

Biomonitoring of River Betwa

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ABSTRACT

This study evaluated the present status of river Betwa by using zooplankton as bio-indicators. Standard methods were applied and zooplankton population size was correlated with biotic and abiotic parameters (physico-chemical). The species of planktonic protozoans, rotifers, cladocerans, copepods and ostracods were found in all samples. Result of the study indicated that potentiality of zooplankton as bioindicator is very high.

Key words: Biomonitoring, Zooplankton, Bioindicator, Abiotic parameters.

INTRODUCTION

Biomonitoring can be defined as the use of bioindicators or biological response to evaluate the change in the aquatic environment. In the present study zooplankton were selected as bioindicator to evaluate the status of river Betwa. In recent year, the aquatic environment has been put to serious threat due to the discharge of toxic chemical, pesticide etc. Biomonitoring or biological monitoring is an ecological exercise where various kinds of biota are considered in ascertaining the extent of pollution in a water body, these biota are known as bioindicators.

Using of indicators organism for the assessment of water quality a through knowledge of the ecological tolerance of the organism concerned (Gaufin 1958). In the study zooplankton have been selected as bioindicators they belong to Protozoa, Rotifera, Copepoda, and Ostracoda.

RESULTS

Random water samples were collected from the littoral region of river Betwa at Mandideep. The site is very closed to industrial effluents. The study revealed that the species diversity of zooplankton was very high specially rotifera and cladocera. In some places epizoic association between rotifers and cladocerans were observed. This may be due to low dissolved oxygen content in river water at polluted site similar observation have been reported by Lyer and Rao(1995).

CONCLUSION

The research work is still going on, thus extensive studies in the future will reveal the actual diversity of zooplankton from river Betwa.

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