

CHELLAPPA, N. T., COSTA, M. A. M., DAMASCENO, M. P.; PASSAVANTE, J. Z. O. Phytoplankton community structure from hypersaline regions of Galinhos, Rio Grande do Norte State, Northeast Brazil. In: Plankton Symposium, 2001. Espinho. **Preceedings...** Espinho: 2001. p. 126

ABSTRACT

As a part of Brazilian Northeast Ecology project evaluation of human impact on Hypersaline ecosystems, we studied phytoplankton community structure in order to find salinity variation, phytoplankton diversity and chlorophyll a levels during the period of October 1999 to September 2000. A second aim of the investigation was to compare phytoplankton assemblages between Galinhos estuary and that of hypersaline ecosystems. Phytoplankton samples were collected from three sampling stations in the Galinhos estuary and hypersaline ponds with varying salinity of 42.70 and 90‰. Highest chlorophyll biomass were encountered in Galinhos estuary, and the lowest ones in 90‰ salinity regime of hypersaline pond. Phytoplankton species composition varied considerably in both ecosystems with the overwhelming dominance of diatom populations. Species of cyanobacteria, green algae and other groups were present as reduced flora. Phytoplankton diversity decreased gradually in relation to increasing salinity and the dominance of diatoms species is related to salinity adaptation and their superior competitive ability.