

Avifaunal Diversity of Agadi Lake of Chandrapur District (MS), India

Harney N. V.

Department of Zoology

Nilkanthrao Shinde Science & Arts College, Bhadrawati, Chandrapur, India

narendra_harney2008@rediffmail.com

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 Agadilake located 29 km form Chandrapur head quarter of Maharashtra State from June 2023to May 2024in 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, Agadilake, 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 Agadilake is fresh water body located within Chandrapur district of Maharashtra state and situated 29 km from Chandrapur head quarter and is at about 221 m. above mean sea level and is at 20° 02' 05.59" N latitude and 79° 35' 48.24" E longitude. It receives the water from the surrounding catchment areas during the monsoon period. The area of Agadilake is spread over 27.37 acres. The depth of water is 20 feet during the monsoon and 5 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 Agadilake 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 conducive 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).

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 Coraciiformes represented by 5 species each, order Charadriiformes 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.

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 Charadriidae, Scolopacidae, Columbidae, Coraciidae, Meropidae, Upupidae, Necatarinidae, Passeridae, Muscicapidae, Pycnonotidae, Dicuridae 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 Jaikwad 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 Ghotnimbale lake near Bhadrawati, Distt. Chandrapur (MS), India, Harney N.V. (2015) Avifaunal diversity of Junon 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 Ghotnimbale 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 Agadilake is diverse.

Table No. 1: Birds species in Agadilake during 2023-24

Sr. No.	Order/Family	Scientific name	Common name	Habit
1	Ansiriformes Anatidae	<i>Anas poecilorhyncha</i>	Spot Bill Duck	WV
2	Ansiriformes Anatidae	<i>Tadorna ferruginea</i>	Brahminy Shelduck	WV
3	Ansiriformes Anatidae	<i>Anas clypeata</i>	Northern Pintail	WV
4	Ansiriformes Anatidae	<i>Sarkidiornis melanotos</i>	Comb Duck	WV

Sr. No.	Order/Family	Scientific name	Common name	Habit
5	Anseriformes Anatidae	<i>Nettapuscoromandelianus</i>	Cotton Teal	R
6	Charadriiformes Charadriidae	<i>Vanellusindicus</i>	Red wattled Lapwing	R
7	Charadriiformes Recurvirostridae	<i>Himantopus himantopus</i>	Black Winged Stilt	R
8	Charadriiformes Scolopacidae	<i>Actitis hypoleucos</i>	Common Sandpiper	RM
9	Charadriiformes Recurvirostridae	<i>Himantopus himantopus</i>	Black winged Stilt	R
10	Ciconiiformes Ardeidae	<i>Bubulcus ibis</i>	Cattle Egret	RM
11	Ciconiiformes Ardeidae	<i>Ardeacinerea</i>	Grey Heron	RM
12	Ciconiiformes Ciconidae	<i>Ephippiorhyrchosasiaticus</i>	Black Naked Stork	WV
13	Ciconiiformes Ardeidae	<i>Casmerodius albus</i>	Large Egret	RM
14	Ciconiiformes Ciconidae	<i>Anastomus osciatus</i>	Asian Open Bill Stork	R
15	Ciconiiformes Ciconidae	<i>Mycteria leucocephala</i>	Painted Stork	WV
16	Ciconiiformes Threskiornithidae	<i>Pseudibis papillosa</i>	Black Ibis	RM
17	Ciconiiformes Threskiornithidae	<i>Pseudibis papillosa</i>	Black headed Ibis	RM
18	Ciconiiformes Ardeidae	<i>Ardeola grayii</i>	Indian Pond Heron	R
19	Columbiformes Columbidae	<i>Streptopelia chinensis</i>	Spotted Dove	R
20	Coraciiformes Alcedinidae	<i>Halycon smyrnensis</i>	White Breasted Kingfisher	R
21	Coraciiformes Alcedinidae	<i>Alcedo atthis</i>	Small Blue Kingfisher	RM
22	Coraciiformes Coraciidae	<i>Coracias benghalensis</i>	Indian Roller	RM
23	Coraciiformes Meropidae	<i>Merops orientalis</i>	Small Green Bee Eater	R
24	Coraciiformes Upupidae	<i>Upupa epops</i>	Common Hoopoe	R
25	Falconiformes Anatidae	<i>Milvus migrans</i>	Black Kite	R
26	Galliformes Gruidae	<i>Amaurornis phoenicurus</i>	White-Breasted Water Hen	R
27	Galliformes Gruidae	<i>Porphyrio porphyrio</i>	Purple Swamphoe	R
28	Galliformes Gruidae	<i>Fulica atra</i>	Common Coot	RM
29	Passeriformes Nectarinidae	<i>Cinnyris asiaticus</i>	Purple Sunbird	R
30	Passeriformes Passeridae	<i>Hydrophasianus chirurgus</i>	Pheasant Tailed Jacana	R
31	Passeriformes Muscicapidae	<i>Saxicoloides fulicatus</i>	Indian Robin	R
32	Passeriformes Sturnidae	<i>Acridothera tristis</i>	Common Myna	R
33	Passeriformes Pycnonotidae	<i>Pycnonotus cafer</i>	Red Vented Bulbul	R
34	Passeriformes Dicruridae	<i>Dicrurus macrocercus</i>	Black Drongo	R
35	Passeriformes Sturnidae	<i>Sturnia pagodarum</i>	Brahminy Starling	R

Sr. No.	Order/Family	Scientific name	Common name	Habit
36	Passeriformes Hirudinidae	<i>Hirundorustica</i>	Common Swallow	R
37	Passeriformes Corvidae	<i>Corvusmacrorhynchos</i>	Jungal Crow	R
38	Passeriformes Motacillinae	<i>Motacilla alba</i>	White Wagtail	WV
39	Passeriformes Motacillinae	<i>Motacillacinerea</i>	Grey Wagtail	WV
40	Passeriformes Sturnidae	<i>Sturnus contra</i>	Pied Myna	R
41	Passeriformes Corvidae	<i>Corvussplendens</i>	House Crow	R
42	Pelecaniformes Phalacrocoracidae	<i>Phalacrocoraxniger</i>	Little Cormorant	R
43	Pelecaniformes Phalacrocoracidae	<i>Phalacrocoraxfuscicollis</i>	Indian Cormorant	R
44	Psittaciformes Cuculidae	<i>Eudynamysscolopaceus</i>	Asian Koel	R
45	Psittaciformes Cuculidae	<i>Centropussinensis</i>	Greater Coucul	R

R= Residential

WV=Winter Visitor

RM= Residential Migratory

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