

ICHTHYOFAUNAL DIVERSITY OF WADOD RESERVOIR, MAHARASHTRA, INDIA



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Fishes are the valuable source of high grade protein and other organic products. They occupy significant position in socio-economic fabric of South Asian countries by providing the population not only the nutritious food and also as an employment opportunity. India has a large network of rivers, canals and ponds, which contribute more than 30% of the total fish production. Fishes of the inland water bodies of the Indian sub-continent have been a subject of study since last century Hamilton-Buchanan (1822), Day F.S. (1878), Misra K.S. (1962), Jayram K.C. (1981), Talwar and Jhingran (1991), Rao *et al.* (1999). India is having very rich source of inland waters in the form of lakes, reservoirs and rivers. By impounding the river system, reservoirs are constructed for effective utilization of water for irrigation, power generation and flood control. Lakes and reservoirs contribute the single largest inland fishery resource both in terms of size and production potential. According to Sugunan (1995) total area under the reservoirs in India is 3:1 million hectares and it is expected to double by 2020. The Maharashtra state is endowed with an area of 1,79,430 hectares under reservoirs and the fish production is 516 tons (Sreenivasan, 1991).

However, very less information is available about ichthyofauna, present in lotic and lentic habitats of this district Hingoli. Therefore present work was mainly undertaken to investigate the ichthyofaunal diversity from Wadod reservoir and it is first effort in this direction. This reservoir is adequate in ecological importance as it provide a critical habitat for large number of floral and faunal species.

Material and methods: The present study was conducted in a minor reservoir Wadod in Hingoli district, Maharashtra. It is located at 19°-52" N latitude and 77°-9" E longitude. The catchment area of the project is 3.90 Sq. miles. The water is used for irrigation and fisheries.

The fishes were collected from Wadod reservoir with the help of local fisherman during the year March 2006 to February 2007. The fishes were preserved in 4% formalin after carefully noting down the colour and other external features. The identification of fishes was carried out with the help of standard literature Day (1878), Datta Munshi and Shrivastava (1988), Talwar and Jhingran (1991), Jayaram (1999), and their abundance also estimate.

Table 1. The ichthyofauna of Wadod reservoir during 2006-2007.

Order	Family	Scientific name of fishes
I. Cypriniformes	Cyprinidae	1. <i>Catla catla</i> (Ham.)
		2. <i>Cyprinus carpio</i> (Linn.)
		3. <i>Cirrhinus mrigala</i> (Ham.)
		4. <i>Labeo rohita</i> (Ham.)
		5. <i>Puntius ticto</i> (Ham.)
		6. <i>Puntius chola</i> (Ham.)
		7. <i>Ctenopharyngodon idella</i> (Valen.)
		8. <i>Discognathus lamta</i> (Ham.)
		9. <i>Rasbora daniconius</i> (Ham.)
		10. <i>Nemacheilus botia</i> (Ham.)
		11. <i>Lepidocephalus guntea</i> (Ham.)
II. Siluriformes	Siluridae	12. <i>Wallago attu</i> (Bl. And Schn.)
	Bagridae	13. <i>Mystus vittatus</i> (Bloch.)
III. Channiformes	Channidae	14. <i>Channa marulius</i> (Ham.)

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IV. Perciformes	Gobiidae	15. <i>Glassogobius giuris</i> (Ham.)
V. Mastacembeliformes	Mastacembelidae	16. <i>Mastacembelus armatus</i> (Lacepede)
VI. Clupeiformes	Notopteridae	17. <i>Notopterus notopterus</i> (Pallas)

Table 2. Abundance of ichthyofauna in Wadod reservoir during 2006-2007

No.	Name of the fish	Abundance
1	<i>Catla catla</i> (Ham.)	+++
2	<i>Cyprinus carpio</i> (Linn.)	++
3	<i>Cirrhinus mrigala</i> (Ham.)	+++
4	<i>Labeo rohita</i> (Ham.)	+++
5	<i>Puntius ticto</i> (Ham.)	++
6	<i>Puntius chola</i> (Ham.)	++
7	<i>Ctenopharyngodon idella</i> (Valen.)	+
8	<i>Discognathus lamta</i> (Ham.)	+
9	<i>Rasbora daniconius</i> (Ham.)	+
10	<i>Nemacheilus botia</i> (Ham.)	++
11	<i>Lepidocephalus guntea</i> (Ham.)	+
12	<i>Wallago attu</i> (Bl. And Schn.)	+
13	<i>Mystus vittatus</i> (Bloch.)	+
14	<i>Channa marulius</i> (Ham.)	++
15	<i>Glassogobius giuris</i> (Ham.)	+
16	<i>Mastacembelus armatus</i> (Lacepede)	++
17	<i>Notopterus notopterus</i> (Pallas)	+

+++ Most abundant, ++ Abundant, + Less abundant

Result and discussion: In the present study a total of 17 fish species belonging to 16 genera, 8 families and 6 orders were recorded from the Wadod reservoir (Table 1). The order Cypriniformes was dominant with 11 species, similar findings were also reported from the Western Ghats Venkateshwarlu *et al.* (2002) followed by order Siluriformes with 2 species and the orders like Channiformes, Perciformes, Mastacembeliformes and Clupeiformes were represented by one species. Abundance of ichthyofauna in the reservoir is depicted in (Table 2) *Catla catla*, *Cirrhinus mrigala* and *Lebeo rohita* were most abundantly found in the reservoir. *Cyprinus carpio*, *Puntius ticto*, *Puntius chola*, *Nemacheilus botia*, *Channa marulius* and *Mastacembelus armatus* were abundantly found in the reservoir. Remaining fishes were less abundantly found in the reservoir.

Valsangkar (1993) recorded 17 indigenous and 5 introduced fish species from Shivaji Sagar reservoir across Koyana river in Maharashtra. Salaskar and Yeragi (2004) recorded 10 main fish species from Powai lake, Mumbai in Maharashtra. Jayabhaye and Khedkar (2008) recorded 25 fish species belonging to 14 genera, 8 families and 6 orders from Sawana dam in Hingoli district. Sakhare, V.B. (2001) recorded 23 fish species belonging to 7 orders in Jawalgaon reservoir in Solapur district.

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