

RESEARCH ARTICLE

Ecological study on predatory fishes of Limboti Dam, Taluka Loha, in Nanded District, Maharashtra, India

Pawar SK

Department of Zoology, Gramin Mahavidyalaya, Vasantnagar, (kotgyal), Tq. Mukhed Dist. Nanded, (M.S.) India

Manuscript Details

Received : 25.10.2018

Revised : 25.11.2018

Accepted: 06.12.2018

Published: 31.12.2018

ISSN: 2322-0015

Cite this article as:

Pawar SK. Ecological study on predatory fishes of Limboti Dam, Taluka Loha, in Nanded District, Maharashtra, India. *Int. Res. Journal of Science & Engineering*, 2018, 6 (6): 247-250.

© The Author(s). 2018 Open Access

This article is distributed under the terms of the Creative Commons Attribution 4.0 International License

(<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

ABSTRACT

In present investigation common ecological observations predatory fishes has been studied from Limboti Dam during the year June 2016 to May 2017. The Limboti Dam is one of the most important aquatic resources from Loha Taluka in Nanded District Maharashtra. It belongs to Aurangabad Division. The water of the dam drinking is supplied to the three Taluka Namely Kandhar, Loha and Ahmadpur. The water of dam is used irrigation, fish culture and drinking purposes.

Keywords: Limboti Dam, *Mastacembelus armatus*, *wallago attu*, *Notopterus Chitala*.

INTRODUCTION

The Limboti Dam is a large reservoir having full water spread area during rainy season. The Nanded District is one of the important District of Maharashtra State for the fish production and natural water resource. There is wide scope for the further development in the fisheries sector 6000 hector field comes under irrigation of this dam. The under capacity of this dam is 3.5 T.M. The scientific data on the ecological study of predatory fishes are scanty hence present work carried out. Chandanshive *et al.* [1], Day [2], Jhingran [3], Kamble [4], Kanwate and Kulkarni [5], Soni and Shrivastav [6], Sreenivassan [7], Pawar [8- 14].

METHODOLOGY

The Limboti Dam was selected for the study of predatory fishes. The fishes were collected from different sites of Limboti Dam with the help of local fisherman and preserved in 4% formalin for identification. The standard identification key were used for identification specimen upto species level. Day [2], Jhingran [3].

Table 1: Ecological Observation of Predatory Fishes in Limboti Dam During the Year June 2016 to May 2017

Sr. No.	Scientific Name of Fishes	Order	Family	Common Name	Habitat	Food	Maxi. Size in Cm.	Comm-ercial	Status
1	Channa punctatus	Siluriformes	Channidae	Phooldhok	Littoral and muddy water	Small fishes	14	Yes	R
2	Channa satriatus	Siluriformes	Channidae	Murrel	Littoral, limnetic among aquatic weeds	Small & medium size fishes	42	Yes	R
3	Channa gachua	Siluriformes	Channidae	Dhesidhok	Littoral, limnetic among aquatic weeds	Fry, fingerlings, insects & larvae	10	Yes	R
4	Channa marulius	Siluriformes	Channidae	Murrel	Littoral and muddy water	Small fishes	17	Yes	R
5	Mystus cavassius	Siluriformes	Siluridae	Sanguyl	Limnetic and clear water	Fry, fingerlings, insects & larvae	14	Yes	A
6	Mystus seenghala	Siluriformes	Bagridae	Sanguyl	Limnetic and clear water	Small, medium sized fishes & insects	32	Yes	A
7	Mystus vittatus	Siluriformes	Siluridae	Sanguyl	Limnetic and clear water	Small fishes fingerling & insects	10	Yes	A
8	Mastacembelus armatus	Mastocembeliformes	Mastocembelidae	Bam/Vambat	Littoral, Limnetic, clear water, under stones	Fingerling & insects	23	Yes	A
9	Natopterus chitala	Clupeiformes	Notopteridae	Patola/Chambari	Littoral, limnetic, muddy and clear water at bottom feeder	Fish fry, fingerling, small fish & insects	21	Yes	A
10	Natopterus natopterus	Clupeiformes	Notopteridae	Patola/Chambari	Littoral limnetic, muddy and clear water	Fish fry, fingerling, small fish & insects	20	Yes	A
11	Natopterus kpirat	Clupeiformes	Notopteridae	Patola/Chambari	Littoral, limnetic, muddy and clear water and bottom feeder	Fish fry, fingerling, small fish & insects	21	Yes	A
12	Wallago attu	Siluriformes	Bagridae	Katra	Limnetic, clear water voracious feeder	Small, medium sized fishes	75	Yes	A
13	Ophiocephalus gachua	Ophiocephaliformes	Cyprinidae	Dhokda	Limnetic and clear water	Small fishes	20	Yes	A
14	Ophiocephalus marulius	Ophiocephaliformes	Cyprinidae	Dhokda	Limnetic and clear water	Small fishes	21	Yes	A

These fishes were dissected and contents of the stomach examined to find out their food.

RESULTS

The record of the predatory fishes collected from Limboti Dam along with their habitat and nature of food is given in table. Generally large sized fishes were found in the littoral zone. Channa were found in muddy water and among the weeds. These were ecological well adapted to their habitat due to presence of assessor respiratory organs, their peculiar breeding habit and abundance of food. All the predatory fishes possessed a large number of curved teeth on jaws, plate and tongue which present the prey to escape away. This comprised an ecological adaptation which to be necessary in view of the not easy availability of the food. The abundance of small fishes in the littoral zone is attributed to the abundance of phytoplankton and Zooplankton providing food to primary consumer which in turn comprised the food of predatory fishes.

During the study period study 14 fish belonging to 04 orders. The member of order siluriformes were dominated by 08 species of fishes. *Channa punctatus*, *C. striatus*, *C. gachua*, *C. marulius*, *mystus cavassius*, *M. seenghala*, *M. vittatus*, *wallagoattu*. The member of order clupeiformes are 03 species of fishes. *Natopterus chitala*, *N. Natopterus*, *N. Kapirat*. The member of order opiocephaliformes are 02 species of fishes. *Ophiocephalus gachua*, *O. marulius* and the member of order mastacembeliformes are 01 species of fish *Mastocembelus armatus*.

The collected and identified fish species including their scientific name, order, family, common name, Habitat, food, commercial, maximum size and status are shown in the given table. Such type of investigation was carried out by other workers also maintained in the same table. Pawar [1-8] Ubharhande *et al.* [15], Sheikh *et al.* [16], Ahirrao [17], Bhalero [18], Pawar [19], Pawar and Patel [20], Sharma and Mudgal [21], Ray and Parida [22], Motawani and Saigal [23].

REFERENCES

1. Chandanshive NE, Kamble SN and Yadav BE. Fish Fauna of Pavana river of Pune, Maharashtra, J. Aqua. Biol., 2006; Vol. 23 (3) PP.7-9.
2. Day Franas. The fishes of India, vil. I and II Jagamander Agency, New Delhi, Jayaraman, 1987. KC (1981), The freshwater fishes of India, a Hand Book 251, Culcutta.
3. Jhingran VG. Fish and Fisheries of India, Hindustan publishing co-operation, India, Soni S., N.C. Agrawal, K. Singh and R.P. Ahirwal (2008), Ecological study on predatory fishes of Sagar district. 1991.
4. Kamble SM, Mohekar AD and Bhagwan HK. Biodersity of fishes of river Manjara near Kallam, District Osmanabad, (M.S.) India, J. Aqua. Biol. 2008, 21 (3), (2006), pp. 3-4.
5. Kanwate V and Kulkarni. Fish and Fisheries of Kandhar tank district Nanded (M.S.), J. Aqua, 2006, Vol. 21 (3), pp. 10-13.
6. Soni DD and Shrivastava BK. Ecological study on predatory fishes of Sagar lake, Geo. Bios. 1979, 6, pp. 269-271.
7. Sreenivas san A. XIII status of reservoir fisheries in Tamilnadu, Madras, Journal of Fisheries, 1969, vol. VIII, August, pp. 60-68.
8. Pawar SK. Population kinetics and seasonal fluctuation of phytoplankton of Vishnupuri dam, Nanded district, (M.S) India. *Int. Res. Journal of Science & Engineering*, 2017a; 5 (3): 231-234.
9. Pawar SK. Population kinetics and seasonal fluctuation of zooplankton of Vishnupuri dam, Nanded district, (M.S) India. *Int. Res. Journal of Science & Engineering*, 2017b; 5 (3): 227-230.
10. Pawar SK. The study on fish diversity in the Vishnupuri dam, Nanded (M.S.) India, *Int. J. of Life Sciences*, 2017c; Volume 5(1): 137-139.
11. Pawar SK. Physico-chemical analysis of water in Vishnupuri dam, Nanded (M.S.) India,, *Int. J. of Life Sciences*, 2017d; Volume 5(4): 754-757.
12. Pawar SK. Water quality assessment of Vishnupuri dam, in Nanded District, Maharashtra, India, *Int. J. of Life Sciences*, 2017e; Volume 5(4): 758-761.
13. Pawar SK. Fish diversity in relation to fish economics of Isapur dam, from Pusad, Yavatmal District (Maharashtra), India, *Int. J. of Life Sciences*, 2017f; Volume 5(1): 133-136.
14. Pawar SK. Determination of physico-chemical parameters of Vishnupuri Dan, Nanded District, Maharashtra, India. *Int. Res. Journal of Science & Engineering*, 2018a, 6 (1): 26-30.
15. Ubharhande SB, Sonawane SR. Study of freshwater fish fauna and water quality at Paintakli dam from Buldhana district, (M.S.) India. *Journal of Experimental Sciences* 2012; 3 (7) : 04-08.

16. Sheikh SR. Studies on Ichthyofaunal diversity of Pranhita River, Sironcha, Dist : Gadchiroli, Maharashtra, India. *Inter J. of fisheries and Aquatic Studies*, 2014; 1 (5) : 144-147.
17. Ahirrao KD. Fish diversity of the Bori dam at Tamaswadi, Parola, district Jalgaon, Maharashtra State 312. *Golden Research Thoughts*, 2014; 3 (12) : s1-8.
18. Bhalero SN. Study of fish diversity and water quality at Kasar Sai dam, Hinjewadi, Pune, MS, India. *Int. Research J of Biological Sciences*, 2012; 1 (4) : 51-55.
19. Pawar RT. Ichthyofauna of Majalgaon reservoir from beed district of Marathwada Region, Maharashtra State. *Discovery the Int daily Journal*, 2014; 20 (60) : 7-11.
20. Pawar RH, Patel MG. Fish diversity of karv and Dam near Shirpur, (M.S.) India. *Journal of chemo and Biosphere*, 2012; 3 (2) : 9-11.
21. Sharma S and Mudgal LK. Fish diversity of Yashwant Sagar reservoir, Indore (M.P.) Ham, *J. Envi.*, 2001, 18 (2); 117-119.
22. Ray AB and Parida ND. Notes on the ecology of Chika lake and the socio economic condition of Chilka fisherman with suggestion for their important, *Madras Journal of Fisheries*, 1976; vol. VIII, August, pp. 62-66.
23. Motawani MP. and Saigal BN. Fish fauna of Sardar sagar reservoir in Pillbhit (U.P.) and some recommendations for development of reservoir fisheries, *India Journal of Fisheries*, 1974, Vol. 21, no.1, pp. 109-199.

© 2018 | Published by IRJSE

Submit your manuscript to a IRJSE journal and benefit from:

- ✓ Convenient online submission
- ✓ Rigorous peer review
- ✓ Immediate publication on acceptance
- ✓ Open access: articles freely available online
- ✓ High visibility within the field

Email your next manuscript to IRJSE
: editorirjse@gmail.com
