not Threatened when it is out of the four above-mentioned categories, i.e., which has no apparent threat of extinction in Bangladesh.



Structure of the National Categories

Criteria

In developing the criteria, seven aspects were considered, namely, (a) extent of occurrence, (b) suspected change in population in the last 20 years, (c) habitat fragmentation, (d) habitat condition, (e) habitat status, (f) human impact, and (g) intrinsic capacity to adapt. For each criterion, a scale of zero to five was chosen. Each factor was considered independent of other factors.

a) *Extent of occurrence*: The total area of Bangladesh is 147,570 sq km. It is presumed that if a species occupies an area which is approximately half of the area of the country or more (i.e. >72,000 sq km), it is relatively safe and thus scores '0'. The degree of threat increases with the decrease of area of occurrence. Thus when the species is confined to less than 4,500 sq km, it increases the degree of threat and thus scores '5'. For example, Rhesus Macaque/Banor (*Macaca mullata*) is found in less than half of the total area of Bangladesh (i.e. <72,000 sq km) thus scored 1, whereas, Hoolock Gibbon/Ulluk (*Hylobates hoolock*) occurs in less than 4,500 sq km thus scored 5. One may leave it blank if data are not available. One may argue if other parameters (criteria) are favourable, then even by scoring '5', a species is safe. However, certain unfavourable conditions may make a species confined to a particular place.

b) *Suspected change in population in the last 20 years*: When the population of a species increases, it scores '0', and when none of the individuals of this species remains in the wild, it scores '5'. For example, Kalij Pheasant/Kalo Mayur (*Lophura leucomelanos*) became moderately reduced in the last 20 years, accordingly it got 3 points. The information on the increase and reduction of population is not quantifiable, so it could be assessed by reviewing existing literature, interacting with relevant people and by making field visits.

c) *Habitat fragmentation*: It could be observed that if the fragmented habitat is large enough it takes time to have adverse effect on the species. So, a species will receive '0' when the habitat is not fragmented and receives '5' in case of very highly fragmented habitat. For instance, Olive Barb/Sarpunti (*Puntius sarana*) showing high habitat fragmentation, thus, scored 4.

d) *Habitat condition*: This criterion sometimes overlap with the former. The survival value of a species becomes lowered due to degraded habitat condition. A species receives '0' when its habitat is not degraded and receives '5' when the habitat is lost. For example, the habitat condition of Green Frog/Sabuj Bang (*Euphlyctis hexadactylus*) is degraded, hence the species got 3 points.

e) *Habitat status (i.e. percentage of protection in the area of occurrence)*: It is the inclusion of any species, the extent (percentage) of whose area of occurrence falls within protected areas, or receives any type of protection. If a species is protected in more than 50% of the total area of occurrence, it scores '0' and if it receives no protection, it scores '5'. For an instance, Rock Python/Ajagar (*Python molurus*) scored 3 in this criterion because it enjoys protection in <20% of the total area of occurrence.

f) *Human impact*: This could be human attitude and activities, e.g. highly negative human impacts such as high exploitation for food or commercial purposes, a habitat may go under severe threat due to degradation and then it scores '5'. On the other hand, a species scores '0' when the human impact is highly positive to it. For example, Oriental Pied

Hornbill/Kao Danesh (*Anthracoceros albirostris*) scored 4 as it faces moderate negative human impact.

g) *Intrinsic capacity to adapt*: It is the natural adaptability of a species. If the diet breadth, rate of reproduction, capacity to defend territories, breeding success, relative mobility, etc. of a species are very high, then the species has a better chance of survival than others, and hence it scores '0'. A species receives '5' when its adaptability is very low. Here we can mention Asian elephant/Hati (*Elephas maximus*) which scored 3 due to its moderate intrinsic capacity to adapt.

A species will come under the categories of threat if it scores an average of ≥ 2.4. The status will be Critically Endangered (CR), Endangered (EN), and Vulnerable (VU) when the species will score > 3.5, 3-3.5, and 2.4-2.9, respectively. The species will be rated as Data Deficient (DD) when data will be available on only < 4 factors.

Table 1. Criteria adopted by IUCN Bangladesh

Factor	Criteria for Assessment	Score
a) Extent of occurrence (sq km)	>72,000, <72,000, <36,000, <18,000, <9,000, <4,500	0-5
b) Suspected change in population in the last 20 years	Increase in population, no change, slightly reduced, moderately reduced, highly reduced, no longer in the wild	0-5
c) Habitat fragmentation	Not fragmented, slightly fragmented, slightly to moderately fragmented, moderately fragmented, highly fragmented, very highly fragmented	0-5
d) Habitat condition	Not degraded, slightly degraded, moderately degraded, degraded, highly degraded, lost	0-5
e) Habitat status (percentage of protection in the area of occurrence)	>50, <50, <35, <20, <05, 00	0-5
f) Human impact	High positive, moderate positive, none, low negative, moderate negative, high negative	0-5
g) Intrinsic capacity to adapt	Very high, high, moderate, moderate to low, low, very low	0-5

Categories of threat (threatened when the species scores an average of 2.4 or more): Critically Endangered (CR): >3.5; Endangered (EN): 3-3.5; Vulnerable (VU): 2.4-2.9; Data Deficient (DD): When data available on <4 factors.

STATUS OF VERTEBRATES OF BANGLADESH

The list of extinct vertebrates of Bangladesh, along with a brief account of the status of the inland and resident species, have been compiled to assess the present situation which are given below.

List of Extinct Vertebrates of Bangladesh

1. One-horned Rhinoceros, *Rhinoceros unicornis*
2. Javan Rhinoceros, *Rhinoceros sondaicus*
3. Asiatic Two-horned Rhinoceros, *Didermoceros sumatrensis*
4. Gaur, *Bos gaurus*
5. Banteng, *Bos banteng*
6. Wild Buffalo, *Bubalus bubalis*
7. Nilgai, *Boselaphus tragocamelus*
8. Swamp Deer, *Cervus duvauceli*
9. Hog Deer, *Axis porcinus*
10. Wolf, *Canis lupus*
11. Pink-headed Duck, *Rhodonessa caryophyllacea*
12. Common Peafowl, *Pavo cristatus*
13. Marsh Crocodile, *Crocodylus palustris*

Table 2. Status of inland and resident vertebrates of Bangladesh (according to Bangladesh National Criteria)

Group	Total No. of Living Species	Extinct	Threatened				Data Deficient (DD)	Not Threatened (NO)
			Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Total		
Fishes (freshwater & brackishwater)	266	0	12	28	14	54	66	146
Amphibians	22	0	0	3	5	8	7	7
Reptiles	109	1	12	24	22	58	39	12
Birds	388	2	19	18	4	41	158	189
Mammals	110	10	21	13	6	40	53	17
Total	895	13	64	86	51	201	323	371

Table 3. Status of marine and migratory vertebrates in Bangladesh (according to 1996 IUCN Global Criteria)

Group	Total No. of Living Species	Extinct	Threatened				Lower Risk (LR)	Data Deficient (DD)	Not Threatened Other than CR, EN, VU, LR and DD
			Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Total			
Fishes (marine)	442	0	0	1	3	4	0	0	438
Reptiles (marine)	17	0	1	4	0	5	0	0	12
Birds (migratory)	240	0	0	2	4	6	6	4	224
Mammals (marine)	3	0	0	2	1	3	0	0	0
Total	702	0	1	9	8	18	6	4	674

List of Threatened Animals of Bangladesh

Table 4. Status and distribution of threatened inland fishes of Bangladesh

Status code: CR – Critically Endangered, EN – Endangered, VU – Vulnerable

Distribution code: W–Wide; N–North; NE–NorthEest; SE–Southeast; B–Beels, Haors, Baors, Ponds, Ditches (closed water bodies of different sizes); R – Rivers, Streams, Canals; Et – Estuaries, Tidal Rivers, Creeks; FP – Floodplains

Total number of threatened species: 54

Class: Osteichthyes

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
1.	Osteoglo-ssiformes [Clupei-formes]	Notopteridae	*Notopterus chitala* (Hamilton-Buchanan, 1822)	Humped Featherback	Chital	EN	--	W
2.			*Notopterus notopterus* (Pallas, 1769)	Grey Featherback	Foli/Pholui	VU	--	W
3.	Anguilli-formes	Anguillidae	*Anguilla bengalensis* (Gray, 1831)	Indian Longfin Eel	Bamosh/ Banehara/Bao Baim/Telkoma	VU	--	Et, R
4.	Cyprini-formes	Cyprinidae	*Barilius bendelisis* (Hamilton-Buchanan, 1822)	Hamilton's Barila	Joia/Hiralu/ Koksa/ Tila/Chedra	EN	--	R(N)
5.			*Barilius vagra* (Hamilton-Buchanan, 1822)	Vagra Baril	Koksa/Khoksa	EN	--	R (Dinajpur)
6.			*Bengala elanga* (Hamilton-Buchanan, 1822) [*Rasbora elanga* (Hamilton-Buchanan, 1822)]	Bengal Barb	Along/Sephatia	EN	--	R
7.			*Chela laubuca* (Hamilton-Buchanan, 1822)	Indian Glass-barb/ Indian Hatchet Fish/ Winged Danio	Laubuca/ Kash Khaira	EN	--	W
8.			*Cirrhinus reba* (Hamilton-Buchanan, 1822) [*Cirrhina reba* Day, 1877]	Reba Carp	Raik/Tatkini/ Bata/ Laacho/Bhagna	VU	--	W
9.			*Crossocheilus latius* (Hamilton-Buchanan, 1822)	Gangetic Latia	Kalabata	EN	--	Et, R
10.			*Labeo bata* (Hamilton-Buchanan, 1822)	Bata Labeo	Bhangon Bata/Bata	EN	--	R

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
11.			*Labeo boga* (Hamilton-Buchanan, 1822)	Boga Labeo	Bhangan/ Bhangan Bata	CR	--	R
12.			*Labeo calbasu* (Hamilton-Buchanan, 1822)	Kalbasu/ Black Rohu	Kalibaus/Baus Maach/Kalia	EN	--	W
13.			*Labeo gonius* (Hamilton-Buchanan, 1822)	Kuria Labeo	Goni/Kurchi/ Ghannya/ Ghonia/ Ghainna	EN	--	W
14.			*Labeo nandina* (Hamilton-Buchanan, 1822)	Nandi Labeo	Nandina/Nandil/ Nandi	CR	--	R, FP
15.			*Labeo pangusia* (Hamilton-Buchanan, 1822)	Pangusia Labeo	Ghora Muikha/ Ghora Maach/ Longu Rui	CR	--	R
16.			*Osteobrama cotio* (Hamilton-Buchanan, 1822) [*Rohtee cotio* (Hamilton-Buchanan, 1822)]	Cotio	Dhela/Dhipali/ Keti/ Mauwa/ Lohasura	EN	--	W
17.			*Puntius sarana* (Hamilton-Buchanan, 1822)	Olive Barb	Sarpunti/ Sarnaputi/Saral Punti/Kurti	CR	--	W
18.			*Puntius ticto* (Hamilton-Buchanan, 1822)	Firefin Barb/ Two-spot Barb/ Ticto Barb	Tit Punti	VU	--	W
19.			*Raiamas bola* (Hamilton-Buchanan, 1822) [*Barilius bola* (Hamilton-Buchanan, 1822)]	Indian Trout	Bhol/Bol	EN	--	R
20.			*Rasbora rasbora* (Hamilton-Buchanan, 1822)	Gangetic Scissortail Rasbora	Darkina/ Leuzza Darkina	EN	--	W
21.			*Tor tor* (Hamilton-Buchanan, 1822)	Tor Mahseer	Mahashol/ Mohal/ Tor Mahaseer/ Mashol Maach	CR	--	N, SE
22.		Cobitidae	*Botia dario* (Hamilton-Buchanan, 1822)	Necktie Loach	Rani/Beti/Botya	EN	--	W
23.			*Botia lohachata* Chaudhuri, 1912	Y-loach	Rani/Putul/Beti	EN	--	R
24.	Siluriformes [Cypriniformes]	Bagridae	*Aorichthys aor* (Hamilton-Buchanan, 1822) [*Mystus aor* (Hamilton-Buchanan, 1822)]	Long-whiskered Catfish	Ayer/Aor	VU	--	W
25.			*Aorichthys seenghala* (Sykes, 1841) [*Mystus seenghala* (Sykes, 1841)]	Giant River-catfish/ Tengara/ Seenghari	Guizza/ Guizza Ayer	EN	--	W
26.			*Batasio tengana* (Hamilton-Buchanan, 1822)	Assamese Batasio	Tengra	EN	--	R

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
27.			*Mystus cavasius* (Hamilton-Buchanan, 1822)	Gangetic Mystus	Kabashi-tengra/ Golsha/ Golsha- tengra	VU	--	W
28.			*Rita rita* (Hamilton-Buchanan, 1822)	Rita	Rita	CR	--	Et, R
29.		Siluridae	*Ompok bimaculatus* (Bloch, 1797)	Indian Butter Catfish	Kani Pabda/ Boali Pabda /Pabda	EN	--	W
30.			*Ompok pabda* (Hamilton-Buchanan, 1822)	Pabdah Catfish	Modhu Pabda/ Pabda	EN	--	W
31.			*Ompok pabo* (Hamilton-Buchanan, 1822)	Pabo Catfish	Pabda	EN	--	R, B
32.		Schilbeidae	*Ailia punctata* (Day, 1871) [*Ailiichthys punctata* Day, 1871]	Jamuna Ailia	Kajuli/Baspata	VU	--	R
33.			*Clupisoma garua* (Hamilton-Buchanan, 1822)	Garua Bacha/ Guarchcha	Ghaura	CR	--	W
34.			*Eutropiichthys vacha* (Hamilton-Buchanan, 1822)	Batchwa Bacha	Bacha	CR	--	W
35.			*Silonia silondia* (Hamilton-Buchanan, 1822)	Silondia Vacha	Shillong	EN	--	Et, R
36.		Pangasiidae [Schilbeidae]	*Pangasius pangasius* (Hamilton-Buchanan, 1822)	Pungas	Pungus	CR	--	Et, R
37.		Sisoridae	*Bagarius yarrelli* Sykes, 1841 [Previously referred as *Bagarius bagarius* (Hamilton-Buchanan, 1822)]	Gangetic Goonch	Baghair	CR	--	W
38.			*Sisor rhabdophorus* Hamilton-Buchanan, 1822	Sisor Catfish	Sisor/Chenua	CR	--	R (N)
39.		Chacidae	*Chaca chaca* (Hamilton-Buchanan, 1822)	Indian Chaca	Cheka/Chaga	EN	--	W
40.		Plotosidae	*Plotosus canius* Hamilton-Buchanan, 1822	Canine Catfish-eel	Gang Magur/ Kan Magur	VU	--	Et, B
41.	Cyprinodon-tiformes [Beloni-formes]	Hemiram-phidae	*Dermogenys pusillus* van Hasselt, 1823	Wrestling Halfbeak	Ek Thota	EN	--	R (Karnaphuli)
42.	Syngnathi-formes	Syngnathidae	*Microphis deocata* (Hamilton-Buchanan, 1822)	Deocata Pipefish	Kota Kumirer Khil/ Kumirer Khil	EN	--	R (N)
43.	Synbran-chiformes	Synbranc-hidae	*Monopterus cuchia* (Hamilton-Buchanan, 1822)	Gangetic Mudeel Cuchia	Kuicha/Kuchia/ Kunche	VU	--	W
44.	Perciformes	Ambassidae [Centropom-idae]	*Chanda nama* Hamilton-Buchanan, 1822	Elongate Glass-perchlet	Chanda/Nama Chanda	VU	--	W

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
45.			*Pseudambassis ranga* (Hamilton-Buchanan, 1822) [*Chanda ranga* Hamilton-Buchanan, 1822]	Indian Glassy Fish	Chanda/ Ranga- chanda/ Lal Chanda	VU	--	W
46.		Scatophagidae	*Scatophagus argus* (Linnaeus, 1766)	Spotted Scat	Bishtara	EN	--	Et
47.		Nandidae	*Nandus nandus* (Hamilton-Buchanan, 1822)	Mottled Nandus/Mud Perch	Meni/Bheda/ Bhedary	VU	--	W
48.		Nandidae [Pristo-lepidae]	*Badis badis* (Hamilton-Buchanan, 1822)	Badis/Dwarf Chameleonfish	Napit Koi/ Koi Bandi	EN	--	W
49.		Belontiidae [Anaban-tidae]	*Ctenops nobilis* McClelland, 1845	Indian Paradisefish	Neftani	EN	--	W
50.		Channidae	*Channa barca* (Hamilton-Buchanan, 1822)	Barca Snakehead	Pipla Shol/ Tila Shol/Tila	CR	--	B
51.			*Channa marulius* (Hamilton-Buchanan, 1822)	Giant Snakehead	Gajar/Gajal	EN	--	B (Mymen-singh, Sylhet)
52.			*Channa orientalis* Bloch & Schneider, 1801	Asiatic Snakehead	Telo/Taki Gachua/Raga Cheng	VU	--	B
53.		Mastacem-belidae	*Macrognathus aral* (Bloch and Schneider, 1801) { Not *Macrognathus aculeatus* (Day, 1876)}	One-stripe Spinyeel	Tara Baim	VU	DD	W
54.			*Mastacembalus armatus* (Lacepede, 1800)	Tire-track Spinyeel	Baim/Sal Baim/ Bam	EN	--	W

N.B. Previous names are given in square brackets
Clarifications are given in braces

Table 5. Status and distribution of threatened amphibians of Bangladesh

Status code: EN – Endangered, VU – Vulnerable

Distribution code: W–Wide, SW–Southwest, MEF–Mixed Evergreen Forest, DF–Deciduous Forest, SB–Sundarbans Mangrove Forest

Total number of threatened species: 8

Class: Amphibia

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
1.	Anura	Microhylidae	*Kaloula pulchra* Gray, 1831	Kaloula/ Painted Bull Frog	Venpu Bang	VU	--	SW, MEF
2.			*Microhyla ornata* (Dumeril & Bibron, 1841)	Ornate Microhylid/ Ornate Narrow-mouthed Frog	Cheena Bang	VU	--	W
3.			*Microhyla rubra* (Jerdon, 1854)	Red Microhylid/Red Narrow-mouthed Frog	Lal Cheena Bang	VU	--	W
4.			*Uperodon globulosus* (Gunther, 1864)	Balloon Frog/ Grey Balloon Frog	Potka Bang	EN	--	DF, MEF
5.		Ranidae	*Euphlyctis hexadactylus* (Lesson, 1834) [*Rana hexadactyla* Lesson, 1834]	Green Frog/ Green Pond Frog/ Indian Green Frog	Sabuj Bang	EN	--	SB
6.			*Rana alticola* Boulenger, 1882 [*Rana tytleri* (Theobold, 1870)]	Boulenger's Frog	Pana Bang	VU	--	W
7.			*Rana taipehensis* Van Denburgh, 1909	Taipeh Frog	Gach Bang	EN	--	W
8.		Rhacophoridae	*Rhacophorus maximus* Gunther, 1858	Large Tree Frog/ Southeast Asian Tree Frog	Baro Gecho Bang	VU	--	W

N.B. Previous names are given in square brackets
Clarifications are given in braces

Table 6. Status and distribution of threatened inland reptiles of Bangladesh

Status code: CR – Critically Endangered, EN –Endangered, VU – Vulnerable, LR – Lower Risk, DD – Data Deficient

Distribution code: W–Wide, N–North, E–East, SE–Southeast, SW–Southwest, MEF–Mixed Evergreen Forest, SB–Sundarbans Mangrove Forest

Total number of threatened species: 58

Class: Reptilia

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
1.	Crocodylia	Crocodylidae	*Crocodylus porosus* Schneider, 1801	Estuarine Crocodile/ Saltwater Crocodile/ Sawing Crocodile/ Sea-going Crocodile/ Subwater Crocodile	Lonapanir Kumir	CR	--	SB
2.		Gavialidae	*Gavialis gangeticus* (Gmelin, 1789)	Gangetic Gharial/ Indian Gharial/ True Gavial	Gharial/ Baishal/ Ghot Kumir	CR	EN	Padma
3.	Testudines [Chelonia]	Bataguridae [Emydidae]	*Batagur baska* (Gray, 1831)	River Terrapin/ Batagur Terrappin/ Tuntong	Baro Kaitta	CR	EN	SB
4.			*Cuora amboinensis* (Daudin, 1801)	Malayan Box Turtle/ South Asian Box Turtle	Deeba Kasim	EN	LR	SE
5.			*Geoclemys hamiltonii* (Gray, 1831)	Black Pond Turtle/ Spotted Pond Turtle	Kalo Kasim	EN	DD	W
6.			*Hardella thurjii* (Gray, 1831)	Brahminy River Turtle/ Crowned River Turtle	Kali Kaitta	EN	LR	W
7.			*Kachuga dhongoka* (Gray, 1834)	Three-striped Roof Turtle/Dhongoca Terrapin	Dhoor Kasim	CR	LR	Padma, Jamuna
8.			*Kachuga kachuga* (Gray, 1831)	Painted Roofed Turtle/ Red-crowned Roofed Turtle	Kasim	EN	EN	Padma
9.			*Kachuga smithii* (Gray, 1863)	Brown Roofed Turtle	Baro Kori Kaitta/ Vaittal Kaitta	EN	--	Padma
10.			*Kachuga sylhetensis* (Jerdon, 1870)	Assam Roofed Turtle/ Khasi Hills Terrapin	Sylhet Kachuga	EN	DD	Garo/ Khasia Hills

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
11.			*Kachuga tentoria* (Gray, 1834)	Median Roofed Turtle/ Indian Tent Turtle	Majhari Kaitta	EN	--	W
12.			*Melanochelys tricarinata* (Blyth, 1856)	Three-keeled Land Tortoise/Tricarinate Hill Turtle	Kasim	EN	VU	Dinajpur, Mymen-singh
13.			*Melanochelys trijuga* (Schweigger, 1812)	Indian Black Turtle/ Pond Tortoise/ Bangladesh Black Turtle	Kasim	EN	DD	W
14.			*Morenia petersi* (Anderson, 1879)	Indian Eyed Turtle/ Yellow Turtle/ Bengal Eyed Turtle	Haldey Kaitta	VU	LR	W
15.		Testudinidae	*Indotestudo elongata* (Blyth, 1853) [*Geochelone elongata* Blyth, 1853]	Elongated Tortoise/ Red-nosed Tortoise/ Yellow Tortoise/ Yellow-headed Tortoise	Halud Pahari Kasim	CR	VU	MEF
16.			*Manouria emys* (Schlegel & Muller, 1840) [*Geochelone emys* (Schlegel & Muller, 1840)]	Asian Giant Tortiose/ Six-footed Tortoise/ Yellow And Black Giant Tortoise/Burmese Brown Tortiose	Pahari Kasim	CR	VU	MEF
17.		Trionychidae	*Aspideretes gangeticus* (Cuvier, 1825) [*Trionyx gangeticus* Cuvier, 1825]	Ganges Softshell Turtle	Khalua Kasim	EN	--	W
18.			*Aspideretes hurum* (Gray, 1831) [*Trionyx hurum* Gray, 1831]	Peacock-marked Softshell Turtle/Peacock Softshell Turtle	Dhum Kasim	EN	--	W
19.			*Aspideretes nigricans* (Anderson, 1875) [*Trionyx nigricans* Anderson, 1875]	Bostami Turtle/Black Softshell Turtle	Bostami Kasim	CR	CR	Bostami pond in Chittagong
20.			*Chitra indica* (Gray, 1831)	Asiatic Softshell Turtle/Narrow-headed Softshell Turtle	Sim Kasim	CR	VU	Padma, Jamuna
21.			*Lissemys punctata* (Lacepede, 1788)	Spotted Flapshell Turtle/Indo-Gangetic Flapshell Turtle/ Indian Flapshell turtle/ Indian Mud Turtle	Shundhi Kasim	VU	--	W
22.			*Pelochelys bibroni* (Owen, 1835)	Bibron's Softshell Turtle	Jata Kasim	CR	VU	SW (estuaries)

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
23.	Lacertilia [Squamata]	Gekkonidae	*Gekko gecko* (Linnaeus, 1758)	Wall Lizard/Tucktoo/ Gecko	Tokkhak/ Shanda	VU	--	W
24.			*Hemidactylus bowringii* (Gray, 1845)	House Lizard	Tiktiki	VU	--	East of Jamuna
25.		Agamidae	*Calotes rouxii* Dumeril & Bibron, 1837	Forest Calotes/ Garden Lizard	Rokto-chosha	VU	--	MEF
26.			*Draco blanfordii* Boulenger, 1885	Flying Lizard/Draco	Uranta Tiktiki	CR	--	MEF
27.		Scincidae	*Mabuya dissimilis* (Hallowell, 1857)	Stripped Skink	Anjon	VU	--	MEF
28.		Varanidae	*Varanus bengalensis* (Daudin, 1802)	Bengal Monitor/ Grey Monitor Lizard	Gui Shap	VU	--	W
29.			*Varanus flavescens* (Hardwicke & Gray, 1827)	Yellow Monitor/ Common Lizard	Sona Gui/ Holdey Gui/ Hungui Shap	EN	--	W
30.			*Varanus salvator* (Laurenti, 1768)	Ring Lizard/ Monitor Lizard/ Two-banded Monitor	Ram Godi/ Kalo Gui	EN	--	Coast
31.	Serpentes [Squamata]	Boidae	*Python molurus* (Linnaeus, 1758)	Rock Python	Ajagar/ Moyal Shap	EN	LR	MEF, SB
32.			*Python reticulata* (Schneider, 1801) [*Python reticulatus* Schneider, 1801]	Reticulated Python	Golbahar/ Ajagar	CR	--	MEF
33.		Colubridae	*Ahaetulla nasutus* (Lacepede, 1789)	Common Vine Snake/ Vine Snake/Common Green Whip Snake	Laodoga Shap/ Sutanoli Shap	VU	--	W
34.			*Boiga cyanea* (Dumeril, Bibron & Dumeril, 1854) [Previously under Homalopsidae]	Green Cat Snake	Sabuj Phoni-monosha	VU	--	NE
35.			*Cerberus rhynchops* (Schneider, 1799) [Previously under Homalopsidae]	Dog-faced Water Snake	Jalbora Shap	VU	--	?
36.			*Chrysopelea ornata* (Shaw, 1802)	Ornate Flying Snake/ Golden Flying Snake	Kalnagini/ Uranta Shap	EN	--	W
37.			*Coluber mucosus* (Linnaeus, 1758) [*Ptyas mucosus* Linnaeus, 1758]	Rat Snake/Dhaman	Daraj/ Dhaman	VU	--	W

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
38.			*Coluber nigromarginatus* (Blyth, 1854) [*Zaocys nigromarginatus* Blyth, 1854]	Green Rat Snake	Daraj	VU	--	MEF
39.			*Dendrelaphis pictus* (Gmelin, 1789)	Painted Bronzeback Tree Snake	Gecho Shap	VU	--	Forests, Woods
40.			*Dendrelaphis tristis* (Daudin, 1803)	Common Bronzeback Tree Snake/ Tree Snake/ Bronzeback Tree Snake	Bet Anchora/ Gecho Shap	VU	--	W
41.			*Elaphe helena* (Daudin, 1803)	Common Trinket Snake	Dudhraj	EN	--	?
42.			*Elaphe radiata* (Schlegel, 1837)	Copper Head Trinket Snake	Dudhraj	EN	--	W
43.		[Dipsadidae]	*Lycodon aulicus* (Linnaeus, 1758)	Common Wolf Snake	Gharginni Shap/ Kaurialla	VU	--	W
44.			*Lycodon fasciatus* (Anderson, 1879)	Banded Wolf Snake	Gharginni Shap	VU	--	W
45.			*Lycodon jara* (Shaw, 1802)	Yellow-speckled Wolf Snake	Gharginni Shap	VU	--	W
46.		[Natricidae]	*Macropisthodon plumbicolor* (Cantor, 1839)	Green Keelback Snake	Sabuj Dhora	EN	--	MEF
47.		[Dipsadidae]	*Oligodon cyclurus* (Cantor, 1839)	Cantor's Kukri Snake	Kukri/ Bankaraj	VU	--	NW
48.			*Oligodon dorsalis* (Gray & Hardwicke, 1834)	Spot-tailed Kukri Snake	Kukri/ Bankaraj	VU	--	MEF
49.		[Natricidae]	*Rhabdophis subminiatus* (Schlegel, 1837)	Red-necked Keelback	Laldhora Shap	VU	--	MEF
50.			*Xenochrophis cerasogaster* (Cantor, 1839)	Dark-bellied Marsh Snake	Kalo Mete Dhora Shap	VU	--	Marshes
51.		Elapidae*	*Bungarus caeruleus* (Schneider, 1801)	Common Krait	Kal Keotey	EN	--	W
52.			*Bungarus fasciatus* (Schneider, 1801)	Banded Krait	Shakini Shap/ Shankhini Shap/ Shankha-moti Shap	EN	--	W

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
53.			*Naja kaouthia* Lesson, 1831 [*Naja naja kaouthia* (Lesson, 1831)]	Monocellate Cobra/ Bengal Cobra/ Monocled Cobra	Gokhra Shap/ Jati Shap/ Keauthia	VU	--	W
54.			*Naja naja* (Linnaeus, 1758)	Binocellate Cobra/ Spectacled Cobra	Khoia Gokhra/ Naga Gokhra	EN	--	W
55.			*Ophiophagus hannah* (Cantor, 1836)	King Cobra/ Hamadryad	Raj Gokhra/ Shankha-choor/ Padma Gokhra	EN	--	SB, MEF
56.		Viperidae*	*Trimeresurus erythrurus* (Cantor, 1839)	Spot-tailed Pit Viper	Viper Shap	EN	--	MEF, SB
57.			*Trimeresurus gramineus* (Shaw, 1802)	Green Pit Viper/ Bamboo Pit Viper	Viper Shap	EN	--	MEF
58.			*Vipera russellii* (Shaw & Nodder, 1797)	Russell's Viper/Daboia/ Tic-polonga	Chandro-bora/Bora/ Uloo Bora	CR	--	W

N.B. Previous names are given in square brackets
Clarifications are given in braces
* All are poisonous

Table 7. Status and distribution of threatened resident birds of Bangladesh

Status code: CR – Critically Endangered, EN – Endangered, VU – Vulnerable, LR - Lower Risk

Distribution code: W–Wide, N–North, NE–Northeast, NW–Northwest, SE–Southeast, StM–St. Martin's Island, MEF–Mixed Evergreen Forest, SB – Sundarbans Mangrove Forest

Total number of threatened species: 41

Class: Aves

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
1.	Galliformes	Phasianidae	*Francolinus francolinus* (Linnaeus, 1758)	Black Francolin [Black Partridge]	Kalo Titir/ Sheikh Farid	CR	--	NE, SE, NW
2.			*Francolinus gularis* (Temminck, 1815)	Swamp Francolin [Swamp Patridge]	Kea/Jolar Titir	CR	VU	Noakhali, SE
3.			*Lophura leucomelanos* (Latham, 1790) [*Lophura leucomelana* (Latham, 1790)]	Kalij Pheasant	Mothura/ Kalo Mayur	EN	--	MEF
4.			*Perdicula manipurensis* Hume, 1881	Manipur Bush Quail [Manipur Painted Bush Quail]	Kalo Gundri	EN	VU	N, SE
5.			*Polyplectron bicalcaratum* (Linnaeus, 1758)	Grey Peacock Pheasant [Peacock Pheasant/ Burmese Peacock Pheasant]	Kat-Mayur/ Katmor	CR	--	MEF
6.	Anseriformes	Dendrocygnidae [Anatidae]	*Cairina scutulata* (S. Muller, 1842)	White-winged Duck [White-winged Wood Duck]	Bhadi Hans	CR	EN	Pablakhali (SE)
7.		Anatidae	*Sarkidiornis melanotos* (Pennant, 1769)	Comb Duck [Nakta]	Buncha Hans	CR	--	W

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
8.	Piciformes	Picidae	*Dendrocopos hyperythrus* (Vigors, 1831) [*Hypopicus hyperythrus* (Vigors, 1831)]	Rufous-bellied Woodpecker [Sapsucker]	Kaththokra	VU	--	SE
9.	Buceroti-formes [Coracii-formes]	Bucerotidae	*Anthracoceros albirostris* [*Anthracoceros malabaricus* (Gmelin, 1788)]	Oriental Pied Hornbill [Indian Pied Hornbill]	Kao Dhanesh	EN	--	MEF
10.			*Buceros bicornis* Linnaeus, 1758	Great Hornbill [Great Pied Hornbill]	Raj Dhanesh	CR	--	MEF
11.			*Ocyceros birostris* (Scopoli, 1786) [*Tockus birostris* (Scopoli, 1786)]	Indian Grey Hornbill [Common Grey Hornbill]	Putial Dhanesh	EN	--	N
12.	Trogonifor-mes	Trogonidae	*Harpactes erythrocephalus* (Gould, 1834)	Red-headed Trogon	Lal Trogon/ Kuchkuchia	EN	--	MEF
13.	Coraciifor-mes	Coraciidae	*Eurystomus orientalis* (Linnaeus, 1758)	Dollarbird [Broad-billed Roller]	Pahari Nilkantha	CR	--	MEF, Jamalpur
14.		Alcedinidae	*Alcedo hercules* Laubmann, 1917	Blyth's Kingfisher	Maachranga	EN	VU	SB, MEF
15.		Halcyonidae [Alcedini-dae]	*Halcyon coromandra* (Latham, 1790)	Ruddy Kingfisher	Lal Maachranga	VU	--	SB
16.	Cuculifor-mes	Centropodi-dae [Cuculidae]	*Phaenicophaeus leschenaultii* (Lesson, 1830) [*Taccocua leschenaultii* (Lesson, 1830)]	Sirkeer Malkoha [Sirkeer Cuckoo]	Kokil	EN	--	NW, Chittagong ?
17.	Psittacifor-mes	Psittacidae	*Psittacula eupatria* (Linnaeus, 1766)	Alexandrine Parakeet [Large Indian Parakeet]	Chondona/ Baro Tia	CR	--	MEF
18.	Strigiformes	Strigidae	*Bubo nipalensis* (Hodgson, 1836)	Spot-bellied Eagle Owl [Forest Eagle Owl]	Pencha	EN	LR	MEF

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
19.			*Ketupa flavipes* (Hodgson, 1836) [*Bubo flavipes* (Hodgson, 1836)]	Tawny Fish Owl	Pencha	EN	VU	Coastal islands, StM
20.			*Ketupa zeylonensis* (Gmelin, 1788) [*Bubo zeylonensis* (Gmelin, 1788)]	Brown Fish Owl	Bhutum Pencha	VU	--	W
21.	[Caprimulgi-formes]	Caprimulgi-dae	*Caprimulgus indicus* (Latham, 1790)	Grey Nightjar [Indian Jungle Nightjar]	Dinkana/ Ratchara	EN	--	W
22.	Columbi-formes	Columbidae	*Columba punicea* (Blyth, 1842)	Pale-capped Pigeon [Purple Wood Pigeon]	Pahari Ghughu	CR	VU	MEF
23.			*Treron apicauda* (Blyth, 1846)	Pin-tailed Green Pigeon	Horial/Harikol	CR	--	MEF (Srimangal, Rema-Kalenga)
24.	Gruiformes	Heliornithi-dae	*Heliopais personata* (G.R. Gray, 1849 (1848))	Masked Finfoot	Goilo Hansh	EN	VU	SB
25.	Ciconiifor-mes	Charadriidae [Previously under Charadriif-ormes]	*Vanellus duvaucelii* (Lesson, 1826) [*Vanellus spinosus* (Linnaeus)]	River Lapwing [Spur-winged Lapwing]	Hot-titi	EN	--	Padma, coast
26.		Laridae [Previously under Charadriifo-rmes]	*Rynchops albicollis* (Swainson, 1837)	Indian Skimmer [Scissorbill]	Panikata/ Jolkhor	EN	VU	Coast, large rivers
27.			*Sterna acuticauda* (J.E. Gray, 1831)	Black-bellied Tern	Gangchil	EN	VU	W
28.		Accipitridae [Previously under Falconifor-mes]	*Haliaeetus leucogaster* (Gmelin, 1788)	White-bellied Sea Eagle	Sada Eagle/ Sindhu Eagle	EN	--	SB, Coast
29.			*Haliaeetus leucoryphus* (Pallas, 1771)	Pallas's Fish Eagle [Pallas's Fishing Eagle]	Kura/Bo-wol/ Koral	CR	VU	W

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
30.			*Sarcogyps calvus* (Scopoli, 1786)	Red-headed Vulture [King Vulture]	Raj Shakun	CR	LR	?
31.		Anhingidae [Phalacro-coracidae; Pelecani-formes]	*Anhinga melanogaster* (Pennant, 1769) [*Anhinga rufa* (Daudin)]	Darter	Goyer/ Shap-pakhi	VU	LR	W
32.		Ardeidae	*Gorsachius melanolophus* (Raffles, 1822)	Malayan Night Heron [Malay Bittern/ Tiger Bittern]	Bagha Bok	CR	--	W
33.		Threskior-nithidae	*Platalea leucorodia* Linnaeus, 1758	Eurasian Spoonbill	Kodali Bok/ Khunte Bok	CR	--	Coast, Padma
34.		Ciconiidae	*Leptoptilos dubius* (Gmelin, 1789)	Greater Adjutant [Adjutant]	Hargila	CR	EN	Wetlands
35.			*Leptoptilos javanicus* (Horsfield, 1821)	Lesser Adjutant	Modontak	EN	VU	W
36.			*Mycteria leucocephala* (Pennant, 1769)	Painted Stork	Shona-jongha/ Rangila Bok	CR	LR	Coast, SB
37.	Passeriformes	Muscicapi-dae	*Cochoa purpurea* (Hodgson, 1836)	Purple Cochoa	--	EN	--	SE
38.		Sylviidae [Musci-capidae]	*Garrulax galbanus* (Godwin-Austen, 1874)	Yellow-throated Laughingthrush [Yellow-throated Laughing Thrush]	Panga	CR	LR	MEF
39.			*Paradoxornis flavirostris* (Gould, 1836)	Black-breasted Parrotbill [Gould's Parrotbill]	--	CR	VU	MEF
40.			*Pellorneum albiventre* (Godwin-Austen, 1876)	Spot-throated Babbler [Brown Babbler]	Shatbhaila	CR	--	MEF
41.		Nectarinii-dae	*Arachnothera magna* (Hodgson, 1836)	Streaked Spiderhunter	--	EN	--	Hill forests

N.B. Previous names are given in square brackets
Clarifications are given in braces

Table 8. Status and distribution of threatened mammals of Bangladesh

Status code: CR – Critically Endangered, EN – Endangered, VU – Vulnerable, LR – Lower Risk, DD – Data Deficient

Distribution code: W–Wide, NE–Northeast, SE–Southeast, DF–Deciduous Forest, MEF–Mixed Evergreen Forest, SB–Sundarbans Mangrove Forest

Total number of threatened species: 40

Class: Mammalia

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
1.	Primates	Loridae [Lorisidae]	*Nycticebus coucang* (Boddaert, 1785)	Slow Loris	Lojjawati Banor/Lajuk Banor	CR	--	MEF
2.		Cercopithecidae	*Macaca fascicularis* (Wroughton, 1915)	Crab-eating Macaque/Long-tailed Macaque	Parailla Banor/ Lombaleji Banor	CR	LR	Cox's Bazar
3.			*Macaca mulatta* (Zimmermann, 1780)	Rhesus Macaque	Banor	VU	LR	W
4.			*Macaca nemestrina* (Linnaeus, 1766)	Pig-tailed Macaque	Ultoleji Banor/ Kulu Bandor	CR	VU	NE
5.		Colobidae [Cercopithecidae]	*Semnopithecus entellus* (Dufresne, 1797) [*Presbytis entellus* (Dufresne, 1797)]	Hanuman Langur/ Common Langur/ Grey Langur/ Entellus Monkey	Hanuman	CR	LR	Greater Jessore and Kushtia
6.			*Trachypithecus phayrei* (Blyth, 1847) [*Presbytis phayrei* Blyth, 1847]	Phayre's Langur/ Phayre's Leaf Monkey	Choshmapora Hanuman/ Kalo Hanuman	CR	DD	NE
7.			*Trachypithecus pileatus* (Blyth, 1843) [*Presbytis pileata* (Blyth, 1843)]	Capped Langur/ Capped Monkey	Mukhpora Hanuman/ Lal Hanuman	EN	VU	DF, MEF
8.		Hylobatidae	*Hylobates hoolock* (Harlan, 1834)	Hoolock Gibbon/ White-browed Gibbon	Ulluk	CR	DD	MEF
9.	Carnivora	Canidae	*Canis aureus* Linnaeus, 1758	Jackal/Asiatic Jackal/ Golden Jackal	Pati Shial/Shial	VU	--	W
10.			*Cuon alpinus* (Pallas, 1811)	Asiatic Wild Dog/ Dhole/Indian Wild Dog/Red Dog/ Asian Wild Dog	Ram Kutta/ Dhole	CR	VU	SE
11.			*Vulpes bengalensis* (Shaw, 1800)	Bengal Fox/ Indian Fox	Khek Shial	VU	DD	W

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
12.		Felidae	*Felis chaus* Guldenstaedt, 1776	Jungle Cat/ Swamp Cat	Ban Biral/Wab	EN	--	W
13.			*Catopuma temmincki* (Vigors & Horsfield, 1827) [*Felis temmincki* Vigors & Horsfield, 1827]	Golden Cat/ Temminck's Cat/ Asian Golden Cat/ Asiatic Golden Cat	Sonali Biral	CR	LR	SE
14.			*Neofelis nebulosa* (Griffith, 1821)	Clouded Leopard	Gecho Bagh/ Lam Chita	CR	VU	MEF
15.			*Panthera pardus* (Linnaeus, 1758)	Leopard/Panther	Chita Bagh	CR	--	MEF
16.			*Panthera tigris* (Linnaeus, 1758)	Tiger/Bengal Tiger/ Royal Bengal Tiger	Bagh	CR	EN	SB
17.			*Prionailurus viverrinus* (Bennett, 1833) [*Felis viverrina* Bennett, 1833]	Fishing Cat	Mecho Biral/ Mecho Bagh	EN	LR	W
18.		Herpes-tidae	*Herpestes edwardsi* (Geoffroy, 1818)	Common Mongoose	Bara Benji	VU	--	W
19.			*Herpestes urva* (Hodgson, 1836) {Reported by Khan, 1982}	Crab-eating Mongoose	Kakrabhuk Benji	EN	--	SE
20.		Musteli-dae	*Aonyx cinerea* (Illiger, 1815)	Oriental Small-clawed Otter/Short-clawed Otter/Clawless Otter	Ud/Ud Biral/Bhodar	EN	LR	Coasts, Khagrachhari
21.			*Lutra lutra* (Linnaeus, 1758)	Common Otter/ Eurasian Otter	Ud/Ud Biral/Bhodar	CR	--	Greater Sylhet & Mymensingh
22.			*Lutra perspicillata* Geoffroy, 1826	Smooth-coated Otter/ Smooth Indian Otter	Ud/Ud Biral/Bhodar	EN	VU	W
23.		Ursidae	*Ursus malayanus* Raffles, 1821 [*Helarctos malayanus* (Raffles, 1821)]	Sun Bear/ Malayan Sun Bear/ Honey Bear	Bhalluk	CR	DD	MEF
24.			*Melursus ursinus* (Shaw, 1791)	Sloth Bear / Indian Bear	Bhalluk	CR	VU	MEF
25.			*Ursus thibetanus* G. Cuvier, 1823 [*Selenarctos thibetanus* (G. Cuvier, 1823)]	Asiatic Black Bear/ Himalayan Black Bear/ Moon Bear	Kalo Bhalluk	EN	VU	MEF
26.		Viverridae	*Arctictis binturong* (Raffles, 1821)	Binturong/Bear Cat	Gecho Bhalluk/ Bhamakar Bhalluk	CR	--	MEF

Sl. No.	Order	Family	Scientific Name	English Name	Local Name	Local Status	Global Status	Distribution
27.			*Paradoxurus hermaphroditus* (Pallas, 1777)	Common Palm Civet	Gandho Gokul/ Nongar	VU	--	W
28.			*Viverra zibetha* Linnaeus, 1758	Large Indian Civet	Bagdash	EN	--	W
29.			*Viverricula indica* (Desmarest, 1817)	Small Indian Civet	Khatash/ Gandho Gokul	VU	--	W
30.	Cetacea	Delphinidae	*Orcaella brevirostris* (Owen, 1866)	Irrawaddy Dolphin/ Irrawaddy River Dolphin/Snubfin Dolphin	Shishu/Shushuk	CR	--	SB
31.			*Peponocephala electra* (Gray, 1846) {Reported by Khan, 1982}	Melon-headed Dolphin/ Many-toothed Blackfish/Broad-beaked Dolphin	Shishu/Shushuk	CR	--	Coastal islands, SB
32.		Phocoenidae	*Neophocaena phocaenoides* (G. Cuvier, 1829) [*Neomeris phocaenoides* (G. Cuvier, 1829)]	Finless Porpoise/ Little Porpoise	Shishu/Shushuk	EN	DD	SB
33.		Platanistidae	*Platanista gangetica* (Lebeck, 1801)	Ganges River Dolphin/ Ganges Susu/Susu/ Gangetic Dolphin/ Blind River Dolphin	Shishu/Shushuk/ Huchchum/ Houm	EN	EN	W
34.	Proboscidea	Elephantidae	*Elephas maximus* Linnaeus, 1758	Asian Elephant/ Indian Elephant	Hati	CR	EN	MEF
35.	Artiodactyla	Cervidae	*Cervus unicolor* (Kerr, 1792)	Sambar/ Indian Sambar	Sambar	CR	--	MEF
36.			*Muntiacus muntjak* (Zimmermann, 1780)	Barking Deer/ Indian Muntjac	Maya Harin/ Ruru Harin	EN	--	DF, MEF, SB
37.		Bovidae	*Capricornis sumatraensis* (Bechstein, 1799)	Mainland Serow/Serow/ Burmese Goat Antelope	Ban Chhagal	CR	VU	MEF, Garo Hills
38.	Pholidota	Manidae	*Manis crassicaudata* Gray, 1827	Indian Pangolin/ Scaly Anteater	Banrui/ Pipilikabhuk	CR	LR	SE
39.	Rodentia	Hystricidae	*Hystrix indica* Kerr, 1792	Indian Crested Porcupine/Indian Porcupine	Shojaru	EN	--	W
40.	Lagomorpha	Leporidae	*Lepus nigricollis* Cuvier, 1823	Rufous-tailed Hare/ Indian Hare	Khargosh/ Shashak	EN	--	W

N.B. Previous names are given in square brackets.
Clarifications are given in braces.

Appendices

Appendix 1. The IUCN Global Categories and Criteria

Categories

Extinct (EX): A taxon is Extinct when there is no reasonable doubt that the last individual has died.
Extinct in the Wild (EW): A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
Critically Endangered (CR): A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future.
Endangered (EN): A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future.
Vulnerable (VU): A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future.
Lower Risk (LR): A taxon is Lower Risk when it has been evaluated, does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable.
Data Deficient (DD): A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution is lacking. Data Deficient is therefore not a category of threat or Lower Risk.

The Criteria for Critically Endangered, Endangered and Vulnerable

Critically Endangered (CR)

A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the following criteria (A to E):

A. Population reduction in the form of either of the following:
   1. An observed, estimated, inferred or suspected reduction of at least 80% over the last 10 years or three generations, whichever is the longer, based on (and specifying) any of the following:
      (a) direct observation
      (b) an index of abundance appropriate for the taxon

(c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
(d) actual or potential levels of exploitation
(e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites.

2. A reduction of at least 80%, projected or suspected to be met within the next 10 years or three generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.

B. Extent of occurrence estimated to be less than 100 km^2 or area of occupancy estimated to be less than 10 km^2, and estimates indicating any two of the following:
1. Severely fragmented or known to exist at only a single location.
2. Continuing decline, observed, inferred or projected, in any of the following:
(a) extent of occurrence
(b) area of occupancy
(c) area, extent and/or quality of habitat
(d) number of locations or subpopulations
(e) number of mature individuals.
3. Extreme fluctuations in any of the following:
(a) extent of occurrence
(b) area of occupancy
(c) number of locations or subpopulations
(d) number of mature individuals.

C. Population estimated to number less than 250 mature individuals and either:
1. An estimated continuing decline of at least 25% within 3 years or one generation, whichever is longer or
2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals and population structure in the form of either:
(a) severely fragmented (i.e. no subpopulation estimated to contain more than 50 mature individuals)
(b) all individuals are in a single subpopulation.

D. Population estimated to number less than 50 mature individuals.

E. Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or 3 generations, whichever is the longer.

Endangered (EN)

A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined by any of the following criteria (A to E):

A. Population reduction in the form of either of the following:
   1. An observed, estimated, inferred or suspected reduction of at least 50% over the last 10 years or three generations, whichever is the longer, based on (and specifying) any of the following:
      (a) direct observation
      (b) an index of abundance appropriate for the taxon
      (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
      (d) actual or potential levels of exploitation
      (e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites.
   2. A reduction of at least 50%, projected or suspected to be met within the next ten years or three generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.

B. Extent of occurrence estimated to be less than 5000 km^2 or area of occupancy estimated to be less than 500 km^2, and estimates indicating any two of the following:
   1. Severely fragmented or known to exist at no more than five locations.
   2. Continuing decline, inferred, observed or projected, in any of the following:
      (a) extent of occurrence
      (b) area of occupancy
      (c) area, extent and/or quality of habitat
      (d) number of locations or subpopulations
      (e) number of mature individuals.
   3. Extreme fluctuations in any of the following:
      (a) extent of occurrence
      (b) area of occupancy
      (c) number of locations or subpopulations
      (d) number of mature individuals.

C. Population estimated to number less than 2500 mature individuals and either:
   1. An estimated continuing decline of at least 20% within 5 years or 2 generations, whichever is longer, or
   2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals and population structure in the form of either:
      (a) severely fragmented (i.e. no subpopulation estimated to contain more than 250 mature individuals)
      (b) all individuals are in a single subpopulation.

D. Population estimated to number less than 250 mature individuals.

E. Quantitative analysis showing the probability of extinction in the wild is at least 20% within 20 years or 5 generations, whichever is the longer.

Vulnerable (VU)

A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future, as defined by any of the following criteria (A to E):

A. Population reduction in the form of either of the following:
   1. An observed, estimated, inferred or suspected reduction of at least 20% over the last 10 years or three generations, whichever is the longer, based on (and specifying) any of the following:
      (a) direct observation
      (b) an index of abundance appropriate for the taxon
      (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
      (d) actual or potential levels of exploitation
      (e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites.
   2. A reduction of at least 20%, projected or suspected to be met within the next ten years or three generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.

B. Extent of occurrence estimated to be less than 20,000 km^2 or area of occupancy estimated to be less than 2000 km^2, and estimates indicating any two of the following:
   1. Severely fragmented or known to exist at no more than ten locations.
   2. Continuing decline, inferred, observed or projected, in any of the following:
      (a) extent of occurrence
      (b) area of occupancy
      (c) area, extent and/or quality of habitat
      (d) number of locations or subpopulations
      (e) number of mature individuals.
   3. Extreme fluctuations in any of the following:
      (a) extent of occurrence
      (b) area of occupancy
      (c) number of locations or subpopulations
      (d) number of mature individuals.

C. Population estimated to number less than 10,000 mature individuals and either:
   1. An estimated continuing decline of at least 10% within 10 years or 3 generations, whichever is longer, or
   2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals and population structure in the form of either
      (a) severely fragmented (i.e. no subpopulation estimated to contain more than 1000 mature individuals)

(b) all individuals are in a single subpopulation.

D. Population very small or restricted in the form of either of the following:
   1. Population estimated to number less than 1000 mature individuals.
   2. Population is characterised by an acute restriction in its area of occupancy (typically less than 100 km^2) or in the number of locations (typically less than 5). Such a taxon would thus be prone to the effects of human activities (or stochastic events whose impact is increased by human activities) within a very short period of time in an unforeseeable future, and is thus capable of becoming Critically Endangered or even Extinct in a very short period.

E. Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.

Appendix 2. Sample Scoring Sheet Adopted by IUCN Bangladesh

Status Identification Sheet for Individual Species as per Criteria Adopted by IUCN Bangladesh for Preparation of Red Book of Threatened Animals of Bangladesh

Name of species

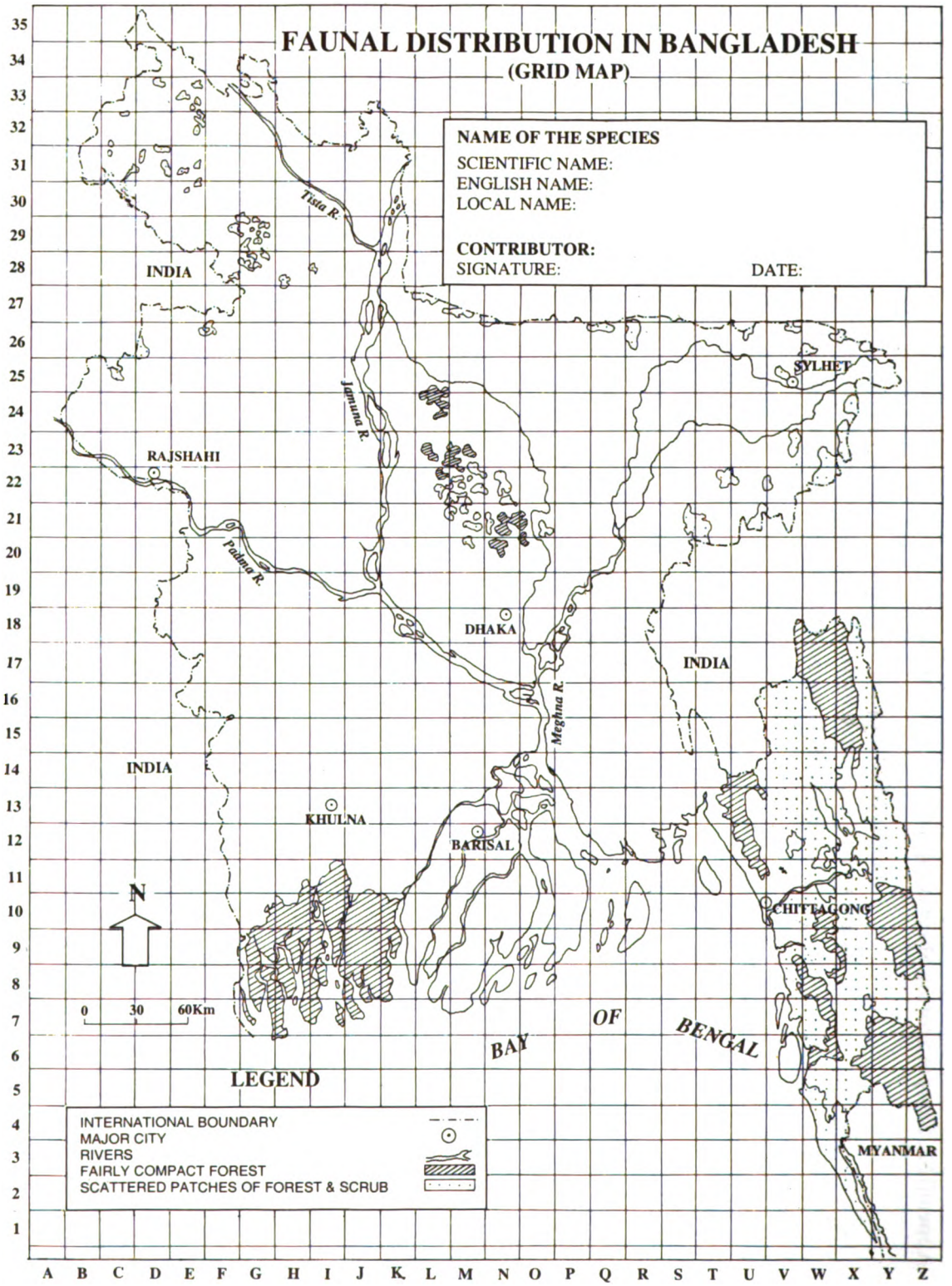
Scientific name: ----------

Common English name: ----------

Bengali/local name: ----------

Extent of occurrence (sq km): >72000, <72000,<36000, <18000, <9000, <4500 (0-5)	**Suspected change in population in the last 20 years:** increase in population, no change, slightly reduced, moderately reduced, highly reduced, no longer in the wild (0-5)	**Habitat fragmentation:** not fragmented, slightly fragmented, slightly to moderately fragmented, moderately fragmented, highly fragmented, very highly fragmented (0-5)	**Habitat condition:** not degraded, slightly degraded, moderately degraded, degraded, highly degraded, habitat lost (0-5)	**Habitat status (% of protection in the area of occurrence):** >50, <50, <35, <20, <05, 00 (0-5)	**Human impact:** high +ve, moderate +ve, none, low -ve, moderate -ve, high -ve (0-5)	**Intrinsic capacity to adapt:** very high, high, moderate, moderate to low, low, very low (0-5)	**Total score**	**Av. score**	**Status**

Categories of threat (threatened when the species scores an average of 2.4 or more): Critically Endangered (CR): >3.5; Endangered (EN): 3-3.5; Vulnerable (VU): 2.4-2.9; Data Deficient (DD): when data available on <4 factors



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