

## CRITICALLY ENDANGERED BIRDS IN INDIA

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**Abstract:** This review article provides the general introduction about the birds and five quantitative criteria as described by IUCN. Critically endangered species of India as per IUCN under different classification, threats and taxonomy are presented in this paper.

**Introduction:** Birds are omnipresent, add life, color and sound to our lives with their intrinsically beautiful feathers and melodious songs. They are recognized as one of the most important indicators of the State of the Environment. Changes in bird populations are often referred to as the first indication of environmental problems. A decline in bird population tells us that we are damaging the environment through pollution, human activities by destroying their habitat, habitat fragmentation and destruction, pesticides, alien or invasive species, and many other impacts.

Birds are a part of the balance of nature. There is strong interdependence between all living things in the gigantic web of life and the removal of even the smallest form of life may in time endanger the entire structure.

The IUCN Red List Categories and Criteria are intended to be an easily and widely understood system for classifying species at high risk of global extinction. The general aim of the system is to provide an explicit, objective framework for the classification of the broadest range of species according to their extinction risk. However, while the Red List may focus attention on those taxa at the highest risk, it is not the sole means of setting priorities for conservation measures for their protection<sup>(1)</sup>.

Critically endangered is the highest risk category assigned by the IUCN (International Union for Conservation of Nature) Red List to wild species. There are five quantitative criteria to determine whether a taxon is threatened. A taxon is critically endangered when the best available evidence indicates that it meets any of the following criteria:

1. Populations have declined or will decrease, by greater than 80% over the last 10 years or three generations.
2. Have a restricted geographical range.
3. Small population size of less than 250 individuals and continuing decline at 25% in 3 years or one generation.
4. Very small or restricted population of fewer than 50 mature individuals.
5. High probability of extinction in the wild<sup>(2)</sup>.

Critically endangered birds in India under a different classification can be grouped as:

1. Migratory Wetland Species – Baer's Pochard (*Aythya baeri*), Siberian Crane (*Leucogeranus leucogeranus*), Spoon-billed Sandpiper (*Eurynorhynchus pygmeus*)
2. Non-migratory Wetland Species – White-bellied Heron (*Ardea insignis*)
3. Grassland Species – Bengal Florican (*Houbaropsis bengalensis*), Great Indian Bustard (*Ardeotis nigriceps*), Jerdon's Courser (*Rhinoptilus bitorquatus*), Sociable Lapwing (*Vanellus gregarius*)
4. Forest Species – Forest Owlet (*Heteroglaux blewitti*)
5. Scavengers – Indian Vulture (*Gyps indicus*), Red-headed Vulture (*Sarcogyps calvus*), Slender-billed Vulture (*Gyps tenuirostris*), White-backed Vulture (*Gyps bengalensis*).
6. Practically extinct – Himalayan Quail (*Ophrysia superciliosa*), Pink-headed Duck (*Rhodonessa caryophyllacea*)<sup>(3)</sup>

Some of the threats to become critically endangered of these bird species could be due to clearing of forest, human interference, trapping of birds, creation of new pastures, growing of dry land crops, quarrying, construction, degradation of lowland forests and wetlands through direct exploitation and disturbance by humans. Human disturbance also leads to high incidence of nest desertion. Burning and cutting of trees, conversion of the bird's grassland habitat for various purposes including agriculture is mainly responsible for its population decline.

Critically Endangered species in India According to the Red Data Book of International Union for Conservation of Nature (IUCN), there are 47 critically endangered species in India (As of 5 September 2011)

The Red list of 2012 is out on 18 February 2012 at Rio +20 Earth Summit. Red List has listed 132 species of plants and animals as Critically Endangered from India <sup>(4)</sup>. In India, there are 15 bird species which are considered to be Critically Endangered as per IUCN<sup>(5)</sup>. The list is given below:

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Anseriformes  
**Family** : Anatidae  
**Scientific name** : *Aythya baeri*  
**Local name** : Baer's pochard



*Aythya baeri*

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Strigiformes  
**Family** : Strigidae  
**Scientific name** : *Heteroglaux blewitti*  
**Local name** : Forest owlet



*Heteroglaux blewitti*

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Charadriiformes  
**Family** : Scolopacidae  
**Scientific name** : *Eurynorhynchus pygmeus*  
**Local name** : Spoon-billed sandpiper



*Eurynorhynchus pygmeus*

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Accipitriformes  
**Family** : Accipitridae  
**Scientific name** : *Gyps bengalensis*  
**Local name** : White-backed Vulture



*Gyps bengalensis*

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Accipitriformes  
**Family** : Accipitridae  
**Scientific name** : *Gyps tenuirostris*  
**Local name** : Slender-billed Vulture



*Gyps tenuirostris*

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Accipitriformes  
**Family** : Accipitridae  
**Scientific name** : *Gyps indicus*  
**Local name** : Indian Vulture



***Gyps indicus***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Otidiformes  
**Family** : Otididae  
**Scientific name** : *Ardeotis nigriceps*  
**Local name** : Great Indian Bustard



***Ardeotis nigriceps***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Otidiformes  
**Family** : Otididae  
**Scientific name** : *Houbaropsis bengalensis*  
**Local name** : Bengal Florican



***Houbaropsis bengalensis***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Gruiformes  
**Family** : Gruidae  
**Scientific name** : *Grus leucoaeranus*  
**Local name** : Siberian Crane



***Grus leucoaeranus***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Charadriiformes  
**Family** : Charadriidae  
**Scientific name** : *Vanellus gregarius*  
**Local name** : Sociable Lapwing



***Vanellus gregarius***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Charadriiformes  
**Family** : Glareolidae  
**Scientific name** : *Rhinoptilus bitorquatus*  
**Local name** : Jerdon's Courser



***Rhinoptilus bitorquatus***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Accipitriformes  
**Family** : Accipitridae  
**Scientific name** : *Sarcogyps calvus*  
**Local name** : Red-headed Vulture



***Sarcogyps calvus***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Pelecaniformes  
**Family** : Ardeidae  
**Scientific name** : *Ardea insignis*  
**Local name** : White-bellied Heron



***Ardea insignis***

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Galliformes  
**Family** : Phasianidae  
**Scientific name** : *Ophrysia superciliosa*  
**Local name** : Himalayan Quail



*Ophrysia superciliosa*

**Kingdom** : Animalia  
**Phylum** : Chordata  
**Class** : Aves  
**Order** : Anseriformes  
**Family** : Anatidae  
**Scientific name** : *Rhodonessa caryophyllacea*  
**Local name** : Pink-headed Duck



*Rhodonessa caryophyllacea*

### Efforts to conserve birds:

In order to save birds from becoming extinct, efforts has to be made to conserve birds. Some of the methods to conserve birds are<sup>(6)</sup>

- Conserve the habitat types and its associated species;
- Establish, with the cooperation of the state government and local people, more conservation areas;
- Supervise and coordinate management in conservation areas;
- Follow re-introduce, translocation methods and Captive breeding methods
- Create awareness programmes for stakeholders, students, NGO's, etc.

## Reference

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6. Swarndeeep S. Hundal. Wildlife conservation strategies and management in india: an overview. Proc. Species at Risk 2004 Pathways to Recovery Conference. 2 March 2–6, 2004, Victoria, B.C.