

FISH FAUNA OF SHREE SHARANABASAVESHWARA LAKE, GULBARGA DISTRICT, KARNATAKA, INDIA

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ABSTRACT

The present study deals with ichthyofauna of Shree Sharanabasaveshwara Lake Gulbarga district, Karnataka. The study was undertaken for a period of one year and monthly collections were made from February 2013 to March-2014. During the study occurrence of ten fish (10) species belonging to 3 orders were identified. Order **Siluriformes** was dominant with 5 species, *Mystus krishnenis*, *Ompak bimaculatus*, *Wallago attu*, *Amblypharygodon mola*, *Channa striatus* followed by **Cypriniformes** order with 4 species *Labeo rohita*, *Catla Catla*, *Puntius sophore*, *Tor Mussullah* and **Osteoglossiformes** with one species *Notopterus notopterus*

KEYWORDS: Fish, Fauna, Shree Sharanabasaveshwar Lake

INTRODUCTION

Fish is a valuable source of protein and occupied a significant position in the socioeconomical fabric of South Asian countries. In the Indian Subcontinent 2,500 species of freshwater have been recorded, of which 930 are categorized as freshwater species (Jayaram, 1999) and remaining 1570 are marine (Kar, 2003).

Ichthyofaunal diversity refers to variety of fish species depending on context and scale; it could refer to alleles or genotypes within of life forms within a fish community and to species or life forms across aqua regimes (Burton *et al.*, 1992). India is one of the mega biodiversity countries in the world and occupies the ninth position in terms of freshwater mega biodiversity (Mittermeier and Mitemeir, 1997). Studies of spatial and temporal patterns of diversity, distribution and species composition of freshwater fishes are useful to examine factors influencing the structure of the fish community (Galactos *et al.*, 2004). The distribution and composition of the fish species in each habitat were closely associated with various factors such as the availability of food, breeding sites, water current, depth, topography and physic-chemical properties of water (Harris, 1995).

In the present study an attempt has been made to high light the fish fauna of Shree Sharanabasaveshwara Lake (Appan kere) Gulbarga city. The work will provide future strategies for development of fish species conservation.

MATERIALS AND METHODS

Gulbarga is township situated in the northern part of Karnataka state (76° -04" to 77° - 42" longitude and 16° - 12" to 17°-46" latitude) located 454 meters above msl. Sharanabasaveshwara Lake is situated in the heart of city. (Manjunath *et al.*, 2014).

The total area of the Sharanabasaveshwara Lake is 102 Acres (Figure 1). The main source of water to this lake is rainwater and sewage flowing in to this from North and North Western part of the City. The City is spread over an area of 65 km², Average annual rainfall observed is about 750 mm and the mean daily temperatures for the same period ranges from 19 °C in winter (November-December) to over 40°C in summer (March-June) (Manjunath *et al.*, 2014).

The tank is fully utilized by the Fisherman's Co-operative society. Shree Sharanbasaweshwara Lake exists from many decades. Since from early days this lake is used for cattle rearing, for bathing, for fishing, and also women used to wash their household cloths. After few decades, the municipal administration joined the sewage drains Ward A (Shahabazar area) of Gulbarga city into this lake. That's the point from which the lake got polluted & silted up. Incidences of fish kill happened 2 to 3 times. Very recently the City administration has taken up steps to desilt the tank and added fresh water in it, apart from that they also constructed stone lining/pitching & fencing throughout the periphery of the lake. Now it is well protected from animals and anthropogenic hindrances. It is now being used for contractual recreational boating only (Manjunath *et al.*, 2014). The fishes collected and fixed were labeled giving serial numbers exact locality from where collected, date of the collection spots where ever possible. Identification was done based on keys for fishes of the Indian subcontinent (Day 1958; Jayarma; 1981; Jayaram 1999; Talwar and Jhingram 1991). Classification was carried on outlines of (Day 1889), (Jayaram 1961), (Jayaram 1981).

The identification of the species was done mainly on the basis of the colour pattern, specific spots or marks on the surface of the body shape of the body, structure of various fins etc and also with the help of Dr. Vijayalaxmi Department of Zoology Gulbarga University, Gulbarga (Karnataka, India) for his valuable suggestions and identifying the fish fauna of Shree Sharanabasaveshwara Lake.



Figure 1: Shree Sharanabasaveshwara Lake

RESULTS AND DISCUSSIONS

The following fish fauna of Shree Sharanabasaveshwara Lake, Gulbarga District.

Table 1

I	Order:	CYPRINIFORMES
	Family:	Cyprinidae
	Species:	<i>Labeo rohita</i>
		<i>Catla catla</i>
		<i>Puntius sophore</i>
<i>Tor mussullah</i>		
II	Order:	SILUROFORMS
	Family:	Bagridae
	Species:	<i>Mystus krishnenis</i>
	Family:	Schilbeidae
	Species:	<i>Ompak bimaculatus</i>
		<i>Wallago attu</i>
		<i>Amblypharygodon mola</i>
	Family:	Channidae
Species:	<i>Channa striatus</i>	
III	Order:	OSRTIOGLOSSIFORMES
	Family:	Notopteridae
	Species:	<i>Notopterus notopterus</i>

The results of present investigation confirmed the occurrence of (10) ten fish species in Shree Sharanabasaveshwara Lake during Feb 2013 to March 2014. The distribution of fish species is quite variable because of geographical and geological conditions.

The fish species found in Shree Sharanabasaveshwara Lake are Order **Siluriformes** family Bagridae with (1) species, *Mystus krishnenis*, family schilbeidae with (3) species *Ompak bimaculatus*, *Wallago attu*, *Amblypharygodon mola*, family channidae with (1) *Channa striatus* followed by **Cypriniformes** order, Cyprinidae family with (4) species *Labeo rohita*, *Catla Catla*, *Puntius sophore*, *Tor mussullah* and **Osteoglossiformes** order, Notopteridae with (1) species *Notopterus notopterus*. Were found during sampling in Shree Sharanabasaveshwara Lake.

The results of present investigation confirmed the occurrence (10) ten species belongs to 3 orders Siluriformes order was dominant with (5) five species, followed by Cypriniformes with (4) four species, followed by order Osteoglossiformes with (1) one species. The present study largely focuses on the fish species richness in Shree Sharanabasaveshwara Lake. During the study altogether 10 species of fishes were recorded.

Due to multiple uses of fisheries resources, fishing has become a major industry and a large number of these aquatic communities are under a big threat of extinction. Habitat loss of environmental degradation has seriously affected the fish fauna. Knowledge of available resources and the biological characters of species serve the base line information for further studies on resource conservation and maintenance. Further there is a need for survey of diversity of fish fauna in different types of habitats all over the country. The work will provide further strategies for development and fish conservation.

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