

THE ICHTHYOFAUNAL DIVERSITY OF GOVINDGARH LAKE, REWA (M.P.)

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ABSTRACT: The ichthyofaunal diversity is a good indicator of health of aquatic ecosystem. A good piscine diversity represents the balanced ecosystem. Taking this into consideration the ichthyofaunal diversity of Govindgarh Lake is studied during present investigation. Total 23 species of fishes belonging to 21 genera, 12 families and 5 orders were identified from the lake. The order sypriniformes was found to be dominant among fishes. The results were discussed with recent literature.

KEYWORDS:- Ichthyofaunal, diversity, indicator, health and aquatic ecosystem.

INTRODUCTION:-

Fishes are aquatic creatures, perfectly adapted for life in water. Fresh- water bodies comprise variety of fishes. Fishes alone contribute about 2,546 species and the fishes of inland water bodies of Indian subcontinent have been subject of study since last century (Kalbande et al., 2008). Human beings from time immemorial use fishes for various purposes. Millions of human are suffering from hunger and malnutrition while fishes form rich source of food and provide a meal to tide over a nutritional difficulties of man. Fishes have formed an important item of human diet from time immemorial and are primarily caught for this purpose (Sarwade and Khillare, 2010). In order to maintain sustainable development and stability of ecosystem, surveillance of fish faunal diversity of water bodies is needed. The workers like Kamble and Reddi (2012), Kharat et al. (2012), Galib et al. (2013), Naga-bhushana and Hosetti (2013), Chandrashekhar (2014), Biswas and Panigrahi (2014) have contributed in the field of study of fish faunal diversity. Present study is an attempt to study the ichthyofaunal diversity of Govindgarh Lake.

MATERIALS AND METHODS:-

The present investigation on ichthyofauna is carried out on the Govindgarh Lake from April 2017 to March 2018. The Govindgarh Lake is situated in the Rewa district (M.P.). The precipitation occurs in the months of July, August, and Sep-tember. The Govindgarh lake is very big water reservoir. The fishes from the Lake were collected with the help of local fishermen. The collected fishes were brought to laboratory, fixed in 5% formalin,

cleaned with rectified spirit and preserved in 10 % formalin. The fishes were identified by standard keys of Day (1878), Jayram (1981), Talwar and Jhingaran (1991) and Jhingaran (2005).

RESULT AND DISCUSSION:-

During present investigation 23 species of fishes belonging to 5 orders and 12 families were identified. The order Cypriniformes was found to be dominant among fishes. Total 9 species of fishes were observed belonging to order Cypriniformes and family Cyprinidae. The members of this family are distributed in freshwater habitat all over the world. Freshwater carps are included in this order. The second largest order observed at Govindgarh Lake was Siluriformes. Total 7 species of fishes were observed from order Siluriformes. Generally cat fishes are included in this order of fishes. The common identification mark of these fishes is presence of one or two pairs of barbels. The four fish species belonging to order Perciformes, two species belonging to Ophiocephaliformes and one species belonging to Osteoglossiformes were also observed from the Govindgarh Lake. The economically important species of fishes like *Labeo rohita*, *Catla catla*, *Channa striatus*, *Channa marulius*, and *Tilapia mossambica* were found numerically more in Govindgarh Lake during the study period. This was due to the release of seedlings and fingerlings of these economically important fishes in lake for commercial fishery practices. During present study period the globally threatened species of fishes like *Tor khudree* and near threatened species like *Ompok bimaculatus* were observed (IUCN, 2011). The diversity and abundance in fishes of Govindgarh Lake is attributed to the availability of plenty of food material and healthy ecosystem developed over long period of time. It is also may be the result of controlled fishing practices at Govindgarh Lake. The fishes prefer the optimum ecological factors for their existence and proliferation.

Sarwade and Khillare (2010) reported the 60 species of fishes belonging to 15 families and 36 genera during their study on Ujani wetland (M.S.). Kamble and Reddi (2012) reported the occurrence of 10 species of fishes belonging to 5 orders and 6 families. Kharat et al. (2012) had recorded 51 species of fishes belonging to the 14 families and 35 genera during their study on Krishna

River at Wai (M.S.). Jayabhaye and Lahane (2013) observed the 21 species of fishes belonging to 6 families and 13 genera during their study period on Pimpaldari tank, Dist. Hingoli (M.S.). Our findings are corroborating with observations of Sakhare (2001), Sarwade and Khillare (2010), Kharat et al. (2012) and Jayabhaye and Lahane (2013).

CONCLUSION:-

The Govindgarh Lake exhibit a good ichthyofaunal diversity represented by 23 species of fishes belonging to 21 genera, 12 families and 5 orders. The diversity and abundance of fishes in Govindgarh Lake represents the suitability of water of Govindgarh Lake for aquaculture practices. To maintain the richness of aquatic ecosystem continuous monitoring of Lake is needed.

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