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Avifaunal Diversity of Katwal Tukum Lake of Chandrapur District (MS), India

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Abstract: ***Birds are important to continue ecologic circle, especially in food chain. For the last three centuries, industrial developments and anthropological effects have degraded habitats and caused the natural balance to deteriorate. Approximately 200 bird species had been affected directly or indirectly from these negative changes. The present investigation was carried out to document the avifauna in and around the Katwal tukum lake located 42 km form Chandrapur head quarter of Maharashtra State from June 2022 to May 2023 in which 45 species of birds were recorded of 10 different orders and 25 families during the study. Among the recorded species 28 were resident, 9 were resident migrant and 8 were winter visitor.***
Keywords: Avifauna, Katwal tukum lake, Avifaunal diversity.

I. INTRODUCTION

Birds are crucial to maintaining the balance of many ecosystems by providing various ecological services. Diversity of avifauna is very important ecological indicator to evaluate the quality of habitats. Birds are a diverse group and their bright colors, distinct songs calls, and showy displays add enjoyment to our lives. Birds are very visible, quite common, and offer easy opportunities to observe their diverse plumage and behaviors. Because of this, birds are popular to many who pursue wildlife watching and monitoring activities. Some birds transport a variety of things through the environment. For example, birds serve to spread seeds of various plants, thereby helping in plant dispersal. The Katwal tukum lake is fresh water body located within Chandrapur district of Maharashtra state and situated 42 km from Chandrapur head quarter and is at about 235 m. above mean sea level and is at 20˚ 16' 08.73" N latitude and 79˚ 16' 11.09" E longitude. It receives the water from the surrounding catchment areas during the monsoon period. The area of Nagrala lake is spread over 76.74 acres. The depth of water is 29 feet during the monsoon and 7 feet during the summer season. The water of this lake is primary used for washing, bathing, agriculture, fishing activities and other domestic purposes but now it is at a transitional state with respect to degradation. During the last few decades considerable studies on avifauna diversity from different water bodies of India have been carried out by many researchers, like Singh (1929), Ali (1932), Ghazi (1962), Kannon (1980), Davidar (1985), Jhingran (1988), Ghoshal (1995) and Yardi (2004). However very little information is available about avifauna of India. This work has therefore undertaken of document the avifauna of Katwal tukum lake in Chandrapur district. The pond harbor a large number of fauna which attract the resident, winter migratory and resident migratory birds shown that the entire pond basin is greatly productive and conductive to all kinds of birds. This lake is harbors a number of aquatic weeds in the submerged as well as floating state on which thrive a large number of organisms. Due to rich food available throughout the year in this lake in the form of aquatic molluscs, crustaceans, insects, etc. the lake always attracts a large number of birds throughout year.

II. MATERIAL AND METHODS

Avian fauna including resident as well as resident migratory and winter visitors birds were recorded during the period of present study. The observation were usually undertaken early in the morning between 6 a.m. to 8 a.m. and in the evening between 5 p.m. to 7 p.m. Birds were observed with the help of a Binocular (10×15 magnification) and photographed using Nikon Camera (model no. D-70). Identification of avian fauna was done according to the keys given by Woodcock (1980), Ali, S. and Ripley, S.D. (1995).

III. RESULTS AND DISCUSSION

In the present study, 45 species of birds were recorded from 10 different orders and 25 families among which order Passariformes was dominant by contributing 13 followed by order Ciconiformes with 9 species, order Ansiriformes and Coraciformes represented by 5 species each, order Charadriformes represented by 4 species, order Galliformes represented by 3 species and order Pelacaniformes and Psittaciformes represented by 2 species each and order Columbiformes and Falconiformes represented by 1 species each.

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Among the families recorded species of birds, 6 species belongs to Anatidae and 4 species belongs to Ardeidae, 3 species each belongs to Ciconidae, Gruidae and Sturnidae, 2 species each belongs to family Recurvirostridae, Threskiornithidae, Alcedinidae, Corvidae and Motacillidae, 1 species each belongs of family Charadridae, Scolopacidae, Columbidae, Coraciidae, Meropidae, Upupidae, Necatarinidae, Passeridae, Muscicapidae, Pycnonotidae, Dicrudidae and Hirudinidae. Out of total 45 species, 28 were resident, 9 were resident migrant and 8 were winter visitor.

Ali (1939) published a list of 278 species of birds from central India. Newton, *et.al.*, (1986) have listed the birds of Kanha Tiger Reserve (M.P.), Ghosal (1995) have listed the birds of Kanha Tiger Reserve (M.P.), Wadatkar and Kasambe (2002) reported 171 species of birds at Pohara Malkhed forest reservoir of Amravati district (M.S.), Kedar and Patil (2005) reported 60 bird species from Rishi lake, Karanja Lad, (M.S.), Kulkarni and Kanwate (2006) observed 18 species of birds 10 as resident, 2 migratory and 6 as residential migratory from Dongarkheda irrigation tank of District Hingoli (M.S.), Kurhade (2010) reported 208 species of birds in Jaikwadi reservoirs near Ahmadnagar (M.S.), Kukade, *et.al.*, (2011) recorded 68 birds species of Chhatri lake of Amravati district (M.S.), Harney, N.V. *et.al.*, (2012) recorded 37 species of birds from Kanhala pond of Bhadrawati of District Chandrapur (M.S.), Joshi and Shrivastava (2012) reported 64 species of birds in Tawa reservoir of Hoshangabad District (M.P.), Harney, N.V. *et.al.*, (2013) recorded 37 species of birds from Kanhala pond with preference to feeding habits of Bhadrawati of District Chandrapur (M.S.) and Natarajan Mariappan *et.al*., (2013) recorded 92 species of birds from different Habitats of Agricultural Ecosystem of Pollachi (Tamilnadu), Manjunath, *et.al.*, (2014) recorded the occurrence of 26 species of birds belonging to 8 orders of 13 families in Shri Sharanabasaveshwara lake of Gulbarga District, Karnataka. Harney, N.V., A.A. Dhamani and R.J. Andrew (2011) Studies on avifaunal diversity of three water bodies near Bhadrawati, Distt. Chandrapur (MS), Harney, N.V., K.B. Bhute (2014) Diversity of avifauna in and around Chalbardi (Rai) lake near Bhadrawati, Distt. Chandrapur (M.S.), India, Harney, N.V. (2014) Avifaunal diversity of Ghotnimbala lake near Bhadrawati, Distt. Chandrapur (MS), India, Harney N.V. (2015) Avifaunal diversity of Junona lake near Chandrapur (M.S.), India. *Asian J. Multi. Stu.*, Vol. 3(1): 45-51,Harney N.V. (2015) Avifaunal diversity of Moharli lake near Chandrapur (M.S.), India. *IJGSR*. Vol.2(4): 255-264,Mahajan, V.S. and Harney, N.V. (2016) Avifaunal diversity of Mohabala lake near Bhadrawati, District- Chandrapur (M.S.), India,Shelekar, A.L. and Harney, N.V.(2017) Avifaunal diversity of Gorja lake near Bhadrawati, District- Chandrapur(M.S.), India,Bhute, K.B. and Harney, N.V. (2018) Avifaunal diversity of Nagrala lake of Bhadrawati tehsil in Chandrapur District, Maharashtra State, India,Khaparde, P.I. and Harney, N.V. (2018) Avifaunal diversity of Ghodpeth lake of Bhadrawati tehsil in Chandrapur District, M.S., India, Harney, N.V. (2020) Avifaunal diversity of Asolamendha dam of Chandrapur (MS), India, Shelekar, A. L. and Harney, N.V.(2020) Avifaunal diversity of Jutpani lake of Dharni (Melghat), District- Amravati (M.S.), India, Bansod, MA and Harney, NV(2021) Avifaunal diversity of Ghotnimbala lake near Bhadrawati, Chandrapur(MS), India, Harney, N.V. (2022) Avifaunal Diversity of Fly Ash Pond of Chandrapur (MS), India.

This lake is somewhat affected by various human activities but still avifauna of Katwal tukum lake is diverse.

Table No. 1: Birds species in Katwal tukum lake during 2022-23

Sr. No.	Order/Family	Scientific name	Common name	Habit
1	Ansiriformes Anatidae	*Anas poecilorhyncha*	Spot Bill Duck	WV
2	Ansiriformes Anatidae	*Tadorna ferruginea*	Brahminy Shelduck	WV
3	Ansiriformes Anatidae	*Anas clypeata*	Northern Pintail	WV
4	Ansiriformes Anatidae	*Sarkidiornis Melanotos*	Comb Duck	WV
5	Ansiriformes Anatidae	*Nettapus coromandelianus*	Cotton Teal	R
6	Charadriformes Charadridae	*Vanellus indicus*	Red wattled Lapwing	R
7	Charadriformes Recurvirostridae	*Himantopus himantopus*	Black Winged Stilt	R
8	Charadriformes	*Actitishypo leucos*	Common Sandpiper	RM

Sr. No.	Order/Family	Scientific name	Common name	Habit
	Scolopacidae			
9	Charadriformes Recurvirostridae	*Himantopus himantopus*	Black winged Stilt	R
10	Ciconiformes Ardeidae	*Bubulcus ibis*	Cattle Egret	RM
11	Ciconiformes Ardeidae	*Ardea cinerea*	Grey Heron	RM
12	Ciconiformes Ciconidae	*Ephippiorhyrichos asiaticus*	Black Nacked Stork	WV
13	Ciconiformes Ardeidae	*Casmerodius albus*	Large Egret	RM
14	Ciconiformes Ciconidae	*Anastomus osciatans*	Asian Open Bill Stork	R
15	Ciconiformes Ciconidae	*Mycteria leucocephala*	Painted Stork	WV
16	Ciconiformes Threskiornithidae	*Pseudibis papillosa*	Black Ibis	RM
17	Ciconiformes Threskiornithidae	*Pseudibis papillosa*	Black headed Ibis	RM
18	Ciconiformes Ardeidae	*Aredeola grayii*	Indian Pond Heron	R
19	Columbiformes Columbidae	*Strepto peliachinensis*	Spotted Dove	R
20	Coraciformes Alcedinidae	*Halycons myrnesis*	White Breasted Kingfisher	R
21	Coraciformes Alcedinidae	*Alcedo atthis*	Small Blue Kingfisher	RM
22	Coraciformes Coraciidae	*Coracias benghalensis*	Indian Roller	RM
23	Coraciformes Meropidae	*Merops orientalis*	Small Green Bee Eater	R
24	Coraciformes Upupidae	*Upupa epops*	Common Hoopoe	R
25	Falconiformes Anatidae	*Milvus migrans*	Black Kite	R
26	Galliformes Gruidae	*Amauromis phoenicurus*	White-Breasted Water Hen	R
27	Galliformes Gruidae	*Porphyrio porphyrio*	Purple Swamphcae	R
28	Galliformes Gruidae	*Fulica atra*	Common Coot	RM
29	Passeriformes Necatarinidae	*Cinnyris asiaticus*	Purple Sunbird	R
30	Passeriformes Passeridae	*Hydrophasianus chirurgus*	Pheasant Tailed Jacana	R

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Sr. No.	Order/Family	Scientific name	Common name	Habit
31	Passeriformes Muscicapidae	*Saxicolodies fulicatus*	Indian Robin	R
32	Passeriformes Sturnidae	*Acridothere stristis*	Common Myna	R
33	Passeriformes Pycnonotidae	*Pycnonotus cafer*	Red Vented Bulbul	R
34	Passeriformes Dicrudidae	*Dicrurus macrocercus*	Black Drongo	R
35	Passeriformes Sturnidae	*Sturnia pagodarum*	Brahminy Starling	R
36	Passeriformes Hirudinidae	*Hirundo rustica*	Common Swallow	R
37	Passeriformes Corvidae	*Corvus macrorhynchos*	Jungal Crow	R
38	Passeriformes Motacillinae	*Motacilla alba*	White Wagtail	WV
39	Passeriformes Motacillinae	*Motacillacinerea*	Grey Wagtail	WV
40	Passeriformes Sturnidae	*Sturnus contra*	Pied Myna	R
41	Passeriformes Corvidae	*Corvus splendens*	House Crow	R
42	Pelecaniformes Phalcrocoracidae	*Phalacrocoraxniger*	Little Cormorant	R
43	Pelecaniformes Phalcrocoracidae	*Phalacro coraxfusicollis*	Indian Cormorant	R
44	Psittaciformes Cuculidae	*Eudynamys scolopaceus*	Asian Koel	R
45	Psittaciformes Cuculidae	*Centropus sinensis*	Greater Coucul	R

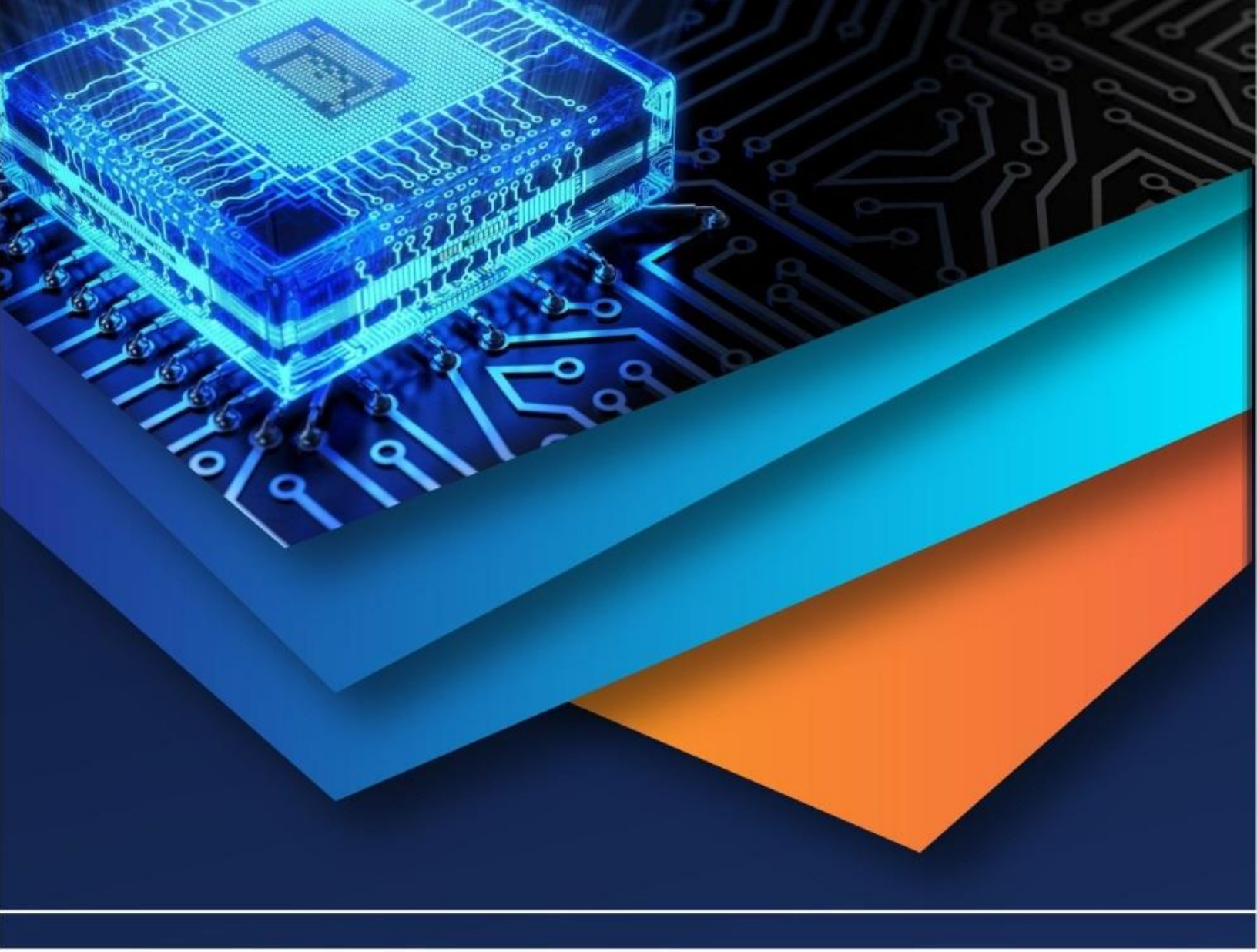
R= Residential WV=Winter Visitor RM= Residential Migratory

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