



## DIVERSITY OF AVIFAUNA IN AND AROUND MANDA TUKUM LAKE OF MUL TEHSIL OF CHANDRAPUR DISTRICT

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### ABSTRACT:

Freshwater lakes are important types of wetlands which play a vital role in the diversity of birds worldwide. Avian species distribution of a particular area is influenced by limnological characteristics of prevailing water bodies in the area. In this context the present study was carried out to document the diversity of avifauna in and around Manda Tukum Lake of village Manda Tukum, located in Mul Tehsil of Chandrapur district. Since no data pertaining to avifauna of this region is available it was decided to prepare a checklist of birds of this area during 2017-2019. Based on the observation made over a period of time a wide variety of birds were found to inhabit the lake and its vicinity nearby. Based on our studies it is found that about 65 species of birds were present in the lake and its peripheral areas. The maximum species were sighted during the winter season followed by summer and monsoon season respectively.

**Key words:** Manda Tukum lake, Mul tehsil, Avifauna, Checklist, Chandrapur district.

### INTRODUCTION:

Water is an indispensable requirement for all living organism which plays an important role in sustaining the natural aquatic ecosystem of the world. Birds are warm blooded vertebrates which are at the top of the food chain can be suitable indicators of biodiversity. Habitat of birds plays a crucial role in diversity in any area. Studies on birds in India are mostly done by researchers like Ghazi (1962), Majumdar (1984), Ghosal (1995), Yardi *et al* (2004), Kedar and Patil (2005), Kedar *et al* (2008), Kurhade (2010), Kanwate and Jadhao (2010), Harney *et al* (2011), Hippargi *et al* (2012), Harney *et al* (2013).

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characteristics of prevailing water bodies in the area.

In this context the present study was carried out to document the diversity of avifauna in and around Manda Tukum Lake of village Manda Tukum, located in Mul Tehsil of Chandrapur district. Since no data pertaining to avifauna of this region is available it was decided to prepare a checklist of birds of this area during the years 2017-2019.

Manda Tukum is a small village in Mul tehsil in Chandrapur district of Maharashtra state. It is located 32 km towards east from district headquarter Chandrapur and 11 km from Mul Tehsil, where the perennial freshwater lake is situated. The area of this lake is 17.58 hectore. Present irrigated area is 34.09 hectore

its Latitude is 19.98935 and Longitude 79.59280.

One site of lake is surrounded by agricultural fields and other sites are surrounded by dense forest area of Chichpalli region which is near to Tadoba Andhari Tiger Reserve. Since no data pertaining to avifauna of this region is available it was decided to prepare a checklist of birds of this area during the years 2017-2019.

#### **MATERIALS AND METHODS:**

Manda Tukum is fresh water perennial lake situated in village MandaTukum of Mul tehsil in Chandrapur district of Maharashtra state. It is located 32 km towards east from district headquarter Chandrapur and 11 km from Mul Tehsil.

The Manda Tukum Lake is harbors a large number of macrophyte which are submerged and floating state. Abundance of macrophyte in lake water influence diversity of birds. Due to abundance of food availability this lake always attracts a large number of birds.

The present research work on birds was carried out from 2017 to 2019 on Manda Tukum lake and its surrounding areas. The observation was carried out by using a field binocular (7 × 25 × magnification) during the morning hours from 6 to 10 AM and in the evening from 4 to 6 PM. Birds were observed and photographed by digital camera of Nikon.

Identification of bird species was done with the help of standard literature Woodcock (1980), Ali S. and Ripley S.D. (1995) and Grimmet *et. al.* (1999).

#### **RESULT AND DISCUSSION:**

During present study 65 different birds belonging to varied species were recorded in

Manda Tukum lake representing 30 families and the data is tabulated in Table 1. Out of the 65 different recorded bird species ten different bird species were classified as resident migratory, two species as resident migratory common and remaining birds as resident birds of the area. Among the families recorded species of birds Scolopacidae was dominant family with 8 species, followed by Ardeidae and Columbidae with 5 species each. Further study reveals that Alcedinidae, Charadriidae, Ciconidae, Corvidae, Gruidae, Sturnidae, Passeridae with (3 species each); Anatidae, Cuculidae, Motacillidae, Psittacidae, Phalacrocoracidae, Strigidae with (2 species each). 1 species each belongs to Coraciidae, Dicrotyidae, Hirudinidae, Cisticolidae, Laniidae, Meropidae, Muscicapidae Phasianidae, Picidae, Podicipedidae, Recurvirostridae, Nectariniidae, Threskiornithidae, Upupidae were represented in the study area.

Maximum birds were spotted during winter season while very less in summer season. The birds have abundant opportunities of feeding during winter so maximum are present in winter season and less in summer.

The resident birds of the lake basin include Little Grebe, Indian Pond Heron, Cattle Egret, Common Snipe, Little Egret, Cotton Teal, Purple Heron etc. Asian Open Bill Stork and Black Ibis are resident migratory in nature. Similar findings were reported by Harney *et al* (2011), Joshi and Shrivastava (2012), Harney *et al* (2013) supporting our findings.

Nearly about 130 species have become extinct due to human activity since the 17th century, and hundreds more before then. Human activity threatens about 1,200 bird species with extinction, though efforts are underway to protect them. Today in modern

world Recreational bird watching is an important part of the ecotourism.

The birds vary from region to region across the world due to migration and various pressures of man on wetlands. In safeguarding their interest, we must protect our beautiful wetlands and prepare a checklist for all the water bodies of the area.

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**Table 1 : Check List of birds species in & around Manda Tukum lake**

Sr. No.	Common name	Scientific name	Family	Habit
1.	Indian Pond Heron	<i>Ardeola grayii</i>	Ardeidae	R
2.	Cattle Egret	<i>Bubulcus ibis</i>		R
3.	Little Egret	<i>Egretta garzetta</i>		R
4.	Large Egret	<i>Casmerodius albus</i>		R
5.	Purple Heron	<i>Ardea purpurea</i>		R
6.	Small Blue Kingfisher	<i>Alcedo atthis</i>	Alcedinidae	R
7.	White Breasted Kingfisher	<i>Halycon smyrnesis</i>		R
8.	Pied Kingfisher	<i>Ceryle rudis</i>		R
9.	Cotton Teal	<i>Nettapus coromandelianus</i>	Anatidae	R
10.	Spot Bill Duck	<i>Anas poecilorhyncha</i>		RM
11.	Common Tailor bird	<i>Orthomus sutorus</i>	Cisticolidae	R
12.	Red wattled Lapwing	<i>Vanellus indicus</i>	Charadriidae	R
13.	River Lapwing	<i>Vanellus duvaucelli</i>		R
14.	Little Ringed Plover	<i>Charadrius dubius</i>		R
15.	Asian Open Bill Stork	<i>Anastomus osciatus</i>	Ciconiidae	RM
16.	Painted Stork	<i>Mycteria leucocephala</i>		RM
17.	Black Stork	<i>Ciconia nigra</i>		RM
18.	Little Brown Dove	<i>Stigmatopelia senegalensis</i>	Columbidae	R
19.	Yellow Footed Green Pigeon	<i>Treron phoenicopterus</i>		R
20.	Rock (Blue) Pigeon	<i>Columba livia</i>		R
21.	Spotted Dove	<i>Streptopelia chinensis</i>		R
22.	Eurasian Collared Dove	<i>Streptopelia decaocta</i>		R
23.	Indian Roller	<i>Coracias benghalensis</i>	Coraciidae	R
24.	House Crow	<i>Corvus splendens</i>	Corvidae	R
25.	Jungle Crow	<i>Corvus macrorhynchos</i>		R
26.	Rufous Treepie	<i>Dendrocitta vagabunda</i>		R
27.	Asian Koel	<i>Eudynamis scolopaceus</i>		Cuculidae
28.	Greater Coucal	<i>Centropus sinensis</i>	R	
29.	Black Drongo	<i>Dicrurus macrocercus</i>	Dicruidae	R
30.	White-Breasted Water Hen	<i>Amauromis phoenicurus</i>	Gruidae	R
31.	Purple Moorhen	<i>Prophyrio prophyrio</i>		R
32.	Common Coot	<i>Fulica atra</i>		RM
33.	Common Swallow	<i>Hirundo rustica</i>	Hirudinidae	RM
34.	Bay Backed Shrike	<i>Lanius vittatus</i>	Laniidae	R

35.	Small Green Bee Eater	<i>Merops orientalis</i>	Meropidae	R
36.	White Browed Wagtail	<i>Motacilla maderaspatensis</i>	Motacillidae	R
37.	White Wagtail	<i>Motacilla alba</i>	Motacillidae	R
38.	Oriental Magpie Robin	<i>Copsychus saularis</i>	Muscicapidae	R
39.	Purple Sunbird	<i>Nectarinia asiatica</i>	Nectariniidae	R
40.	Pheasant Tailed Jacana	<i>Hydrophasianus chirurgus</i>	Passeridae	R
41.	House sparrow	<i>Passer domesticus</i>		R
42.	Paddy field Pipit	<i>Anthus rufulus</i>		R
43.	Little Cormorant	<i>Phalacrocorax niger</i>	Phalacrocoracidae	RM
44.	Indian Cormorant	<i>Phalacrocorax fuscicollis</i>		RM
45.	Grey Francolin	<i>Fracolinus pondicerianus</i>	Phasinidae	R
46.	Rose Ringed Parakeet	<i>Psittacula krameri</i>	Psittacidae	R
47.	Plum Headed Parakeet	<i>Psittacula cyanocephala</i>		R
48.	Yellow-Crowned Woodpecker	<i>Dendrocopus mahrattensis</i>	Picidae	R
49.	Little Grebe	<i>Tachybaptus ruficollis</i>	Podicipedidae	RM
50.	Black Winged Stilt	<i>Himantopus himantopus</i>	Recurvirostridae	R
51.	Common Sandpiper	<i>Actitis hypoleucos</i>	Scolopacidae	R
52.	Common Greenshank	<i>Tringa nebularia</i>		R
53.	Green Sandpiper	<i>Tringa ochropus</i>		R
54.	Wood Sandpiper	<i>Tringa glareola</i>		R
55.	Common Redshank	<i>Tringa tetanus</i>		R
56.	Black Tailed Godwit	<i>Limosa limosa</i>		R
57.	Ruff	<i>Philomachus pugnax</i>		R
58.	Common Snipe	<i>Gallinago gallinago</i>		R
59.	Collared Scaops Owl	<i>Otus bakkamoena</i>		Strigidae
60.	Spotted Owlet	<i>Athene brama</i>	R	
61.	Common Myna	<i>Acridotheres tristis</i>	Sturnidae	R
62.	Brahminy Myna	<i>Sturnia pagodarum</i>		M
63.	Pied Myna	<i>Sturnus contra</i>		R
64.	Black Ibis	<i>Pseudibis papillosa</i>	Threskionithidae	RM
65.	Common Hoopoe	<i>Upupa epops</i>	Upupidae	M

R = Resident, RM = Resident Migratory, RMC = Resident Migrant Common



Fig.1- Satellite View of Manda Tukum



Fig.2. Panoramic View of Lake