

CHECKLIST OF ICHTHYOFAUNA OF LOWER MAN BARRAGE, BALAPUR, DIST-AKOLA (MAHARASHTRA)

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Abstract

The study was conducted to prepare a Checklist of Ichthyofauna of Lower Man Barrage, Balapur, Dist-Akola (Maharashtra). During study, total of 38 species belonging to 06 orders (Beloniformes, Cypriniformes, Osteoglossiformes, Perciformes, Siluriformes and Synbranchiformes) and 11 families were recorded. These families were Belonidae (01), Cyprinidae (22), Cobitidae (01), Notopteridae (01), Ambassidae (02), Cichlidae (01), Gobiidae (01), Channidae (03), Siluridae (01) Bagaridae (03) and Mastocembelidae (02). It is advocated to adopt the better strategy for conservation of Ichthyofaunal diversity of Lower Man Barrage, Balapur, Dist. Akola (Maharashtra).

Keywords: Akola, Diversity, Ichthyofauna, Lower Man Barrage, Maharashtra.

Introduction

Fish are an important resource for humans worldwide, especially as food. Fish is a highly nutritive food that preferred by human. Throughout history, humans have utilized fish as a food source. Historically and today, most fish protein has come by means of catching wild fish. However, aquaculture, or fish farming, which has been practiced since last many years in India, is becoming increasingly important in many nations (Shubin, 2009).

Overall, about one-sixth of the world's protein is estimated to be provided by fish. That proportion is considerably elevated in some developing nations and regions heavily dependent on the sea. In a similar manner, fish have been tied to trade. Catching fish for the purpose of food or sport is known as fishing, while the organized effort by humans to catch fish is called a fishery. Fisheries are a huge global business and provide income for millions of people. The annual yield from all fisheries worldwide is about 154 million tons, with popular species including herring, cod, anchovy, tuna, flounder, and salmon (Helfman, 2007).

This important biota of the nature is threatened by many factors like anthropogenic activities and environmental alternations. Overfishing is a major threat to edible fish such as cod and tuna. Overfishing eventually causes population collapse because the survivors cannot produce enough young to replace those removed. Such commercial extinction does not mean that the species is extinct; merely that it can no longer sustain a fishery (Mathew, 2022).

Hence in this concern, an attempt was made to prepare a Checklist of Ichthyofauna of Lower Man Barrage, Balapur, Dist-Akola (Maharashtra).

Materials And Methods

A study was conducted during June 2025 to May 2026 to assess ichthyofaunal diversity of Lower Man Barrage, Balapur, Dist-Akola (Maharashtra). Lower Man Barrage reservoir is on Man River near Balapur of district Akola of state Maharashtra, India. Establish in the year 2011. The volume content is 10.4624 million cubic meters. (where 1 cubic million cubic is equal to 10,00000 square meters). It is situated at 20°665' N and 76° 783'E, about 281 meters above the mean sea level. The main purpose of the reservoir is water Supply to Thermal power plant at paras (near Balapur about 8 km away) and water supply to Balapur town for drinking purpose (Akola Gazetteer, 2022).

The climate of this district is characterized by a hot summer, well-distributed rainfall during the south-west monsoon season and generally dry weather during the rest of the year. The cold season is from December to February. This is followed by the hot season from March to May. The southwest monsoon season is from June to September while October and November constitute the post-monsoon season (Falling Rain Genomics 2021-2023).

The effective protocol was adopted. Fish specimens were collected personally as well with the help fisher man by using dragnets, cast-nets, gillnets etc. in the study period. The trapped fishes were handled carefully, immediately photographed, and immediately released into water stream. The fishes were identified with help of visible morphological characters. The morphometric characters were observed and identified with the help of standard keys and books of Talwar and Jhingran (1991); Jayaram and Sanyal (2003); Jayaram (2010). Assuming that the fishing effort for a given type of net was constant, the relative

abundance of the fish was grossly categorized into four categories, namely: abundant, common, moderate and rare (Joshi et al., 2012).

Results And Discussion

The study was conducted to prepare a Checklist of Ichthyofauna of Lower Man Barrage, Balapur, Dist-Akola (Maharashtra). During study, total of 38 species belonging to 06 orders (Beloniformes, Cypriniformes, Osteoglossiformes, Perciformes, Siluriformes and Synbranchiformes) and 11 families were recorded. These families were Belonidae (01), Cyprinidae (22), Cobitidae (01), Notopteridae (01), Ambassidae (02), Cichlidae (01), Gobiidae (01), Channidae (03), Siluridae (01) Bagaridae (03) and Mastocembelidae (02).

Table 1. Checklist of Fish Species at Lower Man Barrage during 2018 – 2020

A] ORDER: BELONIFORMES

Family: Belonidae

1. *Xenentodon cancila* (Hamilton-Buchanan, 1822)

B] ORDER: CYPRINIFORMES

Family: Cyprinidae

1. *Amblypharyngodon mola* (Hamilton, 1822)
2. *Catla catla* (Hamilton, 1822)
3. *Cirrhinus mrigala* (Hamilton, 1822)
4. *Crossocheilus latius* (Hamilton, 1822)
5. *Cyprinus carpio* (Linnaeus, 1758)
6. *Garra mullya* (Sykes, 1839)
7. *Hypophthalmichthys molitrix* (Valenciennes, 1844)
8. *Labeo boga* (Hamilton, 1822)
9. *Labeo calbasu* (Hamilton, 1822)
10. *Labeo pangusia* (Hamilton, 1822)
11. *Labeo rohita* (Hamilton, 1822)
12. *Osteobrama cotio* (Hamilton, 1822)
13. *Puntius chola* (Hamilton, 1822)
14. *Pethia dorsalis* (Jerdon, 1849)
15. *Pethia ticto* (Hamilton, 1822)
16. *Systomus sarana* (Hamilton, 1822)
17. *Pethia sophore* (Hamilton, 1822)
18. *Rasbora daniconius* (Hamilton, 1822)
19. *Salmophasia bacaila* (Hamilton, 1822)
20. *Salmophasia horai* (Silas, 1951)
21. *Thryssocypris sandkhol* (Sykes, 1839)
22. *Tor khudree* (Sykes, 1839)

Family: Cobitidae

23. *Lepidocephalus thermalis* (Valenciennes, 1846)

C] ORDER: OSTEOGLOSSIFORMES

Family: Notopteridae

1. *Notopterus notopterus* (Gunther, 1839)

D] ORDER: PERCIFORMES

Family: Ambassidae

1. *Parambassis ranga* (Hamilton, 1822)
2. *Chanda nama* (Hamilton-Buchanan, 1822)

Family: Cichlidae

3. *Oreochromis mossambica* (Peters, 1852)

Family: Gobiidae

4. *Glossogobinus giuris* (Hamilton-Buchanan, 1822)

Family: Channidae

5. *Channa marulis* (Hamilton-Buchanan, 1822)
6. *Chanda nama* (Hamilton-Buchanan, 1822)
7. *Channa punctatus* (Bloach, 1793)

E] ORDER: SILURIFORMES

Family: Siluridae

1. *Ompak bimaculatus* (Bloch, 1797)

Family: Bagaridae

2. *Mystus cavasius* (Hamilton-Buchanan, 1822)
3. *Mystus montanus* (Jerdon, 1849)
4. *Sperata seenghala* (Sykes, 1841)

F] ORDER: SYNBRANCHIFORMES

Family: Mastacembelidae

1. *Macrognathus pancalus* (Hamilton-Buchanan, 1822)
2. *Mastocembelus armatus* (Lacepede, 1800)

The maximum diversity was reported during late monsoon the winter. The least species were encountered during the months of summer to early monsoon. The catch success was high during winter and it was least during summer while moderate in the months of monsoon. The observed fish species composition was found to be rich in Saikheda Dams, and pattern is in well agreement with many of previous studies that mainly deals with fish diversity of aquatic ecosystem. These recent studies mainly included Chaudhary and Patil (2010), Joshi et al. (2012), Kharat et al. (2012), Paliwal et al. (2013), Jaybhaye and Lahane (2013), Kamble and Mudkhede (2013), Sheikh (2014), Pawara et al. (2014), Laxmappa et al. (2015), Ubarhande et al. (2016), Telkhade and Jambhule (2017) and Donde and Patil (2018), Gawande and Patki (2025) and name a few.

Conclusion

The present study cleared that the Lower Man Barrage accommodates the rich diversity of edible fishes. But this diversity can be affected by overfishing and other pollution causing anthropogenic activities. Though the water of these sites is not that much suitable for drinking purpose but can be used for drinking after proper processing/ filtration. But water of Lower Man Barrage is suitable for irrigation and fish farming. It

was also noticed that fish production plays an important role in the socio-economic life of study area. It is an important source of income and employment to millions of rural farmers. Hence it is necessary to adopt the better strategy for conservation of water body and fish diversity of Lower Man Barrage, Balapur, Dist-Akola (Maharashtra).

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