RECENT SEDIMENTATION RATES DETERMINED BY Pb-210 METHOD IN SEDIMENT CORES FROM NHECOLÂNDIA PANTANAL, MS, BRASIL

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Pantanal, in the southwest part of Brazil, is one of the world's largest freshwater wetlands. This natural ecosystem has been affected due to urban contamination, irregular use of the land, tourism without control, and excessive agricultural use. In order to verify possible changes in this environment, a study was established in Pantanal da Nhecolândia, Mato Grosso do Sul, Brazil. Four sediment cores were collected in 2010 in four small ponds in Nhumirim farm, Salina AL, Salina 6S, Salina 6M and Salina Verde with the objective of determining the sedimentation rate using the Pb-210 dating method and the grain size analyses. The four sediment cores provided different sedimentation rates, mainly due to the sediment grain size, ranging from 0.2 $cm.y^{-1}$ to 1.16 $cm.y^{-1}$. These different sedimentation rates probably indicate periods that the Salinas were almost dry getting sediment deposition by the action ofwinds for the lower rates, and the highest rates were associated with floods occurring in the Pantanal carrying a large load of sediment to Salina. Two profiles showed very dark coloring of the sediment probably indicating a high concentration of organic matter. In the event of a drought the Pb-210 present in the sediment can migrate from one layer to another especially when the rains start which might cause variations in sedimentation rates.