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Avifaunal Diversity in and Around Sakharwahi Lake near Chandrapur, Maharashtra, India

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Abstract: The present study was conducted on the avian diversity in and around Sakharwahi Lake in Chandrapur District (M.S.) India, from October 2022 to September 2023. During the study period, different bird species were observed, a checklist was prepared, and data was analysed. During the study, a total of 43 species of birds belonging to 15 different orders and 29 families were recorded. The different factors are responsible for the diversity of birds, but the availability of preferred food and suitable environmental conditions are important for them.

Keywords: Avifauna, Sakharwahi, diversity, birds, Chandrapur.

I. INTRODUCTION

Birds are found in all the continents of the world. They attract attention of people of all the ages, distinct type of birds is found in different geographic regions. Most of them are always attracted towards water bodies of the world. They migrate from continent to continent depending on season and as per availability of food (Grimmet et al., 1999; Ali 2002).

They serve as one of the best environmental indicators. Maharashtra is the second most populous and third largest state by area in India. Avifaunal diversity has been studied by number of workers and co-workers in Maharashtra state. Diversity of the avifauna is one of the most important ecological indicators to evaluate the quality of habitats. Now a days, avifaunal diversity has been decreasing due to the destruction of natural habitat and human disturbances. The decline in avian species due to the loss of habitat by reclamation of land for construction purposes and also due to reduction of nesting sites. (Yardi et al ,2004; Kulkarni et al 2005; Chilke2012; Telkhade 2017)

For the present study Sakharwahi lake is selected nearer to Chandrapur city in Maharashtra, Due to mining, urbanization and Industrialization near to the city, which may directly indirectly affect on the flora and fauna of this area.

II. STUDY AREA

For the present study Sakharwahi Lake is selected which is located at 79.177512⁰ Longitude and ,20.023903⁰ Latitude in Sakharwahi village, which is 18 km away from Chandrapur ,Maharashtra .The water of this Lake is primarily used for agriculture and fishing activities



III. MATERIAL AND METHODS

The present work was carried out from February 2022 to April 2023. The field survey of birds were carried out by using a field binocular and photograph were taken using Nikon D 7200 camera, during the morning and evening time. Observation was confirmed with the help of the Book of Indian Birds (Grimmet et al., 1999; Ali, 2002).

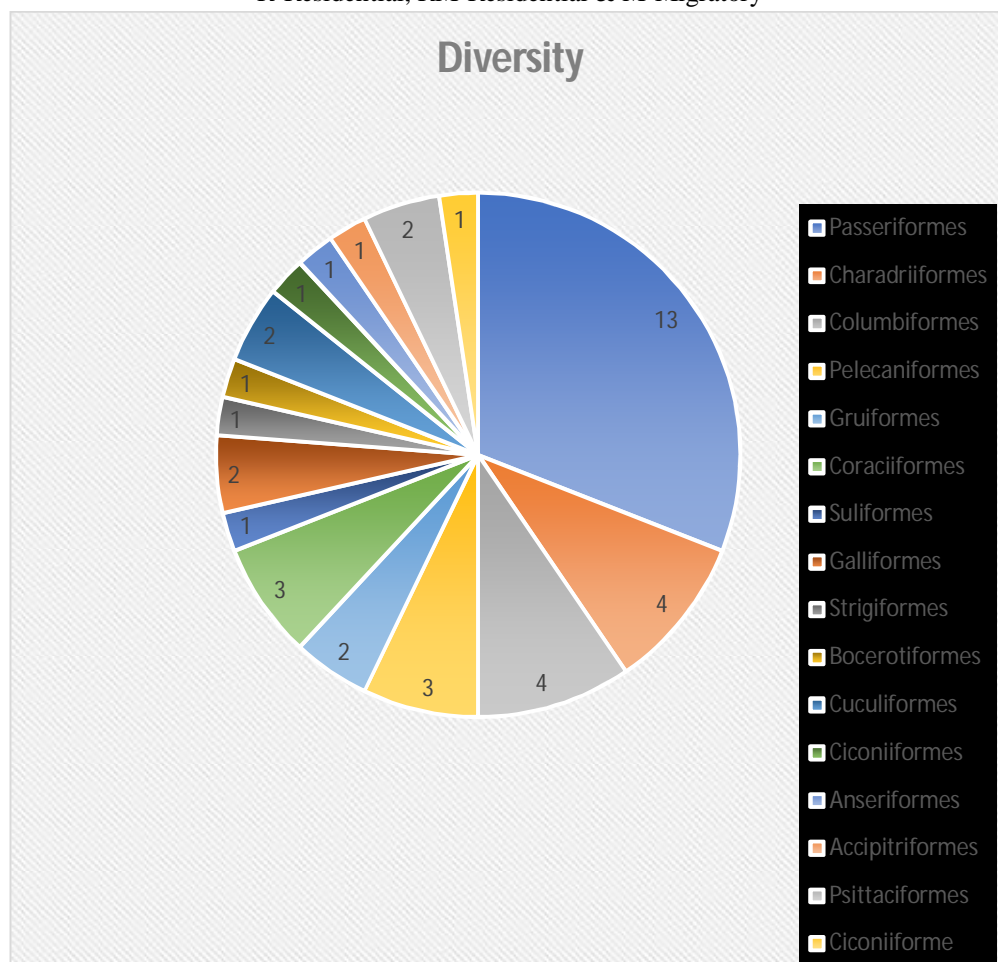
IV. RESULT AND CHECKLIST

Checklist of birds in an around Sakharvahi lake

Sr.No.	Common Name	Order	Family	Scientific Name	Habit
1.	Citrine wagtail	Passeriformes	Motacillidae	<i>Motacilla citreola</i>	RM
2.	Black-winged stilt	Charadriiformes	Recurvirostridae	<i>Himantopus himantopus</i>	R
3.	Red-wattled lapwing	Charadriiformes	Charadriidae	<i>Vanellus indicus</i>	R
4.	Laughing dove	Columbiformes	Columbidae	<i>Spilopelia senegalensis</i>	R
5.	Barbary dove	Columbiformes	Columbidae	<i>Streptopelia risorii</i>	R
6.	Heron	Pelecaniformes	Ardeidae	<i>Ardeidae</i>	R
7.	Purple swamphen	Gruiformes	Rallidae	<i>Porphyrio porphyrio</i>	R
8.	Indian roller	Coraciiformes	Coraciidae	<i>Coracias benghalensis</i>	R
9.	Great cormorant	Suliformes	Phalacrocoracidae	<i>Phalacrocorax carbo</i>	RM
10.	Little ringed plover	Charadriiformes	Charadriidae	<i>Charadrius dubius</i>	RM
11.	Common quail	Galliformes	Phasianidae	<i>Coturnix coturnix</i>	R
12.	Feral pigeon	Columbiformes	Columbidae	<i>Columba livia domestica</i>	R
13.	Brown wood-owl	Strigiformes	Strigidae	<i>Strix leptogrammica</i>	R
14.	Green pigeon	Columbiformes	Columbidae	<i>Treron</i>	R
15.	Common hoopoe	Bucerotiformes	Upupidae	<i>Upupa epops</i>	R
16.	Red-vented bulbul	Passeriformes	Pycnonotidae	<i>Pycnonotus cafer</i>	R
17.	White-breasted water hen	Gruiformes	Rallidae	<i>Amauromis phoenicurus</i>	R
18.	House crow	Passeriformes	Corvidae	<i>Corvus splendens</i>	R
19.	Red-naped ibis	Peleconiformes	Threskiornithidae	<i>Pseudibis papillosa</i>	R

20.	House sparrow	Passeriformes	Passeridae	<i>Passer domesticus</i>	R
21.	Indian courser	Charadriiformes	Glareolidae	<i>Cursorius coromandelicus</i>	R
22.	Greater coucal	Cuculiformes	Cuculidae	<i>Centropus sinensis</i>	R
23.	Asian koel	Cuculiformes	Cuculidae	<i>Eudynamys scolopaceus</i>	R
24.	Indian robin	Passeriformes	Muscicapidae	<i>Saxicoloides fulicatus</i>	R
25.	Asian openbill stork	Ciconiiformes	Ciconiidae	<i>Anastomus oscitans</i>	M
26.	Oriental magpie-robin	Passeriformes	Muscicapidae	<i>Copsychus saularis</i>	R
27.	Greylag goose	Anseriformes	Anatidae	<i>Anser anser</i>	R
28.	Cattle egret	Peleconiformes	Ardeidae	<i>Bubulcus</i>	R
29.	Black-shouldered kite	Accipitriformes	Accipitridae	<i>Elanus axilaris</i>	R
30.	Indian peafowl Black	Galliformes	Phasianidae	<i>Pava cristatus</i>	R
31.	Black drongo	Passeriformes	Dicruridae	<i>Dicrurus macrocercus</i>	R
32.	Alexandrine parakeet	Psittaciformes	Psittaculidae	<i>Psittacula eupatria</i>	R
33.	Brown song lark	Passeriformes	Locustellidae	<i>Cincloramphus cruralis</i>	R
34.	Rose ringed parakeet	Psittaciformes	Psittaculidae	<i>Psittacula krameri</i>	R
35.	Common myna	Passeriformes	Sturnidae	<i>Aeridotheres tristis</i>	R
36.	Long tail shrike	Passeriformes	Laniidae	<i>Lanius schach</i>	R
37.	White throated Kingfisher	Coraciiformes	Alcedinidae	<i>Halcyon myrmenis</i>	RM
38.	Jungle crow	Passeriformes	Corvidae	<i>Dicrurus macrocercus</i>	R
39.	Small blue kingfisher	Coraciiformes	Alcedinidae	<i>Alcedo atthis</i>	R
40.	Indian pond heron	Ciconiiforme	Ardeidae	<i>Ardeola grafi</i>	R
41.	Small bee-eater	Coraciiformes	Meropidae	<i>Merops orientalis</i>	RM
42.	White rumped munia	Passeriformes	Estrilidae	<i>Lonchura striata</i>	R
43.	White browed wagtail	Passeriformes	Motacillidae	<i>Motacilla maderaspatensis</i>	R

TABLE: Showing orders, families, scientific name, common name and habitat of the birds.
R-Residential, RM-Residential & M-Migratory



V. DISCUSSION

In India birds have extensively studied by Ali (1939, 1940), Majumdar (1984), Ghoshal (1995), Yardi et al. (2004) and Kulkarni et al. (2005). Some researcher prepare the checklist of the birds on different water bodies of the Chandrapur city and nearby area.

Khinchi et.al., 2009 observed the total 19 species of the birds, among which 07 species were of Order Ciconiiformes, 4 of Charadriiformes, 3 of Gruiformes, 2 of Falconiformes and one each of Pelicaniformes, Anseriformes and Cuculiformes. A good congregation of Black Ibis, Little cormorant and Kingfisher observed and regularly found in the surroundings of the lake.

Chilke, 2012 reported the 58 species of the birds from Bamanwada lake of Rajura Taluka district Chandrapur belonging to 9 orders and 29 families were recorded. Passeriformes is then dominating order of birds but he reported that the future of avian fauna is danger due to industrial progress of the nearer to the city.

Harney and Bhute, 2014 reported the 65 species of the birds of 15 different order and 40 families during the study period among the recorded species 54 were residential, 10 were residential migratory and 1 is residential migratory common. They also mentioned that Chalbardi lake are affected by many factors such as organic pollution and anthropogenic activities and lack of maintenance of lake. Puppulwar and Telkhade, 2017 observed the 65 species of the birds from Moharli lake of Chandrapur among the recorded species 48 were resident (R), 12 were resident migrant (RM) and 5 were migrant the above diversity of bird is due to availability of dense vegetation, choice of food and nesting places. Sakharwahi lake in present study is highly productive and water present mostly in all seasons of the year also this lake covered by marginal submerged and merged plants periphery is covered with bushes and trees which provide ample of food and surface habitat attracts the different avian fauna to this area. During the study period total 43 species belonging to 15 different orders and 29 families were recorded from the Sakharwahi lake.

Among the recorded species of birds, 13 species belongs to Passeriformes, 4 species belongs to Columbiformes and Charadriiformes, 3 species belongs to Coraciiformes and Pelecaniformes, 2 species belongs to Cuculiformes, Galliformes, Gruiformes Psittaciformes, and 1 species belong to Ciconiiformes, Suliformes, Strigiformes, Bucerotiformes, Anseriformes and Accipitriformes. Out of total 43 species (37) were resident (R), (5) were resident migrant (RM) and (1) is Migratory (M). But as per the observation of avian species, in future diversity of birds may be in threat because of lack of maintenance of lake, increase anthropogenic activities and urbanization and industrial development near to this area. Similar observation was done by Harney and Bhute (2014) and Puppalwar and Telkhade (2017).

VI. CONCLUSION

The diversity of birds in and around Sakharvahi lake is due to availability of ample of food, water, different vegetations which provide the nesting and breeding place, but compare other lakes in Chandrapur area diversity of birds is less which is due to the Anthropogenic activities and pollution.

VII. ACKNOWLEDGEMENT

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