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Freshwater fish diversity of Kagdi Pickup, Banswara (Raj.).

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Abstract: *As much as practicable, a systematic categorization of the freshwater fishes of Kagdi Pickup (Banswara) has been attempted in this communication, together with information on their local names, habitats, and conservation status. 16 species of fish were identified as belonging to 5 orders and 6 families. Ten exotic fish species have been introduced to the state's freshwater bodies. Cypriniformes were in the top order with a rich species makeup. The Cyprinidae were the most numerous group with 9 species, the Ambassidae with 1, the Bagridae with 1, the Belonidae with 1, the Channidae with 3, and the Cichlidae with 1. The Cyprinidae family is thought to have the most significant fish population density among the other families, according to the current study on fish diversity in Kagdi Pickup. The new checklist will provide a better knowledge of the freshwater fish variety in Kagdi Pickup (Banswara) for development and conservation planning procedures.*
Keywords: *Freshwater fishes, Fish diversity, Kagdi Pickup.*

I. Introduction

Kagdi Pickup is three kilometres from the Banswara district, a popular tourist destination located on Ratlam Road, between Latitude 74º28'44.38" E and Longitude 23º31'57.85" N [1] (fig. 1). The Himalayas in the north, the Chhotanagpur plateau in the west and the plains of the Ganga- Brahmaputra delta in the southern and eastern regions make up most of the state's land area. Freshwater fisheries resources in West Bengal total 6.08 lakh hector, including 22 river drainage basins (1.72 lakh hector), Canals (0.80 lakh hector), Beels and Boar (0.41 lakh hector), Ponds and Tanks (2.88 lakh hector), and Reservoirs (0.27 lakh hector). A significant domain for freshwaterfishbiodiversityexistsinWestBengalinthebasinsoftheGanga(81percentofthearea), Brahmaputra (12 percent), Subarnarekha (4 percent), and two tiny coastal rivers (3 percent) [2].With a high ecosystem level, India is a unique hotspot for various freshwater fish, adding to the world's biological riches. Managing ecosystems and habitats requires understanding species and communities. Loss of habitat and introduction of new species are the primary factorsin decreasing native fish species. Due to a lack of scientific information and understanding of the standards to be applied for categorizing and identifying the conservation status of vulnerable species,theconservationoffreshwaterfishhasneverbeenfullyaddressedinIndia.Forthe protection and management of the local fish fauna, understanding the species composition and distribution patterns of fish is essential [3-5]. To standardize the clean taxonomic nomenclature to accepted norms, an effort has been undertaken to collect information on crucial characteristics such as taxonomy, distribution, environment, maximum size, the pattern of human usage, and conservation status of freshwater fishes of Kagdi Pickup (Banswara).

II. Methodology

Present work has been conducted on two sampling sites (A or B) of Kagdi Pickup to estimate its diversity. Fishes were collected from Kagdi Pickup from sampling stations for one year, from Jan 2020 - Jan 2021. Fishes were collected by hand-net and cast nets with the help of local fishers and local markets. Collected fish samples were preserved in formalin and identified by the methodology of Day [6] and Talwar and Jhingran [7]. Table 1 lists the number of freshwater fishes recorded in Kagdi Pickup, along with a note on the collectors and stations that have collected them and their habitat, location, and geographic coordinates. Information on recently found fish was gathered [8-12], and a list of freshwater fish species was extracted in Table 2. Fishbase and Talwar &Jhingran [7] are used for the classification of all taxa and names of species. Based on the colour pattern, form, and maximum size, a list of fish is created.

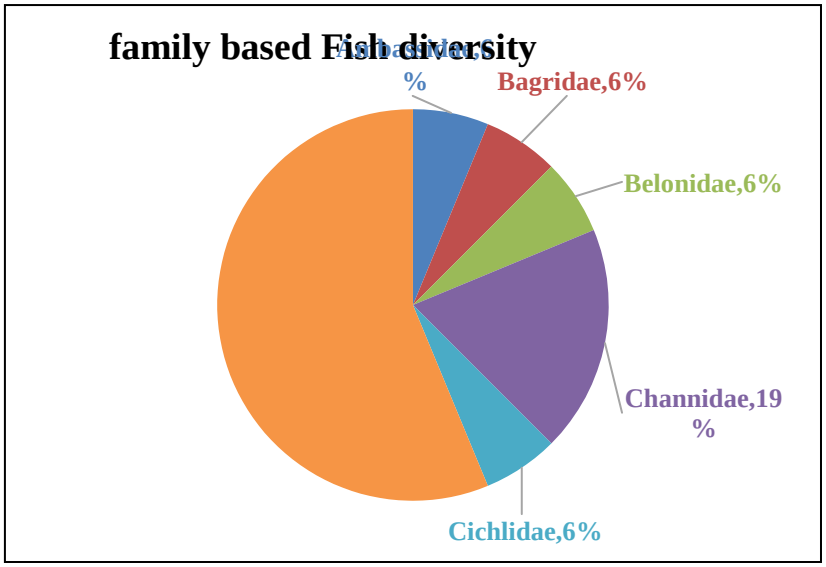
Fig – 1 Study Site.

III. Results And Discussion

The two sample stations used in the current study yielded 16 freshwater fish species from 6 Families and 5 orders. Table 1 lists the number of species and their relative abundance. Cyprinidae made up the major group in the assemblage structure, and the cyprinid species Labeo rohita, Catla catla, and Cirrhinus mrigala are found in all research locations. In other families, including Ambassidae, Bagridae, Belonidae, and Cichlidae, Cyprinidae predominated with 9 species. Channidae came in second with three species (Table 1). The Cyprinidae family was more prevalent in the Kagdi Pickup (Banswara) among these fish studied (Graph – 1).

S. No.	Species	Local Name	Order	Family	Relative abundant
1.	Channa striata	Kabra	Anabantiformes	Channidae	C
2.	Channa	Sawal	Anabantiformes	Channidae	C
3.	Xenentodoncancila(Ha	Suhia	Beloniformes	Belonidae	R
4.	Catla catla(Hamilton,	Catla	Cypriniformes	Cyprinidae	D
5.	Cirrhinus Mrigala	Mrigal	Cypriniformes	Cyprinidae	D
6.	Labeo rohita	Rohu	Cypriniformes	Cyprinidae	D
7.	Labeo gonius	Sarsi	Cypriniformes	Cyprinidae	D
8.	Labeo	Kalaunt	Cypriniformes	Cyprinidae	D
9.	Amblypharyngodon mola (Hamilton, 1822)	Malwa	Cypriniformes	Cyprinidae	D
10.	Puntius ticto(Hamilton,	Puthi	Cypriniformes	Cyprinidae	D
11.	Puntius sophore	Puthi	Cypriniformes	Cyprinidae	D
12.	Puntius sarana	Puthi	Cypriniformes	Cyprinidae	D
13.	Chanda	Chalputhi	Perciformes	Ambassidae	C
14.	Channa punctatus	Girhi	Perciformes	Channidae	C
15.	Oreochromis mossambicus(Peters, 1852)	Tiapia	Perciformes	Cichlidae	C
16.	Mystus seenghala	Singhara	Siluriformes	Bagridae	C

Table 1. Showing the fish diversity Kagdi Pickup (Banswara).



Graph – 1 Family-based fish diversity of Kagdi Dam.

In the Jawalgaon reservoir in the Solapur area of Maharashtra, Sakhare [13] identified 23 species from 7 orders, with 11 species predominating from the Cyprinidae family. These studies promote our current observation in a big way. Cyprinidae was the most excellent dominant family, contributing 20 species, while Bagridae comprised the sub-dominant family, according to Choube& Qureshi's [14] records of 45 species in Rajnandgaon town of CG, India.

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