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Avian Diversity in the Bore Dam Amravati Region, Maharashtra: A Comprehensive Overview

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Abstract: ***The Amravati region of Maharashtra, India, boasts a rich tapestry of avian diversity, attributed to its varied habitats encompassing dry deciduous, wetlands, forests, and grasslands belong in to Satpuda ranges. The region is rich in wild life. From the geographical point of view, Amravati is located due North east of Maharashtra state having 760.37,27" E latitude and 200 32, to 210.46N, longitude. The major forest of Amravati district are Melghat, Pohara-Malkhed, Mahendri, etc. The Melghat wildlife sanctuary and Tiger Reserved lies at the northern extreme at Amravati. This paper collates existing research and observations to provide a comprehensive overview of the bird species found in Bore Dam Amravati region, Maharashtra highlighting both resident and migratory bird's populations.***

Keywords: avian diversity, Bore Dam Amravati, migratory birds, Melghat sanctuary, wildlife habitats

1. Introduction

The India is subcontinent, a part of vast oriental Biogeographic region, is very rich in both Flora and fauna and is mega diverse country. India is host of 1300 species of birds out of 9000 of total birds population in the world. Constituting 13% of total population and thus in an area of high avian diversity. The Maharashtra is third largest state in country and the state has tree crucial Biogeographic zone namely western ghat, Deccan plateau and west coast. There is diversity in vegetation of the state due to climatic and topographical variation. Recorded forest area in the state is 61579 sq m. of which 49,546 sq.m. is reserved forest. State has five different types of forest- southern tropical semi-evergreen forest, southern tropical thorn forest, Littoral and swamp forest.

The Amravati region of Maharashtra has southern tropical dry deciduous forests, belong in to Satpuda ranges. The region is rich in wild life. From the geographical point of view, Amravati is located due North east of Maharashtra state having 760.37,27" E latitude and 200 32, to 210.46N, longitude. The major forest of Amravati district is Melghat, Pohara-Malkhed, Mahendri, etc. The Melghat wildlife sanctuary and Tiger Reserved lies at the northern extreme at Amravati

Geography

The climate is tropical. In summer temperatures can go up to higher than 46 °C). The northern part of the district is colder as compare to rest of the district due to the hilly regions of Chikhaldara. Situated in the Vidarbha region, Amravati is characterized by diverse ecosystems that support a wide array of bird species. The region's wetlands, notably the Malkhed Lake, and forested areas like the Pohara-Malkhed Reserve Forest, and Bore Dam region serve as crucial habitats for numerous avian species.

2. Methodology

S. No.	Common Name of the Birds	Scientific Name of the Birds	IUCN	Residential status	Abundance
1	Ring Necked Dove	*Streptopelia capicola*	LC	*RE*	*VC*
2	White heron (Large Egret)	*Ardea alba*	LC	*RE*	*VC*
3	Spot Billed Duck	*Anas poecilorhyncha*	LC	*WM*	*VC*
4	Baby Mourning Dove	*Zenaida macroura*	LC	*RE*	*VC*
5	Black Heron	*Egrettaardesiaca*	LC	*RE*	*VC*
6	White Throated Kingfisher	*Halcyon smyrnensis*	LC	*RE*	*VC*
7	Hopoe	*Upupa epops*	LC	*RE*	*VC*
8	Isabelline Wheatear	*Oenanthe isabellina*	LC	*WM*	*VC*
9	Grey Heron	*Ardea cinerea*	LC	*RE*	*VC*
10	Black Wing Stilt	*Himantopus, Himantopus*	LC	*WM*	*UC*
11	Common swift	*Apus Apus*	LC	*RE*	*VC*
12	Asian green bee-eater	*MeropsOrientalis*	LC	*RE*	*VC*
13	Greater Coucal	*Centropus Sinensis*	LC	*RE*	*VC*
14	Drongo	*Dicruridae*	LC	*RE*	*VC*
15	Purple Sunbird	*Cinnyris asiaticus*	LC	*RE*	*VC*
16	Peacock (common peafowl)	*Pavo Cristatus*	VU	*RE*	*VC*
17	Wire-tailed Swallow	*HirundoSmithii*	LC	*RE*	*VC*
18	Red Wattled Lapwing	*Vanellus indicus*	LC	*RE*	*VC*
19	Laughing Dove(Little brown)	*Streptopelia senegalensis*	LC	*RE*	*VC*
20	Roseringed Parakeet	*Psittaculakrameri*	LC	*RE*	*VC*
21	Spotted Owlet	*Athene brama*	VU	*RE*	*UC*

22	Red vented Bulbul	*Pycnonotuscafer*	LC	*RE*	*VC*
23	Jungle Babbler	*Turdoides striatus*	LC	*RE*	*VC*
24	Little Cormorant	*Phalacrocorax niger*	LC	*RE*	*VC*
25	Darter (snake bird)	*Anhinga rufa*	LC	*WM*	*VC*
26	River Tern	*Sterna qurantia*	LC	*WM*	*UC*
27	Indian Robin	*Saxicoloidesfulicata*	LC	*WM*	*VC*
28	Brahmny myna	*Sturnus pagodarum*	LC	*RE*	*VC*
29	Grey Headed Fishing Eagle	*Ictinaetus malai*	VU	*WM*	*UC*

This study synthesizes data from various sources, including field observations, academic research, and reports from local bird-watching societies. Notable contributions include the checklist of birds from the Pohara-Malkhed Reserve Forest and studies on the avian fauna of the Purna River. Data Collection the study was carried out over a 3 months period, from November to January 2023 and 2024. Four surveys each month were conducted throughout the research area, total 24 visits per each study areas. The field visits were planned for early in the day (6:00 to 9:00 hrs) and late in the day (16:00 to 19:00 rs), when birds were most active. Using the field guide by Grimmett and the available scientific sources, birds were identified and other published literature. Random sampling and point-count observation methods were used for data collection of Avian fauna. Data Analysis As per the data collected during the study, we categorised Migratory status of birds as Resident (RE), winter migrant (WM), Passage Migrant (PM), Monsoon Migrant (MM) and Summer Migrant (SM). Based on the number of sightings made throughout the study period, the presence of each species in the study site was also reported as Very Common, Common, Uncommon, and Rare. Each identified species was cross referenced with the latest IUCN status and were categorised into endangered (EN), vulnerable (VU), near threatened (NT) and least concern (LC) category (IUCN 2022). Diversity indices such as Dominance, Simpson diversity /D; 1-D; Shannon diversity–H', Brillouin, Menhinick, Margalef 's species richness (d), Fisher alpha diversity (α) an

3. Results

List of Birds Recorded from selected site of Bore Dam Amravati, Maharashtra, India showing comman name , scientific name and IUCN status:

During the study a total of 29 species were recorded in the month of November December and January (Table 1). All the study areas of the Bore Dam several migratory birds, are winter migrants (WM), some species are residents (RE) (Figure 3). These wetlands provide habitat to bird from four IUCN Categories: 3 species (Grey Headed Fishing Eagle, River Tern Sterna aurantia, Spotted Owlet Athene Bram belong to Vulnerable (VU) category, 26 species belong to least concern (LC) category.

IUCN status: endangered (EN), vulnerable (VU), near threatened (NT) and least concern (LC) category (Source: https://www.iucnredlist.org/) Residential status: Resident (RE), Winter migrant (WM), Summer migrant (SM), Monsoon migrant (MM) and Passage migrant (PM).Abundance status: Very common (VC), Common (C), Uncommon (UC) and Rare (R)

Red Turtle Dove (*Streptopeliatranquebarica*)

White Heron (*Andrea alba*)

Spot billed duck (*Anas poecilorchyncha*)

Baby Mourning Dove (*Zenaida macroura*)

White Throated Kingfisher (Halcyonsmyrnensis)

Isabelline Wheatear (*Oenanthe isabellina)*

Grey Heron (*Ardea cinerea*)

Blank Wing Stilt (*Himantopus himantopus*)

Common Swift (Cypsiurusparvus)

Crow-pheasant or Coucal (*centropus sinensis)*

Crowbilled Drongo (*Dicrurus annectans*)

Redwattled Lapwing (*Vanellus indicus*)

Laughing Dove or Little Brown Dove (*Streptopelia senegalensis*)

Little Cormorant (*Phalacrocorax niger*)

River Tern (*Sterna qurantia*)

Indian Robin (*Saxicoloidesfulicata*)

Greyheaded Fishing Eagle (*Ichthyophagaichthyaetus*)

4. Discussion

The presence of diverse bird species, both resident and migratory, underscores the ecological significance of Boar Dam, Amravati's habitats. Wetlands like Malkhed Lake and forest reserves such as Pohara-Malkhed are vital for sustaining this avian diversity. Conservation efforts are essential to mitigate threats such as habitat encroachment and environmental degradation.

5. Conclusion

Boar Dam region of Amravati's rich avian diversity offers valuable opportunities for ecological studies and eco-tourism. Continued research and conservation initiatives are imperative to preserve the region's unique bird populations and their habitats.

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