Abstract

This study investigated the water quality in an urban eutrophic reservoir in Northeastern Brazil, considering the influence of seasonality. Monthly, samples were collected in the sub-surface reservoir. The following abiotic variables were analyzed: temperature, pH, dissolved oxygen, apparent color, turbidity, conductivity, fluoride, total nitrogen, chlorides, total dissolved solids, total hardness, iron, copper, manganese, aluminum, chlorophyll-a and phaeophytin. Total and thermotolerant coliforms were analyzed according to APHA (2012). Cyanobacteria density was quantified through its biomass. The data were analyzed using one-way ANOVA and Pearson correlation test. Higher values mean phytoplankton biomass (26.3mm3.L-1) occurred in the dry season, especially Planktothrix agardhii and Geiterinema amphibium, which occurred in 100% of samples. High trophic state index was detected throughout the year. Seasonality exerted some influence on both biotic and abiotic variables, leading to changes in water quality of the reservoir.

Keywords

Coliforms, cyanobacteria, reservoir, trophic state.