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# A CHECKLIST OF ORNAMENTAL FISHES FROM PAINTAKLE DAM, BULDHANA, MAHARASHTRA, INDIA

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***Abstract:***

*Present investigation is carried out during the study period Jun 2023 to May 2024 to study ornamental fish fauna from Paintakli dam. It is a perennial water resource which used for human consumption, agriculture and fisheries in taluka Chikli and Mahekar, district Buldhana. It is situated approximately 45 km from district Buldhana. In the present study it was observed that 09 species under 07 genus 04 family and 3 order were recorded, Cyprinidae family dominant with 06 species beside Balitoridae with 01 species, Poecilidae, Belonidae, contribute 01 species each.*

***Keywords:*** *Ichthyofauna, diversity, Cyprinidae, Paintakli dam, Buldhana*

**INTRODUCTION:**

Freshwater ornamental fishes or aquarium fish have spectral colour patterns appearance and peaceful nature and mostly kept in aquarium. Over a last few decade the rapid development in aquarium technology ornamental fish keeping is the most popular hobby next to photography. The inspiring popularity of aquarium keeping in households in many parts of the world, ornamental fish has become an important part in international trade. The world trade of ornamental fish is valued at about US $ 9.0 billion FAO(2004) with an annual growth rate of 6 percent. The USA is the largest market for importing ornamental fishes valued at US $ 60.0 million annually, followed by Japan (US $ 32.9 million) and Germany (US $ 21.0 million). Singapore is the top exporter.

In the international trade of aquarium fish, the freshwater fish species represent about 90 percent in terms of value, against 10 percent for marine species Lem, A. (2001.). Indian domestic trade in ornamental fish is conservatively estimated at Rs. 10 cores. It is growing at the rate of 20 percent annually and the present domestic demand is higher than the supply. By virtue of possessing vast and varied aquatic and icthyofaunistic resources and favorite climate, the country has great potential to increase the present level of export to about US $ 30 million every year (Vinci 1998 and Swain 2002).

India is one of the mega-biodiversity countries in the world and occupies the 9$^{th}$ position in term of freshwater mega-biodiversity (Mittermeier and Mittermeier, 2000). Two biodiversity “hotspots” having full of support the diversity of ornamental fishes from all over the India

There are about 450 families of freshwater fishes globally, about 40 represent in India (warm freshwater fishes) about 25 of these families are commercially important. Day (1878) and Hamilton (1822) were the first modern writers of Indian fishes.



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Maharashtra is the third largest state of the Indian union,5 major water basins i.e. Painganga-Vardha-Vainganga, Tapi-Purna, Bhima, Godavari, & Krishna are the freshwater fish resource of Maharashtra which constitutes 6 orders, 25 families, and 160 species all under the inland water. Ornamental fishes plays important role as a commercially and well as food value Sakhare, (2001); Hiware, (2005); Talwar and Jhingran (1991); Jayaram (1981 and 1999), Day (1878); Datta Munshi and Srivastava, (1988).

**STUDY SITE**

Paintakli dam is a medium irrigation project constructed by Irrigation department of Government of Maharashtra and constructed on River Painganga, basin Godavari near Paintakli village (at the upper side of the village) TalukaMahekar, District Buldhana (M.S) India. having latitude 20°16 09.42" N and longitude 76°28' 27.52" E [15] The irrigation area is 794.35 Sq. km. Average rain fall is 761.32 mm and climate is cold in winter and hot in summer season. The water storage capacity of dam is 67.355 Mcum .The basic purpose of dam is for drinking water, irrigation, domestic use and fishing to nearby villages.

**MATERIAL AND METHODS**

To study the diversity of Ornamental fish from Paintakle Dam , the study period June 2023 to May 2024, fish samples were collected from samplingspoint which represent the ichthyofaunal composition of Paintakle Dam.

Fish samples were collected every week during the study period from the fish landing centers with the help of skilled local fishermen by various fishing crafts, gears with variable mesh size. Sampling points were distributed throughout the site to cover its whole area and location was changed for the collection of fish fauna according to the season.



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Identification of fishes was done up to species level at fish landing center to get its natural colour, pattern of scales, fins, mouth pattern, identification marks like black spot, bloach on operculum, paired and unpaired fins and body parts with the help of standard literature by DattaMunshi and Srivastava, (1988); Hamilton (1822); Talwar and Jhingran, (1991); Francis Day vol I &II, (1986); Jayaram (1981); Jayaram, (1991); Jayaram, (1999); Menon (1987); Jayaram and Jeyachandra Das, (2000); Yazdani, (1985); Menon, (1987); Jyoti and Arti Sharma (2006) and etc.

Fish species which were not identified on the field (landing center) were preserved in 10 % formalin Department of Zoology, Rajarshi Shahu College Pathri, Aurangabad for further identification.

**Status of Ornamental Fishes in India**

Ornamental fish farming is an important commercial component of aquaculture providing aesthetic requirements and up-keepingof environment. Aquarium keeping of fishes began in 1805. Thefirst public aquarium display opened at Regent's Park inEngland in 1853.

India has very rich freshwater fishery resources, comprising 2.3million ha ponds and tanks, 1.3 million ha of beels, jheelsandderelict waters and 3.0 million ha of reservoirs. Indian rivers arericher with qualitative ornamental fishes in respect of their docile nature, characters suitable for domestication with, fascinating, attractive and brilliant colouration and potentiality for developing techniques for captive breeding. over, noattempt has so far been made to introduce most of these species in the international trade and securing positions in the national as well as international markets for which they deserve Singh Tarun Kumar (2013).



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**RESULT AND DISCUSSION:-**

During the study period June 2023 to May 2024, 09 species under 07 genus 04 family and 3 order were recorded , Cyprinidae family dominant with 06 species beside Balitoridae with 01 species, Poecilidae, Belonidae, contribute 01 species each.

During the study period it was observed that ornamental ichthyofauna. Species like*XenentodoncancilaPoecilia reticulate, Nemacheilusbotiabotia, Rasboradaniconius, Puntius stigma, Puntiusticto, Salmostomaphulo and Garralamta* are reported at all the sites and having commercial as well as good food value. Similar results were absorbed by AbhisekBasu*et.al.,* (2012) reported 70 indigenous ornamental fish species belonging to 45 genera, 30 families and 9 order from West Bengal, Thirupathaiah*et al.*,(2013)reported 44 species from 8 order ,16 families and 26 genera were cyprinidae family was dominant with 18 species were 17 species are consider as ornamental fish, from Lower Manair Reservoir in Karimnagar district, AP, India.

UshaAnandhi D *et al.* (2013) reported 12 species belonging to 6 different families were cyprinidae family was dominant and 04 endemic ornamental fishes were recorded from Adda Hole stream Kabbinale forest range, Western Ghats. B. Nath and C. Deka (2012) reported 63 species from Chandubi Tectonic Lake, Assam, India were 11 species of ornamental fishes were reported. Manb Kumar Saha and BidhanC.Patra (2013) reported 46 species belonging to 7 order, 18 families and 26 genera were 28 ornamental fish species reported from Damodar River at Burdwan District, west Bengal.Singh Tarun Kumar *et. al.*, (2013)reported 100 species were cyprinidae family was dominant and 51 ornamental fish species were recorded in the River Mahanadi. Das Mrinal Kumar and BordoloiSabitry (2012) reported 62 ornamental fish were cyprinidae with 20 species from River Island Majuli Assam



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**TABLE 01**

**LSIT OF ORNAMENTAL FISHES FROM PAINTAKLE DAM**

**June 2023-May -2024**

| **Order** | **Family** | **Genus** | **Species** |
|---|---|---|---|
| Cypriniformes | Cyprinidae | *Puntius* | *saranasarana* |
| | | | *Stigma* |
| | | | *Ticto* |
| | | *Salmostoma* | *Phulo* |
| | | *Garra* | *Mullya* |
| | | *Rasbora* | *Daniconius* |
| | Balitoridae | *Nemacheilus* | *botiabotia* |
| Cyprinodontiformes | Poecilidae | *Poecilia* | *Reticulate* |
| Beloniformes | Belonidae | *Xenentodon* | *Cancila* |

## CONCLUSION

The Present study reveals that no database study has been undertaken on the status of ornamental fish diversity from Paintakle dam. During the study period it was observed that ornamental ichthyofauna. Species like*XenentodoncancilaPoecilia reticulate, Nemacheilusbotiabotia, Rasboradaniconius, Puntius stigma, Puntiusticto, Salmostomaphulo and Garralamta* are reported at all the sites and having commercial as well as good food



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value. Dam even though it is an important resource for ornamental fish diversity but due to habitat destruction, water pollution, unregulated fishing practices, introduction of exotic species and their dominance, lack of awareness regarding fishing techniques may be play a role in declining fish diversity of ornamental fish and need to conserve.

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