



Avifaunal diversity of Ghotnimbala lake near Bhadrawati, Chandrapur(MS), India.

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ABSTRACT

Birds are crucial to maintain balance of many ecosystem and maintain a tropic level. Some birds are easily migrating, transport a variety of things through the environment. They are natural way to control pests in gardens, on farms and other places. Therefore, detail study on avifauna and their ecology is important to protect them. The present investigation was carried out to document the avifauna in and around the Ghotnimbala lake located near Bhadrawati town in Chandrapur district of Maharashtra State from June 2016 to May 2018 in which 45 species of birds were recorded of 11 different orders and 27 families during study. Among the recorded species 39 were resident 04 were resident migrant and 02 were winter visitor.

Keywords: Avifauna, Ghotnimbala lake, avifaunal diversity

INTRODUCTION

Birds are important for maintaining ecologic cycle, especially in food chain. They aid in the pollination of plants by landing on a plant or sucking nectar from a flower and then moving on to the next, a bird does the job usually associated with bees. Bird also has a good system for spreading seeds. They eat berries and then when they "dispose of " their waste, the berry seeds are disposed along with it. Bird's faeces provide good fertilization for seeds with which they are dropped, giving seeds very good conditions with which, they grow.

Diversity of 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 habitats by cutting, nesting trees and foraging plants for commercial use of woods and lands are the main factor responsible for narrow down in avian forced to inhabit in the urban areas and constrain them to breed there.

The Ghotnimbala lake is the principal local freshwater bodies situated east side and the area of this lake is spread over 60 acre, 7 km away from the Bhadrawati city, located in the Chandrapur district of Maharashtra state, India. It is situated at about 210 m. above mean sea level and is at 79°10'19.15" E longitude and 20°5'30.06" N latitude. The water of this pond is primary used for washing, bathing and fishing activities.

During the last few decades considerable studies on avifauna diversity from different freshwater bodies of India have been carried out by researchers like, Kannon (1980), Singh (1929), Ali (1932), Davidar (1985), Jhingram (1988), Ghazi (1962), Mujumdar (1984), Newton *et al.* (1986), Ghosal (1995), Kulkarni *et al.* (2005), Yardi *et al.* (2004) and Wadatkar and Kasambe (2002). However very little information is available about avifauna of centre India. This work has therefore undertaken of document the avifauna of water bodies located in Ghotnimbala village near the town Bhadrawati which lies in the central region of the country.

The lake has large number of fauna which attract the birds shown that the entire lake basin is highly productive and conducive to all kinds of birds. The Ghotnimbala lake has diverse number of aquatic weeds in the submerged as well as floating state on which thrive a large number of organisms. Due to abundant food available throughout the year in Ghotnimbala lake in the form of aquatic crustaceans, insects, molluscs etc. the lake always attracts a large number of birds throughout year.

MATERIALS AND METHODS

The present work was carried out from June 2016 to May 2018. The observation was carried out by using a field binocular (7x25x magnification) during the morning (6 to 10 AM) and in the evening (4 to 7 PM) and photographs were taken by Nikon Camera and identification of species was done with the help of standard literature of Woodcock (1980), Ali. and Ripley, (1995); Grimmet *et al.*, (1999).

RESULTS AND DISCUSSION

In present study 45 species of birds were recorded from 11 Orders, 27 Families, recorded Order species of

birds 14 species belongs to Passeriformes, 7 species belongs to Charadriiformes, 5 species belongs to Ciconiiformes and Coraciiformes, 4 species belongs to Psittaciformes, 3 species belongs to Galliformes, 2 species belongs to Columbiformes and Anseriformes, 1 species belongs to Piciformes, Cuculiformes and Pelecaniformes each.

Among the recorded species of birds 5 species belongs to Scolopacidae families, 3 species belongs to Gruidae, Alcedinidae, Muscicapidae families, 2 species belongs to Ardeidae, Anatidae, Columbidae, Psittacidae, Cuculidae, Passeridae, Sturnidae, Corvidae, families and 1 species belongs to Ciconiidae, Scolopacidae, Threskiornithidae, Recurvirostridae, Coraciidae, Meropidae, Dicrotyidae, Pycnonotidae, Laniidae, Campephagidae, Motacillidae, Picidae, Cuculidae, Phalacrocoracidae, Charadriidae families each out of total 45 species, 39 were resident, 04 were resident migrant, and 02 were winter visitor.

Depending on different scientific classifications, as of today there are over 9000 birds species and more than 1250 in India, with almost 150 having become extinct after the arrival of Humans. 25 to 30 avian orders are recognized depending on the taxonomists. According to Osmaston (1922) studied 135 species of birds from Pachmari (MP), Ali (1939) published a list of 278 species of birds from central India, Mujumdar (1984) studied the collection from Baster district (MP), Newton *et al.* (1986) have listed the birds of Kanha Tiger Reserve (MP), Ghosal (1995) have listed the birds of Kanha Tiger Reserve (MP), Wadatkar and Kasambe (2002) reported 171 species of birds at Pohara-Malkhed forest reservoir of Amravati district (MS), Yardi *et al.*, (2004) reported 64 species of birds in Salim Ali lake, Aurangabad (MS), Kedar and Patil (2005) recorded 60 birds species from Rishi lake Karanja (Lad) of Washim district (MS), Pawar *et al.* (2005) reported 74 species of birds in and around Yedshi lake, Mangrulpir, Washim district (MS), Kulkarni *et al.* (2005) reported 151 species of birds in and around Nanded city (MS), Kedar *et al.*, (2008) recorded 74 species of birds in Rishi and Zedshi lake of Washim district (MS), Kanwate and Jadhao (2010) recorded 10 species of birds in Bhokar tahsil of Nanded district (MS).

Kulkarni and Kanwate (2010) reported 62 species of birds of Jaldhara forest of Kinwat of Nanded district (MS), Thakor *et al.* (2010) reported 104 species of

Table 1: Bird's species in Ghotnimbala Lake

Sr. No.	Order/Family	Scientific Name	Common Name	Habit
1	Ciconiformes Ardeidae	<i>Casmerodius albus</i>	Large Egret	RM
2	Ciconiformes Ardeidae	<i>Bubulcus ibis</i>	Cattle Egret	R
3	Ciconiformes Ciconidae	<i>Mycteria leucocephala</i>	Painted stork	WV
4	Ciconiformes Scolopacidae	<i>Gallinago gallinago</i>	Common Snipe	R
5	Anciriformes Anatidae	<i>Nettapus coromandelianus</i>	Cotton Teal	R
6	Anciriformes Anatidae	<i>Anas poecilorhyncha</i>	Spot Bill Duck	RM
7	Charadriformes Scolopacidae	<i>Tringa nebularia</i>	Common Greenshank	R
8	Charadriformes Scolopacidae	<i>Actitis hypoleucos</i>	Common Sandpiper	RM
9	Galliformes Gruidae	<i>Porphyrio porphyrio</i>	Purple Moorhen	R
10	Galliformes Gruidae	<i>Fulica atra</i>	Common Coot	RM
11	Galliformes Gruidae	<i>Amauromis phoenicurus</i>	White-Breasted Water Hen	R
12	Coraciformes Alcedinidae	<i>Alcedo atthis</i>	Small Blue Kingfisher	R
13	Coraciformes Alcedinidae	<i>Ceryle rudis</i>	Pied Kingfisher	R
14	Coraciformes Alcedinidae	<i>Halycon smyrnesis</i>	White Breasted Kingfisher	R
15	Coraciformes Meropidae	<i>Merops orientalis</i>	Small Green Bee Eater	R
16	Psittaciformes Psittacidae	<i>Psittacula cyanocephala</i>	Plum Headed Parakeet	R
17	Psittaciformes Cuculidae	<i>Centropus sinensis</i>	Greater Coucul	R
18	Psittaciformes Cuculidae	<i>Eudynamys scolopaceus</i>	Asian Koel	R
19	Psittaciformes Psittacidae	<i>Psittacula krameri</i>	Rose Ringed Parakeet	R
20	Ciconiformes Threskiornithidae	<i>Pseudibis papillosa</i>	Black Ibis	RM
21	Charadriformes Recurvirostridae	<i>Himantopus himantopus</i>	Black Winged Stilt	R
22	Charadriformes Scolopacidae	<i>Limosa limosa</i>	Black Tailed Godwit	R
23	Charadriformes Scolopacidae	<i>Philomachus pugnax</i>	Ruff	R
24	Charadriformes Scolopacidae	<i>Tringa totanus</i>	Common Redshank	R
25	Charadriformes Charadriidae	<i>Vanellus indicus</i>	Red wattled Lapwing	R
26	Columbiformes Columbidae	<i>Columba livia</i>	Rock (Blue) Pigeon	R
27	Columbiformes Columbidae	<i>Streptopelia chinensis</i>	Spotted Dove	R
28	Coraciformes Coraciidae	<i>Coracias benghalensis</i>	Indian Roller	R
29	Passeriformes Dicruidae	<i>Dicrurus macrocercus</i>	Black Drongo	R
30	Passeriformes Sturnidae	<i>Acridotheres tristis</i>	Common Myna	R
31	Passeriformes Motacillidae	<i>Motacill maderaspatensis</i>	White Browed Wagtail	R
32	Passeriformes Pycnonotidae	<i>Pycnonotus cafer</i>	Red Vented Bulbul	R
33	Passeriformes Muscicapidae	<i>Turdoides striat</i>	Jungal Babbler	R
34	Passeriformes Muscicapidae	<i>Saxicolodies fulicatus</i>	Indian Robin	R
35	Passeriformes Campephagidae	<i>Tephrodornis pondicerianus</i>	Common Woodshrike	R
36	Passeriformes Passeridae	<i>Hydrophasianus chirurgus</i>	Pheasant Tailed Jacana	R
37	Passeriformes Muscicapidae	<i>Saxicola caprata</i>	Pied Bushchat	R

Table 1: Continued...

Sr. No.	Order/Family	Scientific Name	Common Name	Habit
38	Passeriformes Corvidae	<i>Corvus macrorhynchos</i>	Jungal Crow	R
39	Passeriformes Corvidae	<i>Corvus splendens</i>	House Crow	R
40	Passeriformes Sturnidae	<i>Sturnus contra</i>	Pied Myna	R
41	Passeriformes Laniidae	<i>Lanius vittatus</i>	Lanius vittatus	R
42	Passeriformes Passeridae	<i>Anthus rufulus</i>	Paddy field Pipit	R
43	Piciformes Picidae	<i>Dendrocopus mahrattensis</i>	Yellow-Crowned Woodpecker	R
44	Pelecaniformes Phalacrocoracidae	<i>Phalacrocorax fuscicollis</i>	IndianCormorant	R
45	Cuculiformes Cuculidae	<i>Cuculus canorus</i>	CommonCuckoo	R

R : Residential; WV: Winter visitor; RM: Residential migrant

birds from two reservoirs of Khed district, Gujrat, India. Kurhade (2010) reported 208 species of birds in Jaikwadi reservoirs near Ahmadnagar (MS), Narwade and Fartade (2011) recorded 165 species of birds of Osmanabad district (MS), Rasal and Chavan (2011) reported 61 species of birds in local ecosystem of Aurangabad (MS), Kukade *et al.* (2011) recorded 68 birds species of Chhatri lake of Amravati district (MS), Harney *et al.* (2012) recorded 37 species of birds from Kanhala pond of Bhadrawati, District Chandrapur (MS), Joshi and Shrivastava (2012) reported 64 species of birds in Tawa reservoir of Hoshangabad district (MP). Manajan and Harney (2016) observed 56 species of birds belonging to 11 different orders and 27 different families in Mohabala lake of Bhadrawati, District Chandrapur (M.S.), India.

Conflicts of interest: The authors stated that no conflicts of interest.

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