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## Spatial and Temporal Quality of Water in the Itupararanga Reservoir, Alto Sorocaba Basin (SP), Brazil

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### ABSTRACT

Considering the great importance of the Itupararanga Reservoir, Upper Alto Sorocaba basin/SP, this study aimed to report the variations of some parameters of water quality in the spatial and temporal gradients in this multipurpose reservoir. The eutrophication of this reservoir was checked using the Carlson Index Modified and the results indicate that the surface water were classified as eutrophic and mesotrophic in wet and dry periods, being characterized the better quality of water in wet period. In the vertical gradient the results showed a stratification in all parameters analyzed, except for the electrical conductivity, with good correlation between total phosphorous and chlorophyll-a, indicating that eutrophication of the reservoir changes the conditions of algal growth, mainly in its initial area. Immediate interventions are needed, which must be directed to planning of land use, domestic effluents treatment, taking to an integrated management of this important watershed located in the Sao Paulo State.

### KEYWORDS

Itupararanga Reservoir; Limnology; Eutrophication; Environmental Management

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