



## ICTHYOFAUNAL DIVERSITY OF WARDHA RIVER IN THE VICINITY OF WARORA, DIST. CHANDRAPUR (M.S.) INDIA

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### Abstract:-

The present study was undertaken for the period of 12 month from Jan. 2015 – Dec.2015 for Exploration, Identification and classification of fish fauna in the Wardha River, in the vicinity Warora. Dist. Chandrapur (MS) India.. The result of present investigation reveals the occurrence of 40 fish species, from 26 genera belonging to 15 families and 6 orders. Among the collected species, order Cypriniformes was most dominant constituting 42.5% followed by order Perciformes constituting 25% , order Siluriformes constituting 22.5%, order Osteoglossiformes 5% , order Atheriniformes 2.5% and order Synbranchiformes 2.5% of the total fish species .

**Keywords:** - Biodiversity, Wardha River, Fish fauna, Warora.

### Introduction:-

Biodiversity is essential for stabilization of ecosystem and protection of overall environmental quality for understanding intrinsic worth of all species on earth (Ehrlich and Wilson, 1991). River conserves a rich variety of fish species which also support the commercial fishery. India is one of the mega biodiversity countries in the world and occupies the ninth position in terms of freshwater megabiodiversity (Mittermeier and Mittermeier, 1997). In India there are 2500 species of fishes of which 930 lives in fresh water and 1570 are marine (Kar 2003). There are about 450 families of freshwater fishes globally. Roughly 40 are represented in India (warm freshwater species). About 25 of these families contain commercially important species.

The aquatic biodiversity of world is changing and getting depleted alarmingly fast as a result of extinctions caused by habitat loss , pollution , introduction of exotic species , over exploitation and other anthropogenic activities. Any alteration or disturbance of the wetlands can have adverse impact on the environment and fishery potential (Khekare and Sawane, 2015). Fishes are the keystone species which determine the distribution and abundance of other organism in the ecosystem, they represents and are good indicator of water quality and aquatic ecosystem (Shivshankar and Venkataramana, 2012).

Indian Rivers preserve a rich variety of fish species, which supports to the commercial fishery. The studies on Fish diversity in freshwater wetlands in India are made by Pawar *et al.*,(2003), Kamble and Mudkhede (2009), Khamankar *et al.* 2012, Sawane *et al.*, (2012), Sharma and Dutta,(2012). The objective of the present study was to document the Ichthyofaunal diversity.

### Material and Methods:-

Study area :- The Warora city is located in eastern Maharashtra Warora Taluka is about 44 km away from Chandrapur in NW direction which lies at latitude 20°23'N and longitude 79° 0' E. Warora city having temperature range of winter , Maximum 32° C , and Minimum 7°C , and during summer , maximum 48° C and minimum 26°C . The rain water drainage system is control by Wardha River.

Wardha River flows nearly 4 Km from Warora city, two spots were selected where fishing activities were frequently carried out. Fishes were collected from Wardha River with the help of local fisherman by different types of nets namely gill nets, cast nets, dragnets and Bhorjal during the year 2015 from Jan-2015 to Dec-2015. Fishes are brought to laboratory and preserved in 10% formalin solution in separate specimen jars. Small fishes were directly placed in 10% formalin solution and large fishes were given an incision in their abdomen and preserved. Fishes were identified up to species level by using standard keys and book (Day 1967, Day, 1994, Jhingran 1997, Gupta and Gupta 2006).

### Result and Discussion:-

During the study period different fish varieties have been observed in Wardha River , near Warora. The result showed that the Wardha River is rich in fish biodiversity. Fishes belonging to 6 order and 15 families and 26 genera were collected during course of study period. The member of order Cypriniformes were dominated by 17 species followed by Perciformes 10 species, Siluriformes 9 species, Osteoglossiformes 2 species, Atheriniformes and Synbranchiformes 1 species each.

Family Cyprinidae was dominant group with 16 species in the assemblage composition in which *Catla catla*, *Labeo rohita*, *Rasbora daniconius*, *Cirrhina mrigala*, *cyprinus carpio communis* were more abundant. *Garra mullya*, *Aristichthys nobilis*, *Hypothalmichthys molitrx*, *Cirrhina latia*, *Cirrhina reba*, *Cyprinus carpio specularis* found less abundant Followed by family Notopteridae in which *Notopterus notopterus* found abundant. *Notopterus chitala* was rare. Family Bagridae was found less abundant. Family Siluridae in which *Ompoc pabda* and *Wallago attu* were found abundant, but *Pterocryptis wynaadensis* was found rare. Family Claridae in which *Clarius butracus* found abundant. *Clarius*

*gariepinus* was rare. Family Belonidae in which *Xenentodon cancilla* was rare. Family Mastacembalidae in which *Mastacembalus armatus* found abundant. Family Ambassidae in which *Chanda nama*, *Chanda ranga* was less abundant. Family Nandidae in which *Nandus nadus* was less abundant. Family Cichlidae in which *Tilapia mossambica* was less abundant. Family Anabantidae in which *Anabas testudineus* was found abundant. Family Channidae in which *Channa striatus* and *Channa punctatus* were found abundant. *Channa marulius* was less abundant. Family Gobidi in which *Glassogobius giurus* was less abundant but *Gobius albopunctatus* was rare.

**Table 1:-** Fish biodiversity in Wardha River during Jan.2015 – Dec.2015

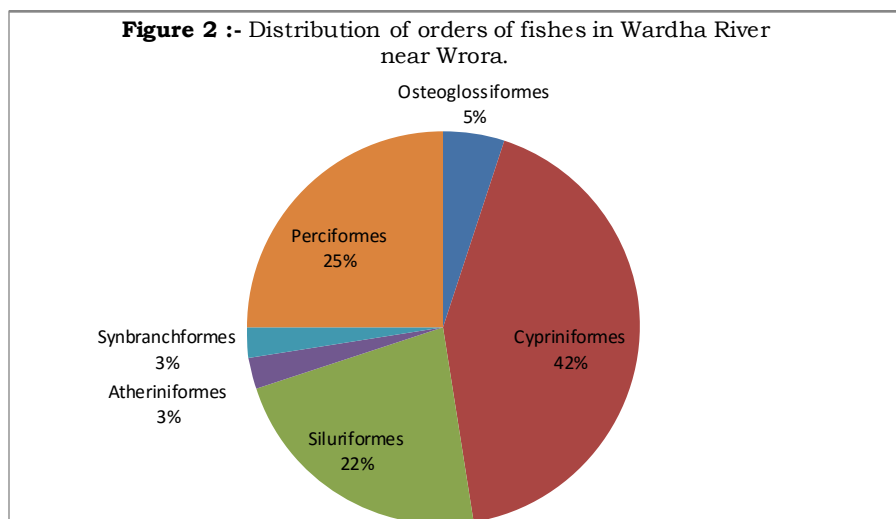
Order	Family	Scientific Name	Common Name	Local Name	Status
Osteoglossiformes	Notopteridae	<i>Notopterus notopterus</i> <i>Notopterus chitala</i>	Feather back Moy	Bharad chital	++ -
Cypriniformes	Cyprinidae	<i>Barilius barna</i> <i>Catla catla</i> <i>Garra mullya</i> <i>Labeo calbasu</i> <i>Labeo rohita</i> <i>Rasbora daniconius</i> <i>Puntius sarana</i> <i>Puntius dorsalis</i> <i>Puntius sophore</i> <i>Aristichthys nobilis</i> <i>Hypothalmichthys molitrix</i> <i>Cirrhina mrigla</i> <i>Cirrhina latia</i> <i>Cirrhina reba</i> <i>Cyprinus carpio specularis</i> <i>Cyprinus carpio communis</i>	River carp baril Katla Stone sucker Calbasu Rohu Black line rasbora Olive barb Long snouted barb Spot fin barb Big head Silver carp	Batri Catla Mahir Tab Rohu Ganya Kharwadi Kodsi tepri Birked Silver	++ +++ + ++ +++ +++ ++ ++ ++ + +
	Nemacheilidae	<i>Acanthocobitis botia</i>	Zipper loach	Mahirum	+
Siluriformes	Bagridae	<i>Mystus leucophasis</i> <i>Mystus seenghala</i> <i>Mystus cavasius</i>	Upside down catfish Giant River catfish Gangetic mystus	Katawa Singhat Singhara	+ + +
	Siluridae	<i>Ompok pabda</i> <i>Wallago attu</i> <i>Pterocryptis wynaadensis</i>	Pabdah catfish Wallago .....	Baraj Sawada .....	++ ++ -
	Claridae	<i>Clarius butracus</i> <i>Clarius gariepinus</i>	Walking catfish African sharptooth catfish	Mangur Thai mangur	+ -
	Heteropneustidae	<i>Heteropneustes fossilis</i>	Stinging catfish	Singhi	-
Atheriniformes	Belonidae	<i>Xenentodon cancilla</i>	Needle fish	Chocha	-
Synbranchiformes	Mastacembalidae	<i>Mastacembalus armatus</i>	Spiny eel	Waur	++

Perciformes	Ambassidae	<i>Chanda nama</i> <i>Chanda ranga</i>	Glassy perchlet Glass fish	Zanjad .....	+ +
	Nandidae	<i>Nandus nandus</i>	Leaf fish	.....	+
	Cichlidae	<i>Tilapia mossambica</i>	Tilapia	Telapi	+
	Anabantidae	<i>Anabus testudineus</i>	Climbing perch	Koi	++
	Channidae	<i>Channa striatus</i>	Snake head murrel	Botaru	+++
		<i>Channa punctatus</i>	spotted snake head	Dalad	+++
		<i>Channa marulius</i>	Great snake head	Maral	+
	Gobidae	<i>Glassogobius giurus</i>	Tank goby	Kaddu	+
		<i>Gobius albopunctatus</i>	.....	Regrup	-

+++ Most abundant , ++ Abundant , + Less abundant , - Rare



**Figure 1 :-** Showing Wardha River flowing nearby Warora .



**Conclusion:-**

The present study reveals fish diversity of Wardha River which indicates Wardha River is endowed with wide varieties of endemic fish species.. All fishes are useful as food fishes except *Chanda*, *Puntius* which are useful as ornamental and larvicidal fishes. The species diversity is at peak in post monsoon,

coinciding with favorable condition such as sufficient water and ample food resources. The diversity was low in pre monsoon probably due to the shrinkage of the water spread of the River. Survey of fish diversity is important for development of sustainable fishery practices and proper documentation leading to diversity information system is an urgent need.

**Acknowledgement:-**

The authors express their sincere thanks to the Dr. Subhash, Principal, Janata Mahavidyalaya, Chandrapur for granting permission and providing facilities for carrying out this piece of research.

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