



Diversity And Distribution Of Fish Species In Vihirgaon Reservoir Of Ralegaon Tehsil, Dist. Yavatmal

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Abstract

The present study was conducted to document the fish diversity in the Vihirgaon reservoir of the Ralegaon tehsil of the Yavatmal district for the period of one year. A total of 18 species were observed from 07 orders and 08 families, out of which the order Cypriniformes was dominant, with a total of 10 species, followed by the orders Perciformes and Anabantiformes, which have 02 species each, and then the orders Gobiiformes, Cichliformes, Siluriformes, and Decapoda, which have one species each. Distribution of these fish species indicates that the reservoir supports and provides a stable environment. The dominance of Cyprinidae indicates that there is healthy primary productivity within the aquatic ecosystem. This baseline data will act as a benchmark. For making fishing practices and the effective conservation strategies, ultimately this study emphasizes the importance of limnological health of the reservoir in order to protect its fish diversity for upcoming generations.

Keywords: diversity, fishes, vihirgaon reservoir, Ralegaon Tehsil, Yavatmal District

Introduction

Freshwater ecosystems are some of the most productive ecosystems in the world, which support wide ranges of plants and aquatic species and play an important role in maintaining stability. In subtropical and tropical areas, such freshwater environments are mainly important because of their close relationship with the human population, where they serve for various domestic and economic uses, such as for drinking, washing, and use in agriculture and aquaculture practices. Among all freshwater bodies, reservoirs are mainly constructed for drinking water supply, storage of water and for Irrigation. It has now transformed into the ecosystem that supports the diverse biological communities. Over the time, these water bodies have acquired similar characteristics, just like the natural lakes which makes the favourable conditions for sustaining the various fish species and other aquatic organisms.

The state of Maharashtra, particularly in the Vidarbha region, has a wide network of different types of freshwater bodies such as rivers, natural lakes, and artificial freshwater reservoirs. These freshwater bodies are not just for the purpose of irrigation, but now they have developed into rich ecosystems that support the various types of fish populations. The Vihirgaon reservoir is located in the Ralegaon tehsil of the Yavatmal district which was constructed for the purpose of irrigation by the Department of Irrigation of the Government of Maharashtra, but as of today it has transformed into a local habitat for freshwater fishes.

Despite its importance, there is a lack of scientific study of recording the fish species diversity within this reservoir. This information is essential in the context of increasing the environmental challenges and need for sustainable management of resources.

The present study is carried out with the objective of evaluating the variety and distribution of fish species in the Vihirgaon reservoir. The study aims to document the species richness and distribution and to evaluate the ecological status of the reservoir.

Moreover, the result obtained from this study will help to increase the knowledge of freshwater biodiversity and also will help in formulating the conservation strategies. and framing the policies related to fisheries.

Materials and methods

1. Study area:-

The study was conducted at Vihirgaon Reservoir, which is situated in the Ralegaon tehsil of the Yavatmal district. This reservoir is one of the important freshwater bodies of Ralegaon tehsil, currently it is under the control of department of irrigation of Yavatmal district.

1. Collection of samples:-

A study was conducted to explore the freshwater fish diversity of Vihirgaon reservoir. Located in Ralegaon tehsil of Yavatmal district. The study was done for period of 12 months from December 2024 to November 2025. . Fish specimens were collected with the help fishing net and also with the help of local fishermen's and preserved in the 5% formalin on field and then brought into the laboratory in separate containers according to the size and shape of the specimens, and then specimens were identified identified up to the species level by using the available standards keys given by the Jayaram (2010), Jhingran and Talwar (1991).

Results:-

The results shows that the Vihirgaon reservoir harbours varieties of fish species, which includes 18 species belonging to 07 orders and 08 families, out of which 10 species belongs to order Cypriniformes,

followed by the orders Anabantiformes and Perciformes, which have 02 species each followed by the orders Cichliformes, Siluriformes, Gobiiformes, and Decapoda which have 01 species each.

Table 01: List of fish species found in Vihirgaon reservoir during 2024-25.

Sr.no	Order	Family	Scientific name	Common name	Local Name
1	Cypriniformes	Cyprinidae	Salmostoma Bacaila	Large razorbelly minnow	Chal
			Labeo Rohita	Rohu	Rohu
			Catla Catla	Catla	Catla
			Cirrihnius mrigala	Mrigal	Mrigal
			Osteobrama Cotico	Cotico	Bhondu
			Cyprinus Mola	Mola	nawari
			Rasbora daniconius	Blackline rasbora	Gana
			Punctius ticto	Spotted fin barb	karwadi
			Punctius sarana	Olive barb	Karwadi
			Garra mullya	Stone sucker	Khadak chati
2	Gobiiformes	gobiidae	Glossogobius giruris	Goby fish	ghasara
3	Perciformes	Ambassidae	Chanda nama	Indian glassy fish	Zanjad
		Nandidae	Nandus nandus	Leaf fish	Dukkar
4	Cichliformes	Cichlidae	Oreochromis niloticus	Chilapi	Tilapia
5	Anabantiformes	Channidae	Channa punctata	Spotted snakehead	Dhokala
			Channa Striata	Stripped snakehead	murrel
6	Siluriformes	Siluridae	Wallago attu	Shark catfish	sawda
7	Decapoda	Palaemonidae	Macrobranchium rosenbergi	Freshwater prawn	zinga

Conclusion:-

The study provides basic knowledge about fish species from the Vihirgaon reservoir of Ralegaon tehsil, Dist. Yavatmal. Here we have found a total of 18 species of freshwater fishes, which belong to 07 orders and 08 families, out of which Cypriniformes was found to be dominant, then orders Perciformes and Anabantiformes contain 02 species each, followed by orders Siluriformes, Gobiformes, Cichliformes, and Decapoda, which have only one species each. This baseline data is essential for various types of stakeholders, such as researchers and local communities, which will help them in making future action plans, policy making, conservation strategies, and overall development of the reservoir. It is suggested that regular monitoring and checking should be conducted in order to know the possible threats and ecological dynamics affecting these aquatic ecosystems.

References:-

- **Arun M Chilke(2025)-** Freshwater ichthyofaunal diversity of Vidarbha, Maharashtra, India: A review, *International Journal of Fisheries and Aquatic Studies*, E-ISSN: 2347-5129, 13(4): 49-51.
- **Patharde and telkhade (2024)** preliminary study of fish diversity of boarda dam, taluka wani, District Yavatmal. *Environment conservation research journal*.ISSN-09723099
- **Atkulwar and joshi (2024)** Investigating the Abundance and Diversity of Fish in Fresh Water Reservoir: Borgaon Yavatmal Maharashtra. *IJCRT | Volume 12, Issue 1 January 2024 | ISSN: 2320-2882*.
- **Lohar Dipali K. and G. B. Raje(2024)-** Preliminary Study of Fish Fauna in Varandh Dam From Mahad Tehsil, Western Ghats, Maharashtra, India. *JARSCT, ISSN (Online) 2581-9429, Volume 4, Issue 3*.
- **Anita.S. Jinturkar, S.V. Rankhamb, M.J. Shaikh(2024)-** A Systematic Literature Review on Ichthyofaunal Diversity in Fresh Water Ecosystem, with Special Reference to Maharashtra. *international Journal of Innovative Science and Research Technology. ISSN No:-2456-2165. Volume 9, Issue 10*.
- **Bhadange and Joshi (2023)-** Seasonal Ichthyological Diversity in the Bembla Reservoir of Yavatmal District, Maharashtra. . *IJFMR E-ISSN: 2582-2160*
- **Wanjari AJ (2023) -** Study of Fish Diversity of Karanji Lake, District Yavatmal, (M.S.) India. *International Journal of Research in Academic World. E-ISSN: 2583-1615*
- **Gawande and Patki (2023)-** Diversity ichthyofauna of saikheda dams in ghatanji region of Yavatmal district, Maharashtra(India). *Vidyabharati international interdisciplinary research journal 17(1) ISSN- 2319 4979*
- **Selvaraj Selvamurugan (2023)-** A Survey of Fishes and Birds of Kollidam River in Anaikarai, Tamil Nadu State, India. *International Journal of Scientific Research in Biological Sciences, E-ISSN: 2347-7520, Vol.10, Issue.3*.
- **Dr. Sumedh K. Waware (2024)** study of fish fauna diversity on pitichua lake in chimur taluka, district. - Chandrapur, (M.S.) India. *International Journal of Creative Research Thoughts (IJCRT). Volume 12, Issue 3 March 2024 | ISSN: 2320-2882*.

- **S.B.Misal (2020)** - Ichthyofaunal Diversity of Kumbhar Kini Dam, Darwha Dist. Yavatmal, M.S.india. *Ayushi international interdisciplinary Research Journal (ISSN-2349-638x), Special issue-70.*
- **A.D.Bobdey(2014)**- Ichthyodiversity and Conservation Aspects in a Lake and River Ecosystems in Bhandara District of Maharashtra, India: A Comprehensive Study of Surface Water Bodies. *Online International Interdisciplinary Research Journal, ISSN2249-9598, Volume-IV, Issue-II.*

