



## Biodiversity Of Avian Fauna Visited To Wetlands Of Gadchiroli District (Maharashtra)

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### ABSTRACT

All the three lakes which were selected for limnobiological studies are perennial and their surrounding area contains treasure of flora and fauna. The two lakes (Bothali and Murkhala) are present in rural area, surrounded by paddy fields as well as reserve forest, while the third one, the Gadchiroli Lake is present in urban area, and surrounded by civil area and cement concrete jungle. The avian fauna visited the wetlands of nearby lakes for food and nesting purposes. The avian fauna visited to Bothali and Murkhala wetlands was more in compare to Gadchiroli wetland due to abundant availability of food.

In all 33 bird species were observed during the two years of study. The avian fauna which were studied showed different feeding habits, most of the birds are omnivorous while some were carnivorous. Only one species i.e. *Anas poecilorhyncha* (Grey duck / Spot bill duck) was noted from all the three wetlands which was herbivorous.

**Key word : Biodiversity, Avifauna, Wetlands, Gadchiroli**

### Introduction

All the three perennial lakes which selected for study and its surrounding area contain treasure of flora and fauna. The two lakes (Bothali and Murkhala) are present in rural area and surrounded by means of paddy fields, while the other Gadchiroli present in the urban area, and totally surrounded by civil area and cement concrete jungle. The Bothali and Murkhala lakes were away from the human population, surrounded by paddy fields and reserved forest. The avian fauna visited to these two lakes were more than the Gadchiroli lake, as these were rich in availability of food. The survey of birds, carried out at the time of visit to lakes for sampling during the limnological study.

The diet of birds include insects larvae, worms, crustaceans, molluscs, crabs, water beetles, small fishes, aquatic weeds and aquatic plants from the lakes and various foods and grains from the surrounding nearby area of lakes and paddy fields .

### Material and Method

For the study of comparative avifaunal community, counting method was applied. The birds were observed with the help of binocular and snapped with Nikon 3.1 mega pixels (25 x optical zoom) camera. The survey of the visiting avian fauna was carried out at the time of visit to lakes for sampling, during the limnological study. The period of survey was two years i.e. November 2003 to October 2005.

After identification of birds checklist of bird species was prepared as per the directions by Salim Ali (1996, 2004) and Grimmet et. al. (1999). The birds observed in the habitat were categorised into Rare (R), Common (C), and Uncommon (UC).

### Result and Discussion

Total 33 bird species were recorded during the period of investigation in and around the lakes. It was observed that, the maximum bird species were recorded during the winter months, while relatively less number of bird species were observed in the summer season which followed by monsoon months.

As the Bothali and Murkhala lakes were isolated from civilization and dominated by fish species belonging to Ophiocephalidae, Cyprinidae and others, so that many piscivorous birds are found around the lakes. Likewise, the birds, which are feed upon aquatic insects and their larvae, mollusks, crustaceans, fishes, tadpoles and frogs, were also recorded. The aquatic carnivorous bird species were also recorded from lakes that feed upon locust, cricket, wing termites, caterpillars, grasshoppers, earthworms, snails and other animals.

In the present investigation, non-aquatic bird species were also recorded, as their diet consists of fruits, grains and seeds as well as small invertebrates. The aquatic birds which are feed on shoots of paddy crops and mostly vegetable matter, grass, aquatic weeds, roots of aquatic plants, insects, mollusca and worms.

Only one species which was strictly herbivorous was noted from all the three lakes i.e. Spot bill duck, the birds visited to nearby area of lakes were also recorded which are feeds upon grass seed, weed seed and grains. The avian fauna recorded during the period was listed and photographed.

Ibis leucocephalus, Threskiornis melanocephala and Picoidea maharattensis are observed rarely while Little cormorant, Pheasant tailed jacana, Little grebe, Painted stork, Common coot, Darter, White Ibis, Small green bee eater and Spotted munia recorded from Bothali lake.

. Pied kingfisher (*Ceryle rudis*) was found only at Murkhala lake site. Highest species diversity was recorded from the Bothali lake indicates healthy environment for the birds. Very less number of species recorded from Gadchiroli lake region probably due to human interference and civilization in nearby area.

From the above investigation, it could be concluded that the presence of avifauna indicates the status of aquatic habitat

as it provides food, nesting and roosting sites. The water quality, depth of water and trophic status of aquatic ecosystem directly affect on the presence and abundance of avian fauna. Less counting in summer was due to the less availability of food, scarcity of water and high atmospheric temperature. So that, there should be need of proper maintenance of these fragile ecosystems of this area.

#### Observation

Table 1: List of Avian Fauna Visited to Lakes of Gadchiroli district (Maharashtra)

Sr. No.	Common Name of Bird	Generic Name of Bird	Name of Lakes			Status
			Bothali	Gadchiroli	Murkhala	
1	Little cormorant	<i>Phalacrocorax niger</i>	+	-	-	C
2	Small blue kingfisher	<i>Alcedo atthis</i>	+	+	+	C
3	Kingfisher	<i>Halcyon smyrensis</i>	+	-	+	C
4	Pied kingfisher	<i>Ceryle rudis</i>	-	-	+	UC
5	Purple moorhen	<i>Porphyrio porphyrio</i>	+	-	+	C
6	White breasted waterhen	<i>Amauroenis phoenicurus</i>	+	+	+	C
7	Pheasant tailed jacana	<i>Hydrophasianus chirurgus</i>	+	-	-	UC
8	Grey duck / Spot bill duck	<i>Anas poecilorhyncha</i>	+	+	+	C
9	Little grebe	<i>Tachybaptus ruficollis</i>	+	-	-	C
10	Purple heron	<i>Ardea purpurea</i>	+	+	-	UC
11	Pond heron	<i>Ardeola grayii</i>	+	+	+	C
12	Cattle Egret	<i>Bubuleus ibis</i>	+	+	+	C
13	Large Egret	<i>Egretta alba</i>	+	-	+	UC
14	Little Egret	<i>Egretta garzetta</i>	+	+	+	C
15	Painted stork	<i>Ibis leucocephalus</i>	+	-	-	R
16	Common coot	<i>Fulica atra</i>	+	-	-	C
17	Darter	<i>Antinga rufa</i>	+	-	-	UC
18	White Ibis	<i>Threskiornis melanocephala</i>	+	-	-	R
19	Small green bee eater	<i>Merops orientalis</i>	+	-	-	UC
20	Indian roller	<i>Coracias benghalensis</i>	+	-	+	C
21	Ashy wren warbler	<i>Prinia socialis</i>	+	+	+	C
22	Shikra	<i>Accipiter badius</i>	+	-	+	C
23	Indian robin	<i>Sexicoloides fulicata</i>	+	+	+	C
24	Pariah kite	<i>Milvus migrans</i>	+	-	+	UC
25	Red vented bulbul	<i>Phaconotus cafer</i>	+	+	+	C
26	Pied maina	<i>Sturnus vcontra</i>	+	+	+	C
27	Black headed maina	<i>Sturnus pagodarum</i>	+	+	+	C
28	Large pied wagtail	<i>Motacilla maderaspatensis</i>	+	-	+	C
29	Hoopoe	<i>Upupa epops</i>	+	-	+	UC
30	Yellow fronted pied woodpecker	<i>Picoides maharattensis</i>	+	-	+	R
31	Blue rock pigeon	<i>Columba livia</i>	+	+	+	C
32	Spotted munia	<i>Conchura punckrlata</i>	+	-	-	UC
33	Rose ringed parakeet	<i>Psittacula krameri</i>	+	-	+	UC

Avian fauna observed: +

Avian fauna not observed: -

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