

Birds Belonging to Family Ardeidae, Ciconiidae and Threskiornithidae of Ratlam, Madhya Pradesh



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Abstract

The bird diversity belonging to three families Ardeidae, Ciconiidae and Threskiornithidae of Ratlam was observed. Of these three families family Ciconiidae belongs to order Ciconiiformes whereas families Ardeidae and Threskiornithidae belong to order Pelecaniformes. Results exhibited a total of 15 species of birds comprising of 12 genera. Mostly these are residents or winter visitors. Of these species cattle egret and Indian pond heron are abundant and little egret is common, six species were occasional and the remaining five species were found uncommon.

Keywords: Birds, Ardeidae, Ciconiiformes, Threskiornithidae, Madhya Pradesh.

Introduction

Birds are important members in food chain. Above 10000 species are found worldwide and India possesses more than 1300 species. Aves are good for understanding the key issues in ecology and animal behavior (Urfi, 2011). Diversity of birds is the most important ecological indicator of quality of habitat (Bhadja and Vaghela, 2013). Their abundance indicates healthy environment (Joshi, 2012).

Ratlam is located at 23°19'0"N and 75°04'0"E in Madhya Pradesh. The birds belonging to present study live near water and most have long necks, long bills, long legs, and non-webbed feet. They eat fish and other invertebrates.

Previous papers on birds of this region is from Pasha and Sankar 1996 and Pasha 1998. Osmaston (1922) studied 135 species of birds of Pachmarhi. Chandra and Singh (2004) listed 517 species of birds of Madhya Pradesh and Chhattisgarh.

Birds are numerically most successful class of tetrapods with more than ten thousand living species. Many bird species migrate to take advantage of seasonal temperatures, therefore enjoy both availability of food sources and pleasant breeding habitat. Some of these birds undertake long distance migrations.

Three important families are Ardeidae which include egrets and herons, family Ciconiidae which include storks and family Threskiornithidae which include ibises and spoonbills. The families under the present study exhibit world wide distribution. India is a mega diversity centre inhabited by 1334 species of birds that contributes to more than 13 percent of the world bird species (Praveen J., Jayapal, R., & Pittie, A., 2016).

Material and Methods

The 15 species of birds observed constituted the material for the present report. The birds were identified following Ali 1941. The area was surveyed for birds in all the major habitats. Birds seen were identified and recorded along with habitat type and status (resident or winter visitor). On the basis of the frequency of sighting, the bird species were assigned categories of abundance (Abundant, uncommon, occasional and common). The study was designed to evaluate bird's diversity and distribution of Ratlam. Observations were carried out, using distance count method. Photographs were taken with Nikon coolpix p900 camera.

Table

S. No.	Common Name	Scientific Name	Frequency	IUCN status	Residential status
Family: Ardeidae					
1	Cattle Egret	<i>Bubulcus ibis</i>	A	LC	R
2	Little Egret	<i>Egretta garzetta</i>	C	LC	R
3	Western Reef-egret	<i>Egretta gularis</i>	O	LC	WM
4	Median Egret	<i>Mesophoyx intermedia</i>	O	LC	WM
5	Large Egret	<i>Casmerodius albus</i>	O	LC	WM
6	Grey Heron	<i>Ardea cinerea</i>	O	LC	WM
7	Indian Pond Heron	<i>Ardea lagrayii</i>	A	LC	R
8	White-bellied heron	<i>Ardea insignis</i>	O	LC	WM
9	Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	O	LC	WM
Family: Ciconiidae					
10	Painted Stork	<i>Mycteria leucocephala</i>	UC	NT	WM
11	White-necked Stork	<i>Ciconia episcopus</i>	UC	VU	WM
Family: Threskiornithidae					
12	Glossy Ibis	<i>Plegadis falcinellus</i>	UC	LC	WM
13	Oriental White Ibis	<i>Threskiornis melanocephalus</i>	UC	NT	WM
14	Black Ibis	<i>Pseudibis papillosa</i>	UC	LC	WM
15	Eurasian Spoonbill	<i>Platalea leucorodia</i>	UC	LC	WM

Results and Discussion

The site supports a good number of birds. In all 15 species of birds belonging to 12 genera of three families were observed. A checklist along with their IUCN conservation status, frequency and residential status is given in Table. As far as residential status is concerned, out of the 15 species of birds, most are Winter Migrant (WM) except the Cattle Egret, Little Egret and Indian Pond Heron which are residents. According to IUCN Red List version 3.1 10 species were Least Concern (LC), species *Threskiornis melanocephalus* was Near Threatened (NT) and species *Ciconia episcopus* was Vulnerable (VU). Cattle Egret and Indian Pond Heron were abundant (A) where as Little Egret was common. Rest of the members of family Ardeidae were occasional. Members of family Ciconiidae and Threskiornithidae were uncommon.

Conclusion

Various stress factors are responsible for habitat degradation. These include developmental projects and disturbance due to humans (anthropogenic pressure), presence of water exotic species such as water hyacinth, lack of permanent and clean water source, etc. These factors are affecting the avian diversity of the site. For long term management proper action plan and regulation strategies are needed.

Aim of the Study

The aim of the study is to evaluate the bird's diversity and distribution of Ratlam and particularly birds belonging to order Ciconiiformes and Pelecaniformes.

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Plate1

1. Indian Pond Heron *Ardeolagrayii*
2. Large Egret *Casmerodiusalbus*
3. Little Egret *Egrettaagarzetta*
4. Grey Heron *Ardeacinerea*
5. Black-crowned Night-Heron *Nycticoraxnycticorax* Mallard
6. Median Egret *Mesophoyxintermedia*

Plate2

7. Oriental White Ibis *Threskiornismelanocephalus*
8. Eurasian Spoonbill *Platalealeucorodia*
9. Painted Stork *Mycteria leucocephala*

10. White bellied heron *Ardea insignis*

11. Cattle Egret *Bubulcus ibis*



