



Ichthyofaunal diversity of the Chargaon lake near Warora Dist. Chandrapur, MS, India

Chadgulwar RS^{1*} and Bakare SS^{2*}

¹Research student, C.H.L.R. Department of Zoology, N.H. College, Bramhpuri, Dist. Chandrapur (M.S.), India

²Department of Zoology, Shri Dnyanesh Mahavidyalaya, Nawargaon Dist. Chandrapur (M.S.), India

*Corresponding author- chadgulwar@gmail.com

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ABSTRACT

The study aims at investigating the Ichthyofauna of the chargaon lake in chandrapur district of Maharashtra state in India. Fishes are good indicators of that water body. The understanding of fish faunal diversity is a major aspect for the exploitation of the fresh water reservoirs and the sustainable as well as ecological management. They are the important elements in the economy of many countries. The studies were carried out over a period of one year from November 2017 to October 2018. During the study 19 species of fishes belonging to 8 orders and 12 families were identified. The order Cypriniformes and Siluriformes were found to be dominant among fishes. Total 6 species of fishes were found belonging to order Cypriniformes and Family Cyprinidae. Order Cypriniformes is followed by Siluriformes with 6 species, Osteoglossiformes 2, and each one of Synbranchiformes, Beloniformes, Perciformes, Cichliformes, Decapoda orders.

Keywords: Ichthyofauna, Chargaon, Cypriniformes, Siluriformes, Decapoda.

INTRODUCTION

Water is both essential and the most abundant substance in protoplasm hence it might be said that all life is 'aquatic'. Freshwater habitats occupy a relatively small portion of the earth surface as compared to the marine and terrestrial habitats but their importance to man is far greater than their area hence freshwater components are referred as "bottle-neck" in the hydrological cycle. Many of major animal phyla are represented by one or more genera living in freshwater communities. Among the animal consumers, four groups will likely comprise the bulk of the biomass in most freshwater ecosystems namely molluscs, aquatic insects, crustacea and fish (Battul *et al.*, 2007).

India stands ninth among the mega biodiversity countries rich in freshwater Kar *et al.* (2006) and estimated to harbour 930 freshwater

fishes. Maharashtra state has been blessed with rich ichthyofaunal diversity by virtue of assemblage of different type of topographical, agroclimatic and hydrodynamical conditions within the state boundaries. Fishes are good indicator of ecological health of that water body. The understanding of fish faunal diversity is a major aspect for the exploitation of the fresh water reservoirs and the sustainable as well as ecological management Battul *et al.* (2007).

MATERIALS AND METHODS

The present investigation is undertaken on the Chargaon Lake near Warora Tahsil of district Chandrapur. The height of the dam is 14.4 meters, length 3065 meters with storage capacity 4766 cubic meters. The fishes from the lake were collected with the help of local fisherman. The collected fishes were brought to laboratory, fixed in 5% formalin, cleaned with rectified Spirit, observed properly and identified upto the species level by following the literature of Day (1878), Talwar and Jhingran (1991), Jayaram (1999),

and Vishwanath *et al.* (2011). Samples are preserved in 10% formaldehyde. Fishes were identified to genus and species level using Taxonomic Keys and standard literature.

RESULT AND DISCUSSION:

During present investigation 19 species of fishes belonging to 8 orders and 12 families were identified. The order Cypriniformes and Siluriformes were found to be dominant among fishes. Total 6 species of fishes were found belonging to order Cypriniformes and Family Cyprinidae. Order Cypriniformes is followed by Siluriformes with 6 species, Osteoglossiformes 2, and each one of Synbranchiformes, Beloniformes, Perciformes, Cichliformes and Decapoda. A perfect understanding of the Ichthyofaunal diversity of system is an essential prerequisite for successful implementation of fisheries development, sustainable utilization of fishery resources and for adopting suitable conservation measures.

Table: ???

| Sr. No. | Order | Family | Scientific Name | Local Name |
|---------------------|-------------------|------------------|------------------------------------|-----------------|
| 1 | Cypriniformes | Cyprinidae | <i>Catla catla</i> | Catla |
| 2 | Cypriniformes | Cyprinidae | <i>Labeo rohita</i> | Rohu |
| 3 | Cypriniformes | Cyprinidae | <i>Labeo bata</i> | Bata |
| 4 | Cypriniformes | Cyprinidae | <i>Cirrhinus mrigala</i> | Mrigal |
| 5 | Cypriniformes | Cyprinidae | <i>Cyprinus carpio</i> | Common carp |
| 6 | Cypriniformes | Cyprinidae | <i>Hypophthalmichthys molitrix</i> | Silver carp |
| 7 | Siluriformes | Siluridae | <i>Wallago attu</i> | Shivada, Daku |
| 8 | Siluriformes | Clariidae | <i>Clarias batracus</i> | Magur |
| 9 | Siluriformes | Heteropneustidae | <i>Heteropneustes fossilis</i> | Singhi |
| 10 | Siluriformes | Bagridae | <i>Mystus seenghala</i> | Shingta |
| 11 | Siluriformes | Bagridae | <i>Mystus vittatus</i> | Tengra |
| 12 | Siluriformes | Pangasiidae | <i>Pangasius pangasius</i> | Pangesh |
| 13 | Osteoglossiformes | Notopteridae | <i>Notopterus chitala</i> | Chital |
| 14 | Osteoglossiformes | Notopteridae | <i>Notopterus notopterus</i> | Patola |
| 15 | Synbranchiformes | Mastacembelidae | <i>Mustacembelus armatus</i> | Vam |
| 16 | Beloniformes | Belonidae | <i>Xenentodon cancila</i> | Bogla, Gar fish |
| 17 | Perciformes | Gobiidae | <i>Glossogobius giuris</i> | Khapra |
| 18 | Cichliformes | Cichlidae | <i>Tilapia mossambica</i> | Tilapia |
| B. Prawns :- | | | | |
| 19 | Decapoda | Palaemonidae | <i>Macrobrachium rosenbergii</i> | Jhingaa |

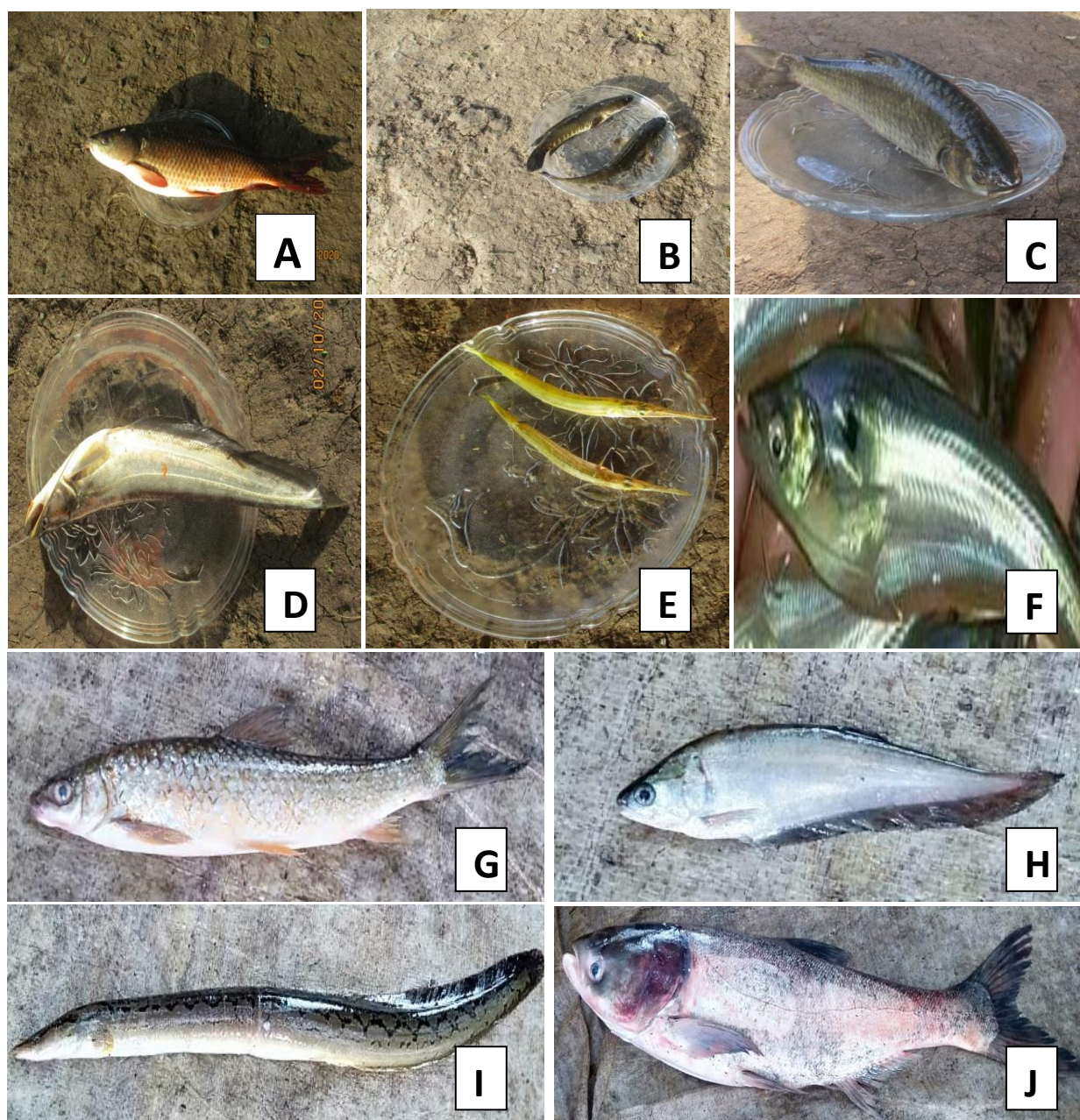


Figure 1: Fishes in Chargaon Lake **A** – *Labio rohita*. **B** – *Channa striatus*; **C** – *Catla catla*; **D** – *Walago attu*; **E** – *Xenentodon concila*; **F** – *Notopterus chitala*; **G** – *Labeo bata*; **H** – *Notopterus chitala*; **I** – *Mastacembelus armatus*; **J** – *Hypophthalmichthys molitrix*.

Similar results were observed by Paliwal *et al.* (2013) recorded 35 species in Itiadoh reservoir. Londhe and Sathe (2015), and Thakre *et al.* (2016) also reported similar results. Paritha Bhanu and Deepak (2015) concluded that mainly human interference in lakes and rivers were responsible for the less distribution of fishes. Tichkule and Bakare (2018) reported 23 species of fishes in purkabodi Lake also reported similar results. Few fish species developed certain adaptations due to pollution.

Conflict of Interest

The author declares that there is no conflict of interest.

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