

Ichthyofaunal Diversity of Jutpani Lake Near Dharni Tahsil, District Amravati (M.S.), India

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Abstract—The Jutpani Lake is principal fresh water body located in Jutpani village of Dharni tahsil in Amravati district of Maharashtra state. Dharni is a tahsil place and it is 148 km north west side of Amravati and 80 km east side from Burhanpur Madhyapradesh It is situated at about 500 m above the mean sea level.

Jutpani lake is 8 km south east side from Dharni Tahsil at about 500 m above mean sea level and is at 77°11'50"E longitude and 21°26'45" N latitude. Jutpani Lake receives the water from the surrounding catchment areas during the monsoon period. The area of Jutpani Lake is spread over 400 acres. The depth of water is 37 feet during the monsoon and 14 feet during the summer season. The water of this lake is primary used for washing, bathing, fishing activities, agriculture and other domestic purpose but now it is at a transitional state with respect to degradation.

Present work is carried out during the period of one year (Jan 2025 to Dec 2025). In the present investigation in Jutpani lake, Dharni Maharashtra there are 30 species of fishes were recorded of 8 different orders and data is tabulated in Table 1.1

Index Terms—Fish Diversity of Jutpani lake, Dharni, Maharashtra.

I. INTRODUCTION

Ichthyofauna it is also known as piscifauna and refers to the fish of a particular region or time period is called as Ichthyofauna. Various species of fishes are live in fresh water as well as salt water and fishes are herbivorous, carnivorous, some are omnivorous and fish are top predators of the most aquatic ecosystem and some fishes are depending on lower feeding groups as food and fish play important roles in top down control of the growth and production of lower feeding groups and fishes are important in human being as food and help aquatic ecosystem functions for capture and eating of phytoplankton, zooplankton and

some macro invertebrates but fish may also provide socioeconomic value in the form of fishery for people. In country India intake of meat and milk is low, so fish as special importance as a supplement to in balanced cereal diets. Now today protein deficiency is the words most serious human malnutrition problem and perhaps 30 to 40% of the world populations are suffering from protein deficiency. It is estimated that about 10 million tons of fish is required annually to meet the present-day demand of fish protein in the country against as annually production of only 3.5 million tons.

Losses of fish species due to changes in quality of water and over fishing may result in dramatic shifts in aquatic ecosystem dynamics, as a grazing pressure on invertebrate and algae can be released, enabling rapidly growth and potential blooms of algal productions. Fish communities are used to indicate longer term or wider ranging effect of changes to the aquatic environment because many fish species are lived relatively long and mobile and fish incline to integrate effects of different lower trophic levels there by proving the measure of integrated aquatic environment health. Fishes are very important for assessing to contaminate in aquatic ecosystem. Since they generally represent the top of the food chain/web and susceptible bio accumulation and also bio-magnification of heavy metals and synthetic organic contaminants. The more detail systematic identification of fishes was done by using the standard keys of Day, (1958) and also Talwar and Jhingran, (1991).

Fresh water bodies are very essential for the existence of a dynamic ecosystem and contribute immensely in shaping and evolving the biotic and abiotic factors of the system. Today with rapid increase in population, unplanned, urbanization and over exploitation the quantity of water be it lake is deteriorating at an

alarming rate ultimately resulting in depletion of aquatic biota.

II. MATERIAL AND METHODS

The study was carried out during Jan 2025 to Dec 2025. Freshly fishes were collected in every month from fisherman at various sites of fish collection. Small sized fishes directly preserved in 4% formalin solution, while large fishes preserved in 10% formalin in a container by proper spreading of their fins and given an incision in their abdomen. The morphometric characters measured and the collection of fishes from different site of lakes was made with the help of local fishermen. The systemic identification of fishes was done by using the standard keys of Day (1958) and Talwar and Jhingran (1991).

III. RESULT AND DISCUSSION

Fishes are very important groups because of its economically, nutritional and medicinal value for human being. Fishes are important food resources as it is rich in proteins, carbohydrates and other nutritional constituents.

In the present investigation, 30 species of fishes from 8 different orders were recorded from the three sites of lake. Ahirrao, (2000) observed 32 fish species belonging to 25 genera and 8 families from Parbhani. Telkhade, (2007) reported 39 species, belonging to 6 order and 17 families from the area of Tadoba National Park, Chandrapur. Jayabhaye and Khedkar, (2008) recorded 25 fish species belonging to 6 orders from Sawana dam in Hingoli District of Maharashtra. Ashashree, et.al., (2008) noted 18 fish species belonging to 7 orders in Savalanga pond of Davangere District, Karnataka.

Tijare, et.al., (2008) founded 32 fish species from the lake of Gadchiroli District (M.S.). Ramamurthy, et.al., (2009) observed 30 fish species in Muthupet reservoir of Nagappattinam District, Tamilnadu. Kamble and Mudkhede, (2013) observed 15 species of fish in Loni reservoir. Pawar Ravindra, et.al., (2014) reported 165 fish species belonging to 9 orders, 26 families and 82 genera and reported that the fishes belonging to order Cypriniformes was dominant in Maharashtra. Patil Alaka, (2015) observed 13 species of fishes at Bhambarde Sangli, Maharashtra. Harish Kumar,

(2015) founded 13 species belonging to 11 families were noted 22 and species belonging to 19 genera in 10 families of 5 orders in Jannapura tank Bhadravati Taluka of Karnataka. Manjaramkar, et.al., (2016) observed 39 fish species belonging to 6 orders, 13 families and 20 genera in river Godavari Near Nanded, Maharashtra.

Patole et.al., (2021) the research was undertaken at Siddheshwar reservoir in Hingoli district the finding of study suggests that there is presence of 40 species, 29 genera, 15 families and 9 orders. order Cypriniform were dominant which and 45% in total number during the study they suggested that check physicochemical and biological parameters periodically to prevent reservoir diversity from being depleted. Pawar S.K. et.al., (2018) Some ecological investigation of predatory fishes was studied from Limboti dam in Nanded District. During the study 14 species belonging to 4 orders were recorded, they observed that generally large sized fishes found in littoral zone. Kadam et.al., (2022) research was accomplished on Vishnupuri dam in Nanded district, during the study total 16 species with 4 order were observed. They concluded that changes in fish diversity could impact directly or indirectly the physicochemical, and biological character of dam. Gavande and Patki, (2023) The study were conducted to access fish diversity from Sai Kheda Dam on Painganga River in Yavatmal District, during the study they concluded that total 36 species including to 6 order and 11 families were recorded they concluded that the dam accommodates the rich diversity of edible fishes.

Bhoikamble and kumbhar, (2023) the freshwater fish fauna of Yerla River in Sangli district was studied. Yerla river is tributary of Krishna River. The study aimed to find real anthropogenic threat to fish fauna of Yerla River. Total number of 58 species belonging to 7 orders 19 families and 40 genera were recorded, as per IUCN red list of threatened species 41 species are list concern, 3 wears near threatened, 2 species were vulnerable, 4 species were endangered and 4 were data deficient. therefore, Yerla River will be most suitable habitat for conservation of endangered and threatened species. Raut et.al., (2021) the investigation deals with Nagzira corridor of Gondia district, the results reveal the occurrence of 62 species belonging to 18 families the conclusion where drone that diversity was

rich in corridor lakes but majority of fish diversity was threatened by anthropogenic activities. S.S. Patole, (2024) fish diversity was carried out in the river stream and ponds of Nandurbar district they observe 32 species belonging to 6 orders 11 families and 24 genera. Walale M.P. and Rathod S. D., (2025) Fish diversity was carried out in the dam of Yeldari District

Parbhani, Maharashtra, they observed 35 species belonging to 9 orders and 15 families.

During present study the 30 species of fishes of 8 different order viz, Anguilliformes, Clupeiformes, Cypriniformes, Mastacembeliformes, Perciformes, Gobiiformes, Siluriformes and Syngnathiformes were recorded in Jutpani lake, Dharni, Maharashtra.

Table No. 1.1: Ichthyofaunal Diversity of Jutpani lake during Jan 2025 to Dec 2025

Sr.No.	Orders	Scientific Names	Families
1	Anguilliformes	Freshwater eel	Anguillidae
2	Clupeiformes	Notopterus chitala	Clupeidae
3	Clupeiformes	Notopterus notopterus	Clupeidae
4	Clupeiformes	Gudusia chapra	Clupeidae
5	Clupeiformes	Tenualosa ilisha	Clupeidae
6	Cypriniformes	Catla catla	Cyprinidae
7	Cypriniformes	Cirrhina mrigala	Cyprinidae
8	Cypriniformes	Ctenopheregodon idella	Cyprinidae
9	Cypriniformes	Cyprinus carpio	Cyprinidae
10	Cypriniformes	Labeo rohita	Cyprinidae
11	Cypriniformes	Noemachilus botic	Cyprinidae
12	Cypriniformes	Osteobrama cotio	Cyprinidae
13	Cypriniformes	Oxygaster bacaila	Cyprinidae
14	Cypriniformes	Punctius condrenius	Cyprinidae
15	Cypriniformes	Punctius sarana	Cyprinidae
16	Cypriniformes	Punctius ticto	Cyprinidae
17	Cypriniformes	Rasbora daniconius	Cyprinidae
18	Cypriniformes	Garra mullya	Cyprinidae
19	Cypriniformes	Systemus sarana	Cyprinidae
20	Cypriniformes	Wallago attu	Cyprinidae
21	Mastacembaliformes	Mastacembalus armatus	Mastacembelidae
22	Perciformes	Channa punctatus	Channidae
23	Perciformes	Channa striatus	Channidae
24	Perciformes	Channa nama	Channidae
25	Perciformes	Channa gachau	Channidae
26	Perciformes	Channa marulius	Channidae
27	Gobiiformes	Glossogobius giuris	Gobiidae
28	Siluriformes	Clarias garipinnus	Siluridae
29	Siluriformes	Mystus seenghala	Siluridae
30	Syngnathiformes	Tilapia	Syngnathidae

IV. CONCLUSION

According to the study and review of research publications by utilising secondary data the study states that Jutpani lake, Dharni, Maharashtra. I studied in between Jan 2025 to Dec 2025 and identified that the ichthyofaunal diversity is rich in the Maharashtra state. I observed that 30 species across 8 orders are present in freshwater of Jutpani lake, Dharni, Maharashtra. The order Cypriniform was most

dominant followed by Siluriformes the conclusion of study state that conservation strategies are necessary to prevent overfishing and habitat destruction.

REFERENCES

- [1] Ahirrao, S. D. and A. S. Mane, (2000) the diversity of ichthyofauna, taxonomy and fisheries from freshwater of Parbhani, Dist. Maharashtra State. J. Aqua. Biol. Vol. 15 (1and2): 40-43.

- [2] Asashree, H. M., Srinivasa, A. and Renuka Swamy, H. M. (2008) Biodiversity of fishes in Savalanga pond, Devngere district, Karnataka. *J.Aqua. Biol.* Vol. 23 (1): 36-39.
- [3] Bhoikambale A. V. and kumbhar S.M. (2023) study on ichthyofaunal diversity of Yerla river Northern Western Ghat Maharashtra, India; *Zoological survey of India*; volume -123(iS2) 583 -600
- [4] Day, F. (1958) *The fishes of India*, Williams Dawson and Sons. Ltd. London, Vol. 1: 777.
- [5] Gawande V.J. and patki A.K. (2023) diversity of ichthyofauna of Saikheda dam in Gatanji region of Yavatmal district Maharashtra; *Vidya Bharti international interdisciplinary research journal* 17-(1).
- [6] Harish Kumar, K. (2015) Limnological characteristics of Jannapura tank in Bhadravati taluka of Karnataka, India. Vol 2 (46): 1-10.
- [7] Jayabhaye, U. M. and G. D. Khedkar, (2008) Fish diversity of Sawana dam in Hingoli district, of Maharashtra. *J. Aqua. Biol.* Vol.23(1): 26-28.
- [8] Kadam M. S., Nanaware S. S. & Bhure D. B. (2022) Studies on ichthyofaunal diversity from Vishnupuri dam, Nanded; *International journal of advances and applied research*; volume- 9; 5
- [9] Kamble, A.T. and L.M. Mudkhede, (2013) Zooplankton diversity of Ambadi reservoir taluka Kinwat, Maharashtra. *International Journal of Biomedical and Advance Research*. Vol. 4 (3): 179-181.
- [10] Manjaramkar, U. A. et.al., (2016) Diversity of Fish Fauna in River Godavari Near Nanded, Maharashtra, India. *Vidyabharti International Interdisciplinary Research Journal (Special Proceeding Issue)*: pp. 341-346.
- [11] Patil Alaka, A. (2015) Biodiversity of Bhambarde reservoir of Sangli, Maharashtra, India. *Research Journal of Recent Sciences* Vol. 4 (ISC-2014): 209-215.
- [12] Patole P.S., Salve B.S., Pawar R.T. (2021) ichthyofaunal diversity and conservation status of Siddheshwar reservoir district Hingoli, Maharashtra, India; *International journal of zoology and applied bioscience* volume- 6, issue- 6, PP (293 -298)
- [13] Patole S.S. (2024) ichthyofaunal diversity of Nandurbar district Maharashtra; *IJFAS*; 2(2); 167- 172.
- [14] Pawar Ravindra H., Patel Nisar G. and Patel, Yusuf E. (2014) Review on fresh water fish diversity of Maharashtra (India). *Journal of Entomology and Zoology Studies*. Vol. 2 (5): 358-364.
- [15] Pawar S.K. (2018) ichthyofaunal diversity fisheries in Ghagardara dam, Nanded district, India; *International journal of science and engineering-2018*; volume 6(6); 251 – 254.
- [16] Ramamurthy, V., Sathick, O. and Raveendran, S. (2009) Physico-chemical factors of Muthupet mangrove and seasonal variation of fish fauna. *J. Ecobiol*, Vol. 25 (1): 71-78.
- [17] Raut M.B., Khune² C.J., Nagpurkar L.P., (2021) Ichthyofaunal Diversity and Conservation Perspective of Some Selected Wetlands in Nagzira – Navegaon (NN) Corridor, Gondia District of Maharashtra State, India; *International Journal of Innovative Science, Engineering & Technology*, Vol. 8 Issue 5.
- [18] Talwar, P. K. and Jhingran, A. G. (1991) *Inland fishes of India and adjacent countries*, Vol I and II, Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi, pp. 1058.
- [19] Telkhade, P. M. (2007) Hydrobiology and biodiversity of Tadoba lake, Chandrapur. Ph.D. Thesis submitted to R.T.M. Nagpur University, Nagpur.
- [20] Tijare, R. V. and Thosar, M. R. (2008) Ichthyofaunal study from the lakes of Gadchiroli, Maharashtra, India. *J. Aqua. Biol.* Vol.23 (1): 29-31.
- [21] Walale M.P and Rathod S.D. (2025) Diversity of fresh water fish fauna of Yeldari dam, Parbhani district Maharashtra, India. *Proceedings of NZCWWET- 2025*: pp.131-136.