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Biodiversity of Fish Fauna in Jivrekha Reservoir Akola Dev District Jalna, Maharashtra

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Abstract

The fresh water fish resource of Maharashtra constitutes 6 orders 25 families and 160 species. There are many species like Oriochromis, Grass carp, Common crap, silver crap etc. that have been introduced in the inland water of Maharashtra. The entire region comes under four basins Viz. Narmada, Tapi, Godavari and Krishna. Due to irrational fishing practices, environmental aberrations like reduction in water volume, increased sedimentation, water abstraction and pollution over the years this diversity is on a decline. The present study deals with the fish fauna of a Jivrekha reservoir, basically represents the diversity and their abundance. Fishes plays a very significant role in the human economy by providing pretentious food. Present study was carried out to know about the fish fauna of Jivrekha lake during June 2018-May 2019. Fish fauna of this reservoir represented by 24 species.

Ichthyodiversity refers to verity of fish species; depending on context and scale, it could refers to alleles or genotypes within fish population to species of life forms within a fish community and to species of life forms across aqua regimes[1]. Fishes are the major nutritional food source for human population. Different fishes have different nutritional value because of their various habitats and food selection. Biodiversity indicates the potential of any aquatic system and also depicts its tropic status. It is important to have and adequate knowledge of the constituent biota especially for the purpose of conservation and management of the inland water resources such as rivers, reservoirs and ponds. India is one of the mega biodiversity countries in the world and occupies 9th position in terms of freshwater mega biodiversity[10]. Studies on taxonomy (Ichthyofaunal diversity) have been of immense interest to researchers of all time[2,4]. Biodiversity is an important factor for the stability of an ecosystem[11]. Maharshtra is rich in freshwater reservoir fish diversity[8]. The species diversity of an ecosystem is often related to the amount of living, non-living and organic matter present. The present study deals to observe the fish diversity and their abundance in the Jivrekha reservoir, Tq. Jafrabad Dist. Jalna, Maharashtra. The Jivrekha reservoir is considered as medium project and

main purpose to provide irrigation and drinking water. The reservoir is also used for fish culture.

The fishes were collected from the reservoir every month using different types of net namely gill net, cast net Fishes brought to laboratory were preserved in 10% formalin solution in separated specimen jar according to the size of the species small fishes were directly placed in the 10% formalin solution while large fishes were given an incision in their abdomen and preserved for identification and classification. Nomenclature is based on fish base (www.fishbase org., Day, 1986; V.G. Jhingran (1991).

Inland fisheries in India have great potential of contributing to the food security of the country. Fishes are very rich in protein, vitamins, carbohydrates, and other minerals. They are preserved by salting, smoked or other ways. Reservoirs and lakes are the main resources exploited for inland fisheries and understanding of fish faunal diversity is a major aspect for its development and the sustainable management. R.K. Saronia[9] reviewed the freshwater fish diversity of Maharashtra. They recorded freshwater fish species by various authors refer to 165 species belonging to 9 orders, 26 families and 82 genera in Maharashtra during 2000-2004. Londhe Sheetal and T.V. Sathe (2015) recorded 28 species of fishes belonging to orders Cypriniformes, Perciformes and Siluriformes prevalent in Kolhapur region.

In present investigation the order Cypriniformes and Perciformes found dominant in the Jivrekha reservoir (fig. 1) same results are recorded by[6]. A total 36 fish species belonging to 6 orders were collected from various water resources of Bijnor district in

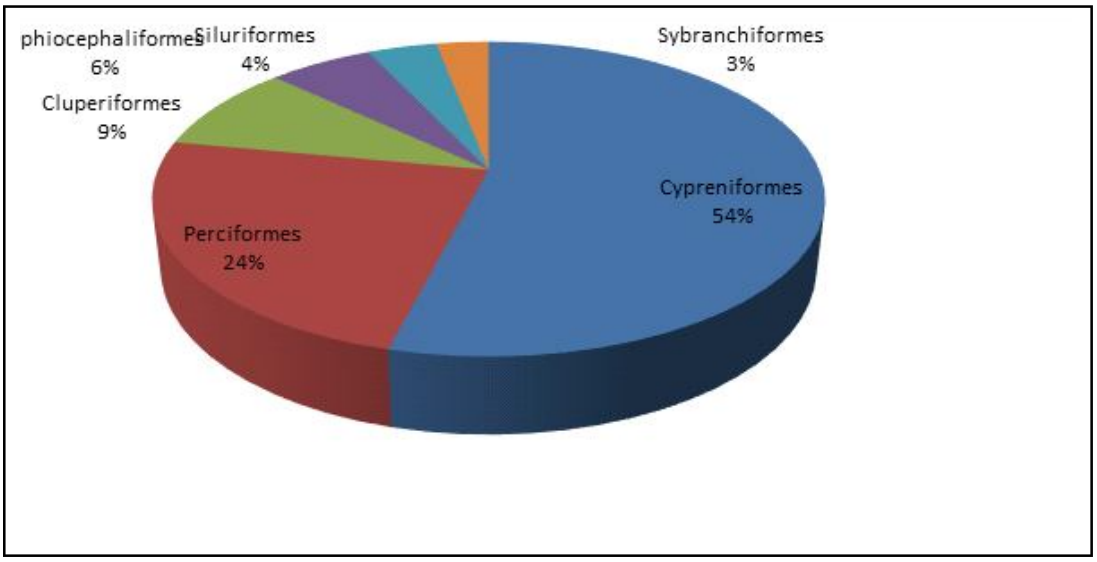

Fig. 1. Order wise percentage of freshwater fish species in Jivrekha reservoir.

Table-1. Ichthyofaunal Diversity of Jivrekha Reservoir Akola Dev.

Sr. No.	Order	Family	Scientific Name
1	Cypriniformes	Cyprinidae	*Catla catla*
			Sivercarps
			Grasscarp
			Labeo rohita
			C. mrigala
			Barbus
			Cyprionouscarpo
		Bagridae	*Mysstusseengala*
		Heteropneustidae	*Heteropneustusfossile*
2	Perciformes	Anabantidae	*Anabus*
		Cichlidae	*Tiliapia M.*
		Channidae	*Channa marulius*
			Channa srtiatus
			Channa punctatus
			Channa orientalis
3	Cluperiformes	Notopteridae	*Notopterus N.*
4	Ophiocephaliformes	Channidae	*Channa puntatus*
5	Siluriformes	Siluridae	*Wallago attu*
		Bagridae	*Mystusseengala*
			Sperata seenghala
			S. aor
			M.Tengra
6	Sybranchiformes	Mastacembelidae	*Mastacembelus puncalus*
			M. armatus

which order Cypriniformes was recorded dominant. Due to more fecundity of major carps and suitable environmental condition, relatively higher population density of Cypriniformes was found in the dam similar were earlier recorded by Talwar and Jhingran[12], Pathak and Mudgal[7].

In the present ichthyofaunal study (table-1) 24 species of 6 orders were recorded from Jivrekha reservoir in which from Cypriniformes order; *catla, Labio rohita, C. Mrigala*, Mystusseengala, Heteropleusts, Silver carps were found most abundant while species like *Chnna sriata, Chana punctatus, channa orientalis* from order Perciformes were found abundant.

From this study, it is concluded that Jivrekha Reservoir is rich in fish diversity. Fish

fauna and distribution is useful for designing and implementing conservation strategies, to make fishermen aware of fishing, to give scientific training, to provide facilities to the fish farmers. It is needed to maintain the water level of pond which is heavily used in winter season by farmers for the irrigation of farms so that the fish diversity of pond to remain sustain.

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