

Study of the Ornamental Fishes in Wetlands, Mauns and Chours of Saran, Siwan and Gopalganj Districts of Bihar

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Received 01-08-2022	Abstract: A survey was led on the ornamental fishes in the wetland, Mauns and Chours of three nearby districts of Saran, Siwan and Gopalganj locale. Month to month testing was finished at different areas including the wetlands, Ponds, Mauns and Chours of Saran, Siwan and Gopalganj region. Ornamental fisheries is one of the arising area which can possibly improve financial state of the rural local area. Ornamental or aquarium fishes structure a significant business part of fisheries as well as offer stylish benefit and help in upkeep of the climate.	Keywords: Biodiversity, Ornamental Fishes, Wetlands, Mauns, Chours.
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INTRODUCTION

Investigation of the parts of biodiversity is a significant stage in perceiving the presence of changed units of the biological engineering of the ecosystem as well as assists with evaluating the status its units so exact administration plans can be set up. Wetlands are the normal assets known for its high biological diversity. These are delicate yet useful and imperative ecosystems for their job in protection of biodiversity. Fishes are one the vital gathering of these water bodies. Enormous assortment of fishes prospers these ecosystems taking advantage of the fluctuated specialties accessible in that. The gathering upholds different species of shifted creature diversity and go about as a decent sign of sound ecosystems. However fish is to a great extent investigated vertebrate gathering yet at the same time various fish species are neglected in wetlands.

The locale of Saran, Siwan and Gopalganj is enriched with rich sea-going and fisheries assets as waterways, flood fields, wetlands (Chours), bull bow lakes (Mauns), supplies, tanks and ponds. Upwards of 87 species offishes having a place with 20 unique families were recorded from this locale. A seriously huge number of air-breathing fishes had made their extremely durable house in the Chours, bogs and wetlands. Anyway in beyond couple of many years the wetlands have seen

serious pressure owing the rising anthropogenic exercises and this has come about into environmental debasement and loss of units of biodiversity including freshwater fishes

METHODOLOGY

The specimens were gathered utilizing drag net, cast net, scoop net and other neighborhood fishing gear. Visual observations were likewise completed relying upon the clearness of water, similarity with different fishes, maintenance of variety, appearance of sicknesses, sort of aquatic plant accessible, plankton, food consumption, while assessing the appropriation of fish overflow. The accumulated specimens were safeguarded in 5-10% formalin according to the size and brought to lab. The fishes were connected with the help of taxonomic literatures. The conspicuous proof of the species was done essentially established on the assortment plan, express spots or keeps an eye on the external layer of the body, condition of the body, construction of various equilibriums, mouth shapes, etc.

RESULTS & DISCUSSION

Following ornamental fishes were found in the Wetlands, Mauns and Chours of Saran, Siwan and Gopalganj district of Bihar. They were arranged in the taxonomic groups in alphabetic order.

Class	Sub-Class	Order	Family	Sub-family	Genus	Species
Osteichthyes	Actinopterygii	Cypriniformnes	Cyprinidae	_	<i>Oreichthyes</i>	<i>cosuatis</i>
				Cyprininae	<i>Pethia</i>	<i>conchonius</i>
				Cyprininae	<i>Pethia</i>	<i>gelius</i>
				Cyprininae	<i>Puntius</i>	<i>chola</i>
				Cyprininae	<i>Puntius</i>	<i>phutunio</i>
				_	<i>Puntius</i>	<i>sophre</i>
				Rasborinae	<i>Rosbora</i>	<i>daniconius</i>
				Cultrinae	<i>Salmophasia</i>	<i>phulo</i>
				Cyprininae	<i>Systemus</i>	<i>sarana</i>
		Persifoomes	Anabantidae	_	<i>Anabas</i>	<i>testudineus</i>

		Belontiidae	Trichigasterine	<i>Colisa</i>	<i>fasciatus</i>	
			Trychogasterinae	<i>Colisa</i>	<i>lalia</i>	
			Trychogasterinae	<i>Colisa</i>	<i>sota</i>	
		Channidae	—	<i>Channa</i>	<i>gachua</i>	
			—	<i>Channa</i>	<i>marulius</i>	
			—	<i>Channa</i>	<i>orientalis</i>	
			—	<i>Channa</i>	<i>stewartii</i>	
			—	<i>Channa</i>	<i>striata</i>	
		Gobiidae	Gobiinae	<i>Glossogobius</i>	<i>giuris</i>	
		Mastacembelidae	—	<i>Macrognathus</i>	<i>aral</i>	
		Siluriformes	Bagridae	—	<i>Mystus</i>	<i>bleekeri</i>
				—	<i>Mystus</i>	<i>tengara</i>
			Siluridae	—	<i>Ompak</i>	<i>pabda</i>
				—	<i>Wallago</i>	<i>attu</i>
		Tetraodontiformes	Tetraodontidae	—	<i>Tetraodon</i>	<i>cutcutia</i>

REFERENCES

- Anna Mercy, T.V., & Gopalakrishnan, A. (2004). Fresh water loaches of India: The status of their distribution, conservation and potential as ornamental fishes. In *International conference 'Chinese International Recreation Fisheries and Aquarium exhibition' (CIRFA) conference held at Guangzhou, China during 9-12 September*.
- Chakraborty, A., Shaw, R., & Ghosh, K. (2017). An inventory of endemic fish species in India with notes on state-wise distribution and conservation measures. *International Journal of Fisheries and Aquatic Studies*, 5(1), 253-264.
- Dahanukar, N., Raut, R., & Bhat, A. (2004). Distribution, endemism and threat status of freshwater fishes in the Western Ghats of India. *Journal of biogeography*, 31(1), 123-136.
- Das, M. K., Samanta, S., & Saha, P. K. (2007). Riverine health and impact on fisheries in India.
- Day, F. (1888). *The fishes of India: being a natural history of the fishes known to inhabit the seas and fresh waters of India, Burma, and Ceylon* (Vol. 1).
- Dudgeon, D., Arthington, A. H., Gessner, M. O., Kawabata, Z. I., Knowler, D. J., Lévêque, C., ... & Sullivan, C. A. (2006). Freshwater biodiversity: importance, threats, status and conservation challenges. *Biological reviews*, 81(2), 163-182.
- Ghatge, S. S., Shelke, S. T., Jadhav, S. S., Pawar, N. A., & Chaudhari, A. K. (2013). Inventory of endemic freshwater fish fauna of Maharashtra state: India. *Records of the Zoological Survey of India*, 113(3), 79-92.
- IUCN, I. (2020). The IUCN red list of threatened species. Version 2020-1. *IUCN Red List of Threatened Species (2020)*.
- The Freshwater Fishes of India, Pakistan, Bangladesh, Burma and Sri Lanka, Zoological Survey of India, Calcutta
- Sugunan, V. V., & Mukhopadhyaya, M. K. (1995). Conservation and sustainable use of floodplain wetlands: Case studies of Bandardaha and Beloon beels. *Conservation and sustainable use of floodplain wetlands* (Ed. Howes, JR). Asian Wetland Bureau, Kuala Lumpur, 67-75.
- Kottelat, M., & Whitten, T. (1996). *Freshwater biodiversity in Asia: with special reference to fish* (Vol. 343). World Bank Publications.
- Lakra, W. S., Sarkar, U. K., Gopalakrishnan, A., & Kathirvelpandian, A. (2010). *Threatened freshwater fishes of India*. National Bureau of Fish Genetic Resources.
- Linke, S., Pressey, R. L., Bailey, R. C., & Norris, R. H. (2007). Management options for river conservation planning: condition and conservation re-visited. *Freshwater Biology*, 52(5), 918-938.
- Mishra, S. K., Sarkar, U. K., Gupta, B. K., Trivedi, S. P., Dubey, V. K., & Pal, A. (2011). Pattern of freshwater fish diversity, threats and issues of fisheries management in an unexplored tributary of the Ganges basin.
- Swain, H. S., Bayen, S., Ray, A., Johnson, C., Baitha, R., Bohr, M., ... & Dae, B. K. (2021). Present status, distribution and relative abundance of IUCN Red-listed fish species of River Ganga. *Current Science*, 121(5), 709-714.
- Murangan, A. S., & Prabakaran, C. (2012). Fish diversity in relation to physico-chemical characteristics of Kamala basin of Darbhanga District, India. *International Journal of Pharmaceutical and Biological Archives*, 3(1), 211-217.
- Nelson, J. S., Grande, T. C., & Wilson, M. V. (2016). *Fishes of the World*. John Wiley & Sons.
- Srivastava, P. K. (2013)
- Roshith, C. M., Sharma, A. P., Manna, R. K., Satpathy, B. B., & Bhaumik, U. (2013). Ichthyofaunal diversity, assemblage structure and seasonal dynamics in the freshwater tidal stretch of Hooghly estuary along the Gangetic delta. *Aquatic Ecosystem Health & Management*, 16(4), 445-453.
- Sarkar, U. K., Pathak, A. K., Sinha, R. K., Sivakumar, K., Pandian, A. K., Pandey, A., ... & Lakra, W. S. (2012). Freshwater fish biodiversity in the River Ganga (India): changing pattern, threats

- and conservation perspectives. *Reviews in Fish Biology and Fisheries*, 22(1), 251-272.
21. Sunderesan, B. B., Subrahmanyam, P. V. R., & Bhinde, A. D. (1983). An overview of toxic and hazardous waste in India. *UNEP Industry and Environment (Spec. Issue)*, 70-73.
22. Sharma, R. C. (2003). Protection of an endangered fish *Tor tor* and *Tor putitora* population impacted by transportation network in the area of Tehri dam project, Garhwal Himalaya, India.
23. Talwar, P. K., & Jhingran, A. G. (1991). *Inland fishes of India and adjacent countries* (Vol. 2). CRC Press.