An analysis of Ichthyofaunal diversity in an aquatic reservoir of Surguja District, CG, India.

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Abstract
The goal of the current research is to identify and catalogue the variety of fishes found in the Surguja region of Chhattisgarh's aquatic resources. Fish were gathered from Bankidam and Kunwarpur's water resources in Ambikapur. The variety and richness of fresh water fishes in India's Kunwarpurdam and Bankidam Surguja district (C.G.) are the subject of the current paper. According to the analysis, both aquatic reservoirs' diversified mixed fish populations were present in all of the reservoir (Kunwarpurdam and Bankidam).

Keywords: Ichthyofaunal, Reservoirs, Kunwwapur, Banki.

Introduction

Fishes are classified as cold-blooded creatures that have evolved exclusively for water existence. Fishes include between 30,000 and 40,000 species, all of which vary greatly from one another in terms of habitat, size, shape, and behavior. Fish exhibit a considerable deal of variation in their shape, size, and behavior, and some are endowed with particular specialized qualities that are distinctive in their significance, as will be discussed later. India ranks tenth globally in terms of freshwater mega biodiversity and is one of the countries with the highest levels of biodiversity. 1997, Mittermeier et al. There are 2,500 species of fish in India, 930 of which are freshwater fish and 1,570 of which are marine fish. Kar and others 2003. Fishes exhibit a very wide range of variability, to put it briefly. The conservation of ecosystems, improvement of the environment overall, and comprehension of the intrinsic value of all species on the planet all depend on biodiversity. Ehrlich and others, 1991. There is significant work being done in the field of ichthyology by numerous people. Singh (2005), Jayaram (1981), Joshi et al. (2002), Mahapatra (2003), Bossuyt (2004), Devashish (2006), and Kumaret al. (2008) are some of the authors. Rathodet al., 2008; Rajalaksh et al., 2005. It is only natural to research the distribution and availability of fish from fresh water dam reservoirs, especially in Chhattisgarh, given the economic significance and range of fish and fisheries. The current examination was carried out as a first attempt in this approach to explore the

fish variety from Bankidam and Kunwarpurdam. Important native and commercial fish species were discovered here. A large dam is Kunwarpurdam and Bankidam. In Surguja district, Lakhanpur block (22°57'8"N 83°1'39"E), of northern Chhattisgarh, India, the Kunwarpur Dam is on the Chulhat River. A medium-sized irrigation project called Kunwarpur Dam was built in 1976 over the river Kunwarpur Dam, a tributary of the Ganga basin's Rehar Subbasin Sone. The Dam is 20 kilometres away from Ambikapur, the district headquarters. The Dam is 24.38 metres tall and 297 metres long. Both the Kunwarpur and Banki dams are made of earth and are situated in the Ambikapur block of the Surguja district in the northern Indian state of Chhattisgarh (23°7'9"N 83°15'46"E). A medium-sized irrigation project called the Banki dam was built in 1984 across the River Bank, a tributary of the Rehar Subbasin Sone in the Ganga basin. The Dam is located 8 kilometres from Ambikapur, the district headquarters. The Dam is 43.60 metres tall and 1134 metres long.

Materials and Methods

With the assistance of local fishermen, live specimens were gathered from Kunwarpurdam and Bankidam throughout the year using a variety of nets, including gillnets, dragnets, castnets, etc. High temperatures and the summertime make captures rare. Only where they cannot be identified in the field should fish specimens be collected. The live colour of the fish must be noted as soon as possible after collection using a digital camera to capture pictures. Wherever available, it was very helpful to take note of the local names for fish. The fish were gathered alive and transported in a container with water from the same location to the laboratory in polythene bags. For preservation, fish were fixed in 8% formalin when they were brought to the lab. Smaller specimens were immersed directly in formalin, while medium-sized ones had an abdominal longitudinal incision before to fixation. By injecting 10% formalin into the muscles and abdomen, large formations might be stabilized. With the aid of established keys and literature, the meristic and morphometric traits were measured and fish up to the species level were identified. Day. 1967. 1999's Jayaram. 1991 Talwar et al.

Results and Discussion

In the current study on ichthyo-diversity, data from the Kunwarpur reservoir included records for 16 species from 5 orders and 6 families. The order Cypriniformes had the most species, with 10, followed by Perciformes with 1, Ophiocephaliformes with 2, and Siluriformes with 2. The order cypriniformes were discovered in abundance, the orders siluriformes and ophiocephaliformes were discovered in less abundance, and the order perciformes were discovered in the greatest abundance. These findings are shown in table 1 along with photographs of various fish discovered in Kunwarpurdam in plate no.1

Eight species from three orders and three families were found in Bankidam. Order siuriformes, 2 families, 1 species, found in less abundance from order cypriniformes, 5 species and 1 family, found in abundant

from. purchase periformes one family 1 less common species is listed in table no. 2.

Table - I - Ichthyodiversity of Kunwarpurdam

Order	Family	Scientific Name	Common Name	Group Of Food Fish	Status
Osteoglossiformes	Notopteridae	*Notopterus*	Patra	Airbladder	+
Cypriniformes	Cyprinidae	*notopterus*	Catla	Fish	++
		Catlacatla	Black rohu	Carp	++
		Labeo calbasu	Rohu	carp	++
		Labeo rohita	Mrigala	Carps	++
		Cirrhinus mrigala	common carp	Carps	+
		Cyprinus carpio	Tegna	Carps	+
		Mystus cavasius	Tegna	Food fish	+
		Mystus vittatus	Tegna	Food fish	+
		Mystus gulio	Titco	Food fish	+
		puntius titco	Titco	Miscelane-	
		puntius sophore		ous fish	+
Ophiocephaliforme	Ophiocephalida		Bijalwa		+
s	e	*Channa gachua*	Khoksi	Live fish	
		Channa punctatus			
			Kawai	Food fish	+
perciformes	Anabantidae	*Anabus testudineus*	Tilapia	Food fish	+++
		mossambica	(Black/Black		
		Oreochromis	)		

Order	Family	Scientific Name	Common Name	Group of Food Fish	Status
Siluriformes	Claridae	*Clarias batrachus*	Magur/cat fish		
				Live fish	++
	Heterophenustid -ae	*Heterophenustes fossilis*	singhi	Live fish	++
+++ Most abundant, ++ Abundant, + Less abundant					

Table - II Ichthyodiversity of Bankidam

Order	Family	Scientific Name	Common Name	Group Of Food Fish	Status
Cypriniformes	Cyprinidae	*Catla catla*	Catla	Carps	++
		Labeo rohita	Rohu	Carps	++
		Cirrinus mrigala	Mrigals	Carps	++
		Cyprinus carpio	Common	Carps	++
		Labeo calbasu	carp		
Siluriformes	Claridae	*Clarias batrachus*	Magur/Cat fish	Live fish	+
		Heteropneustes	Singhi	Live fish	+
	Heteropnustidae	*Fossilis*	Tilapia (Red)	Food fish	+++
Perciformes	Anabantidae	*Oreochromis mossambicus*	Kawai	Food Fish	+++
		Anabus testudineus			
+++ Most abundant,	**++ Abundant,**	**+ Less abundant**			

Conclusion

The use of illegal methods to catch fish should be banned in this area. The fisherman's should make aware about fishing improvement of production of fish in natural water both in quality and quantity, and improvement in the methods of fishing, fishing effort, fishing gear and craft so as to ensure better production. Itshas been observed that existing efforts need to be reduced to a great extent to achieve maximum sustainable yield and also to conserve the long-term productivity of the both ponds of Rajanandgaon.

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