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Ichthyofauna of Majalgaon reservoir from beed district of Marathwada Region, Maharashtra State

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ABSTRACT

The present investigation was carried out to study the diversity of fishes of Majalgaon Reservoir from Beed district, Maharashtra state. The present work is carried out during the period December 2011 to November 2012. The fish diversity is represented by 42 fish species belonging to 29 genera, 15 families and 9 orders. Besides identification, the economic importance of fish species is also discussed.

Key words: Fish diversity, Economic importance, Majalgaon Reservoir.

1. INTRODUCTION

Fishes form one of the most important groups of vertebrates, influencing the aquatic ecosystem & life in various ways. Millions of human beings suffer from hunger and malnutrition. The fishes form a rich source of food and provide a meal to tide over the nutritional difficulties of man in addition to serving as an important item of human diet from time immemorial and are primarily caught for this purpose. Fish diet provides proteins, fat and vitamins A & D. A large amount of phosphorous and other elements are also present in it. They have a good taste and are easily digestible.

India is having very rich sources of inland waters in the form of lakes, reservoirs and rivers, for sustained exploitation and simultaneous conservation of fisheries resources and scientific information on biodiversity of Ichthyofauna. In India freshwater

bodies occupy an area of 1.37 million hectors in which the more than 2, 44,000 hectors are under fish cultivation. According to Sugunan (1995) total area under the reservoirs in India is 3:1 million hectors and it is expected to double by 2020. The Maharashtra is endowed with an area of 1, 79,430 ha. Under reservoirs and the 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 (Sreenivasan, 1991). Fishes of the inland water bodies of the Indian sub-continent have been a subject of study since long back Hamilton Buchanan (1822), Day (1878), Misra (1962), Jayram (1981) Talwar and Jhingran (1991), Rao et al. (1999), Hiware (2006). Reservoirs fisheries of India is also important from social economic point of view as it has the potential of providing employment to about 2 million people (Khan et al. 1999). The present investigation was undertaken to study the aquatic vertebrate animal with reference to fishes from Majalgaon reservoir. This dam is one of the major irrigation project in Beed district. The Majalgaon reservoir built by impounding the river Sindphana River an area of 35,000 ha. The length and height of dam is 1020 meters & 37 meters respectively & is very famous earthen dam.

2. MATERIALS AND METHODS

The fishes were collected from the Majalgaon reservoir with the help of local fisherman and local fish market, during the year of 2011 to 2012. The fishes were identified by following literature of Day (1878), Datta Munshi and Srivastava (1988), Talwar and Jhingran (1991), Lagler (1956), Qureshi (1983). The classification of fishes on economic importance was done by following the proforma given by Lagler (1956).

3. RESULT AND DISCUSSION

The results of present study confirm the occurrence of 42 fish species belonging to 29 genera, 15 family to 9 orders (Table 1). The order Cypriniformes was dominant with 20 species to be followed by order Siluriformes with 8 species, Channiformes with 4 species, Preciformes with 3 species while the orders of Clupeiformes & Mastcembeliformes 2 species, and rest of the orders Angulliformes, Beloniformes and Mugiliformes by single species. Shakhare (2001) recorded 23 fish species belonging to 7-orders in Jawalgaon reservoir in Solapur district and Pawar S.K., Madlapure and Pulle (2003) observed 11-species belonging to 5-orders from Sirur Dam near Mukhed Nanded District (M.S.). Hiware and Pawar (2006) recorded 43 fish species from Nath Sagar Dam; Paithan reservoir in Aurangabad Dist. suggesting that the fish diversity from the reservoir under study is rich as compared to Nath Sagar Dam. In the present study an attempt was made to classify the fishes on the basis of their economic importance (Lagler 1956), (Table 2).

Table 1

Class : Pisces	
Sub-class : Teleosti	
Order I : Clupeiformes	
Sub-order : Notopteroidei	
Family : Notopteridae	
1.	*Notopterus notopterus* (Pallas)
2.	*Notopterus chitala* (Ham.)
Order II : Cypriniformes	
Sub-order : Cyprinoidei	
Family II : Cyprinidae	
3.	*Chela phulo* (Ham.)
4.	*Chela sladoni* (Day.)
5.	*Cyprinus corpio.* (Linn.)
6.	*Catla catla* (Ham.)
7.	*Cirrhinus mrigala* (Ham.)
8.	*Ambylpharyngodon microlepis* (Bleeker)
9.	*Discognathus lamta* (Ham.)
10.	*Labeo rohita* (Ham.)
11.	*Labeo calbasu* (Ham.)
12.	*Osteobrama cotio* (Ham.)

13.	*Puntius amphibias* (Valeneiennes)
14.	*Puntius sarana sarana* (Ham.)
15.	*Puntius ticto ticto* (Ham.)
16.	*Puntius sophere.* (Ham.)
17.	*Hypothalamichthys molitrex* (Val.)
18.	*Thynnichthys sandkhol* (Skyes)
19.	*Ctenopharyngodon idella* (Valenciennes)
20.	*Rasbora daniconius* (Ham.)
Family III : Cobitidae	
21.	*Lepidocephalichthys guntea* (Ham.)
22.	*Nemacheilus botia* (Ham.)
Order III : Siluriformes	
Family IV : Bagridae	
23.	*Mystus aor.* (Ham.)
24.	*Mystus bleekeri* (Day)
25.	*Mystus cavasius* (Ham.)
26.	*Mystus seenghala* (Sykes)
Family V : Claridae	
27.	*Clarias batrachus* (Linnaeus)
Family VI : Heteropneustidae	
28.	*Heteropneustes fossils* (Bloch)
Family VII : Siluridae	
29.	*Wallago attu* (Bloch and Schneider)
30.	*Ompak bimaculatus* (Bloch)
Order IV :Beloniformes	
Family VII : Belonidae	
31.	*Xenentodon cancila* (Ham.)
Order V : Mugiliformes	
Family IX : Mugilidae	
32.	*Mugil cephalus* (Linnaeus)
Order VI : Channiformes	
Family X : Channidae	
33.	*Channa gaucha* (Ham.)
34.	*Channa marulius* (Ham.)
35.	*Channa striatus* (Bloch)
36.	*Channa punctatus* (Bloch)
Order VII : Mastacembaliformes	
Family XI : Mastacembelidae	
37.	*Mastacembelus armatus* (Lacepede)
38.	*Mastacembelus pancalus* (Ham.)
Order VIII : Angulliformes	
Family XII : Agullidae	
39.	Angullia bengealnesis (Gray)

Order IX : Preciformes	
Family XIII : Anabantidae	
40.	*Anabas testudineus* (Bloch)
Family XIV : Gobiidae	
41.	*Glassogobius giuris* (Ham.)
Family XV : Cichlidae	
42.	*Tilapia mossambica* (Ham.)

Table 2

Economic importance of fishes recorded from Paithan reservoir

Speices	Commercial	Fine food	Coarse food	Aquarium fishes	Others
Ambylpharyngodon microlepis				✓	FR,
Anabas testudineus		✓			Lv,
Angullia bengelnesis	✓	✓			
Catla catla	✓	✓			
Channa gaucha	✓	✓			Lv,Pf,
Channa marulius	✓	✓			Lv,Pf,
Channa punctatus	✓	✓			Lv,Pf,
Channa striatus	✓	✓			Lv,Pf,
Chela phulo		✓			Lv,
Chela sladoni		✓			Lv,
Cirrhinus mrigala	✓	✓			
Clarias batrachus	✓	✓			
Ctenopharyngodon idella	✓				
Cyprinus corpio.	✓				
Discognathus lamta			✓		
Glassogobius giuris			✓		Lv,
Heteropneustus fossils		✓			
Hypothalamichthys molitrex	✓				
Labeo calbasu	✓	✓			
Labeo rohita	✓	✓			
Lepidocephalichthys guntea			✓	✓	
Mastacembelus armatus	✓	✓			Pf,
Mastacembelus pancalus	✓	✓			Pf,
Mugil cephalus					Lv,
Mystus aor.	✓	✓			Pf,
Mystus bleekeri	✓	✓			Pf,
Mystus cavasius	✓	✓			Pf,
Mystus seenghala	✓	✓			Pf,
Nemacheilus botia			✓	✓	
Notopterus chitala			✓		MD, pf,
Notopterus notopterus			✓		MD,
Ompak bimaculatus	✓	✓	✓		Pf,
Osteobrama cotio			✓		
Puntius amphibias			✓	✓	Bt,Lv, Wf,

Puntius sarana sarana			✓	✓	Bt,Lv,Wf,
Puntius sophore.			✓	✓	Bt,Lv,Wf,
Puntius ticto ticto			✓	✓	Bt,Lv,Wf,
Rasbora daniconius			✓		Lv,
Thynnichthys sandkhol			✓		
Tilapia mossambica		✓			
Wallago attu		✓	✓		Pf,
Xenentodon cancila			✓		Wf,

Lv- Lavivorus fish, Bt- Bait, Pf- Predatory food fishes, Wf-Weed fishes, MD-Medicinal value, FR- Forage fish

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