Study of Fish Diversity Girja River, Dist. Aurangabad. (M.S.).

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Abstract:

Girja River Near to Khultabad, Dist. Aurangabad water resource for helpful for the agriculture and fisheries it has good water storage capacity, the reservoir is good source of fish fauna. The present study on Fish diversity of Girja River was carried out from October 2020 to November 2021. During the present investigation, fishes were collected and identified. The aim of this study was to reveal the diversity of fish species in this River. The results of present investigation reveal the occurrence of 07 fish species belonging to the members of Order Cypriniformes were dominated by 05 species followed by Perciformes with 02 species, 02 orders, 02 families and 07 genera. From present study, we concluded that Girja River is good source of food fish diversity.

Keywords: Fresh water fish, Fish diversity, Girja River.

Introduction:

Asia has the largest fisheries production of all the worlds' continents and many livelihoods are dependent upon freshwater biodiversity, which provides food security to the poorest of communities. India is endowed with vast and varied resources possessing river ecological heritage and rich biodiversity. Freshwater fishery sites are varied like 45,000 Km. of rivers, 126,334 Km. Of canals, ponds and tanks 2.36 million hectares and 2.05 million hectares of reservoirs. Many workers have studied Biodiversity and Distribution of fishes found in freshwater bodies of various parts of the state Maharashtra, India. Fish forms highest species diversity among all vertebrates and their loss is one of the world's most pressing crises as human life and livelihood largely depend on the status of biological resources. The freshwater fish is one of the most threatened taxonomic groups due to their high sensitivity to the quantitative and qualitative alteration in aquatic habitats **(1)**. Fish exhibit the greatest biodiversity of the vertebrates with over 22,000 species. Of these, about 58 percent are marine, 41 percent are freshwater species and 1 percent move back and forth between salt and freshwater. As expected, marine fishes are the most diverse because salt water covers 70 percent of the earth. Only 1 percent of the earth is covered by freshwater. This small area is home to 8,000 species of fresh water fishes **(2)**. Fishes are the only major group of vertebrate which very much effect on human civilization from ancient time to date. It is one of the good and cheapest sources of proteins food for economic as well as high class people so it is essential to study the distribution and the availability of fish from freshwater reservoirs and tanks **(3)**.

Materials and Methods:

To study the Fish Diversity from Girja River, Near to Khultabad, Dist. Aurangabad. The fish specimens collected were instantly fixed in 4% formaldehyde solution and subsequently after 4-8 h fixation and washing with tap water, transferred to 70% ethanol. The large sized specimen was given incision on belly Identification of fishes was done up to species level while identifying its natural color, pattern of scales, fins, mouth pattern, identification marks like black or red spots, blotch on operculum, paired and unpaired fins and body parts with the help of standard literature by **(4 to 9)**.

Observation Table

Table: The Fresh Water Fish diversity of Girja River, Near to Khultabad, Dist. Aurangabad.

Order	Family	Scientific Name	Common Name	Groups of food fish
Cypriniformes	Cyprinidae	*Catla-catla*	Catla	Carps
		Labeo-rohita	Rohu	Carps
		Cyprinus carpio	Common carp	Carps
		Cirrhinus mrigala	Mrigala	Carps
		Ctenopharyngodon idellus	Gavtya	Food fish
Perciformes	Channidae	*Channa punctatus*	Dok	Live fish
		Oreochromis mossambica	Tilapia	Food fish

Results and Discussion:

In the present fish diversity study, species of 07 different genera belonging to 02 families and 02 orders recorded from the River. The members of Order Cypriniformes were dominated by 05 species followed by Perciformes with 02 species with 07 species was dominant group in the assemblage composition in which *Catla-catla*, *Labeo-rohita, Cyprinus carpio, Cirrhinus mrigala, Ctenopharyngodon idellus, Channa punctatus, Oreochromis mossambica.* The Identification of fishes is given Observation Table in that Fish *Catla-catla* is Mouth is up turn. Dorsal fin commence in advance of ventrals, Lips are thick and unfringed, lower lip is not provided with tubercles, Barbles are not present. Fish *Labeo-rohita* is Snout obtuse depressed and projected beyond the jaws, no lateral lobes present Lips thick and fringed but with distinct inner fold. The gill rakers are stiff not set closely. A short and fine pair of maxillary barbles are present, sometime dorsal pair may present. Fish *Cyprinus carpio* is Mouth terminal, dorsa fin arises opposite the ventral but much longer, scales are very large lateral line incomplete, caudal forked. Fish *Cirrhinus mrigala* is Lips are thin and do not continuous at the angle of mouth is transvers and sub-terminal in position. Snout does not over hang the mouth. Fish *Ctenopharyngodon idellus* body is elongated and head is broud, snout rounded, upper jaw is slightly longer, no barbell are present. *Channa punctatus* is Head broad and flat covered with large scales. Eyes are lateral single dorsal which is ling and spineless, anal fin is short. Ventral fin is with six rays. *Oreochromis mossambica* Body is fairly deep and laterally compresses, upper profile is convex, mouth is large, maxillary ending between nostril and eye, longest soft dorsal ray. **(5 and 7)**.

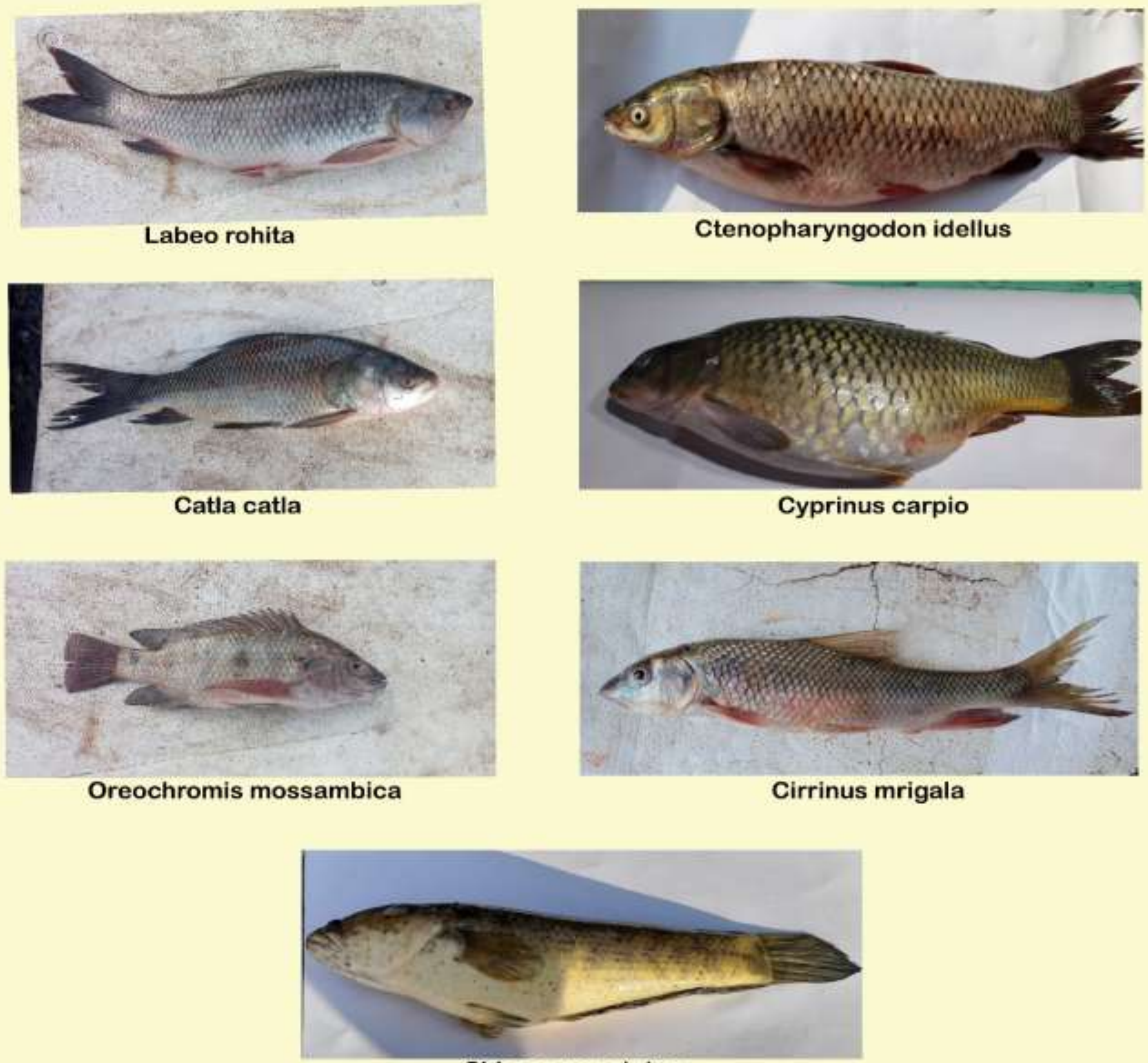

Photo plate

Labeo rohita

Ctenopharyngodon idellus

Catla catla

Cyprinus carpio

Oreochromis mossambica

Cirrinus mrigala

Chhana punctatus

Discussion:

Studied the ichthyofaunal biodiversity of Girna Dam and he was recorded 24 species that the ichthyofauna belong to 05 order 11 families, 18 genus. The members of order Cypriniformes were dominated by 13 species followed by Perciformes with 05 species, Siluriformes with 03 species, Osteoglossiformes, Parapsilorhynchidae and Scorpaeniformes with 01 species each **(3)**. The fish fauna of River Girna was collected and identified in the present study. A total of 35 fish species belongs to 08 orders, 27 genera of 17 families were recorded. Order Cypriniformes was most dominant group represented by 20 (57.14) species followed by orders Perciformes with 06 (17.14) species. Siluriformes with 03 (8.57) species, Synbranchiformes 02 (5.71) species, Beloniformes 01 (2.85) species, Synodontidae 01 (2.85) species, Scorpaeniformes 01 (2.85) species and Osteoglossiformes 01 (2.85) species. Thus the Girna River has good potential for fish fauna. Out of 35 fish species 29 have least concern status, 01 are near threatened, 02 are Vulnerable, 02 are not evaluated and one is data deficient. This is considered the first study on the ichthyofaunal diversity of Girna River **(1)**. The rivers, streams, reservoirs or ponds of Nandurbar district lays in the northwest region of Maharashtra state. The district is transverse by the river Tapi and its principal tributaries, viz., the Gomai, the Vir, the Rangavali, the Daheli and the Shivan River etc. The survey was made from nine collection centers spread over the entire district. In present study of 83 specimens observed that the ichthyofauna belongs to 6 orders, 11 families, 24 genus and 32 species, were Cypriniformes order is dominant with 19 (59.40%) species followed by Perciformes and Siluriformes with 05 (15.60%) species, Beloniformes, Clupeiformes and Osteoglossiformes contribute 01 (3.10%) species each. **(9).**

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