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Organized by

Center of Environmental Studies (CEA - UNESP)

and

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Co-organized by

- Brazilian Association of Sanitary and Environmental Engineering - ABES**
- Institute of Applied Ecology - IAE**
- Ecology Society of Brazil - SEB**
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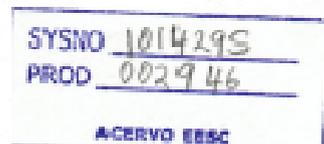
The Role of a Natural Wetland System of the Atibaia River in Ameliorating the Water Quality of Salto Grande Reservoir (Americana, SP, Brazil)

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The effectiveness of a wetland system at the upstream end of Salto Grande Reservoir (Americana, SP, Brazil) is being evaluated in reducing nutrients inputs from the Atibaia River. In a preliminary study last September, samples of water were collected in eleven sampling stations along the two vegetated edges of the river. The concentration of reactive phosphate (RP), total phosphorus (TP), ammonium nitrogen ($\text{NH}_4\text{-N}$), nitrate ($\text{NO}_3\text{-N}$) and total Kjeldahl nitrogen (TKN) were determined by standard methods. The results of this study showed that there was a sharp gradient of decreasing nutrient concentration considering the inflow and outflow within the edges (RP: from 148.0 to 25.2 $\mu\text{g/L}$, $\text{NO}_3\text{-N}$: from 1726.3 to 294.3 $\mu\text{g/L}$, $\text{NH}_4\text{-N}$: from 1972.0 to 615,22 $\mu\text{g/L}$). However, the nutrient concentration measured in the river, before and after the wetland system were similar. This suggests that this area might be more important stripping diffuse nutrient load from the agricultural surroundings than from the river. As the most of the river probably flows straight through its main channel, with little diverting into the wetland, research is in progress focusing on which is the best management strategy for nutrient interception from the river.



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