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RESEARCH REVIEW ON FISH FAUNA DIVERSITY OF UMA RIVER BASIN DIST- WASHIM (M.S.), INDIA

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ABSTRACT: - Survey calculated of fresh water fish fauna diversity of Uma river basin Dist. Washim (M.S.) for a period of one year from June 2014 to May 2015. We recorded 28 species belonging to 7 orders, 9 families and 23 genera. Cypriniformes order dominated with 16 species followed by order siluriformes, perciformes and symbranchiformes each with 3species and atheriniformes, osteoglossiformes and anguliformes each with 1species. The major carps, common carps, cat and eel fishes are abundant. In view of lack of information of fish diversity in the Uma river basin, present survey was undertaken. .

KEYWORDS: Uma River Basin, cypriniformes, siluriformes, perciformes, symbranchiformes.

INTRODUCTION

The fish production plays a significant role in human economy. India has vast potential for development of inland fisheries. Aquaculture has occupied a special status not only because of its contribution to food resources but also in view of its contribution to nutritious diet. Fish is one of the most important sources of animal diet. Kar et. al, (2003) reported around the world approximately 22,000 species of fishes have been recorded and of which nearly 2,420 are found in India, from these 930 found in fresh water and 1,570 are in marine habitat.

There is a wide scope for the further development in the fisheries sector however; very less information is available about ichthyofauna present in the lotic and lentic habitats of Washim district. Therefore present attempt has been made to document the fish fauna available in Uma river basin and aim to scientific utilization for agricultural irrigation and fisheries activities, for sustained exploitation and simultaneous conservation of fisheries resources, basic scientific information on biodiversity.

MATERIALS AND METHODS

Uma river basin is originated from Tapovan of Karanja Tehsil, Dist. Washim and merges into the Purna River at Durgawada of Murtijapur Tehsil Dist. Akola. Uma River is located at the latitude 29.73^0 N and longitude 77.51^0 E. This river flows from Tapovan to Durgawada and the length is about 67 Km. Its drainage basin is shared by near about 27 villages having 02 dams, which are used for drinking, house hold uses, irrigation, fishing purposes etc.

To investigate the Ichthyofaunal diversity of the Uma river basin, freshly dead fishes were taken from fish markets for photographs and study purpose. The identification of the fish species was done on the basis of the color pattern, specific spots/marks on body surface, body shape, structure of fins, mouth shapes etc. which are given in taxonomic key of Talwar and Jhingran (1991), Jayaram and Sanyal (2003). A study on Ichthyofaunal diversity of Uma River basin has been made in a year duration of June 2014 to May 2015.

RESULT AND DISCUSSION

Result of the present study revealed the occurrence of 28 fish species belonging to 7 orders, 9 families and 23 genera were recorded from Uma River basin Dist. Washim (M.S.) India. Many workers are studied Taxonomy, biodiversity and distribution of fishes found in freshwater bodies of various parts of India. Shinde S. E. et. al., (2009) was studied the freshwater fish biodiversity during period January 2008 to December 2008 to census and commercially important fishes in the Pravara River at Pravara Sangam Dist. Ahmednagar, Maharashtra, India. The result of present investigation showed that there were occurrence of 41 fish species belonging to 7 orders, 14 families and 26 genera. Jadhav B. V. et. al, (2011) were studied the freshwater fish fauna of Koyna River for a period of 2 years from May 2007 to April 2009. They were recorded 58 fish species belonging to 16 families and 35 genera. They were found that out of 58 fish species 8 endemic fish species are known to be threatened because of various anthropogenic activities. Kharat S.S. et. al., were taken a survey of freshwater fish fauna of the Krishna river at Wai, and Dhom reservoir of stream of Wai. There were 51 fish species belonging to 14 families and 33 genera were recorded; 13 endemic to the Western Ghats and 2 to the Krishna river system. Similar results were found by Dr. Jayabhaye et. al, (2013) ichthyofaunal diversity of Pimpaldari tank in Hingoli district Maharashtra was found occurrence of 21 fish species belonging to 5 orders, 6 families and 13 genera. Sheikh S. R. (2014)

was undertaken Ichthyofaunal studies during the period June 2011 to July 2013 on Pranhita River at Sironcha Dist. Gadchiroli. The result of present investigation revealed that occurrence of 37 fish species belonging to 21 different genera, in 11 families, 8 orders were recorded. Likewise, Dhabe P. S. (2016) was studied that Morna River of Akola district had vast potential of fishery and supplied fishes to all over the district. During the year January 2015 to January 2016 she had reported that Morna river had diversity of fish fauna with 18 species belonging to 11 families out of which C*hanna punctatus, Channa striatus, Channa marulis, Wallago attu, Notopterus chitala, Mystes seenghala, Heteroneustes fossilis, Tilapia mossambica, Clarius batrachus, Mastacembelus pancalus and Pangasius pangasius* are abundant..

Table No. 1 - Ichthyofaunal Diversity of Uma River Basin Dist. Washim (M.S.)

Sr. No.	Order	Family	Species	Common name
1	Cypriniformes	Cyprinidae	*Catla catla*	Catla
2			*Labeo rohita*	Rohu
3			*Labeo bata*	Tembti
4			*Labeo boga*	Chankora
5			*Labeo pangsia*	Boharya
6			*Cyprinus carpio*	Cyprinus
7			*Puntitus dorsalis*	Podshi
8			*Puntitus chola*	Tepri
9			*Puntitus ticto*	Pepdi
10			*Tor khudree*	Temri
11			*Osteobrama catio*	Kharpati
12			*Hypothalmichthys molitrix*	Chandera
13			*Salmostoma boopis*	Chal/ Udan
14			*Lepidocephalus thermalis*	Girgos
15			*Thyririchthys sandkhol*	Sandkoli
16			*Amblypharyngodon mola*	Mutri
17	Perciformes	Cichlidae	*Tilapia mossambica*	Talapia
18			*Oreochromis*	Kombada
19		Gobidae	*Glossogobinus giuris*	Dhangarya
20	Synbranchiformes	Channidae	*Channa marulis*	Dokh
21			*Chanda nama*	Chandva
22		Martacembelidae	*Macrognathus pancalus*	Bam
23	Siluriformes	Siluridae	*Ompak bimaculatus*	Patola
24			*Mystus cavasius*	Katirna
25			*Sperata seenghala*	Singhata
26	Atheriniformes	Belonidae	*Xenentodon cancila*	Chatarya
27	Osteoglossiformes	Notopteridae	*Notopterus notopterus*	Bhangad
28	Anguilliformes	Anguillidae	*Anguilla bengalensis bengalensis*	Wire

Table No. 2 – Order wise Distribution of Ichthyofaunal Diversity of Uma River Basin Dist. Washim (M.S.)

Sr. No.	Order	No. of Species	Percentage (%) of Species
1	Cypriniformes	16	57.16
2	Perciformes	03	10.71
3	Synbranchiformes	03	10.71
4	Siluriformes	03	10.71
5	Atheriniformes	01	3.57
6	Osteoglossiformes	01	3.57
7	Anguilliformes	01	3.57
	Total Species	28	100

Figure No. - 1 – Order wise Distribution of Ichthyofaunal Diversity of Uma River Basin Dist. Washim (M.S.)

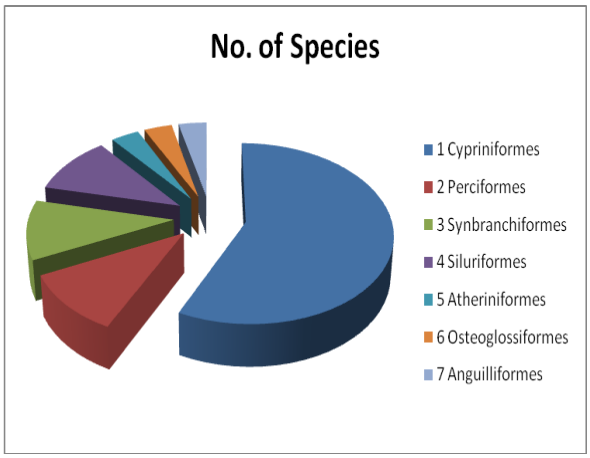

Figure No. 2 – Family wise Distribution of Ichthyofaunal Diversity of Uma River Basin Dist. Washim (M.S.)

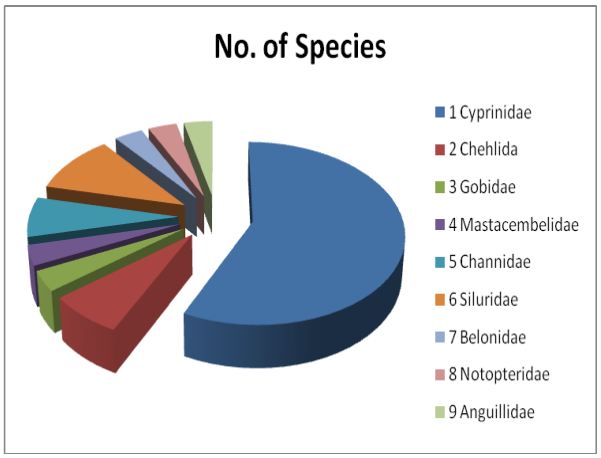

Table No. 3 – Family wise Distribution of Ichthyofaunal Diversity of Uma River Basin Dist. Washim (M.S.)

Sr. No.	Family	No. of Species	Percentage (%) of Species
1	Cyprinidae	16	57.16
2	Chehlida	02	7.14
3	Gobidae	01	3.57
4	Mastacembelidae	01	3.57
5	Channidae	02	7.14
6	Siluridae	03	10.71
7	Belonidae	01	3.57
8	Notopteridae	01	3.57
9	Anguillidae	01	3.57
	Total Species	28	100

The order cypriniformes was dominant with 16 fish species followed by order preciformes, synbranchiformes and siluriformes 3 and atheriniformes, osteoglossiformes and anguilliformes with one fish species. During present investigation the order of dominance is as follows. Cypriniformes > Perciformes – Symbranchiformes – Siluriformes > Atheriniformes – Osteoglossiformes – Anguilliformes.

The family cyprinidae was represented by 16 species, *Catla catla, Labeo rohita, Cyprinus carpio, Puntitus ticto* and *Salmostoma boopis* were found most abundant. The family siluridae was represented by 3 species *Ompak bimaculatus, Mystus carasius* and *Sperata seenghala* in which *Ompak bimaculatus* was found most abundant. The family cichlidae was represented by 2 fish species *Tilapia mossambica* and *Oreochromis mossambica* in which *Tilapia mossambica* was found most abundant. Also the family Channidae was represented by 2 fish species *Channa marulis* and *Chanda nama* in which

Channa marulis was found most abundant. The family Belonidae was represented by one fish species *Xenentodon cancila*. The family Notopterus notopterus and the family Anguillidae was represented by *Anguilla bengalensis bengalensis.* According to J. Chandra Sekhara Rao et. al, (2013) the result of the present study revealed that Uma river basin being a freshwater resource supports a rich and diversified fish fauna. However, ichthyofaunal diversity of this river is in declining mode due to several anthropogenic threats. In order to conserve these valuable resources, a holistic approach, integrating the concept of sustainable development and conservation measures should be adopted.

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