

## 6. The Study on Piscean Diversity in Kansabel Ponds of Jashpur Districts, Chhattisgarh, India

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### **Abstract:**

*The term biological diversity is used to describe the number, variety and variability of organisms. India is known for its mega-biodiversity, 12% of shell and fin fishes known till now. India is very rich in terms of biological diversity due to its unique bio geographic locations etc. Till now there is no record of fish fauna in the ponds of Chhattisgarh, hence we have decided to study the pond fish fauna at Kansabel pond in Jashpur district. Total records of fish in India are 2500 but the diversity of fish is still alpha taxonomic level and scarce information is available on fish n Chhattisgarh. This work has been done in Kansabel in 2020-21. Specimens were collected by using nets and by the help of fisherman's and then specimen were fixed in 8-10% formaldehyde solution. Total 15 species recorded and classified in 04 order, 08 family and 13 genera. 11 species are belonging to order Cypriniformes, 01 species belongs to order Ophiocephaliformes, 01 species belongs to order Perciformes and 02 species were belonging to order to Mastacembeliformes. The main fishes found are *Cirrhinus mrigla*, *Labeo rohita*, *Cyprinus carpio*, *Clarius batrachus* and *Channa punctatus*.*

**Keywords:** Diversity, Piscean Fauna, Kansabel pond, Nets, Jashpur district.

### **6.1 Introduction:**

The term Diversity means a wide variety of flora and fauna present in the world. The exact means of diversity is a measure of variousness and species can be divided into various groups. For example, as we know that so many different types of fishes are present in the pond and rivers etc. but it is common that all the fishes are similar in their structure as well as also fishes are similar in their physiology. According to Kho shoo (1995) 126,188 is the total number of living species present in India and 2.2% is Pisces (i.e. 2546 species). We know that India is one of the 12 mega diversity in the world and Taxonomists are continuously working with legal statutory bodies for the reorganization of species. It is most important for us to know that why taxonomy is important because as we know wisdom

begins by calling all living and nonliving thing by their name that's why taxonomy is important. Let's some important uses of fishes in our day today life, It is quite common and beneficial that as we commonly know that fishes are good source of food and also fishes are rich in proteins etc. another important thing about fish is that fishes are also important source of medicines, and also fishes are used to kept in aquariums for beauty and for the show purpose these few things are uses of fishes in various fields, for various purpose, but on the other hand it is also clear that we cannot ignore that we cause several harms to the fishes by doing these all thing by using fishes in several fields.

The total area of Jashpur district is 6205 km<sup>2</sup>. Jashpur district is boarding Jharkhand and Odessa. The length from north south is 150 km. and its cost west breadth is 85km. and the geographical area is 6701km<sup>2</sup>. Kansabel village is located in Kansabel tahsil of Jashpur district in Chhattisgarh, India. It is situated 71km. away from district headquarter Raigarh. Kansabel village is also a gram panchayat. Kansabel village comes under Pathalgaon assembly constituency and Raigarh parliamentary constituency. Kunkuri is nearest town to Kansabel for all major economic activities, which is approximately 26km. away from Kansabel and the total geographical area of village is 864.94 hectares. Fishes are suggested as good and healthy food by doctor because as fishes are rich in many vital vitamins and fatty acids. In aquaculture to get quality food blue culture is better option. Fishes contributes half of the vertebrate's fish's fauna in the world though it is most important resource for all of us. We know that Jashpur district is a tribal place and it has great number of biological species. And I want to mansion that it is my good choice to study fish culture in ponds because till now no studies has been done by any Ichthyologist.

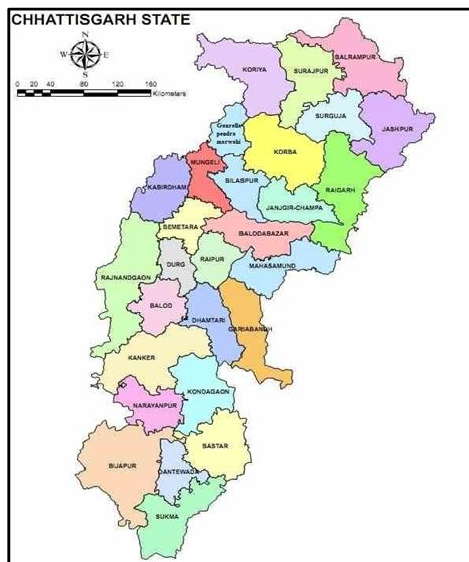


Figure 6.1(a): Map of Chhattisgarh



Figure 6.1(b): Jashpur District Map

Source: - Google image

- <https://images.app.goo.gl/Jcy7rwbC5bU7w8EU6>
- <https://images.app.goo.gl/wtJA4surmxd8CbUA>

## **6.2 Material & Methods:**



### **6.2.1 Kansabel Pond:**

It is clear that during past centuries Piscean variousness have been studied by many workers on ponds and dam, but till now the sufficient information is not available on fish diversity of Chhattisgarh. I know that it has not being studied by any Ichthyologist in detail because of that I have decided to study the Piscean diversity in detail.

For the study purpose I selected one site Kansabel which is situated near Pathalgaon district Jashpur. And I have done this recent work in 2020-2021. Various things were done during study process.

They are as follows during study period samples were collected on 30 days intervals with the help of various nets. For collecting the fish's helps were taken by the various fisherman and local people. After collection specimens were kept in 8-10% formalin.

While observing the fishes some characters were at the site only in first state and rest of the characters was noted after bringing the fish in laboratory. The local name of the fishes was also noted at the site only by the help of fisherman's.

Mentioned keys provided by F. Day (1958), Hora S.L. and Mukerji, (1936), Talwar, Jhingrah (1991), Gopal ji Shrivastava (1982), Jhingrah (1982) and Jayram, K.C. (1991) were used.

For easy identification main characters, clear and good illustration and details of fishes from other reference books were consulted.

### 6.3 Result and Discussion:

The recent work has been done in the year 2020-2021 at Kansabel ponds near Pathalgaon dist. Jashpur. In rainy season the depth of water is maximum i.e. 12-13 meters and in summer season the depth of water decrease and it goes till 6-7 meters and the collected fishes were categories on the basis of habitat (depth) and feeding habit.

15 species belongs to 13 genera, 04 Orders and 08 families. Orders, namely Cypriniformes, Ophiocephaliformes, Perciformes and Mastacembeliformes were identified. Maximum 11 species belongs to are order Cypriniformes. Piscean fauna have been studied by Tirkey and Prof. Singh, R.K. (2018) in main pat, district Sarguja and she reported 18 species of 14 genera from 4 orders and 5 families. The Piscean diversity of Kumaun River (Central Himalaya) was described by Joshi (1999) has described that 34 species belongs to 19 genera 3 orders and 17 families.

**Table 6.1: List of Fishes Identified in Raikera Pond near Kunkuri 2020-2021.**

Order	Family	Genus And Species	Local Name
Cypriniformes	Cyprinidae	Cirrhinus-Mrigla	Mrigal
		Labeo-Rohita	Rohu
		Puntius Sarana	Kotra
		Puntius Sophore	Jarhi Kotri
		Puntius Ticto	Jarhi Kotri
		Cyprinus Carpio	Common Carp
		Ctenopharungodon Idella	Grass Carp
	Cobitidae	Lepidocephalichthys	Guntia
	Bagridae	Mystus Oar	Singhi
	Saccobanchidae	Heteropneustus Fossilis	Singhi
	Clarridae	Clarius Batrachus	Mangur, Mongri
Ophiocephaliformes	Ophiocephalidae	Channa Punctatus	Khoksi
Perciformes	Cichlidae	Oreochromicus Mossombicus	Tilepia, Perwa
Mastacembeliformes	Mastacembelidae	Macragnathus Acculeatus	Jat Bami
		Mastacembalus Pancalus	Bami

### 6.4 Conclusion:

From the final result we came to know that Kansabel pond is rich in diversity of fish and the fish culture is done in combined fisheries societies and this study has shown a good sign of rich diversity. Large fishes are the major groups which are cultivated here the mixed culture of Labeo rohita, Cirrhinus mrigla and Catla-catla are generally done and also the

local fisherman's fully depends upon the fish culture because fishing is only the source of income for them. It is important that to save the Piscean diversity pond management and public awareness is necessary and large area is needed for good management.

## **6.5 Acknowledgement:**

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