



A STUDY ON ICHTHYOFAUNAL DIVERSITY OF NALESHWAR IN SINDEWAHI TEHSIL, DISTRICT CHANDRAPUR, STATE MAHARASHTRA, INDIA

Pravin D. Jambhulkar¹ and R.R. Kamdi²

¹Research Scholar, IHLR & SS Anandniketan College, Warora

²Professor, Department of Zoology Anandniketan College, Warora

Corresponding Email: jam.pravu24@gmail.com, kamdi.ramdas@gmail.com

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ABSTRACT:

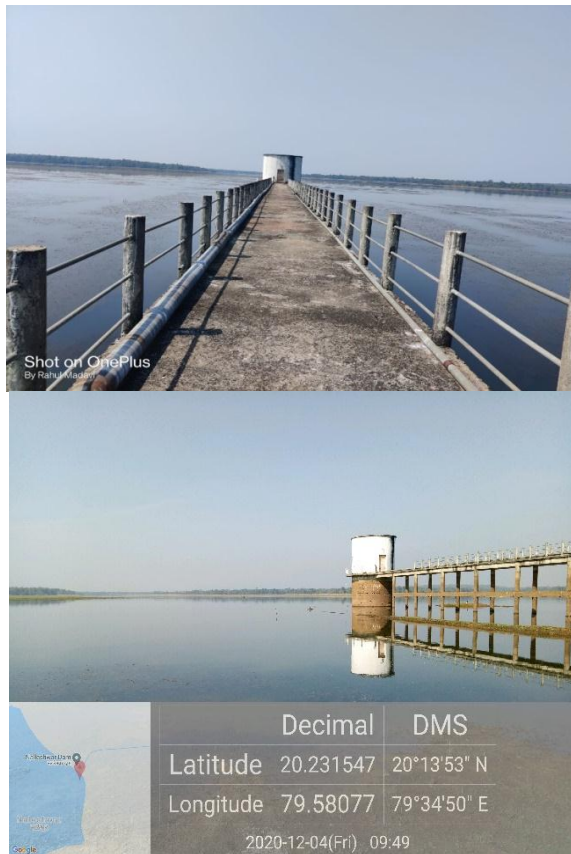
Naleshwar dam in sindewahi tehsil district chandrapur (M.S.) are always attracted to nearby villagers. Biodiversity in dam and around is influenced by people for tourism. The main perspective of The present study was undertaken to understand the distribution of ichthyofaunal diversity of Naleshwar dam. Present research work has been done over two years between 2020 to2021. The number and percentage composition were calculated, out of which a total of 35 freshwater fish species of 11 different families, 6 different orders, and 23 genera were recorded. Among different types of fishes, cypriniformes orders dominated all over orders. The percentage contribution according to IUCN(2022-1) categories, most freshwater fishes comes under the least concern (LC) category which contributes 85.7% of total fish fauna, followed by 5.7 % data deficient (DD), 5.7% nearly threatened (NT), 2.9 % are vulnerable (VU). According to IUCN red data list, no endangered (EN) species are found

Keywords: - Naleshwar, Endangered, threatened, Biodiversity..

INTRODUCTION :

Water is the basic element in fish culture. Fresh water is one of the basic necessities for sustenance of life. Fresh water resources are very valuable for life on our planet. The number of dams, reservoirs, etc. has increased significantly in the last few years. India accounts for 975 reservoir spread over in India covering an area of 3.15 million hectares in India (T.Muniya et al. 2019) fish development in these freshwater resources needs to be enhanced through appropriate development. Fishes are rich protein sources for all living being. Globally fish farming is known as a source of income. Many countries import and export fishes from their wetland to nearby land areas. People from villages are dependent on water reservoir, for source of income, food etc. Naleshwar dam is geographically located at 200

13' 530 north & 790 34' 500 east. Catchment area for land purposes is 1688 acres. Various researchers studied on fresh water fish species. They found great variation among fish diversity. Conservation of biodiversity is a necessity in their natural habitat. A.S. Jadhav and R.R. Dandawate (2021) studied on ichthyofaunal biodiversity of Mula dam reservoir in Ahmednagar Maharashtra, India was recorded 15 species belonging to 6 different order and 7 different families of fresh water fishes. S.K. Wawre and R.R. Kamdi (2017) reported 23 freshwater fish species belonging to 5 different orders and 12 different families, of Nawargaon lake in Maregaon taluka, Yavatmal district Maharashtra.



MATERIAL AND METHOD :

Fish were collected from different sampling points of the Naleshwar dam during the study period with the help of local fishermen using different types of nets such as gill nets, trawl nets, rake nets and cast nets. Information about local name was collected from local fisherman and also collected from local fish market. Fish were identified using standard keys (Misra 1962; Jayram 2010; and Talwar and Jhingran 1991) fishes which are easily observed, they immediately photographed and released back into the river and other fish were brought to the laboratory and preserved in 10% formalin solution for further research in separate specimen containers. Threatened species are identified with the IUCN (2022-1) red data list of threatened species.

RESULT AND DISCUSSION :

During the two years of the study, the result showed that a total of 35 species of freshwater fish from 11 different families, 6 different orders

and 23 genera were recorded. among different types of fishes, cypriniformes orders dominated all over orders which contributes to 43% of total fishes, followed by siluriformes 23%, perciformes 14% anabantiformes 11%, osteoglossiformes 6%, and anguilliformes 3% in the percentage of species at order level. (Figure no.3) of Naleshwar dam.

Table 1. has listed the fish diversity and status of fishes in Naleshwar dam in which fishes are categorized into the local name, scientific names, family, order, and their IUCN (2022-1) status.

Figure 1. showed that percentage contribution according to IUCN (2022-1) categories, most freshwater fishes comes under least concern (LC) category it contributes 85.7% of total fish fauna followed by 5.7% data deficient (DD), 5.7% nearly threatened (NT), and 2.9% vulnerable (vu). According to IUCN red data list, no endangered species were found. Figure 2. Reveals the number of species of fishes at order level, in which, 15 freshwater fish species come under cypriniformes, followed by siluriformes 8, perciformes 5, anabantiformes 4, and 1 freshwater fish species to anguilliformes.

Figure 4. represented about percentage of freshwater fishes in each family cyprinidae contributes 43%, bagridae 11%, channidae 11%, heterpneustidae 3%, notoapteridae 6%, ambassidae 8%, siluridae 3%, gobiidae 3%, claridae 6%, anguillidae 3%, and nandidae 3%. Economically important fishes like labeo rohita, catla catla, clarius batrachus, and cyprinus carpio are more cultivated than others in naleshwar dam. Our findings reported no cultivation and threats of exotic fishes to common fish species. A similar study was reported by M. Raut and C.J. Kunhe. L.P. Nagpurkar (2020) on Nagzira- Navegaon (NN) corridor gondia, study result found that 62 species of fish belonging to 10 different families. The cyprinidae family dominated over all other families in their study. P.M. Telkhede and

S.H.Jambhule (2017) studied the fish diversity of Lohara Lake in Chandrapur district and found 30 fish species belonging to 5 different orders and 9 different families were observed. D.R Verma., T.Ahmed., K. Dixit, S.Bajpai and U.B. Singh (2020) studied the fish fauna diversity of Tara Tal in Saughana village district Baharich (UP) and found that 33 fish species belonging to 15 families 7 orders 25 genera. The cyprinidae family was also dominant here.

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Table 1. Fish Diversity and Status of Fishes of Naleshwar Dam

Sr No.	Local Name	Scientific Name	family	order	IUCN Status
1	Dadak	<i>Channa striata</i>	channidae	anabantiformes	LC
2	Maral	<i>Channa marulius</i>	channidae	anabantiformes	LC
3.	Botri	<i>Channa punctata</i>	channidae	anabantiformes	LC
4.	Bilona	<i>Channa gachua</i>	channidae	anabantiformes	LC
5	Chandani	<i>Parambassis ranga</i>	ambassidae	perciformes	LC
6	Zamdi	<i>Parambassis lala</i>	ambassidae	perciformes	LC
7	Lambizamdi	<i>Chanda nama</i>	ambassidae	perciformes	LC
8	Dukkar	<i>Nadus nadus</i>	nandidae	perciformes	LC
9	Bhadar	<i>Notopterus notopterus</i>	notopteridae	osteoglossiformes	LC
10	Bhadar	<i>Notopterus chitala</i>	notopteridae	osteoglossiformes	LC
11	Singur	<i>Heteropneustes fossilis</i>	hetropneustidae	siluriformes	LC
12	Jalya Katwa	<i>Mystus cavasius</i>	bagridae	siluriformes	LC
13	Rengdya Katwa	<i>Mystus bleekeri</i>	bagridae	siluriformes	LC
14	Shingta	<i>Sperata seenghala</i>	bagridae	siluriformes	DD
15	Rengdya katwa	<i>Mystus vittatus</i>	bagridae	siluriformes	LC
16	Savla	<i>Wallago attu</i>	silluridae	siluriformes	NT
17	Sarkari wagur	<i>Clarius gariepinus</i>	clariidae	siluriformes	LC
18	wagur	<i>Clarius batrachus</i>	clariidae	siluriformes	LC
19	Tepari	<i>Puntius ticto</i>	cyprinidae	cypriniformes	LC
20	Karwalitepari	<i>Puntius sophore</i>	cyprinidae	cypriniformes	LC
21	Katla	<i>Catla Catla</i>	cyprinidae	cypriniformes	LC
22	Grass Carp	<i>Ctenopharyngodon Idella</i>	cypriniidae	cypriniformes	LC
23	Silver Carp	<i>Hypophthalmichthys nobilis</i>	cyprinidae	cypriniformes	DD
24	Rohu	<i>Labeo rohita</i>	cypriniidae	cypriniformes	LC
25	Sipnus	<i>Cyprinus carpio</i>	cypriniidae	cypriniformes	VU
26	Rohu	<i>Labeo calbasu</i>	cyprinnidae	cypriniformes	LC
27	Poshti	<i>Puntius Sarana</i>	cyprinidae	cypriniformes	LC
28	Tepari	<i>Puntius sophore</i>	cyprinidae	cypriniformes	LC
29	Gotechati	<i>Garra mullya</i>	cyprinnidae	cypriniformes	LC
30	Gani	<i>Rasbora daniconius</i>	cyprinnidae	cypriniformes	LC
31	Kanas	<i>Labeo fimbriatus</i>	cyprinnidae	cypriniformes	LC
32	Mrugal	<i>Cirrihinus mringla</i>	cyprinidae	cypriniformes	LC
33	Palvi	<i>Devario aequipinnatus</i>	cyprinidae	cypriniformes	LC
34	Rengsa	<i>Glossogobius giuris</i>	gobiidae	perciformes	LC
35	Tambu	<i>Anguilla bengalensis</i>	anguillidae	anguilliformes	NT

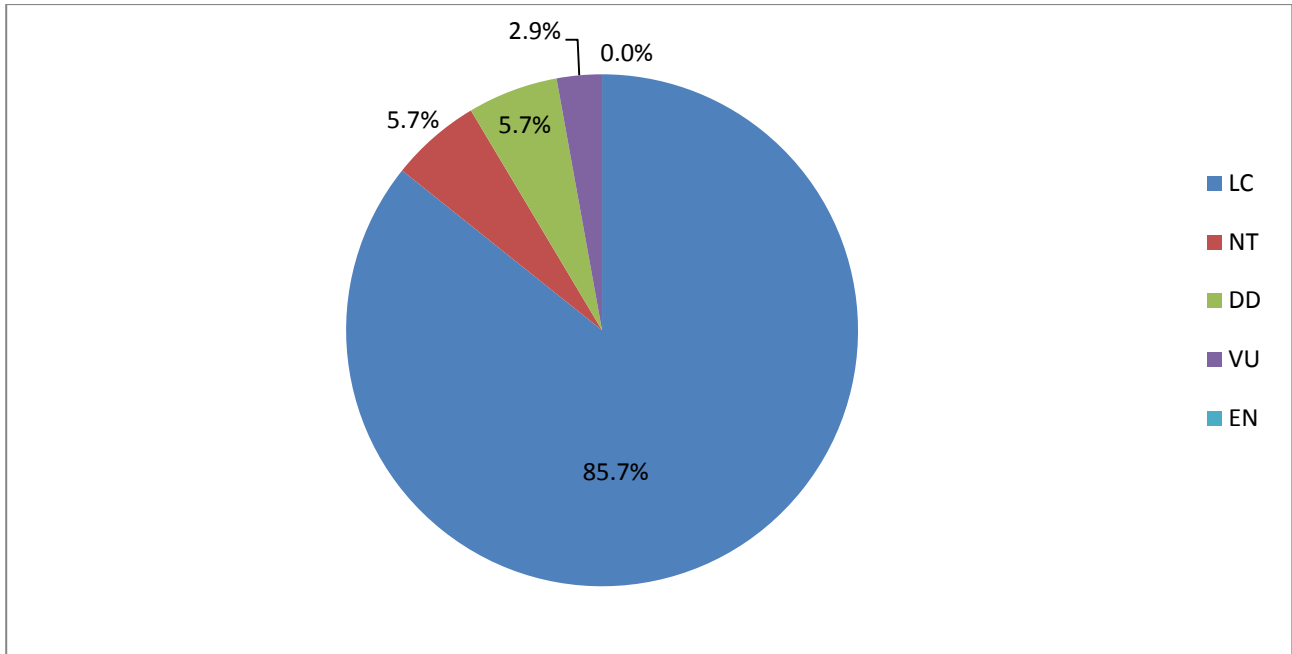


Fig.1: percentage contribution of species under IUCN (2022-1) categories

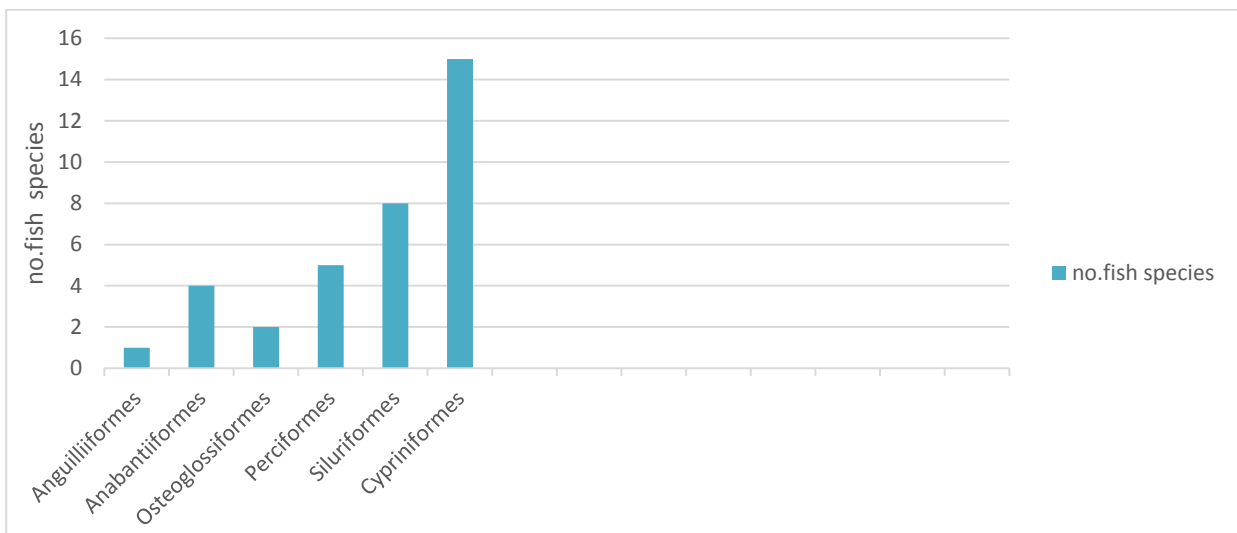


fig.2: number of species at order level in Naleshwar dam

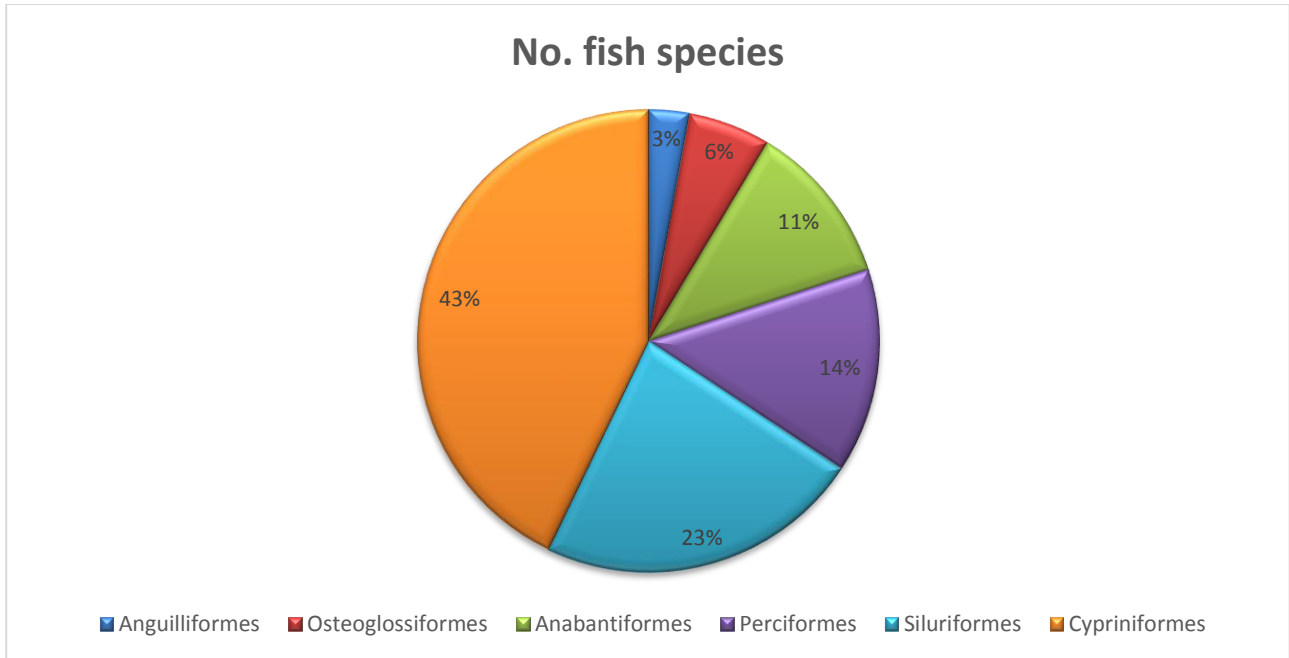


fig.3: percentage of species at order level in Naleshwar dam

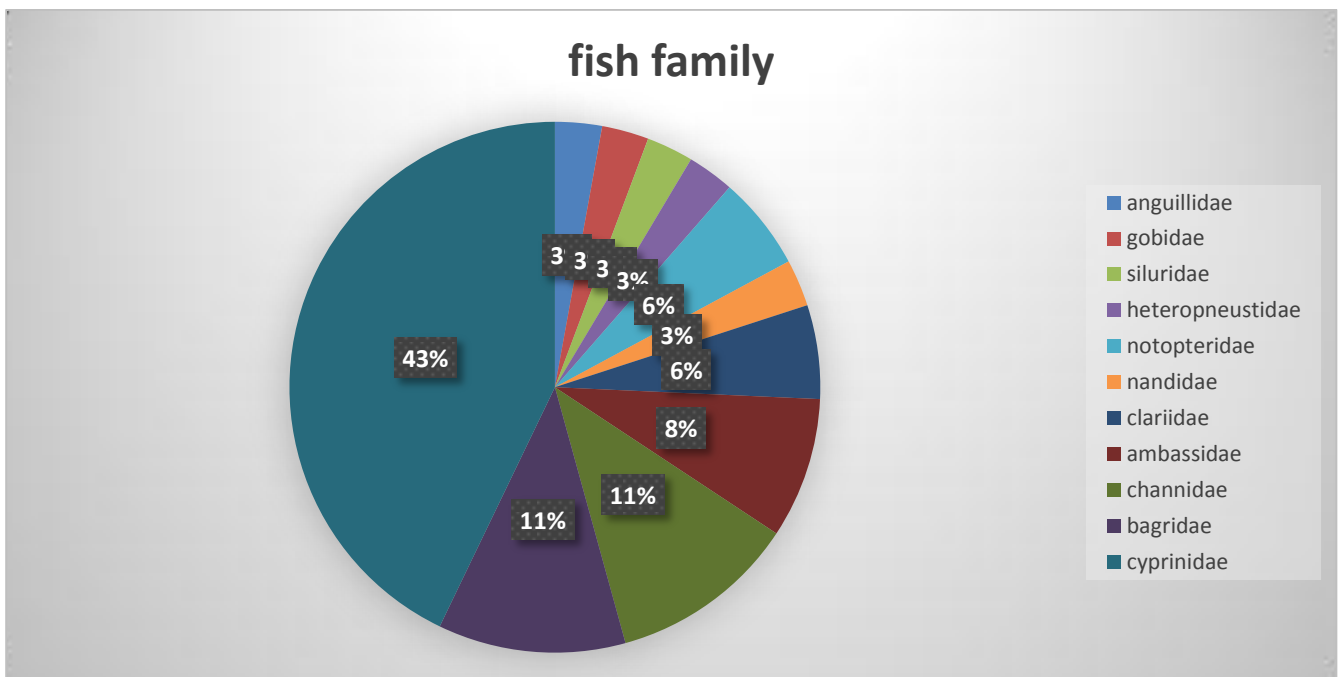


Fig 4:- chart showing percentage of freshwater fishes in each family