International Research Journal of Biological Sciences _____ ISSN 2278-3202
Vol. **10(3),** 38-39, August **(2021)** *Int. Res. J. Biological Sci.*

Short Communication

Fresh water fishes in Barua Sagar Jhil of Jhansi Distt. of U.P., India

Dhusia S.K., Ahirwar J.R.*, Verma A.K. and Ahirwar R.K.
ASCA Govt. P.G. College Niwari, Distt. Niwari, M.P., India
jra_niwari2008@rediffmail.com

Available online at: www.isca.in, www.isca.me
Received 15th December 2020, revised 6th June 2021, accepted 10th July 2021

Abstract

The present study gives the information regarding the fish fauna of Barua Sagar Jhil of Jhansi District of Uttar Pradesh. During present study 16 fish species were observed which belong to 5 orders, 8 families and 11 genera. All fish species were identified with the help of available literatures and listed as follow- Labeo rohita, Labeo calbasu, Labeo bata, Labeo gonius, Catla catla, Cirrhinus mrigala, Chaqunius chagunio, Notopterus notopterus, Clarias batracus, Wallago attu, Heteropneustes fossilis, Mytus aor, Mystus seenghala, Mastacembelus armatus, Channa punctatus , Channa striatus.

Keywords: Barua sagar, fresh, water, Fish, fauna.

Introduction

People had an interest in fish production because of its nutritive and medicinal value. Fish flesh is the richest source of protein. Cooked Fish flesh is easily digestible. The fish density depends on the availability of good habitat and available food chain. The Barua Sagar Jhil encompasses the several varieties of fishes which are being used by the native of Barua Sagar town. Large number of fishes also transported to the other part of Bundelkhand region. The Barua Sagar Jhil is situated in Barua Sagar town of Jhansi, UP. This lake is situated 25km from Jhansi on the road Jhansi to Khajuraho. Barua Sagar Jhil is about 25km far from Jhansi in Uttar Pradesh and 08 km from head quarter of Niwari district of Madhya Pradesh. Geographically, it is situated between 25°22'25" N latitude and 78°43'52" E longitude. It is one of the significantly potential water body in the Jhansi district of Uttar Pradesh. The study has been made to know about the current status of fish diversity in Barua Sagar Jhil. The study will also establish baseline information for future studies and management purposes.

Materials and methods

To study the fish variety of Barua Sagar Jhil, the fish samples were collected from different stations of Jhil with the help of local fisherman. For this various size of meshes were used to catch the fishes. All collected fish samples were identified by using the available literatures[1-3] and the collected fish names were adopted as per catalogue of Fishes of the California Academy of Science[4].

Results and discussion

During present study, 16 fish species were collected from Barua Sagar Jhil which are belonging to 5 orders. *Cypriniformes* Order included Cyprinidae family with 7 species (*Labeo rohita, Labeo calbasu, Labeo bata, Labeo gonius, Catla catla, Cirrhinus mrigala* and *Chaqunius chagunio*). Order Clupeiformes was represented by one family, Notopteridae with one species *Notopterus notopterus*. Order Siluriformes comprised 4 families as family Clariidae with one species, *Clarias batracus*, family Siluridae with one species *Wallago attu*, family Bagridae with two species *Mytus aor* and *Mystus seenghala* and family Heteropneustidae with one species, *Heteropneustes fossilis*. Order Mastacembeliformes is represented by single family Mastacembelidae with one species *Mastacembelus armatus* and order Channiformes with one family Channidae with two species *Channa punctatus and Channa striatus.*

During the present study, authors have identified 16 types of fishes belong to 5 orders, 8 families and 11 genera. While 26 species of fishes belonging to 5 orders, 10 families and 17 genera have been reported in Budhagar Tank of Jabalpur MP[5]. Barua Sagar Jhil has lesser richness sps. as compared to other sub basins of river. In Betwa and Chambal basin, 60 and 71 fish species were reported respectively, while fish assemblage was similar to these adjoining basins[6,7]. During this study, it was observed that cyprinids was in dominate position in Barua Sagar Jhil. Three of these cyprinids sps. like; *Labeo rohita*, *Catla catla* and *Cirrhinus mrigala* were scattered in most of the study sites. Such type of distribution abundance suggest that the most of these species are capable of tote rating a wide range of environmental conditions[8].

In the present study fishes; *Labeo bata, Labeo rohita, Labeo calbasu, Labeo gonius, Catla catla, Cirrhinus mrigala* were found but due to the presence of predatory fishes like *Wallago attu, Channa striatus, C.punctatus Mystus aor, Mystus seenghala* and *Clarias magur* their population were affected.

Some workers reported different species of fishes have their own minimum optimum and maximum ranges of temperature tolerance. The major carps flourished well with a temperature ranging from 18°C to 30°C [9]. In present study, the water temperature was recorded between 18.31 to 28.97°C during first year and 17.38 to 28.45° during second year of study period which is suitable for the culture of major carps.

Dissolved nutrients undoubtedly play an important role in fish production. It is observed that fish population showed a gradual decline in summer season, it may be due to shallow water level and high temperature. Oxygen content of water is also reduced in summer with rise in temperature. The reduction in fish population may be due to the reduction of inorganic contents and dissolved oxygen in water[10].

Table-1: Fish fauna of Barua Sagar Jhil of Jhansi District of Uttar Pradesh.

Order	Family	Species
Cypriniformes	Cyprinidae	*Labeo rohita*
		Labeo calbasu
		Labeo bata
		Labeo gonius
		Catla catla
		Cirrhinus mrigala
		Chagunius chagunio
Clupeiformes	Notopteridae	*Notopterus notopterus*
Siluriformes	Clariidae	*Clarias batrachus*
	Siluridae	*Wallago attu*
	Bagridae	*Mystus aor* *Mystus seengala*
	Heteropneustidae	*Heteropneustes fossilis*
Mastacembeliformes	Mastacembelidae	*Mastacembelus armatus*
Channiformes	Channidae	*Channa punctatus*
		Channa striatus

Conclusion

Thus, with the foregoing discussion, the author's opinions are that the physico-chemical, geological and biotic factors of Barua sagar Jhil are quite convincing and favourable for fish population, but due to the presence of predatory and weed fishes, the fish production is greatly affected.

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