



# International Journal of Fisheries and Aquatic Studies

ISSN: 2347-5129

(ICV-Poland) Impact Value: 5.62

(GIF) Impact Factor: 0.549

IJFAS 2016; 4(6): 534-536

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www.fisheriesjournal.com

Received: 24-09-2016

Accepted: 29-10-2016

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## A survey of fish fauna of Banganga River, Shohratgarh, Siddharthnagar, U.P.

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### Abstract

The present survey was conducted during October, 2014 to September, 2015 to find out the fish fauna of Banganga River at Shohratgarh, Siddharthnagar district of Uttar Pradesh. A total of 29 species of fishes belonging to 20 genera, 15 families and 7 orders were identified as a preliminary survey and observation. This was the first systematic survey on the fish diversity of this River. Order Siluriformes was found most dominant represented by 10 species, followed by Cypriniformes with 7 species; Perciformes with 4 species, Ophiocephaliformes with 3 species; Osteoglossiformes with 2 species while Clupeiformes and Beloniformes representing by only one species.

**Keywords:** Banganga River, fish biodiversity, siluriformes, cypriniformes

### Introduction

Fishes are the only major group of vertebrate which very much effect on human civilization from ancient time to date (Ubarhande and Sonawane, 2012) <sup>[16]</sup> and important for biodiversity (Verma, 2015) <sup>[18]</sup>. Fish constitute half of the total number of vertebrates in the world and live in almost all conceivable aquatic habitats. Fishes are the valuable and cheapest source of protein for economic as well as high class people so it is essential to study the distribution and availability of fish from freshwater rivers and ponds (Shinde *et al.*, 2009) <sup>[13]</sup>. Around the world approximately 22,000 fish species have been recorded out of which 2500 (11%) species are found in India (Nagma and Khan, 2013) <sup>[8]</sup>.

Rivers are vital and vulnerable freshwater ecosystem that are critical for the sustenance of all life. However, the declining quality of the water in these systems threatens their sustainability and is therefore a cause for concern. Rivers are waterways of strategic importance across the world, providing main water resources for domestic, industrial, and agricultural purposes. India is gifted with a river system comprising more than 20 major rivers with several tributaries and more than 50% of water resources of India are located in various tributaries of these river systems.

Many researchers are studied taxonomy, biodiversity and distribution of freshwater fishes from various rivers of India *i.e.* David (1963) <sup>[5]</sup> from Godavari and Krishna river, Menon (1992) <sup>[7]</sup> from Himalayan rivers, Jayaram (2010) from Cauvery river, Jadhav *et al.* (2011) <sup>[3]</sup> from Koyana river, Kharat *et al.* (2012) <sup>[6]</sup> from Krishna river, Venugopalan (2012) <sup>[17]</sup> from Mahe river, Sheikh (2014) <sup>[12]</sup> from Pranhita river, Singh *et al.* (2007) <sup>[14]</sup> from Paury and Sondur rivers etc. Verma *et al.* (2011a, b) <sup>[23, 24]</sup> and Prakash *et al.* (2015a, 2015b, 2015c) <sup>[9, 10, 11]</sup>, Verma (2016a, 2016b, 2016c) <sup>[19, 20, 21]</sup>, Verma and Prakash (2016) <sup>[22]</sup> studies the limnological parameters as well as biodiversity of fish fauna in the various lentic fresh water bodies of U.P. However, no attempt has been made so as far to explore the freshwater fish fauna of Banganga river of U.P.

**Study area:** The district Siddharthnagar lies between 82°45'E to 83°10'E longitude and 27°N to 27°28'N latitude. Administratively district has divided into 5 tehsils and 13 blocks. It lies in the Rapti Basin, Rapti River, Burhi Rapti and Banganga river is the major drainage of Siddharthnagar district of U.P. The Banganga river originates from hill of Siwalik Himalaya and after flowing 100 m in Nepal, it enters into Dhanaura Mustahkam village of Shohratgarh, district Siddharthnagar of Eastern Uttar Pradesh. It flows in a very sinuous course with shallow depth and causes heavy flooding in the Siddharthnagar district of Eastern Uttar Pradesh.

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**Banganga Barrage on river Banganga at Shohratgarh, Siddharthnagar, U.P.**

**Materials and methods:** To study the fish diversity of Banganga river flows through Siddharthnagar districts, fish samples were collected from different sites of Shohratgarh during October, 2014 to September, 2015. The collected fish specimens were preserved 10% formaldehyde solution at the sampling site. Identification of fish specimens was done up to species level with the help of standard literature by Datta Munshi and Srivastava (1988) <sup>[1]</sup>, Day (1989) <sup>[2]</sup>, Menon (1992) <sup>[7]</sup>, Srivastava (1998) <sup>[15]</sup>.

### Results and Discussion

For the present survey, different varieties of fish were collected from different sites of Rapti River and identified in the laboratory. The results are presented in Table 1. The table indicates the occurrence of 29 species of freshwater fishes belonging to 7 orders, 15 families and 20 genera were collected. The collected fish species including their order, family and zoological names are shown in the table given.

**Table 1:** Fish diversity of Bargana River during January, 2015 to December, 2015

S. No.	Zoological name of fish	Family	Order
1.	Catla Catla	Cyprinidae	Cypriniformes
2.	Labeo rohita	Cyprinidae	Cypriniformes
3.	Labeo calbasu	Cyprinidae	Cypriniformes
4.	Cirrhinus mrigala	Cyprinidae	Cypriniformes
5.	Cirrhinus reba	Cyprinidae	Cypriniformes
6.	Puntius ticto	Cyprinidae	Cypriniformes
7.	Amblypharyngodon mola	Cyprinidae	Cypriniformes
8.	Mystus seenghala	Bagridae	Siluriformes
9.	Mystus cavasius	Bagridae	Siluriformes
10.	Mystus vittatus	Bagridae	Siluriformes
11.	Mystus aor	Bagridae	Siluriformes
12.	Rita rita	Bagridae	Siluriformes
13.	Wallago attu	Siluridae	Siluriformes
14.	Ompok pabda	Siluridae	Siluriformes
15.	Clarias batrachus	Clariidae	Siluriformes
16.	Heteropneustes fossilis	Saccobanchidae	Siluriformes
17.	Ailia coila	Schilbeidae	Siluriformes
18.	Pangasius pangasius	Schilbeidae	Siluriformes
19.	Channa gachua	Ophiocephalidae	Ophiocephaliformes
20.	Channa punctatus	Ophiocephalidae	Ophiocephaliformes
21.	Channa marulius	Ophiocephalidae	Ophiocephaliformes
22.	Glossogobius giurus	Gobiidae	Perciformes
23.	Anabas testudineus	Anabantidae	Perciformes
24.	Colisa fasciatus	Osphronemidae	Perciformes
25.	Chanda nama	Ambassidae	Perciformes
26.	Notopterus notopterus	Notopteridae	Osteoglossiformes
27.	Notopterus chitala	Notopteridae	Osteoglossiformes
28.	Gudusia chapra	Clupeidae	Clupeiformes
29.	Xenentodon cancila	Belonidae	Beloniformes

Fish fauna of the Banganga River studied belong to 7 orders namely Cypriniformes, Siluriformes, Ophiocephaliformes, Perciformes, Osteoglossiformes, Clupeiformes and Beloniformes.

In present survey, Siluriformes order is the most dominant group representing 10 species followed by Cypriniformes order representing 7 species. The order Perciformes with 4 species, Ophiocephaliformes with 3 species; Osteoglossiformes with 2 species while Clupeiformes and Beloniformes representing by only one species. Thus, author recorded 29 different species during preliminary survey of Banganga River.

It may be concluded that the Banganga River hosts a number of freshwater fish species. Since out of 29 species some fish fauna in Shohratgarh, Siddharthnagar district also supported the livelihood of several economic classes. Therefore, there is an urgent need to understand the conservation priorities.

### Acknowledgements

Authors are highly grateful to the Principal M.L.K.P.G. College, Balrampur for providing necessary laboratory facilities.

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