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Assessing Nutrient Concentration and Trophic Status of Brahma Sarover at Kurukshetra, India

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Abstract : Eutrophication of surface water is one of the most widespread environmental problems at present. Large number of pilgrims and tourists visit sacred artificial tank known as "Brahma Sarover" located at Kurukshetra, India to take holy dip and perform religious ceremonies. The sources of pollutants include impurities in feed water, mass bathing, religious offerings and windblown particulate matter. Studies so far have focused mainly on assessing water quality for bathing purpose by using physico-chemical and bacteriological parameters. No effort has been made to assess nutrient concentration and trophic status of the tank to take more appropriate measures for improving water quality on long term basis. In the present study, total nitrogen, total phosphorous and chlorophyll a measurements have been done to assess the nutrient level and trophic status of the tank. The results show presence of high concentration of nutrients and Chlorophyll a indicating mesotrophic and eutrophic state of the tank. Phosphorous has been observed as limiting nutrient in the tank water.

Keywords: Brahma Sarover, eutrophication, nutrients, trophic status

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