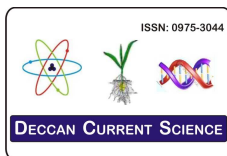


Research Article



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Ichthyofauna of Sangmeshwar Medium Project Iet from Osmanabad District of Maharashtra, India

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Abstract:

The Bhoom taluka in Osmanabad district of Maharashtra is having many small sized reservoirs. The present investigation attempts to study the physicochemical parameters and fish diversity of Sangmeshwar Medium Project Iet in Osmanabad district. It is manmade reservoir constructed on Upper Manjra River. It is made for agriculture, fisheries and drinking water purposes. Physicochemical parameters and fish diversity were studied under the present investigation. The result of present investigation confirmed that total 13 species of fishes belonging to order, *cypriniformes*, *siluriformes*, *channiformes*, *Osteoglossiformes* and *Mugiliformes* were recorded. Order Cypriniformes was observed dominant with seven species followed by *Siluriformes* with three species. The economic importance of fish species is also discussed.

Keywords: fish diversity and Economic importance

Introduction:

The reservoirs are constructed by impounding the river systems. The reservoirs are constructed for effective utilization of water for agriculture, power generation, and fishery and drinking water purposes and also for flood control. Reservoirs fishery in India is important from socio-economic point of view as it provides the employment to about 2 million peoples (Khan et. al. 1999). It is also having with the potential for providing excellent food to human being as it provides protein, fat and vitamin A and D that are essential for the human health (Khan et.al.

1991). Phosphorus and several minerals also present in it. India has a large network of inland waters in the form of lakes, ponds, rivers, canals, which contribute more than 30% of total fish production. The considerable studies on ichthyofauna of many fresh water bodies have been carried out during the recent years by several workers. Kahan et. al (1991) Talwar and Jhingran (1991), Sugunan, V. V. (1995), Sarkar L. and Banerjee S. (2000), Sakhare and Bidkar (2001), Datta , S.P. S. and F. A. Fayaz (2003), Sakhare and Joshi (2002), Pailwan I.F. and D.V. Muley (2006) Kadam and Gayakwad (2006), Jayabhaye. U.

M. et.al. (2006), Muley D. V. and Patil I. M. (2006), Pandey Kamleshwar and J.P. Shukla (2007).

Present work is an attempt to study diversity of ichthofauna during the year March 2012 to February 2013 in Sangmeshwar Medium Project Iet located in Bhoom taluka of Osmanabad district, Maharashtra. It is one of the minor irrigation project in Maharashtra state. It is situated in the Latitude -18- 57⁰ to 19. 87⁰ North and Longitude – 74. 39⁰ to 76.54⁰ East. Irrigation, drinking water and fishing is the main purpose of this project.

Materials and Methods:

Fishes were collected from Sangmeshwar water project with the help of local fisherman. After noting colour and other morphological features the specimens were preserved in 10% formalin. Seasonal collections were made from Mar. 2012 to Feb. 2013 for a period of one year. Standard identification keys were used for identification of specimen up to species level referred by Day F.S. (1878), Menon (1964) Datta munshi and Srivastava (1968), Jayram, (1981), Datta S.P. S. and Malhotra, A. R. (1984) Datta et. al., (1987), Talwar and Jhingran (1991) etc. The classification based on economic importance (Lagler, 1956).

Results and discussion:

During the present study ichthyofauna was studied for their diversity. The fish fauna is an important aspect of fishery potential of a water body. More work has been carried out on fish fauna in Indian reservoirs. The distribution of fish species is quite variable because off geographical and geological conditions. The result of present investigation confirmed the occurrence of 13 fish species belonging to five orders. (Table No. 1)

Among them order cypriniformes was dominant with 7 species followed by order Siluriformes with two species. Belonging to

order Channiformes, Osteoglossiformes and Mugiliformes one species each was observed. The species diversity reported in the present study shows marked similarity with earlier studies on reservoirs from same geo-climatic region of the Maharashtra State. Sakhare V. B. (2001) have observed 23 fish species belong to seven orders from Jawalgaon reservoir in Solapur district of Maharashtra. Kadam and Gaikwad (2006) observed 23 fish species from Masooli reservoir in district Parbhani (M.S.). Sakhare and Joshi (2003) reported the ichthyofauna of Bori reservoir in Maharashtra. Jaybhaye and Madlapure observed 11 species of fishes the Parola Dam in Hingoli district.

The species are classified on the basis of commercial importance proforma given by Lagler (1956). Out of thirteen fish species six are commercially important, nine species have food value, one species is classified as coarse food. Two species are suitable for aquarium while two species have importance in public health as they are larvivorous and others are having with medicinal value. (Table -2)

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Table: 1. Diversity of fish fauna observed during Mar. 2012 to Feb. 2013.

Sr. No.	Order	Family	Genus and species
1	Cypriniformes	Cyprinidae	1. <i>Labeo rohita</i> (Ham) 2. <i>Labeo calbasu</i> (Ham) 3. <i>Cirrhinus mrigala</i> (Ham) 4. <i>Catla catla</i> (Ham) 5. <i>Cyprinus carpio</i> (Linn) 6. <i>Puntius sarana sarana</i> (Ham) 7. <i>Puntius ticto ticto</i> (Ham)
2.	Siluriformes	Siluridae	1. <i>Wallago attu</i> (Shneider) 2. <i>Mystus seenghala</i> (Skyes) 3. <i>Clarius batrachus</i> (Skyes)
3.	Channiformes	Channidae	1. <i>Channa marulius</i> (Ham)
4.	Osteoglossiformes	Notopteroidae	1. <i>Notopterus notopterus</i> (Pallas)
5.	Mugiliformes	Mugilidae	1. <i>Rhinomugil corsula</i> (Ham)

Table: 2. Economic importance of fish fauna recorded from Sangmeshwar project.

Sr. No.	Species	Commercial	Fine food	Coarse Food	Aquarium fishes	Others
1	<i>Labeo rohita</i>	✓	✓			
2	<i>Labeo calbasu</i>	✓	✓			
3	<i>Cirrhinus mrigala</i>	✓	✓			
4	<i>Catla catla</i>	✓	✓			
5	<i>Cyprinus carpio</i>	✓	✓			
6	<i>Puntius sarana sarana</i>				✓	Lv., Bt
7	<i>Puntius ticto ticto</i>				✓	Lv., Bt
8	<i>Wallago attu</i>		✓			
9	<i>Mystus seenghala</i>		✓			
10	<i>Clarius batrachus</i>		✓			
11	<i>Channa marulius</i>	✓				
12	<i>Notopterus notopterus</i>			✓		MD
13	<i>Rhinomugil corsula</i>		✓			

Lv- Larvivorous Fish, Bt. Bait, MD – Medicinal value