

## STUDY IN ICHTHYOFAUNAL DIVERSITY FROM KHAM RIVER AURANGABAD (M.S), INDIA.

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### ABSTRACT

The present work was undertaken to investigate the Ichthyofaunal diversity from Kham river, Aurangabad district. Ichthyofaunal diversity was studied from the four sites of the Kham river. The four sites were S1-Ganori, S2-Harsul, S3-Chhawani or Garmpani and S4-Golwadi. Present investigation was carried out during the stud period from 2012-2014. And it was observed that the Ichthyofauna belong to 3 order, 5 families, 18 species. The Ichthyofaunal diversity at each site was studied separately. And observed that family cyprinidae was dominant.

**KEY WORDS:** Kham river, ichthyofaunal diversity, cyprinidae.

### INTRODUCTION

The Kham river where the present Ichthyofaunal studies were carried out rises on the south -slope of Chauka Mountains in a village Daulatabad, District Aurangabad Maharashtra. The north river Kham flows 69kms south-east and flows into the river Godavari near Jogeshwari at village Narsighpur .The river irrigates 327.25 sq.km and flows through the district Aurangabad. The river has two tributaries the Nagzari and Bungali. The literature related with the two tributaries is not available.

The four sites chosen for the study were S1-Ganori, S2-Harsul, S3-Chhawani or Garampani, S4-Golwadi.

**Ganori:**-A village located in Aurangabad district of Maharashtra state. The latitude 20.883413 and longitude 77.1248 are the geo-coordinate of the Ganori.

**Harsul:**-This site is located in Harsul sub-locality of Aurangabad. The latitude is 19.9298 and longitude is 75.3535.

**Garampani:**-Is located in the sub locality of Aurangabad .The latitude is 75.3433 and longitude 75.3433

**Golwadi:**-It is a village located in Aurangabad district. The latitude is 19.8489 and longitude is 75.2768 is the geo-coordinate of the Golwadi.

The Kham river receives enormous amount of domestic sewage, industrial waste with high physicochemical characteristics as it runs through the city of Aurangabad and industrial area Waluj.

### MATERIALS AND METHODS

Ichthyofaunal diversity was studied from the four sites of the Kham river. The four sites were S1-Ganori,S2-Harsul,S3-Chhawani or Garmpani and S4-Golwadi. Fish samples were collected every month and the location for the collection of fish was changed according to the season.

Identification of fishes was done up to species level at the fishing centre for natural colour, pattern of scales, fins, mouth, identification marks like black spots, bloach on operculum, etc. with the help of standard literature by Datta Munshi and Srivastava (1988), Day(1978), Jayram (1981,1999,2003).

### RESULTS AND DISCSSION

When the Ichthyofaunal diversity of Kham river was studied it was found that the diversity included 3 order, 5 family and 18 species in total. The Ichthyofaunal diversity at each site was studied separately.

**Site I (Ganori):**- During the study it was found that site I i.e. at Ganori the diversity consisted of 2 order and 7 species. The two orders were Cypriniformes and the perciformes family Cyprinidae with 6 species. Order Perciformes a single species the Oreochromis mossambicus (Table 1.1)

**Site II (Harsul):** - At the second site namely the Harsul the ichthyofaunal diversity consisted of 4 orders and 15 species. There were 5 families with 18 species. Followed by order Perciformes with 2 families Chichlidae and Channidae. Family Chichhidae and Channidae had 1 genus with 1 species while family Channidae 1 genera and 2

species. Order siliriformes with 1 genera and 1 species the largest order was Cypriniformes with 2 families and 14 genera and 14 species. Family Cyprinidae was largest with 13 genera and 13 species and family Balitoridae with 1 genera and 1 species. The Cypriniformes family was the largest followed by order Perciformes having 2 families with 2 genera & 2 species. (Table 1.2)

**Site III (Garmpani):** - As the water at this site was of very low quality fish diversity was found. (Table 1.3)

**Site IV (Golwadi):**- This is the last site Golwadi which was studied a single Siluriformes with a single family claridae with a single genus was found. (Table 4).

During the study period it was observed that the Ichthyofauna comprised of 18 fish species with 3 Order 5 families under 16 genera. Family Cyprinidae under the order Cypriniformes is dominant with 14 fish species under 13 genera. Family Channidae under order Perciformes contributes with 3 fish species under 2 genera.

Family Balitoridae contributes with 1 fish species under order Cypriniformes with 1 genus. From the ichthyofauna observed at all the four sites Cyprinidae family is dominant over other families. At site 2 (Harsul) ichthyofauna diversity is maximum with 18 species followed by site 1, Ganori with 7 species, site 4 with 1 species and site 3, Chhawani with nil species. Ichthyofauna diversity is poor as it may be affected due to habitat destruction, fragmentation, pollution of pesticide, poor scientific practices and knowledge.

Lack of awareness about cleanliness, water quality improvement and importance of fishery in the local people and fisherman may be the cause of loss and decline of ichthyofauna. The river passing through the city of Aurangabad sewage is drained into the river. The river beds are narrowing due to construction of houses on both the sides of the river banks. And hence no fish was observed at this site S3.

According to C.J.Hiware (2006) the carps dominated overall over other groups throughout the year.

S.E Shinde et.al. (2009) while studying with Ichthyofauna of Harsul Sawangi dam observed that the order cypriniformes dominated the other species.

Clarius batrachus was recorded in Marathwada region by Shivaji Ubarhande and Smita Sonawane. (2014).

Similar results have been observed during this study of Ichthyofauna from Kham river.

**Table 1.1**

Sr.No	Order	Family	Genus	Species
1	Cypriniformes	Cyprinidae	Catla	catla
2			Labeo	rohita
3			Rasbora	daniconius
4			Puntius	stigma
5			Cyprinus	carpio communis
6			Garra	lamta
7	Perciformes	Cichlidae	Oreochromis	mossambicus

**Table 1.2**

Sr .No	Order	Family	Genus	Species
1	Cypriniformes	Cyprinidae	Catla	catla
2			Labeo	rohita
3			Cirrhinus	mrigala
4			Cyprinus	carpio
5			Rasbora	daniconius
6			Puntius	ticto
7				stigma
8			Salostoma	phulo
9			Garra	lamta
10			Ctenopharyngodon	idellus
11			Thynnichthys	sandkhol
12			Hypothalmichthys	nobilis
13	Cypriniformes	Balitoridae	Nemacheilus	beavani
14	Siluriformes	Clariidae	Clarius	batrachus
15	Perciformes	Cichlidae	Oreochromis	mossambicus
		Channidae	Channa	striatus
				orientalis

**Table 1.3**

Sr .No	Order	Family	Genus	Species
-	-	-	-	-

**Table 1.4**

Sr .No	Order	Family	Genus	Species
1	Siluriformes	Clariidae	Clarius	batrachus

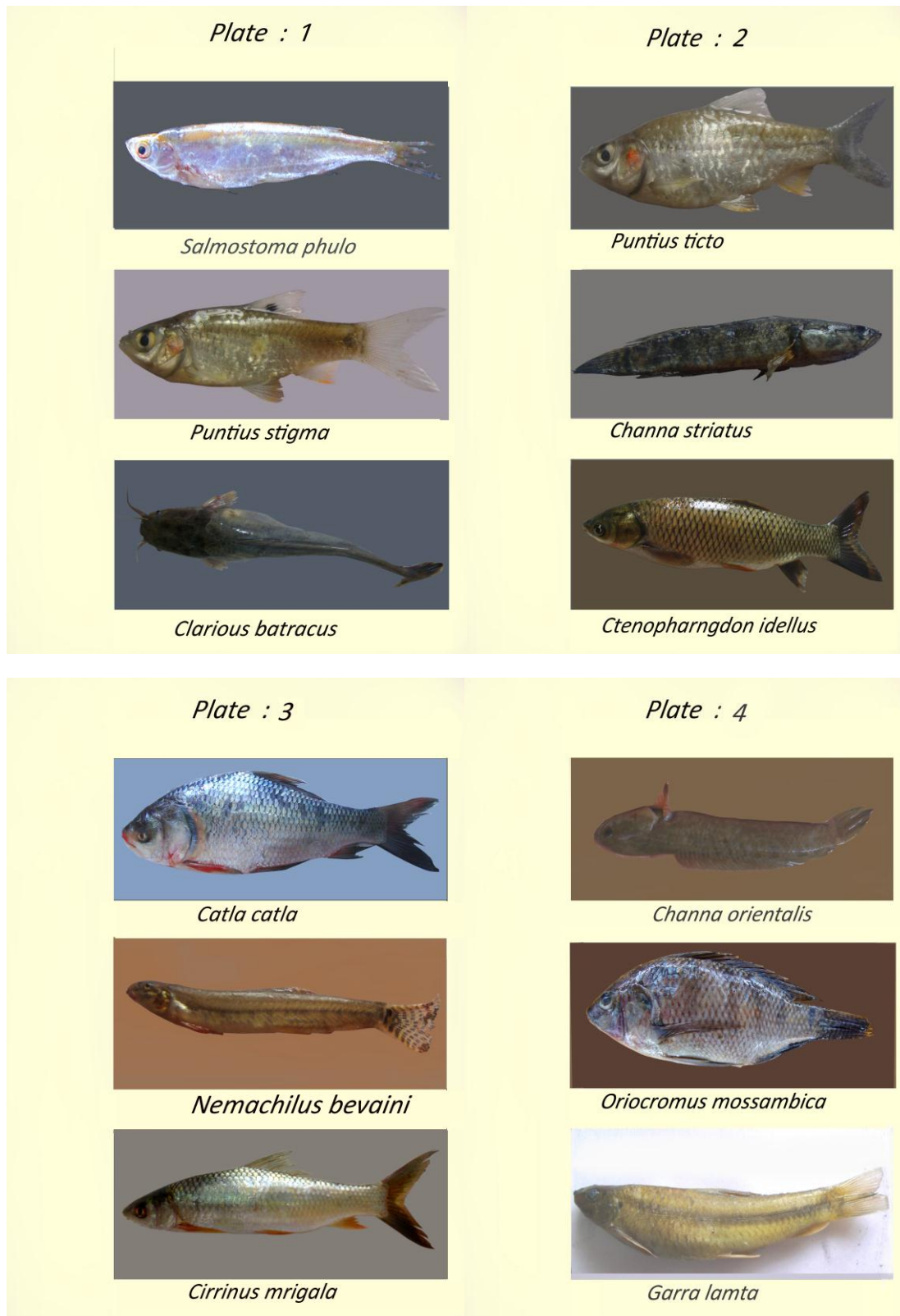


Figure 1. Fish diversity

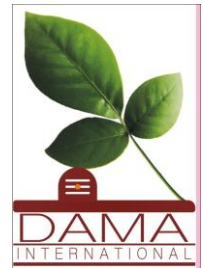
## Plate : 5

*Rasbora daniconous**Labeo rohita**Cyprinus Carpio***Figure 1. Fish diversity (Continued.....)****ACKNOWLEDGEMENT**

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