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Original Research Paper

Zoology

ICHTHYOFAUNAL DIVERSITY OF FRESHWATER PERENNIAL LAKE AT WARANGAL DISTRICT, TELANGANA STATE, INDIA

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ABSTRACT

Ichthyofaunal studies were undertaken during from June 2018 to May 2020 in the Wardhannapet Freshwater Lake Warangal district, Telangana State, India. Fishes are the valuable source of high grade protein and other organic products. The result revealed the occurrence of 23 fish species belonging to 6 orders, 10 families and 17 genera. The order Cypriniformes was dominant with 10 species, followed by Siluriformes (5species), Channiformes(3species), Perciformes(3species), Osteoglossiformes and Antherniformes (1 species each) were identified. Order wise percentage composition is Cypriniformes (44%), Siluroformes (22%), Perciformes (13%), Channiformes (13%), Osteoglossiformes(4%), and Anthrniformes (4%).The study thus states about the Lake has good potential of fish species and is still in a position to set a good example of conservation and sustainable management.

KEYWORDS : Fish Fauna, Wardhannapet Freshwater Lake.

INTRODUCTION

The Aquatic environment is enormously rich resources that offers good base of food. Fishes from one of the most important groups of vertebrates, influencing life in various ways. Fish are important palatable pretentious food for mankinds. Fishes are the rich source of aquatic food rich in protein source inhabitation aquatic life. Fishes are the indicators of aquatic body related with aquatic pollution. Fishes have formed an important item of human diet from time immemorial and are primarily caught for this purpose. The fish diet provides proteins, fat and vitamins A and D they have good taste and easily digestible. Fishes of the inland water bodies of the Indian subcontinent have been a subject of study since last century, Jayaram(1981); Talwar and Jhingran(1991);Hamilton and Buchanan(1822); Lohar and Bose(2003); Jayable et al.,(2006);Battul et al.,(2007);Paik et al.,(2003).The present investigation was under taken to study the aquatic vertebrate animals with reference to fishes from Wardhannapet Freshwater Lake.

MATERIAL AND METHODS

The present study was carried out on in fresh water lake of Wardhannapet Freshwater Lake in Warangal district, Telangana State. Fishes were collected from different localities for the period of Two years from June 2018-May 2020 with the help of local fishermen using different types of nets namely gill nets, cast nets and drag nets. The collected fishes were preserved in 10% formalin and identified with following work of Day (1889), Gopalji, Srivastava (1992),Jhingran (1982),Jayaram (1999).

Fig-1: Location of Wardhannapet

RESULT AND DISCUSSION

The Fish fauna is important aspect of fishery potential of a water body. Warangal district contains large freshwater bodies' canals, reservoirs, lakes and ponds etc. The vast stretch of freshwater bodies offer good score for fisheries. It is the highest fish producing center in Telangana region. This district has rich fish fauna, however some species found in this region has started disappearing, there is need to take contemplate measures to protect the genetic resources. The inventory of fish fauna collected from the Wardhannapet Freshwater Lake and their population status and systematic position presented in Table-1.Atotal of 23 species from 6 orders, 10 families, 17 genera were recorded during the present study. Cypriniformes 10 species, Siluriformes 5 species, Perciformes 3 species, Channiformes 3 species, Osteoglossiformes and Antherniformes were represented by one species each. The family cyprinidae dominated with 10 species, bagridae with 2 species, siluridae with 2 species, channidae with 3 species, Claridae, Notopteridae, Anabantidae, Mastacembilidae, Gobidae and Belonidae were represented by each one species. In these reported fishes, Cyprinidae family was more dominant.(Table-1 check the Ichthyofauna) Many researchers have reported the strong dominance of Cyprinidae family in their investigation on icthyofaunal diversity. The studies on Ichthyofaunal diversity from different fresh water bodies of India have been carried out during the last few decades Menon, 1999; Sarkar and Benerjee, 2000; Mishra *et al.*, 2003; Das and Chand, 2003; Sharma *et al.*, 2004; Pathak and Mudgal 2005, Sakhare(2001), Chacko et al(1952); Dutt and Sharma(1979); Gopinath and Jayakrishnan(1984) mentions 17 species of fishes from Idukki reservoir of Kerala. Sugunan and Yadava (1992) mentioned 40 species from Hirakhud reservoir of Orissa forming the commercial fishery; Chandrasekhar and Kodarkar(1994); Rao et al.(1991); Singh(2001) reported a total of 27 species belonging to six families in Pong reservoir of Himachal Pradesh; Venkateshwarlu et al.,(2009) observed fish diversity of Sogne and Santhkadur tank of Shimoga Karnataka; Regi and Kumar (2012); Mokappa Naik and Hina Kousar(2012) reported 23 species in Talagappa Tank, Sagara Taluk, Karnataka; Narasimha and Benarjee (2013) 30 species of fishes were recorded at Nagaram Tank Warangal; Thirupathaiah M, Samatha Ch,Sammaiah.

Ch(2014) reported 25 species in Diversity and Conservation Status of Fish Fauna in Freshwater Lake of Kamalapur, Krimnagar District; Laxmappa and Ravindar Rao (2015); Seema Jain (2017) listed 61 fish species belonging to 38 genera from various water sources of Western Uttar Pradesh, India; Bhattacharya (2018) identified 102 freshwater fish species belonging into total 10 orders and 27 families in Bankura district.

Table-1: The Fresh Water fishes in Wardhannapet Freshwater Lake during June 2018 to May 2020

Order	Family	Scientific Name	Commn Name	Local Name
Cypriniformes	Cyprinidae	Catla catla	Catla	Botcha
		Labeo calbasu	Black rohu	Kakibochhe

		Labeo rohita	rohita	Rohu
		Cirrihinus mrigala	mrigala	Merige
		Cyprinus carpio carpio	Common carp	Bangaruthe ega
		Punctius sarana sarana	Olive barb	Gundu parka
		Punctius titus	Ticto barb	Budda parka
		Salmostoma bacalica	Large razorbelly minnow	Chandama ma
		Amblypharyg odon microlepis	Indian carplet	Kodipe
		Amblypharyg odon mola	Mola carplet	Kodipe
Siluriformes	Bagridae	Mystus bleeker	Days mystus	Jella
		Mystus cavasius	Gangetic mystus	jella
	Siluridae	Ompok bimaculatus	Butter cat fish	Buggadam ma
		Wallago attu	Boal	Waaluga
	Clariidae	Clarius batracus	Batchwa vacha	Marphoo
Osteoglossiformes	Notopteridae	Notopterus Notopterus	Grey feather back	Vollenka
Channiformes	Channidae	Channa marulius	Spotted snakehead	Bomme
		Channa punctatus	Giant snaked eye	Korramatta
		Channa striatus	Banded snaked eye	Bomme
perciformes	Anabantidae	Anabas testudineus	Climbing perch	Burka
	Mastacembleidae	Mastacembleus armatus	Zig zag spiny eel	Paapera
	Gobitidae	Glossogobius giuris	Tank/ Bar-eyed goby	Uskedanthi
Antheriniformes	Belonidae	Xenentodon cancilla	Fresh water gar fish	Nayaniuntha

Table No.2: Ichthyofauna abundance of Wardhannaprt Freshwater Lake during June, 2018 to May, 2020

S.No.	Order	No. of Species	Percentage (%)
1.	Cypriniformes	10	44%
2.	Siluriniformes	05	22%
3.	Perciformes	03	13%
4.	Channiformes	03	13%
5.	Osteoglassiformes	01	4%
6.	Antheriformes	01	4%
	Total	23	100%

CONCLUSIONS

It may be concluded that the Wardhannapet Freshwater Lake is found more suitable for fish culture. The lake has largest catchment area.

Hence, this lake water can be utilized for the fish productive in large scale and variety of species can be cultural. Finally it appears that the lake is rich in fish diversity and a good potential for conservation of fish germplasm.

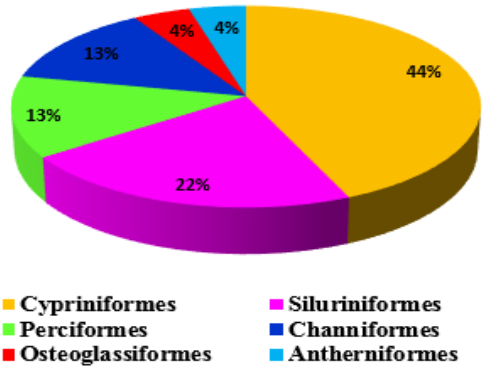

Fig. No-2.Showing Percentage of Orders during the year June 2018 to May 2020

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