

# BIOMONITORING OF WATER FOR FISH CULTURE IN KHOP TAAL, DISTRICT CHHATARPUR (MP)

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## Abstract

Good water quality is very essential for survival of aquatic organisms. The best possible fish production is entirely dependent on the physical, chemical & biological conditions of water to the most extent. Therefore, successful pond management is required to consider good water quality. Water quality is determined by variables like turbidity, temperature, DO, COD, transparency, TDS, pH, alkalinity, nitrate, BOD, Phosphates and microphytes population etc. as they may directly or indirectly affect its quality and consequently its suitability for the distribution and production of fish and other aquatic animals. The present study was carried out in the Khop taal for the assessment of fish diversity, macrophytes and microphytes in relation to water quality of the pond. At present, water to Chhatarpur town is being supplied mainly from Khop taal Tank which is managed by Public Health Department and Nagar Palika Parishad. The relationship analysis between two variables fish species and water quality parameters was carried out through Canonical Correspondence Analysis. CCA biplot indicates that the fish species as *Puntius sarana*, *Hypophthalmichthys molitrix*, *Rasbora daniconius*, *Ctenopharyngodon idella*, *Clarias batrachus*, *Channa punctatus*, *C. striatus* and *C. ranga* show positive correlation with the water quality parameters like Nitrates, BOD, DO, pH, turbidity and phosphates and the negative correlation with water temperature. However the fish species *Chanda ranga*, *Puntius chola*, *Cyprinus carpio*, *Notopterus notopterus* and *Channa marulius* show negative correlation with Nitrates, Phosphates BOD and turbidity.

## key words

Physico-Chemical & Biological, Water quality, Production of fish, Macrophytes, Microphytes etc.

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