JOURNAL PUNJAB ACADEMY OF SCIENCES (Peer Reviewed Open Access Journal)
JPAS, 21: 67-71 (January-December, 2021)
Available online at www.jpas.in
ISSN 2229-7014 (P)

A COMPARATIVE ANALYSIS OF ICTHYOFAUNA IN AMBAZARI AND GANDHISAGAR LAKESOFNAGPUR,CENTRALINDIA

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ABSTRACT
The present study carried at two lakes of Nagpur City in Central India from July 2010 to Jun 2012 confirmed icthyofaunal diversity of 19 species belonging to 7 different orders, vizCypriniformes, Paraformes, Singuilliformes, Clupeiforimes, Mastacembaliformes, synganthiformes and Ophiocephalliformes. Presence of carps like *Catla-catla*, *Labeorohita*, *Cirrihinamrigala* and Silver carp showed good productive grounds for fish culture practice in two lakes.
Keywords: Nagpur, Ambazarilake, Gandhisagar Lake, Icthyofauna.

INTRODUCTION
Fish farming is one of the ancient practices carried out since early period. Fish is a valuable source of protein and occupies a significant position in the socio-economical fabric of South Asian countries. For effective exploitation of any aquatic ecosystem basic information on its biodiversity is a must, thus there is a need to survey fish fauna associated with different freshwater habitats which will help in planning methods for their effective exploitation for fish production.

Many workers have studied taxonomy, bio- diversity and distribution of fishes found in various parts of Indian subcontinent provided that there is a need for the survey of bio diversity of fishes in different types of habitats all over the country. Jayaram (1981) studied fish diversity of Indian subcontinent. Yazdani (1994) reported Icthyofauna from Krishna, Cauveri and Ganga river. In State of Maharashtra, icthyofaunal diversity was studied by Ahirrao and Mane (2000), Sakhare& Joshi (2003), Yadaw (2003) ,Yadaw (2006), Rathod et. al. (2008), Tijare and Thosar (2008) and Harney et al. (2009). However, very less information is available about ichthyofauna present in lentic and lotic habitat of Nagpur district. Present study aims to document the fish fauna of two lakes of Nagpur city in Central India.

MATERIAL AND METHODS
The present study was carried out in twoyears from June 2010 to July 2012. After netting the fishes, photographs were taken and the specimens were preserved in10% formalin after giving abdominal cut and brought to laboratory for identification. For identification of fishes standard keys of Days(1878), Jayaram (1981) andTalwarand Jhigran (1991) were followed.

RESULTS AND DISCUSSION
During the present investigation a total of 19 fish species belonging to 7 different orders were recorded from all the two lakes. Ambazari Lake showed 16 species, however 12 species were recorded from Gandhisagar Lake. Sharma et.al (2011) observed 15 fish species in Pinhole lake of Rajasthan.

Table 1.Icthyofaunal diversity of two lakes in Nagpur (+ Present:-Absent)

Sr. No.	CommonNames	Scientificname	Order	Ambazari Lake	Gandhi-sagarLake
1	Grasscarp	*Ctenopharyngdonidella*	Cypriniformes	+	+
2	Silvercarp	*Hypophthalmichtysmolitrix*	Cypriniformes	+	+
3	Catla	*Catlacatla*	Cypriniformes	+	+
4	Rohu	*Labeorohita*	Cypriniformes	+	+
5	Commoncarp	*Cyprinuscarpio*	Cypriniformes	+	+
6	Mrigalcarp	*Cirrihinamrigala*	Cypriniformes	–	+
7	Walkingcatfish	*Clariasbatracus*	Cypriniformes	+	–
8	Stingingcatfish	*Heteropneustusfossilis*	Cypriniformes	–	+
9	Barbel	*Barbussp.*	Cypriniformes	+	–
10	Mullycatfish	*Wallagoattu*	Cypriniformes	+	–
11	Common snake headed	*Channastriatus*	Ophiocephalliformes	+	+
12	Spotted snake headed	*Channapunctatus*	Ophiocephalliformes	+	–
13	Bulls eye snake headed	*Channanama*	Paraformes	+	–
14	Bullseyegobby	*Glossogobiusgiuris*	Paraformes	+	+
15	Giantrivercatfish	*Mystusseenghala*	Singuliformes	+	+
16	Shrptoothcatfish	*Clariusgaripinnus*	Singuliformes	+	–
17	Clownknifefish	*Notopteruschitala*	Clupeiformes	–	+
18	Tiretrackeel	*Mastacembalusaramatus*	Mastacembaliformes	+	–
19	MosabbiqueTilapia	*Tilapiasp.*	Syngnathiformis	+	+

GRASS CARP

SILVER CARP

CATLA CATLA

ROHU

MRIGAL

WALKING CAT FISH

SNAKE HEADED FISH

CLOWN KNIFE FISH

Figure 1.Icthyofaunal diversity (photographs of some important species of fishes) of two lakes in Nagpur

Ten species of order Cypriniformes viz. *Ctenopharyngdonidella* (Grass carp), *Hypophthalmichtysmolitrix* (Silver carp), *Catlacatla* (Catla), *Labeorohita* (Rohu), Cyprinids' carpio (Common carp), *Cirrihinamrigala* (Mrigal carp), *Clariasbatracus* (Walking cat fish), *Heteropneustusfossilis* (Stinging cat fish), *Barbus sp*.(Barbel)and *Wallagoattu* (Mully cat fish) dominated the lakes. Similar findings were also observed by Shinde et.al. (2009) in Harsool- Savangi dam. The Cypriniformes are an order of ray-finned fish including the carps and minnows and are most diverse insoutheastern Asia (Nelson 2006). Cypriniform species are extremelyvariable morphologically and ecologically. The latter is evident from their wide distribution that includes virtually every type of freshwater habitat and an amazing diversity of reproductive and life- history strategies (Winfield &Nelson ,1991 and MacDonald 2008), Order Cypriniformes was followed by Ophiocephaliformes, Paraformes and Singuiliformes with 2 species while Clupeiformes, Mastacembaliforms, syngnathiformes represented only 1 species respectively.

Presence of carps like *Catlacatla, Labeorohita, Cirrhinamrigala* and *Hypophthalmichtysmolitrix* shows good productive grounds for fish culture practise in lakes. Presence of *Wallagoattu, Mystusseenghala*and *Clariusgarripinnus* as cat fishes also provides embossing of healthy ecosystem in these lakes. Abundance is due to the easy availability of protein rich invertebrates and other food such as macrophytes,macrobenthic organisms and planktons. Every organism maintains specific relation with the environment in which it lives. These relations entail different environmental parameters eg. temperature, humidity, diet requirements etc. (Blair ,R.B. 2001) . The result of our survey highlight the fact that icthyofauna in these lake is abundant which indicate the favourable condition for their survival.

However, Now-a-days these lakes are getting deteriorated by the activities of urban development, idol immersions, resultant stress and encroachments ultimately causing threat to fish fauna. Therefore, the conservation of these fragile ecosystems rich with diverse fish fauna is an essential and urgent task which can be achieved by reducing anthropogenic activities and introducing safe, environment friendly fish culture practice. The Municipal Corporation should also use the artificial tanks for Idol immersion and religious activities and local mass media should spread the awareness.

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