

## RESEARCH ARTICLE

# Ichthyofaunal, diversity, fisheries in Ghagardara Dam, Nanded District (Maharashtra), India

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## ABSTRACT

In present investigation of Ichthyofauna diversity fishes have been studied from Ghagardara dam in month of June 2016 to May 2017. The Ghagardara dam is Kandhar Taluka in Nanded District, Maharashtra. Ghagardara dam is an earthen pond 315 m in length with maximum height 19.84 m. Full tank level (FTL) 468.70 m and maximum water level (M.W.L.) 471.20 m. The water of dam is one of the most important aquatic resources. The water of dam is used irrigation, fish culture and drinking purposes. The population of fishes is found in abundance and majority of the fishes are exploited for human consumption. About 16 fish species belonging to 05 order and 06 families were recorded during study. The sustainable management and utilization of this dam water is discussed for diversity, fisheries.

**Key words:** Ghagardara dam, Fish diversity, Fisheries, *Wallago attu*, *Catla-catla*.

## INTRODUCTION

Maharashtra is a land mind-boggling diversity. From its tropical coastal water, estuaries and mangroves and its impressive western Ghats, the State extends north and eastwards, after giving birth to mighty rivers, to reach the austere. Marathwada is rich in freshwater fish diversity. Marathwada is rich source of fresh water bodies like rivers (Godavari, Purna, Dudhana, Manjra, Painganga) reservoirs (Nathsagar dam, Majalgaon dam, Yeldari, Siddheshwar, Masoli dam, Vishnupuri dam) and lakes Pawar [1-7] Pawar and Patel [8]. The Maharashtra is endowed with an area of 1,79,430 ha. under reservoirs and state produces 516 tons of fish of these area, the state Fisheries corporation was operating in 6,272 ha. of reservoirs and marketing the catches. Economic importance and scope of fish and fisheries especially in Maharashtra, it is essential to study the distribution and availability of fish from freshwater reservoirs [1-7], [9-12].

Maharashtra is one of the important states for fish production and natural water resources and there is great scope for developing fisheries in this state [13,14]. Fishes are very important to maintain aquatic ecosystem. They also indicate quality of water. Fishes are caught for the purpose of food and nutrition, fish diet provides rich amount of proteins, fats, vitamins and other nutrients. Fishes has nutritive and medicinal value and helps to maintain health of people [15, 16, 17].

There is wide scope for the further development in the fisheries sector however; very less information is available about Ichthyofauna, present in lotic and lentic habitats of the Nanded District therefore present attempt has been made to document the fish fauna available and aim to scientific utilization for agricultural irrigation and fisheries activities, for sustained exploitation and simultaneous conservation of fisheries resources, basic scientific information on biodiversity is vital. The Maharashtra state for the fish production and natural water resources. The fishes of fresh water bodies of the Indian sub-continent have been subject of study since last century. Pawar and Patel [8], Ahirro [9] Bhalero [10],

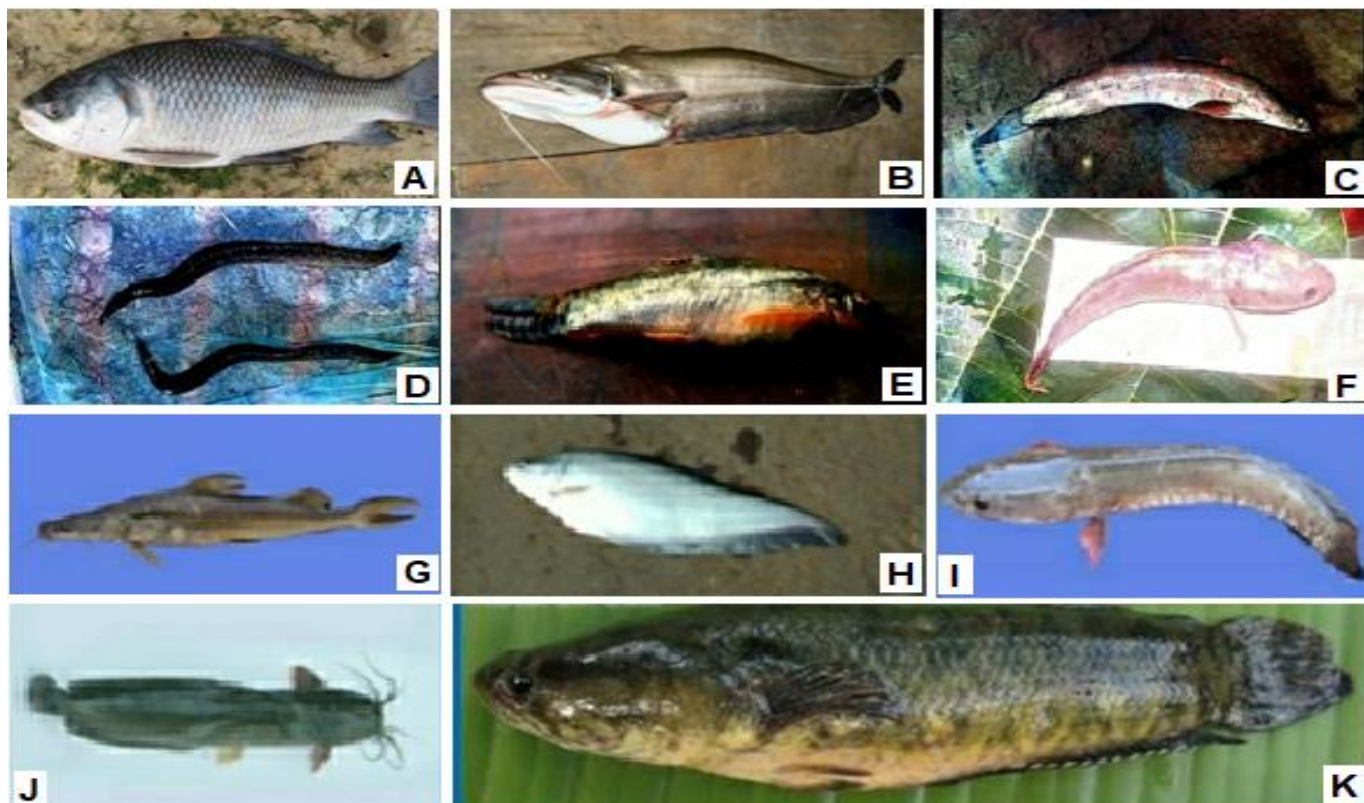
Sheikh [11], Kanwate and Kulkarni [12], Sharma and Mudgal [13], Pawar [14], Ubharhande [15], Alikunhi [16].

## METHODOLOGY

The fishes were collected from different sites of Ghagardara dam with the help of local fisherman and preserved in 4% formalin for identification. this work was conducted during the month of June 2016 to may 2017. Fishes were identified. Following the work of Day [16], Talwar and Jhingran [17]

## RESULTS

During the study period study 16 fish belonging to 05 orders. The member of order siluriformes were dominated by 08 species of fishes. *Channa punctatus*, *C. striatus*, *C. gachua*, *C. marulius*, *mystus cavassius*, *M. seenghala*, *M. vittatus*, *wallagoattu*. The member of order clupeiformes are 03 species of fishes. *Natopterus chitala*, *N. Natopterus*, *N. Kapirat*. The member of order opiocephaliformes are 02 species of fishes.



**Fig. 1:** A: *Catla-catla* B: *Wallago attu* C: *Ophiocephalus marulius* D: *Mastacembeleus armatus*  
E: *Nemacheilus botia* F: *Ophiocephalus gachua*, G: *Mystus seenghala* H: *Notopterus notopterus* I: *Channa gachua*  
J: *Clarius batrachus* K: *Channa punctatus*

Table 1: Ichthyofaunal, Diversity Fishes in Ghagardara Dam During the Year June 2016 to May 2017

Sr. No.	Scientific Name of Fishes	Order	Family	Common Name	Habitat	Food	Commercial
1	<i>Channa punctatus</i>	Siluriformes	Channidae	Phooldhok	Littoral and muddy water	Small fishes	Yes
2	<i>Channa satriatus</i>	Siluriformes	Channidae	Murrel	Littoral, limnetic among aquatic weeds	Small & medium size fishes	Yes
3	<i>Channa gachua</i>	Siluriformes	Channidae	Dhesidhok	Littoral, limnetic among aquatic weeds	Fry, fingerlings, insects & larvae	Yes
4	<i>Channa marulius</i>	Siluriformes	Channidae	Murrel	Littoral and muddy water	Small fishes	Yes
5	<i>Mystus cavassius</i>	Siluriformes	Siluridae	Sanguyl	Limnetic and clear water	Fry, fingerlings, insects & larvae	Yes
6	<i>Mystus seenghala</i>	Siluriformes	Bagridae	Sanguyl	Limnetic and clear water	Small, medium sized fishes & insects	Yes
7	<i>Mystus vittatus</i>	Siluriformes	Siluridae	Sanguyl	Limnetic and clear water	Small fishes fingerling & insects	Yes
8	<i>Mastacembelus armatus</i>	Mastocembeli formes	Mastocembelidae	Bam/Vambat	Littoral, Limnetic, clear water, under stones	Fingerling & insects	Yes
9	<i>Natopterus chitala</i>	Clupeiformes	Notopteridae	Patola/ Chambari	Littoral, limnetic, muddy and clear water at bottom feeder	Fish fry, fingerling, small fish & insects	Yes
10	<i>Natopterus natopterus</i>	Clupeiformes	Notopteridae	Patola/ Chambari	Littoral limnetic, muddy and clear water	Fish fry, fingerling, small fish & insects	Yes
11	<i>Natopterus kpirat</i>	Clupeiformes	Notopteridae	Patola/ Chambari	Littoral, limnetic, muddy and clear water and bottom feeder	Fish fry, fingerling, small fish & insects	Yes
12	<i>Wallago attu</i>	Siluriformes	Bagridae	Katra	Limnetic, clear water voracious feeder	Small, medium sized fishes	Yes
13	<i>Ophiocephalus gachuea</i>	Ophiocephali formes	Cyprinidae	Dhokda	Limnetic and clear water	Small fishes	Yes
14	<i>Ophiocephalus marulius</i>	Ophiocephali formes	Cyprinidae	Dhokda	Limnetic and clear water	Small fishes	Yes
15	<i>Catla catla</i>	Cypriniformes	Cyprinidae	Catla	Clear water	Small fishes	Yes
16	<i>Nemacheilus botia</i>	Cypriniformes	Cyprinidae	Mure	Clear water	Small fishes	Yes

*Ophiocephalus gachua*, *O. marulius* and the member of order mastacembeliformes are 01 species of fish *Mastocembelus armatus*. Order cypriniformes are 02 species of fish *Catla, catla*, *Nemacheilus botia*. The collected and identified fish species including their scientific name, order, family, common name, Habitat, food, commercial, are shown in the given table. Such type of investigation was carried out by other workers also maintained in the same table. Babu Rao and Reddy [19], Datta Monshi and Srivastava [20], Datta Munshi and Zutsghi [21], Day [16], Hamilton-Buchanan [22], Jayram [23], Khanna [24], Talwar and Jhingran [18].

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