

Avifaunal Diversity of Murmadi Lake of Chandrapur District (Ms), India.

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Abstract: *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 (Ghazi, H.K. (1962). 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 Murmadi lake located 56 km from Chandrapur head quarter of Maharashtra State from June 2025 to May 2026 in which 43 species of birds were recorded of 08 different orders and 23 families during the study. Among the recorded species 26 were resident, 9 were resident migrant and 8 were winter visitor.*

Keywords: Avifauna, Murmadi lake, Avifaunal diversity.

I. INTRODUCTION

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. 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 (Ghosal, D.N. (1995).

The Murmadi lake is fresh water body located within Chandrapur district of Maharashtra state and situated 56 km from Chandrapur head quarter and 20.169° N latitude and 79.743° E longitude. It receives the water from the surrounding catchment areas during the monsoon period. The area of Murmadi lake is spread over 66.00 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, T.C.N. (1929), Ali, S. (1932), Ghazi, H.K. (1962), Kannon, P. (1980), Davidar, P. (1985), Jhingran, V.G. (1988) and Ghoshal, D. N. (1995). However very little information is available about avifauna of India. This work has therefore undertaken of document the avifauna of Murmadi 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 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-50). Identification of avian fauna was done according to the keys given by Woodcock, M. (1980), Ali, S. and Ripley, S.D. (1995).

III. RESULTS AND DISCUSSION

In the present study, 43 species of birds were recorded from 08 different orders and 23 families among which order Passariformes was dominant by contributing 12 followed by order Ciconiiformes 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 Falconiformes represented by 1 species.

Among the families recorded species of birds, 6 species belongs to Anatidae and 4 species belongs to Ardeidae, 3 species each belongs to Ciconidae and Gruidae, 2 species each belongs to family Recurvirostridae, Threskiornithidae, Alcedinidae, Corvidae and Motacillidae, 1 species each belongs of family Sturnidae, Charadriidae, Scolopacidae, Coraciidae, Meropidae, Upupidae, Necatarinidae, Passeridae, Muscicapidae, Pycnonotidae, Dicuridae and Hirudinidae. Out of total 43 species, 26 were resident, 9 were resident migrant and 8 were winter visitor.

Ali, S. (1939) published a list of 278 species of birds from central India. Newton, P.N. *et.al.*, (1986) have listed the birds of Kanha Tiger Reserve (M.P.), Ghosal, D.N. (1995) have listed the birds of Kanha Tiger Reserve (M.P.), Wadkar, J.S. and Kasambe, R. (2002) reported 171 species of birds at Pohara Malkhed forest reservoir of Amravati district (M.S.), Kedar, G.T. and Patil, G.P. (2005) reported 60 bird species from Rishi lake, Karanja Lad, (M.S.), Kulkarni, A.N. and Kanwate, V.S. (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, Sudhakar (2010) reported 208 species of birds in Jaikwadi reservoirs near Ahmadnagar (M.S.), Kukade, R. J. *et.al.*, (2011) recorded 68 birds species of Chhatrati 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.), 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., K.B. Bhute (2014) Diversity of avifauna in and around Chalbardi (Rai) lake near Bhadrawati, Distt. Chandrapur (M.S.), India, 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 Murmadi lake is diverse.

Table No. 1: Birds species in Murmadi lake

Sr. No.	Order/Family	Scientific name	Common name	Habit
1.	Ansiriformes Anatidae	<i>Sarkidiornis Melanotos</i>	Comb Duck	WV



Sr. No.	Order/Family	Scientific name	Common name	Habit
2.	Anseriformes Anatidae	<i>Nettapus coromandelianus</i>	Cotton Teal	R
3.	Charadriiformes Charadriidae	<i>Vanellus indicus</i>	Red wattled Lapwing	R
4.	Charadriiformes Recurvirostridae	<i>Himantopus himantopus</i>	Black Winged Stilt	R
5.	Charadriiformes Scolopacidae	<i>Actitishypo leucos</i>	Common Sandpiper	RM
6.	Charadriiformes Recurvirostridae	<i>Himantopus himantopus</i>	Black winged Stilt	R
7.	Ciconiformes Ardeidae	<i>Bubulcus ibis</i>	Cattle Egret	RM
8.	Ciconiformes Ardeidae	<i>Ardea cinerea</i>	Grey Heron	RM
9.	Ciconiformes Ciconidae	<i>Ephippiorhyrchos asiaticus</i>	Black Naked Stork	WV
10.	Ciconiformes Ardeidae	<i>Casmerodius albus</i>	Large Egret	RM
11.	Ciconiformes Ciconidae	<i>Anastomus osciatus</i>	Asian Open Bill Stork	R
12.	Ciconiformes Ciconidae	<i>Mycteria leucocephala</i>	Painted Stork	WV
13.	Ciconiformes Threskiornithidae	<i>Pseudibis papillosa</i>	Black Ibis	RM
14.	Ciconiformes Threskiornithidae	<i>Pseudibis papillosa</i>	Black headed Ibis	RM
15.	Coraciformes Alcedinidae	<i>Alcedo atthis</i>	Small Blue Kingfisher	RM
16.	Coraciformes Coraciidae	<i>Coracias benghalensis</i>	Indian Roller	RM
17.	Coraciformes Meropidae	<i>Merops orientalis</i>	Small Green Bee Eater	R
18.	Coraciformes Upupidae	<i>Upupa epops</i>	Common Hoopoe	R
19.	Falconiformes	<i>Milvus migrans</i>	Black Kite	R



Sr. No.	Order/Family	Scientific name	Common name	Habit
	Anatidae			
20.	Galliformes Gruidae	<i>Amauromis phoenicurus</i>	White-Breasted Water Hen	R
21.	Galliformes Gruidae	<i>Porphyrio porphyrio</i>	Purple Swampphae	R
22.	Galliformes Gruidae	<i>Fulica atra</i>	Common Coot	RM
23.	Passeriformes Necatarinidae	<i>Cinnyris asiaticus</i>	Purple Sunbird	R
24.	Passeriformes Passeridae	<i>Hydrophasianus chirurgus</i>	Pheasant Tailed Jacana	R
25.	Passeriformes Muscicapidae	<i>Saxicolodites fulicatus</i>	Indian Robin	R
26.	Passeriformes Pycnonotidae	<i>Pycnonotus cafer</i>	Red Vented Bulbul	R
27.	Passeriformes Dicruidae	<i>Dicrurus macrocercus</i>	Black Drongo	R
28.	Passeriformes Sturnidae	<i>Sturnia pagodarum</i>	Brahminy Starling	R
29.	Ciconiformes Ardeidae	<i>Aredeola grayii</i>	Indian Pond Heron	R
30.	Coraciiformes Alcedinidae	<i>Halycons myrnesis</i>	White Breasted Kingfisher	R
31.	Passeriformes Hirudinidae	<i>Hirundo rustica</i>	Common Swallow	R
32.	Passeriformes Corvidae	<i>Corvus macrorhynchos</i>	Jungal Crow	R
33.	Passeriformes Motacillinae	<i>Motacilla alba</i>	White Wagtail	WV
34.	Passeriformes Motacillinae	<i>Motacillacinerea</i>	Grey Wagtail	WV
35.	Passeriformes Sturnidae	<i>Sturnus contra</i>	Pied Myna	R
36.	Passeriformes Corvidae	<i>Corvus splendens</i>	House Crow	R



Sr. No.	Order/Family	Scientific name	Common name	Habit
37.	Pelecaniformes Phalacrocoracidae	<i>Phalacrocoraxniger</i>	Little Cormorant	R
38.	Pelecaniformes Phalacrocoracidae	<i>Phalacro coraxfuscicollis</i>	Indian Cormorant	R
39.	Psittaciformes Cuculidae	<i>Eudynamys scolopaceus</i>	Asian Koel	R
40.	Psittaciformes Cuculidae	<i>Centropus sinensis</i>	Greater Coucul	R
41.	Anseriformes Anatidae	<i>Anas poecilorhyncha</i>	Spot Bill Duck	WV
42.	Anseriformes Anatidae	<i>Tadorna ferruginea</i>	Brahminy Shelduck	WV
43.	Anseriformes Anatidae	<i>Anas clypeata</i>	Northern Pintail	WV

R= Residential

WV=Winter Visitor

RM= Residential Migratory

REFERENCES

1. Ali, S. (1932) Flowers birds and birds flower in India. *J. Bom. Nat. Hist. Soc.* Vol. (35): 573-605.
2. Ali, S. (1939) The birds of central India, Part-1. *J. Bom. Nat. Hist. Soc.* Vol. 4(1): 82-106.
3. Ali, S. and Ripley, S.D. (1995) A pictorial guide to the birds of the Indian subcontinent. Bombay Natural history society, Mumbai.
4. Bansod, M.A. and Harney, N.V. (2021) Avifaunal diversity of Ghotnimbala lake near Bhadrawati, Chandrapur (MS), India *International Journal of Life Sciences.*, Vol.9(1): 119-123.
5. Bhute, K.B. and Harney, N.V. (2018) Avifaunal diversity of Nagra lake of Bhadrawati tehsil in Chandrapur District, Maharashtra State, India. *Online International Interdisciplinary Research Journal.* Vol. 8(2): 14 - 20.
6. Davidar, P. (1985) Ecological interactions between the mistletoes and their avian pollinators in south India. *J. Bom. Nat. Hist. Soc.* Vol. (82): 45-60.
7. Ghazi, H.K. (1962) Piscivorous birds of Madras, *Madras. J. of fisheries.* Vol. 1(1): 106-107.
8. Ghosal, D.N. (1995) Avifauna of conservation areas, No. 7, Fauna of Kanha Tiger Reserve. *Zoological survey of India (ZSI)*, pp. 63-91.
9. Harney, N.V. (2020) Avifaunal diversity of Asolamendha dam of Chandrapur (MS), India
10. Harney, N.V. (2022) Avifaunal Diversity of Fly Ash Pond of Chandrapur (MS), India. *International Journal of Advance research in Science and Engineering.* Vol.11(8) : 67- 76.
11. Harney, N.V., A.A. Dhamani and R.J. Andrew (2011) Studies on avifaunal diversity of three water bodies near Bhadrawati, Distt. Chandrapur (MS). *ISRJ.* Vol. 1(6):216-218.
12. Harney, N.V., A.A. Dhamani and R.J. Andrew (2012) Avifaunal diversity in and around Kanhala lake near Bhadrawati, Dist-Chandrapur (MS), India. *Bionano Frontier* Vol. 5(2-I): 30-33.



13. Harney, N.V., A.A. Dhamani and R.J. Andrew (2013) Avifaunal diversity of Kanhala lake near Bhadrawati, Dist-Chandrapur (MS), with reference to food preference and feeding habits. India. *ISRJ Special Issue*, pp.57-59.
14. Harney, N.V., K.B. Bhute (2014) Diversity of avifauna in and around Chalbardi (Rai) lake near Bhadrawati, Distt. Chandrapur (M.S.), India. *J.Glo.Bios.*, Vol. 3(2): 399-405.
15. Hippargi, R.V., P.M. Bolde, S.V. Manthen and S.R. (2012) Aland Population and breeding status of avifauna in a highly fragmented grassland patch near Solapur, Maharashtra. *Avishkar Solapur University Research Journal*, Vol. (2): 22-30.
16. Jayanta, Mistry (2015) Avifaunal diversity in and around Berhampore, Murshidabad district, West Bengal. *IndiaInternational Journal of Fauna and Biological Studies*, Vol. 2(4): 06-10.
17. Jhingran, V.G. (1988) Fish an fisheries of India. Hindustan Publishing cooperation, New Delhi. pp.1-664.
18. Kannan, P. (1980) Nector feeding adaptation of flower birds. *J. Bom. Nat. Hist. Soc.* Vol. (75): 1036-1050.
19. Kedar, G.T. and Patil, G.P. (2005) Avifaunal diversity of Rishi lake, Karanja (Lad), Maharashtra with reference to food preference and feeding habits. *J. Aqua. Biol.* Vol. 20(1): 35-38.
20. Khaparde, P.I. and Harney, N.V. 2018 Avifaunal diversity of Ghodpeth lake of Bhadrawati tehsil in Chandrapur District, M.S., India. *Online International Interdisciplinary Research Journal*. Vol.8: 36 - 41.(March 2018) ISSN No. 2249- 9598.
21. Kukade, R.J., Warhekar, S.R., Tippat, S.K. and Dudhey, N.S. (2011) Avifaunal diversity of Chatri lake, Amravati, Maharashtra. Proceedings of UGC sponsored National level conference on "Environmental Biology and Biodiversity" NCEBB,.
22. Kulkarni, A.N. and Kanwate, V.S. (2006) Avifauna of forest Jaldhara, Kinwat, District Nanded, Maharashtra, *J. Aqua. Biol.* Vol. 21(1): 46-51.
23. Kulkarni, A.N. and Kanwate, V.S. (2006) Piscivorous birds of Dongarkheda irrigation tank, Dist. Hingoli, Maharashtra, *J. Aqua. Biol.* Vol. 21(1): 86-87.
24. Kurhade, Sudhakar (2010) Status and diversity of avifauna in Jaikwadi reservoirs, Maharashtra. *J. Aqua. Biol.* Vol. 25(1): 32-40.
25. Mahajan, V.S. and Harney, N.V. (2016) Avifaunal diversity of Mohabala lake near Bhadrawati, District-Chandrapur (M.S.), India. *Online International Interdisciplinary Research Journal* Vol.6: 75-83.
26. Manjunath Pratima Mathad, Pavitra, B., Sundar, M. and Ziauddin, M. (2014) Aquatic avifauna of Shri Sharanabasaveshwara Lake, Gulbarga District, Karnataka. Vol. 2(1): 183-188.
27. Mujumdar, N. (1984) On a collection of birds from Bastar district, M.P. Record Zoological survey of India, Occasional pp.59-54.
28. Natarajan Mariappan, B.K. Ahamed Kalfan and Srinivasagam Krishnakumar (2013) Assessment of bird population in different habitats of agricultural ecosystem. *JSRES*. Vol. 1(11): 306-316.
29. Newton, P.N., Brudin, S. and Guy, J. (1986) The birds of Kanha Tiger Reserve Madhya Pradesh, India. *J. Bom. Nat. Hist. Society*. Vol.83 (3): 977-998.
30. Patel, K.B., S.B. Patel and Nikunj Bhatt (2012) Avian diversity of Mahi canal site of Nadiad, Gujrat. *Life Science Leaflets*. Vol. 4: 12-19.
31. Patil, Alaka A. (2015) Biodiversity of Bhambarde Reservoir of Sangli, Maharashtra, India. *Research Journal of Recent Sciences* Vol. 4(ISC-2014): 209-215.
32. Shelekar, A. L. and Harney, N. V. (2020) Avifaunal diversity of Jutpani lake of Dharni (Melghat), District-Amravati (M.S.), India *Int. Res. J. of Science and Engineering Special Issue A7*: 423-428.
33. Shelekar, A.L. and Harney, N.V. (2017) Avifaunal diversity of Gorja lake near Bhadrawati, District-Chandrapur(M.S.), India. *International Journal of Scientific Research*. Vol. 6(8):471-473.
34. Singh, T.C.N. (1929) A note of the pollination of Erythring Indica by birds. *J. Bom. Nat. Hist.Soc.* Vol. 33: 960-462.



35. Wadatkar, J.S. and Kasambe, R. (2002) Checklist of birds from Pohara-Malkhed reserve forest, Dist. Amravati, Maharashtra. *Zoos. Print Journal*. Vol. 17(66): 807-811.
36. Woodcock, M. (1980) Collins Handguide to the Birds of Indian subcontinent. 2nd Edn. Collins, London.



Fig. Satellite image of Murmadi lake

