

VOLUME 10 ISSUE 2 2024

ISSN 2454 – 3055



**INTERNATIONAL
JOURNAL OF
ZOOLOGICAL
INVESTIGATIONS**

***Forum for Biological and
Environmental Sciences***

Published by Saran Publications, India



International Journal of Zoological Investigations

Contents available at Journals Home Page: www.ijzi.net

Editor-in-Chief: Prof. Ajai Kumar Srivastav

Published by: Saran Publications, Gorakhpur, India



ISSN: 2454-3055

Fish Fauna of Chankapur Dam, Kalwan (Nashik District) Maharashtra, India

Patil Rakesh B.¹ and More Vitthal R.^{2*}

¹Department of Zoology, Maulana Azad College, Chatrapati Sambhaji Nagar, Maharashtra, India

²Department of Zoology, Government College of Arts and Science, Chatrapati Sambhaji Nagar, Maharashtra, India

*Corresponding Author

Received: 15th May, 2024; Accepted: 27th August, 2024; Published online: 8th December, 2024

<https://doi.org/10.33745/ijzi.2024.v10i02.122>

Abstract: The fish fauna of Chankapur Dam, Kalwan (Nashik, India) was studied from October 2022 to April 2023. Chankapur Dam, is built on Girna River near Abhona in Klawan tehsil of Nashik District. The total storage capacity of the Dam is 76,850 km³ and the surface area is 10,320 km³. During the investigation, fish were collected and identified. In the present study, 11 species belonging to 3 different families and six genera were recorded during the study period. Cyprinidae was dominant followed by Percidae and Siluridae. The fishes recorded were found present in good numbers in the Chankapur Dam.

Keywords: Girna, Chankapur, Cyprinidae, Percidae, Siluridae, Fish fauna

Citation: Patil Rakesh B. and More Vitthal R.: Fish fauna of Chankapur Dam, Kalwan (Nashik District) Maharashtra, India. Intern. J. Zool. Invest. 10(2): 1231-1233, 2024.

<https://doi.org/10.33745/ijzi.2024.v10i02.122>



This is an Open Access Article licensed under a Creative Commons License: Attribution 4.0 International (CC-BY). It allows unrestricted use of articles in any medium, reproduction and distribution by providing adequate credit to the author (s) and the source of publication.

Introduction

Freshwater reservoirs are important in aquatic ecosystems for the support of plants and animals in the ecosystem. The Kalwan Tahsil of Nashik district is also rich in freshwater reservoirs. The freshwater reservoir water of the Chankapur Dam is being utilized for Agricultural purposes of local regions and Fisheries also. Various Researchers have studied the diversity and distribution of freshwater fishes from different parts of the country viz. Shelke (2016) recorded 5 orders, 11 families, 18 genus, and 24 species from Girna Dam which was built on the Girna River and located

near the Nandgaon in Nashik, Maharashtra. Kumbhar and Lad (2014) recorded 13 species of catfish belonging to 5 families and 10 genera from the Krishna River at Sangali District (MS). Kakulte and Tidame (2018) studied fishes of the Darana region of Nashik District (Maharashtra) and recorded a total of 19 species belonging to 4 orders and 10 families. Patil *et al.* (2015) studied endemic and threatened fish species diversity and its assemblage structure from Northern Western Ghats, Maharashtra (India), and recorded a total of 23 species belonging to 7 families and 19 genera.

Table 1: Fish fauna of Chankapur Dam, KalwanTahsil, District Nashik (M.S.)

Order	Family	Scientific Name	Common Name
Cypriniformes	Cyprinidae	<i>Catla catla</i>	Catla
		<i>Cirrhinus reba</i>	Rewah
		<i>Cirrhinus mrigala</i> ,	Mrigal
		<i>Puntius stigmata</i>	-
		<i>Labeo calbasu</i>	-
		<i>Labeo rohita</i>	Rohu
		<i>Puntius chola</i>	Chola
Siluriformes	Clariidae	<i>Clarias batrachus</i>	Mangur
Perciformes	Percidae	<i>Channa orientalis</i>	Dwarf murrel
		<i>Channa punctatus</i>	Dok
		<i>Channa marulius</i>	Murrel

Patole (2014) reported 6 orders, 11 families, 24 genera and 32 species, from Nandurbar District (Northwest Khandesh Region) of Maharashtra. 26 species of fish belonging to 12 families, and 6 orders were recorded by Javle *et al.* (2017) from Osmanabad district, India. Tayade (1016) reported 30 species belonging to 10 different families and 5 orders.

The objective of this study was to study the diversity and richness of fish diversity from Chankapur Dam, which was built on the Girna River in Kalwan Tahsil of Nashik District (Maharashtra, India). The River Girna primarily serves as the source of water for irrigation along the Girna River basin. The Ichthyofaunal diversity of Chankapur Dam has not been studied so far. Considering the Ecological and economic importance of fishes this study study was undertaken to record the fish fauna of Chankapur Dam.

Materials and Methods

Study Area

Chankapur Dam is one of the earthfilldam on the Girna River near Kalwan Tahsil, District Nashik (M.S.). The dam is accomplishing the irrigation demand of Kalwan and Deola Tehsil. The dam was built in the 19th century. Geographically dam lies between latitudes 20.4988632°N and longitudes 73.8834431°E. The surface area of the dam is 3,980 sq mi. The total volume content is 509 cu mi and gross storage capacity is 19,118.65 cu mi. The

dam supports a blooming fishery, which offers opportunities for increasing freshwater fish production in the region.

Collection and identification of fish

The fish were collected during the study period (October 2022 to April 2023) with the help of local fishermen by using different types of fish collection nets like gill nets, cast nets, and traps from various sites of the reservoir. The collected fishes were identified in the laboratory at the species level, while identifying their morphological features we analyzed their natural color, pattern of scales, mouth pattern, identification marks like black or red spots, blotch on operculum, paired and unpaired fins and body parts with the help of standard literature (Jayaram, 1999, 2008; Jayaram and Sanyal, 2003).

Results and Discussion

The fish fauna is an important aspect of the fishery potential of the water body. It was found that the distribution of fish species is quite variable due to geographical and geological conditions. The study revealed the presence of 11 species of fish belonging to 3 different families and 6 genera. The fishes belonging to the family Cyprinidae were dominant followed by Percidae and Siluridae (Table 1).

The present study shows good availability of fish species. It may be related to suitable ecology of water body. Water parameters of the

Chankapur dam was favorable for Fishes. In the present study 11 species of fish belonging to 3 different families were observed. Fish belonging to Cyprinidae were dominant as compared to Clariidae and Percidae. When we compare this data with previously available literature or various recent research articles, Cyprinidae dominate the others because they have high adaptive property in given water body.

References

- Jayaram KC. (1999) The freshwater fishes of the Indian region. Narendra Publishing House, Delhi.
- Jayaram KC. (2008) Foundation of fish taxonomy. Narendra Publishing House, Delhi.
- Jayaram KC and Sanyal A. (2003) A taxonomic revision of the fishes of the genus *Mystus scopoli* (Family:Bagridae). Records Zoological Survey India occasional paper no. 207, pp. 141.
- Javle CA, Rajput KH and Ugale BJ. (2017) Existence of the freshwater fish faunal diversity in Osmanabad district (MS), India. Int J Life Sci. 5(4): 644-648.
- Kakulte V and Tidame S: Fishes of Darana region of Nashik District (Maharashtra). Int J Creative Res Thoughts 6(2): 678-681.
- Kumbar SM and Lad SB. (2014) Diversity, threats and conservation of catfish fauna of the Krishna River, Sangli District, Maharashtra, India. J Threatened Taxa 6(1): 5362-5367.
- Patil TS, Bhosale AR, Yadav RB, Khandekar RS and Muley DV. (2015) Study of endemic and threatened fish species diversity and its assemblage structure from Northern Western Ghats, Maharashtra, India. Int J Zool Res. 11: 116-126.
- Patole SS. (2014) Ichthyofaunal diversity of Nandurbar District (Northwest Khandesh Region) of Maharashtra (India). Int J Fisheries Aquat Stud. 2(2): 167-172.
- Shelke AD. (2016) Ichthyofaunal biodiversity of Girna Dam (Girna River) Dist. Nasik, Maharashtra, India. World J Fish Mar Sci. 8(3):135-141.
- Tayde SN. (2016) Fish diversity of Morna River with first report of *Ophisternon benghalenses* from Maharashtra, India. Int J Appl Res. 2(2): 674-678.