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STUDIES ON THE DIVERSITY OF FISHES OF GOUR RIVER AT JABALPUR, MADHYA PRADESH

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Abstract: The present study deals with the survey of fish fauna of Gour River at Jabalpur from Nov.2014 to Oct.2015. Jabalpur is one of the famous district in Madhya Pradesh and Gour River is one of the important river at Jabalpur which flows from Niwas village of Mandla district and joins Narmada River at Jabalpur. This river receives dairy effluents, agricultural runoff, sewage disposal as well as washings of cloths and animals and other daily activities. **Paunikar S. et al., (2012)**. 40 Species of fish were revealed from selected zones of the Gour river belonging to 6 Orders and 13 families.

Keywords: Fish, Diversity, River, Gaur



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INTRODUCTION

India is a mega biodiversity country that holds ninth position in terms of fresh water biodiversity. (Dey Somenath *et al.*, 2012). Biodiversity is essential for stabilization of ecosystems, protection of overall environmental quality for understanding intrinsic worth of all species on the earth. Fishes constitute half of the total number of vertebrates in the world with over 22,000 species. (Yodha Ravindra kumar *et al.*, 2014). Madhya Pradesh is one of the important aquatic biodiversity hotspots of the country, having bestowed with a large number of water bodies both lotic and lentic, the state boasts of a rich fish biodiversity. (Vishwakarma K. S. *et al.*, 2014). The rivers are highly productive and contribute to the fishery resources of the state and enhance the socio economic, commercial and ecological values. Fishes are one of the most important aquatic fauna which is directly related with human health and wealth. Hence, it is necessary to maintain their live-stock properly. (Shukla S.N.). The present study is based on a collection of fish species from Gaur river of Jabalpur district at Madhya Pradesh.

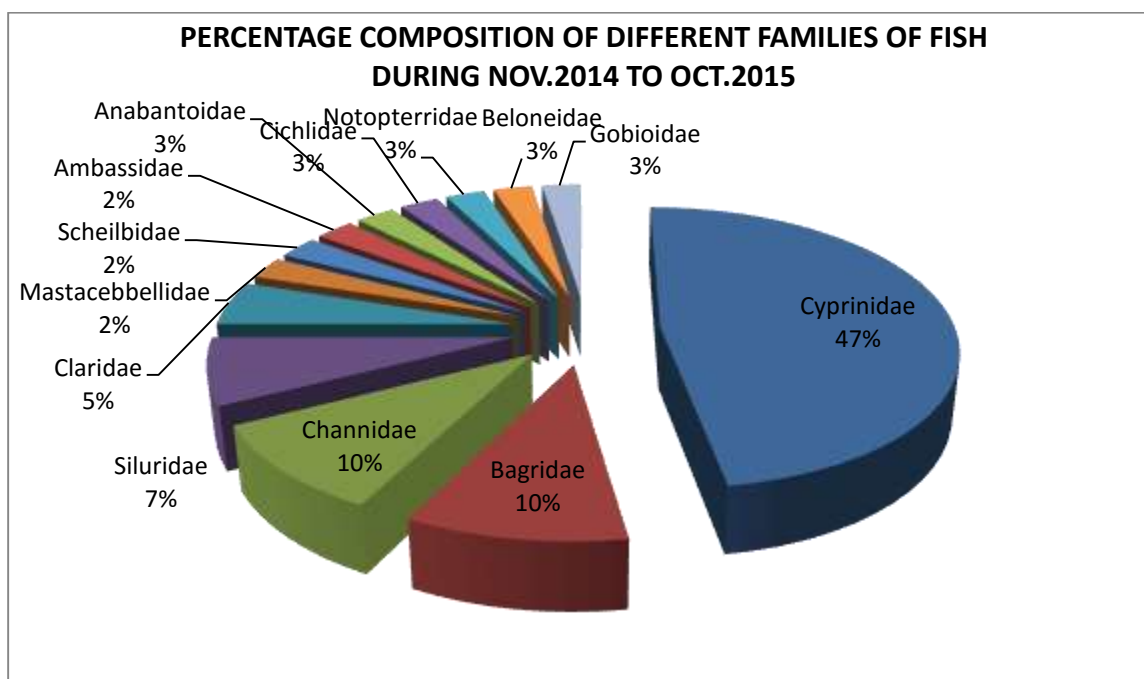
MATERIAL AND METHOD

Gaur river lies on Mandla road (79° 59' 23.50° E and 21° 08' 54.30°N) about 10 km southeast of Jabalpur Fish samples were collected from Gauraiya ghat, Katia ghat and Saliwara ghat at Gour river with the help of local fishers in the morning time at 8:00 am to 10:00 am. These ghats are mostly polluted by the wastage of dairy farms, and also by many sources such as ashes, cattle bathing, washing of clothes and discharge of domestic sewage. Other valuable informations were collected from local fishermen and resident adjacent to the Gour area. Fish were collected in three seasons (pre monsoon from February to May, Monsoon from June to September and Post monsoon from October to January). After obtaining the fish from the site photographs were taken. The specimens were taken to the laboratory for identification. Morphometric measurements were taken and meristic characters were observed and the fin formula was completed. The fish samples were preserved in 5-10% formalin according to the size of the fishes. Plastic jar were used for the collection and preservation. Fishes were labeled based on the serial number, common name, scientific name, locality and date of collection. Fish were identified with the help of taxonomic keys, Day's fauna (1994) and Talwar and Jhingran (1991). Fish Base website was also referred for various aspects of fish fauna (www.fishbase.org). Specific identifying characters on the body was observed and noted.

RESULTS AND DISCUSSION

During the period of study total 40 species (table 1) of fishes belonging to 6 orders 13 families and 17 genera were recorded from Gaur river at Jabalpur during a period of 12 months. Family Cyprinidae dominated with 19 species followed by Bagridae and Channidae with 4 species Siluridae with 3 species, Claridae with 2 species, Mastacembelidae, Schibiidae, Ambassidae,

Anabantidae, Cichlidae, Notopteridae, Gobiidae and Beloniidae were also found with 1 species each. Paunekar *et,al.* (2012) studied the ichthyofaunal diversity of Gaur river at Jabalpur and 33 species of fish were recorded belonging to 5 orders and 10 families. Due to climatic changes and physicochemical conditions of water additional species were found in the river during the study period. Thus it can be concluded from the obtained results that Gaur river is a good source of data for fish diversity, particularly Cyprinid species, but little work has been done on this site. Therefore, there is a need of conservation of fish diversity for the development of fish culture in this area, increase food resources and income of local people. The study revealed that many species in the study area are being under threat due to various human activities. Moreover disposal of sewage runoff into the river causes severe damage to fish diversity. Over fishing and pollution are the major threat for the rich fish diversity of Gour River. Special attention is to be given for conservation of fish diversity.



Cyprinidae(47%) > Bagridae(10%) > Channidae(10%) > Siluridae(7%) > Claridae(5%) > Anabantoidae(3%), Cichlidae(3%), Notopteridae(3%), Belonidae(3%), Gobioidae(3%) > Ambassidae(2%), Schielbidae(2%), Mastacembellidae(2%).

Table 1: List of fish species from Gour river.

S.no.	Order	Family	Species
1	Cypriniformes	Cyprinidae	Barbus sarana
2			Barbus tor
3			Catla catla
4			Chela bacaila
5			Cirrhinus mrigala
6			Cirrhinus reba
7			Ctennopharyngodon idellus
8			Cyprinus carpio
9			Garra gotyla
10			Labeo bata
11			Labeo calbasu
12			Labeo dyocheilus
13			Labeo gonius
14			Labeo rohita
15			Ostiobrama cotio
16			Puntius chola
17			Puntius Sophe
18			Puntius ticto
19			Rasbora daniconius
20		Schilbidae	Clupisoma garua
21	Siluriformes	Bagridae	Mystus bleekeri
22			Mystus cavasius
23			Mystus seenghala
24			Mystus tengara
25		Siluridae	Callichrus bimaculatus
26			Ompok pabda
27			Wallago attu
28		Clariidae	Clarius magur
29			Heteropneustus fossilis
30	Beloniformes	Belonidae	Xenentodon cancila
31	Perciformes	Channidae	Channa gachua
32			Channa marulius
33			Channa punctalus
34			Channa striatus
35		Cichlidae	Oreochromis mossambicus
36		Anabantidae	Anabas testudinus
37		Gobioidae	Glossogobius giuris
38		Ambassidae	Chanda nama
39	Clupieformes	Notopteridae	Notopterus notopterus

40	Mastacembeliformes	Masatacembelidae	Mastacembelus armatus
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