

Fish diversity of Vena River, Hingna, Dist-Nagpur, India

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ABSTRACT

Water is essential for the survival of all kind of Organisms on the Mother Earth and has most significance for human for adequate life. Vena river is the natural and exclusive source of fresh water in the vidharbha region. To evaluate the sustainability of water for aquatic life and drinking purpose. Fish plays an important role from ancient times in providing protein rich and less fat diet to the mankind. India stood in seventh position among the fish producing countries of the world. The present piece of work has been made to investigate the Ichthyofaunal diversity and some species of fishes were recorded during the study.

Key words- Ichthyofaunal, sustainability, diversity.

Introduction

Water is essential for the survival of all kind of Organisms on the Mother Earth and has most significance for human for adequate life. River water is important for the surrounding living world. It is a major source of drinking, Industrial, Agriculture and domestic purpose. Vena is a small river of central India. Vena river is in the vicinity of Hingna tehsil in Nagpur city hingna tehsil is located within the Nagpur district in Maharashtra, 16 km. west from Nagpur in central India. The vena is a left bank tributary of the Wardha River in Indian state of Maharashtra. Vena River is the valued natural and exclusive source of fresh water in the vidharbha region. To evaluate the sustainability of water for aquatic life and drinking purpose. Fish plays an important role from ancient times in providing protein rich and less fat diet to the mankind. It is one of the major component of animal protein in diet, computed 11 Kg/yr./person (Govt. of India 1980) the per capita availability fish is 3.05kg/yr. in 1961. which increased to 5.31 kg/yr which further increased to 8 kg/yr. (Pisca).

India stood in 7 position among the fish producing countries of the world (total production 56, 05 136 tones and inland production. 27,80,440 tons) [1-7] China constitute 18.56% of the fin fish and shell fish produce whereas, India accounts about 3.57% of the total fish production, which is 4.949 m tons to the total world fish production i.e. 9,28,66,553 tones. The major cause of deterioration in water quality in our country is increased human activity, which is done to fulfill their requirements without considering their side effects. The same is true for this pious rivers as many developmental activities are under progress in this region. As the town on the bank has no sewer facility, the sewage is dumped directly into the river. Hence it is considered desirable to monitor the water quality of Vena River to examine the impact of various human activities.

In order to have an in-depth knowledge of the water quality of the River Vena. The present study also aims at devising ecologically sound new strategies for the conservation of Vena River through the prevention of the pollution and to investigate the ichthyofaunal diversity of the vena river. The changes in trophic and toxic conditions of water are reflected in community structure and its biota like occurrence, diversity and abundance pattern of species which can be easily assessed in biological monitoring programs. These studies regarding rivers are scarce but few studies on river hydrobiology in Indian region have been done by many workers from time to time.

Methodology

Vena is a tributary of river wardha, dist.-wardha which comes in hingna Nagpur-District. The river water is continuously polluted mainly due to anthropogenic activities confined to localities on banks of river. Though the activities are limited at any one specific stations the pollution caused does not remain confined to the station but contaminate whole stretch of river which runs towards the Vyhad village to Hingna village. In order to have an overall idea of the exact status of water quality at the specific station, where the vigorous activities are carried out. Fishes are collected personally with the help of fisherman from the vena river and were identified up to species by referring standard literature of Jayram [8-9]. The identified checklist of the fish fauna is prepared and presented in the table.

Results and Discussion

The present study carried out during the two year period of June 2013 to May 2015, there were seventeen species (data portrayed) in the table 1 of fishes were found in the River Vena. The majority of species belongs to order Cypriniformes 8 (Eight) species of cypriniformes 4 (Four) species of (Perciformes) 3 (Three) species of catfishes (Siluriformes) and 1(one) species of each (Osteoglossiformes and Synbranchiformes) species were identified in river vena

Table 1: showing Fish Diversity of Vena River, Hingna, Dist- Nagpur

Sr. No.	Genus	Common Name	Family	Order	Fin formula
1.	<i>Catla catla</i>	Catla	Cyprinidae	Cypriniformes	D.18;P1.20;P2.9;A.8
2	<i>Labeo rohita</i>	Rohu	Cyprinidae	Cypriniformes	D.15-16;P1.16-17;P2.9;A.7
3	<i>Labeo gonius</i>	Khunus	Cyprinidae	Cypriniformes	D.14;P1.15;P2.9;A.6
4	<i>Cirrhinus mrigala</i>	Nain	Cyprinidae	Cypriniformes	D.16;P1.17;P2.9;A.8
5	<i>Cyprinus carpio</i>	Common carp	Cyprinidae	Cypriniformes	D.19;P1.17;P2.9;A.6
6	<i>Ctenopharyngodon idella</i>	Grass carp	Cyprinidae	Cypriniformes	D.10;P1.17;P2.8;A.16
7	<i>Puntius ticto</i>	Ticto barb (Tepari)	Cyprinidae	Cypriniformes	D.9(3/8);P1.13-15;P2.9;A.2-3/5
8	<i>Amblypharyngodon mola.</i>	Molwar, Mola	Cyprinidae	Cypriniformes	D.9(2/7);P1.15;P2.9;A.7-(2/5)
9	<i>Channa punctatus</i>	Girai	Channidae	Perciformes	D.29;P1.17;P2.5;A.21
10	<i>Channa striatus</i>	Sol	Channidae	Perciformes	D.42-46;P1.15-17;P2.6;A.24-27
11	<i>Glossobius giuris</i>	Bulla Ghisada	Gobiidae	Perciformes	D.6;P1.19;P2.5;A.9
12	<i>Anabus testudineus</i>	(Climbing perch) Koi	Anabantidae	Perciformes	D.16;P1.15;P2.5;A.10
13	<i>Ompak pabda</i>	Papta	Siluridae	Siluriformes	D.4-5;P1.11-13;P2.6-7;A.48-54
14	<i>Wallago attu</i>	Padhani	Siluridae	Siluriformes	D.5;P1.13-15;P2.7-9;A.74-93
15	<i>Clarius batracus</i>	Mangur/Magur	Clariidae	Siluriformes	D.56;P1.19-13;P2.7;A.26
16	<i>Notopterus notopterus</i>	Patula	Nototeridae	Osteoglossiformes	D.7-8;P1.15-17P2.5-6;A.104
17	<i>Mastacembalus armatus</i>	Bam	Mastacembelidae	Synbranchiformes	D.74;P1.23;A.80



Catla catla



Labeo rohita



Labeo gonius



Cirrhinus mrigala



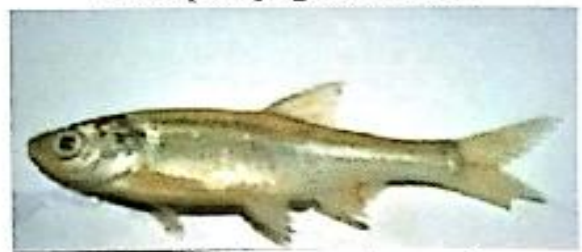
Cyprinus carpio



Ctenopharyngodon idella



Puntius ticto



Amblypharyngodon mola



Channa punctatus



Channa striatus



Fig. Ichthyofauna of Vena River, Hingna, Nagpur



belonging to Cypriniformes are *Catla catla*, *Labeo rohita*, *Labeo gonius*, *Cirrhinus mrigla*, *Cyprinus carpio*, *Ctenopharyngodon otonoidella*, *Puntius ticto* and *Amblypharyngodon mola*.

In Perciformes fishes are *Channa punctatus*, *Channa striatus*, *Glossogobius giuris* and *Anabas testudines*. While *Ompak pabda*, *Wallago attu* and *Clarias batracus* are belongs to Siluriformes, In Osteoglossiformes, *Notopterus notopterus* and Synbranchiformes; *Mastacembalus armatus* has been found.

Conflicts of interest: The authors stated that no conflicts of interest.

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