

## **Avifauna diversity of two natural lakes in District Gadchiroli, (Ms) India**

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### **Abstract**

The current investigation was conducted in the year of January 2021 to December 2021. It deals with the study of Avifaunal Diversity in Amagao Mahal lake and Gadchiroli lake. Bird observation was carried out at regular intervals of the three main season of the year. The present study based on the identification of residential bird. Birds are classified under the categories of wetland, earthly and lentic ecosystem avian species. Observation done with the help of binoculars (10x50). Photographs were taken with appropriate zoom lens of Digital camera Nikon. Photos were click once in a month during morning 7.30 to 10.30 am and at evening 4.10 to 6.10 pm. different 40 species of the bird where observed in Amagao Mahal lake and Gadchiroli lake.

**Key word :** Avifauna, natural lakes, diversity.

**T**he habitat required by the bird is broadly divided into three categories such as forest, wetland and shrub. Some species of the birds can require mixed type of habitat. Birds seem to be everywhere i.e. terrestrial and aquatic. The birds have exceptional ability to move and have breathtaking colour combination. Most of the bird's species are residential in particular region or habitats. The birds are universal due to their versatility and viability of movement. Any naturalist can be drawn in by the variety of colour combinations

and melodic voices of birds. Climate shifts and rapid human activity have the potential to negatively affect bird diversity. Concerning completion, freshwater lakes, agriculture, animal care, and drinking water play a significant significance in the surrounding areas. A vital group of animals in the ecological community are birds and keep the pyramid of energy intact. As scavengers and pollinators, birds are essential to the ecosystem and are often referred to as bioindicators. Every natural area affected by human activity changes the habitat. The

dispersal of the plant community can have a sacrificial effect on avian diversity, and this tempering will have an impact on the species wealth. Wetland birds can display an enormous variety of food in their habitat.

The paper deals with the bird diversity in Amagao Mahal lake and Gadchiroli lake (M.S). The study has been carried out during the period of January 2021 to December 2021. Amagao Mahal Talsamundar lake, two different villages are closed to this lake Amagao, Khorda and Chamourshi surrounds the area of this lake (19.9128280 N 79.9637740 E) and Gadchiroli lake (N- 20° 11' 12.0" and

N-20° 11' 3.6"; E- 79° 59' 46.2" E- 80° 00' 5.9"). Photos were click once in a month during morning 7.30 to 10.30 am and at evening 4.100 to 6.10 pm. different bird's species were collected and identification has been carried with the help of standard keys observation done with the help of binoculars (10x50). Photographs were taken whenever possible taken with appropriate zoom lens of Digital camera Nikon. Photograph where identified with the help of standard keys and method suggested the scientific names<sup>2,3</sup>, common names family sequence and IUCN status were done with the help of bird life international<sup>4</sup>.

Table-1. Checklist of Amagao Mahal lake and Gadchiroli lake avian fauna

Sr. no	Common Name	Scientific Names	Family	ST	IUCN Status
1.	Laughing Dove	<i>Streptopelia senegalensis</i>	Columbidae	R	LC
2.	Blue rock Pigeon	<i>Culumba livia</i>	Columbidae	R	LC
3.	Spotted dove	<i>Streptopelia chinensis</i>	Columbidae	R	LC
4.	Blue Kingfisher	<i>Alcedo meninting</i>	Alcedinidae	R	LC
5.	Common Kingfisher	<i>Alcedo atthis</i>	Alcedinidae	R	LC
6.	Indian Roller	<i>Coracias bengalensis</i>	Coraciidae	R	LC
7.	Green Bee Eater	<i>Merops orientalis</i>	Maopidae	R	LC
8.	Indian Pond Heron	<i>Ardeola grayii</i>	Ardeidae	R	LC
9.	Cattle Egret	<i>Bubulcus ibis</i>	Ardeidae	R	LC
10.	Red Wattleed Lapwing	<i>Vanellus indicus</i>	Charadriidae	R	LC
11.	Yellow-Wattleed Lapwing	<i>Vanellus malabaricus</i>	Charadriidae	R	LC
12.	Black-winged Stilt	<i>Himantopus himantopus</i>	Charadriidae	RM	LC
13.	Indian Pond Heron	<i>Ardeola grayii</i>	Ardeidae	R	LC
14.	Grey Heron	<i>Ardea cinerea</i>	Ardeidae	R	LC
15.	Pond Heron	<i>Ardeola ralioides</i>	Ardeidae	R	LC
16.	Cattle egret	<i>Bubulcus ibis</i>	Ardeidae	R	LC
17.	Little egret	<i>Egretta garzetta</i>	Ardeidae	R	LC

18.	Great Egret	<i>Casmerodius albus</i>	Ardeidae	R	LC
19.	Black headed Ibis	<i>Threskiornis melanocephalus</i>	Phoenicopteridae	W	LC
20.	Black Ibis	<i>Pseudibis papillosa</i>	Phoenicopteridae	R	LC
21.	Glossy Ibis	<i>Plegadis falcinellus</i>	Phoenicopteridae	W	LC
22.	Rose ringed parakeet	<i>Psittacula krameri</i>	Psittacidae	R	LC
23.	Greater Coucul	<i>Centropus sinensis</i>	Cuculidae	R	LC
24.	Asian Koel	<i>Eudynamis scolopacea</i>	Cuculidae	R	LC
25.	Red vented Bulbul	<i>Pycnonotus cafer</i>	Pycnonotidae	R	LC
26.	Red whiskered bulbul	<i>Pycnonotus jocosus</i>	Pycnonotidae	R	LC
27.	Black Drongo	<i>Dicrurus macrocercus</i>	Corvidae	R	LC
28.	House Crow	<i>Corvus splendens</i>	Corvidae	R	LC
29.	Corvus (crow)	<i>Corvus corax</i>	Corvidae	R	LC
30.	Water crow	<i>Hydrocorax niger</i>	Corvidae	R	LC
31.	Purple sunbird	<i>Cinnyris asiaticus</i>	Nectarinidae	R	LC
32.	Scaly-breasted munia	<i>Lonchura punctatula</i>	Estrildidae	R	LC
33.	White throated Kingfisher	<i>Halcyon smyrnensis</i>	Halcyonidae	R	LC
34.	Common hoopoe	<i>Upupa epops</i>	Upupidae	R	LC
35.	Asian Pied Starling	<i>Sturnus contra</i>	Sturnidae	R	LC
36.	Common myna	<i>Acridotheres tristis</i>	Sturnidae	R	LC
37.	House sparrow	<i>Passer domesticus</i>	Passeridae	R	LC
38.	Brown rock chat	<i>Cercomela fusca</i>	Muscicapidae	R	LC
39.	Indian robin	<i>Saxicoloides fulicata</i>	Muscicapidae	R	LC
40.	Black-shouldered Kite	<i>Elanus caeruleus</i>	Accipitridae	R	LC
IUCN's list of Threatened species (2020): categorized as Least Concerned (LC). R- Widespread Resident, W- Widespread Winter Visitor and RM- Resident Migrant.					

The water of this lake is primarily used for washing, fishing, agriculture irrigation and cattle bathing activities by the villagers. The lake contains large number of aquatic weed in submerged as well as in floating state which attract and nourish large number of living organisms the periphery of the lake has

abundant number of tress and crops which provide suitable habitat for birds.

In the present study Amagao Mahal lake and Gadchiroli lake avian fauna total of forty species of birds belonging twenty seven families have been recorded (Table-2). A total

of 28 species were observed in winter season. In monsoon 12 species and in summer season. In the present study maximum richness was recorded during winter and rainy season. It is quite significant that the distribution and occurrence of avifauna appears to be related to the local vegetation patterns<sup>5</sup>. Photographs of birds mentioned in (plates 1 and 2) which are taken in various seasons. Additionally, (Figure 1) displays the species representation by family at both lakes. The most number of bird species found in the wetlands habitat belong to the families Corvidae, Ardeidae, Columbidae, and Charadriidae, which includes woods, grassland, rice fields, and open habitat. Their propensity for food and foraging is what led to their large population. Near water bodies, the majority of the species are tiny, lush green grasses from Wardha reservoir Morshi, Amravati, Maharashtra<sup>6</sup>. There were other frequent visitors that were located in the marshes and that favoured fish as their main food source. Thus, their existence in the two lakes under study is reasonable.

Table-2. Avian fauna Species with family from Amagao Mahal lake and Gadchiroli lake

Family	No. of Bird Species
Columbidae	3
Alcedinidae	2
Coraciidae	1
Maopidae	1
Ardetidae	2
Charadriidae	3
Ardeidae	4
Corvidae	4
Ardeidae	2
Phoenicopteridae	3
Psittacidae	1
Cuculidae	2
Pycnonotidae	2
Nectarinidae	1
Estrildidae	1
Halcyonidae	1
Upupidae	1
Sturnidae	2
Passeridae	1
Muscicapidae	2
Accipitridae	1

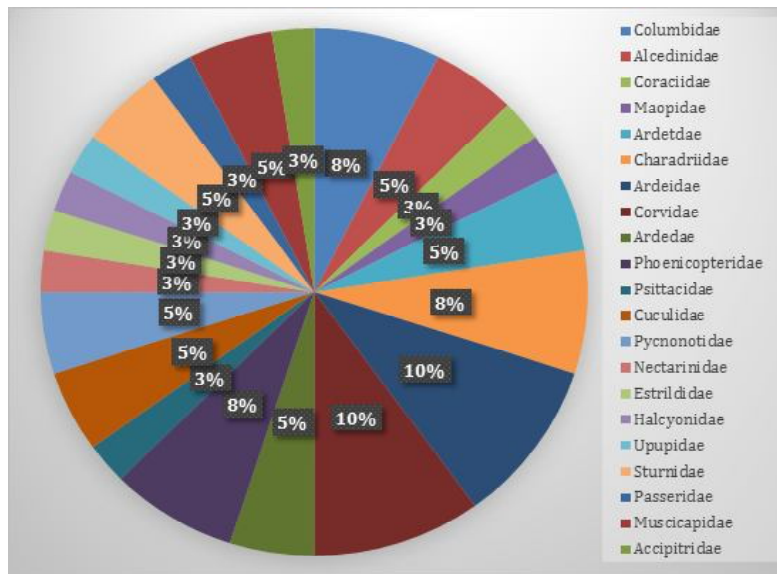


Figure 1. Graph showing Avian fauna counted during study period

Plate 1: Some Picture capturing by Camera on the field of Amagao Mahal lake

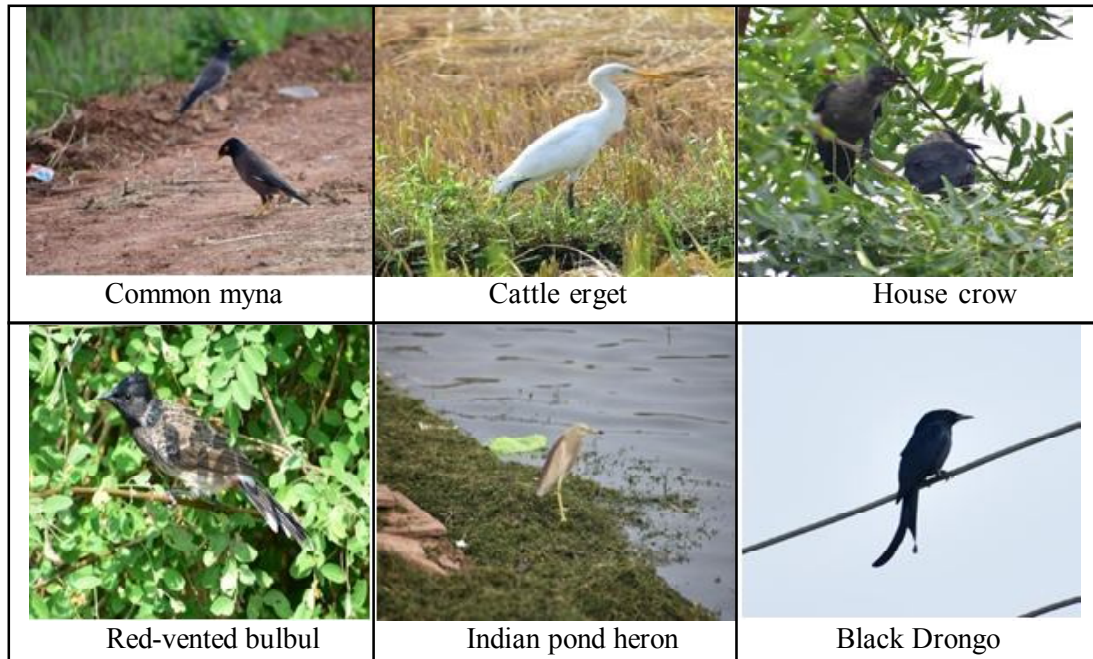
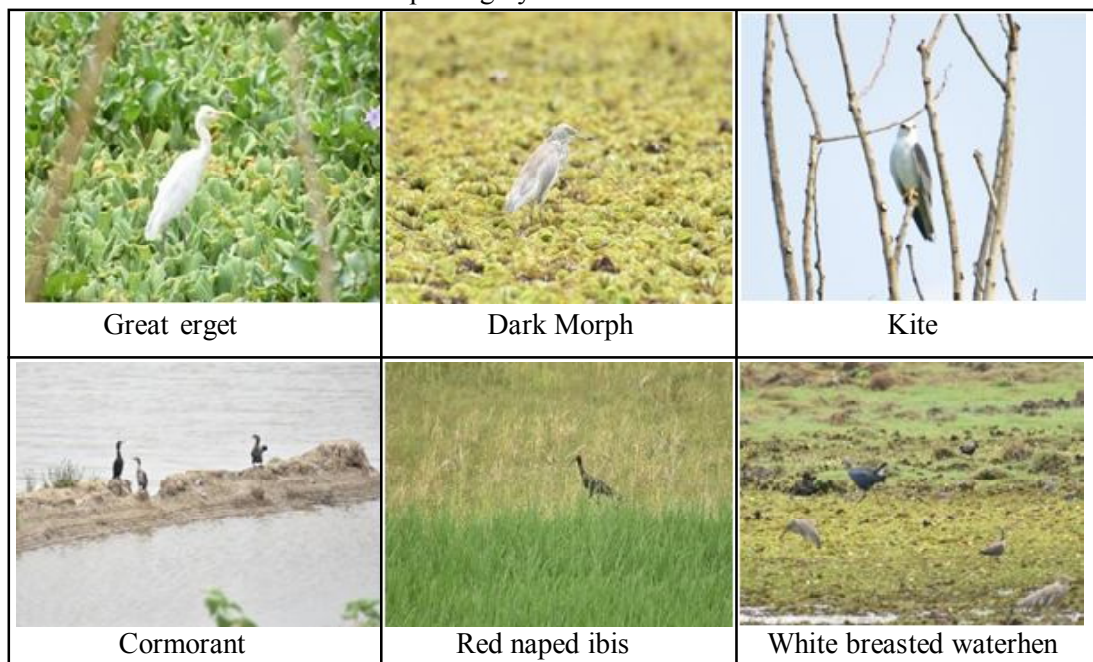


Plate 2: Some Picture capturing by Camera on the field of Gadchiroli lake



It appears that this area could be taken into account in future research and conservation efforts. Amagao Mahal lake and Gadchiroli lake are known to have a diverse range of birds. It appears that birds utilize this space as a passageway. Some birds were polyphagous in their diet, whereas others were monophagous. Given that many bird species rely on the lakes as their primary source of food, this illustrates the need of protecting every area within them. Both lakes retain a high degree of biological diversity even if most species become more homogenised as a result of expansion, with some becoming noticeably more common than others. The importance of the green space in preserving the biological balance in both lakes is highlighted by this study.

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