



APPLICABILITY OF NUTRIENT MONITORING FOR MANAGING EUTROPHICATION IN SUBTROPICS



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The present monograph deals with hydrobiological surveillance of Upper lake, Lower lake and Shahpura lake, Bhopal. Small level functional ecosystems were developed in laboratory by inoculating *quantum sufficit* of water, soil and planktonic flora. Of some hundred nutrients known to cause eutrophication, five (Ca, Mg, K, N, P) were selected for present study.

Different dosages of these nutrients were administered separately and their impact on free floating plant life was assessed, in terms of species diversity, density and relative growth, over a period of one month. Results were suggestive of the fact that algal strains flourished well upto a definite concentration of nutrients (Ca=101.6; Mg=31.0; K=95.0; TKN=49.4; TP= 10.0), beyond which the microcosmal water could not sustain planktonic life except for certain eutrophic taxa *viz.* *Anabaena ornaidii*, *Microcystis aeruginosa* and *Oscillatoria amphigranulata*.

Key Words : Algae, Eutrophication,
Lakes, Microcosm, Phytoplankton

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