STUDY OF SEASONAL REPRESENTATION OF FISHES IN ARUNAVATI RESERVOIR, DIGRAS, DISTRICT YAVATMAL, MAHARASHTRA STATE

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Abstract:
Arunavati reservoir is located near Digras tahsil of Yavatmal district. Arunavati reservoir is richly populated by various fauna. In the present investigation study of seasonal representation of fishes was carried out. Fisherman tries to collect marketable edible types of species, but naturally represented species were also recorded in this communication. In the presented study 11 different types of fishes species were collected and identified to record natural and artificial habitat of fish fauna in a tropical reservoir.
Keywords: Arunavati reservoir, Fishes species, Digras tahsil.

Introduction:
The fish has been widely used for bioassay than any other group aquatic organisms. It is mainly because of its availability and easy to maintain in the laboratory conditions. Many workers have documented different species of Indian fishes. (Russo *et al*., 2004). It was thought interesting to study the species abundance and types of different fish species are present and its chemical nature related to comparative physiological interest (Parma and Croux, 1994). It contributes to a greater understanding of habitat, food selection and mode of life of the species. The effect of dam on fish fauna may be harmful, beneficial or indifferent depending upon a particular situation. Dam acts as physical barriers to migration, tending to prevent access of the fish to their usual breeding and feeding grounds this may result in reduction of fish stocks.
The ecological changes brought about by dam affect both migratory and nonmigratory species. Local stocks of fishes are important indicators of ecosystem. Other changes also occur such as alteration in the physiochemical conditions of spawning areas.

Materials and Method:
The present work was carried out during the period Jan 2011 to Dec 2011. The fishes were obtained from Arunavati dam, Digras, Dist Yavatmal of Maharashtra, India. The fishes collection was done by following the methodology of (Ghosh et al; 2006, Palanichamy et al; 1989, Abdul et al; 2010, Singh and Dingh; 2010). The collected fish were identified at Department of Zoology, B. P. Science College, Digras and collected specimens were deposited in the Museum of same department. The analysis of water also done during present study (Lowery's et al; 1993).

Result and Discussion:
In the present work the following species of fishes was found in rainy and summer seasons. The comparative percent abundance was given in following table with upstream and downstream manner.

Table1: Seasonal representation of upstream fishes in Arunavati dam.

Sr. No.	Species Name	Rainy season	Summer season
1	*Channa sp.*	+	_
2	*Cirrhinus mrigala*	+	_
3	*Cyprinus carpio*	+	_
4	*Etrophus surotensis*	+	_
5	*Fistularia sp.*	+	_
6	*Hypophthal sp.*	+	_
7	*Labeorohita sp.*	+	_
8	*L. bata*	+	_
9	*L. pangusta*	+	_
10	*L. fimbriatus*	+	_
11	*L. kontitus*	+	_
12	*L. boggnt*	+	_
13	*Notoptenus chitala*	+	_
14	*Anguill bengalensis*	_	+
14	*Mastocembulus armata*	_	+

+ Sign indicate the availability status of fishes

Sr. No.	Species Name	Rainy season	Summer season
1	*Catla catla*	+	_
2	*Mystus seenghala*	+	_
3	*Notopterus notopterus*	+	_
4	*Pangasius pangasius*	+	_
5	*Tilapia mossombica*	+	_
6	*Wallago attu*	+	_
7	*Amphipnous cuchia*	_	+
8	*Clarias batrachus*		
9	*Tinca tinca*		

Table 2: Seasonal representation of downstream fishes in Arunavti dam

+Sign indicate the availability status of fishes

Sr. No	Characteristics	Values
1.	Dissolved oxygen	10.2 mg/lit
2.	pH	8.2 ± 0.2 s.u.
3.	Temperature	25± 20C
4.	Alkalinity	85 ppm
5.	Total Hardness	64.8 ppm
6.	ParmenantHardness	43.2 ppm
7.	Temporary Hardness	21.6 ppm
8	Salinity	0.01 ppm

Each value is average of five observations.

All values are expressed in mg-1 except pH and temperature (0C)

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