



ISSN: 0975-833X

Available online at <http://www.journalcra.com>

International Journal of Current Research
Vol. 12, Issue, 12, pp.15275-15277, December, 2020

DOI: <https://doi.org/10.24941/ijcr.40525.12.2020>

INTERNATIONAL JOURNAL
OF CURRENT RESEARCH

RESEARCH ARTICLE

THE STUDY OF ICHTHYOFAUNAL BIODIVERSITY IN CHARAIMARA POND IN NARAYANPUR VILLAGE OF JASHPUR DISTRICT, C.G., INDIA

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ARTICLE INFO

Article History:

Received 30th September, 2020
Received in revised form
27th October, 2020
Accepted 25th November, 2020
Published online 30th December, 2020

Key Words:

Biodiversity, Charaimara Pond,
malnutrition, Freshwater.

ABSTRACT

Freshwater fish biodiversity is not so broadly studied. There is very less experimental data on Freshwater fish resources of Charaimara. The study focus on the database of fishes in Charaimara. Fishes are the unique creature among animals. Contributing their role as food resources and is able to combat problem of malnutrition. Charaimara Pond is basically a tribal Place. This is the first study to catalogue species of fishes found in Charaimara. Charaimara situated in Chhattisgarh state. In Charaimara village of Jashpur district first time the culture of Pungaisius fishes are done. Total 26 species from different sampling station were recorded. Recorded fish species were classified in 5 order, 10 families and 15 Genera. Order Cypriniformes comprised of 4 families Cyprinidae, Bagridae, Saccobranchidae and Clariidae were found as a dominant group. The main fishes found are Catla-catla, Cirrhinus mrigla, Labeo rohita, Cyprinus carpio, Clarius batrachus and Oreochromis mossambicus.

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Citation: Reshma Jain and R. Sao. 2020. "The study of ichthyofaunal biodiversity in charaimara pond in narayanpur village of jashpur district, c.g., india", International Journal of Current Research, 12, (12), 15275-15277.

INTRODUCTION

The Word Biodiversity comes from two words "bio" and "diversity". Here, the word bio means the living being and diversity means the state of being variety. Thus, the term biodiversity means the variety of plant and animal life in the World. In spite of their great number and diversity animal species can be divided into a number of groups and taxa, for example, there are different types of fishes but they all show similarities in their structure and physiology, on this criteria, they all have been placed in one group Pisces. As summarized by Ghosh, Khoshoo and Singh, the total number of living species identified in India so far is 126,188 out of them 2546 species belong to fish comprising 2.2% of total. Fishes play a major role in contributing their part to the biodiversity of animals. They are widely used as a food source. They are rich in many vital vitamins and fatty acids including some acids. They are referred as good food resources by doctor. Charaimara is a tribal place. It is situated 52 k.m. east of Jashpur city. Jashpur district of Chhattisgarh has its unique cultural and ecological identity with great diversity of biological species. Jashpur district of Tribal region (C.G.) has not been extensively surveyed for fish diversity.

MATERIALS AND METHODS

The fishes were collected from Charaimara pond at Narayanpur village and from local fisherman.

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Fishermen generally use many types of nets like gill nets, cast net, drag net etc. Fishes were preserved in 10% formalin solution and identified with the help of standard keys and books. Study period: This study was conducted between March 2013 to Feb. 2014.



Figure 1. Charaimara pond

RESULT AND DISCUSSION

The present records state that no scientific study is done so far on the availability of fish fauna. Few studies have been initiated to document the fish diversity and their assemblage in

Table 1. List of fishes recorded in Charaimara pond March 2013 to Feb. 2014

Order	Family	Genus and Species	Local Name
Cypriniformes	Cyprinidae	Catla catla	Bhakhur
		Cirrhinus mrigala	Mrigal
		Cirrhinus reba	Borai
		Labeo rohita	Rohu
		Puntius sarana	Kotra
		Puntius sophore	Jarhi kotri
		Puntius ticto	Jarhi kotri
		Hypothalmichthyes molitrix	Silver carp
		Cyprinus carpio	Common Carp
		Ctenopharungodon idella	Grass carp
	Siluridae	Wallago attu	Baliya
	Bagridae	Mystus cavasius	Tengna
		Mystus vittatus	Temgna
		Mystus oar	Singhi
	Saccobranchidae	Heteropneustes fossilis	Singhi
	Clariidae	Clarias batrachus	Mangur, Mongri
Ophiocephaliformes	Ophiocephalidae	Channa gachuga	Bijalwa/ Chanaga
		Channa marulius	Sanwal
		Channa punctatus	Khoksi
		Channa striatus	Bhunda
Perciformes	Centropomidae	Chanda nama	Chandeni
		Chanda ranga	Chandari
Mastacembeleformes	Cichlidae	Oreochromis mossambicus	Tilapia, Perwa
	Mastacembelidae	Macragnathus aculeatus	Jat bami
		Mastacembelus pancalus	Bami
Siluriformes	Pangasiidae	Pungaisius pangaisius	Fungas/ Payas

Table 2. Species Diversity of Fishes in Charaimara pond (2013-2014)

S. No.	Order	Family	No. of Fish Species
1.	Cypriniformes	Cyprinidae	10
		Siluridae	1
		Bagridae	3
		Saccobranchidae	1
		Clariidae	1
2.	Ophiocephaliformes	Ophiocephalidae	4
3.	Perciformes	Centropomidae	2
		Cichlidae	1
4.	Mastacembeleformes	Mastacembelidae	2
5.	Siluriformes	Pangasiidae	1

India lot has told about their declining diversity and conservation issues in Indian River system. Fish fauna of Chhattisgarh is scarcely studied and needed to be thoroughly studied. Data collected during the complete study period, from at the sampling centers was utilized to estimate the fish diversity in the pond Charaimara. 26 fish species belonging to 5 Order and included under 10 families and 15 Genera were recorded; Cyprinidae was the largest dominant family contributing 10 species (22.22%) Ophiocephalidae formed the subdominant family contributing 4 species (8.88%) and the rest of the families followed order of abundance (Table-1, Table-2).

Conclusion

The final result proposes that Charaimara is rich in biodiversity of fish and the culture is mainly done under cooperative fisheries societies. In Charaimara village of Jashpur district first time the culture of Pungaisius fishes are done but the culture of carp is done on regular basis. Carps are the major group which is cultivated, practice of composite culture of Labeo rohita, Cirrhinus mrigala and Catla-catla is generally followed. The local fisherman depends upon the fish culture as it is the only source of income for their survival. As they lack proper knowledge about this, they must be given proper scientific knowledge about fish culture in order to avoid unemployment and to eradicate the problem of malnutrition.

Acknowledgement

We are thankful to local fisherman community of Charaimara village who provided us there good Knowledge of fish identification and especially Local names of fishes. We are also thankful to my guide Mrs. Rashmi Sao for supporting.

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