

FISH FAUNAL COMPOSITION ON SONALA DAM IN WASHIM REGION MAHARASHTRA**Ajay J. Wagh***¹ Research Scholar, Shankarlal Khandelwal Arts, Science and Commerce College, Akola, Maharashtra, India

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Abstract

Freshwater reservoirs are critical habitats for Fish Faunal Composition, fisheries production, and local livelihoods in peninsular India. This study documents the ichthyofaunal diversity of Sonala Dam, an earth-fill dam on the Aran (Adan) River near Mangrulpir in Washim district, Maharashtra, which is primarily used for irrigation and also supports active fishery activities. Based on the supplied project record, a total of 18 freshwater fish species were recorded, representing 12 genera, 7 families and 5 orders. The assemblage is dominated by cyprinids, with contributions from catfishes (Siluriformes), spiny eels, snakeheads, featherbacks and cichlids. The findings underscore the ecological and socio-economic importance of the reservoir but also highlight emerging threats from habitat alteration, pollution and unregulated fishing. The study emphasizes the need for habitat conservation, pollution control, awareness among fishers and local communities, scientific fishery management, and protection of immature fish and breeding resources to sustain Fish Faunal Composition and fisheries-based livelihoods in the long term.

Keywords: Ichthyofaunal diversity; freshwater fishes; Sonala Dam; Washim; Maharashtra.

I. Introduction

Freshwater ecosystems support diverse biological communities and provide essential resources for human well-being, including food, livelihoods and ecosystem services. India possesses extensive inland waters, comprising reservoirs, lakes, ponds and rivers, which collectively sustain rich ichthyofaunal diversity and underpin inland fisheries of ecological and economic importance. Ichthyofaunal diversity refers to the variation among fish taxa and their distribution across aquatic habitats, and it is widely recognized as a key indicator of freshwater ecosystem health.

Fish constitute an integral component of aquatic ecosystems, yet increasing anthropogenic pressures such as habitat modification, pollution, overexploitation and flow alteration—pose serious threats to freshwater biodiversity. Systematic investigation and documentation of fish fauna are therefore critical for understanding community structure, detecting changes over time, and informing conservation and management strategies. Reservoirs such as Sonala Dam can support food fishes, cultured species and other elements of the aquatic community, thereby contributing to local nutrition and livelihoods. Sonala Dam is used principally for irrigation, with local fishing activities also occurring in the reservoir. Documenting the fish fauna of this reservoir provides a baseline for future monitoring, assessment of ecological change and conservation planning.

II. Materials and Methods

According to the supplied project, Sonala Dam is an earth-fill dam on the Aran River near Mangrulpir in Washim district, Maharashtra, India. The coordinates given in the project are approximately 20.323017° N and 77.206496° E. The dam is described as 19.6 m high above the lowest foundation and 1,114 m long. Its main purpose is irrigation, while fishery activities are also carried out by local fishers. The fish species recorded from Sonala Dam were tabulated and classified according to order, family and genus. Species richness was calculated as the total number of species observed during the study. The relative representation of each family and order was determined from the number of species recorded. The compiled checklist was used to assess the general composition of the ichthyofaunal community and to identify species of food, fishery and conservation significance.

III. Results and Discussion

The reports 18 freshwater fish species from Sonala Dam, representing 5 orders, 7 families and 12 genera. The source provides detailed morphological descriptions for 14 taxa and mentions two additional taxa in the summary. Because of this discrepancy, the table below preserves the source information while clearly distinguishing the two summary-only records. Fish Faunal Composition of Sonala Dam.

Sr. No	Family	Scientific Name	Common name
1.	Cyprinidae	Labeorohita	Rohu
		Catlacatla	Catla
		Cirrhinamrigala	Mrigala
		Labeocalbasu	Kaloshi
		Cyprinus carpio	Cyprinus
		Puntius sophore	Tepali
		Puntius chola	Chola
2.	Siluridae	Wallago attu	Boal
		Ompok pabda	Pabda
3.	Channidae	Channa striatus	Pattawalimaral
		Channa marulius	Spotted Maral
		Channa gachua	Small Dhok
		Channa punctatus	Dhok
4.	Clariidae	Clarias batrachus	Magur
	Cichlidae	Tilapia mossambica	Tilapia
5.	Heteropneustidae	Heteropneustes fossilis	Singade
6.	Mastacembelidae	Mastacembelus pancalus	Bam
7.	Bagridae	Mystus cavasius	Katarani

IV. Conclusion

The present study provides a useful baseline account of the freshwater fish fauna of Sonala Dam, Washim district, Maharashtra. A total of 18 species were recorded, representing 5 orders, 7 families and 12 genera, with Cypriniformes and the family Cyprinidae prominently represented in the assemblage. Several of the recorded species have direct fishery and food value, while the broader assemblage contributes to the ecological integrity and trophic complexity of the reservoir. Given the dual role of the reservoir for irrigation and fisheries, maintaining water quality, protecting critical fish habitats and promoting sustainable fishing practices are essential to conserve ichthyofaunal diversity and support local livelihoods over the long term.

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