

MORAES, Cristine Louise Braun; SOUZA, Sandra Rejane de; COSTA, Maria Aliete Medeiros; CHELLAPPA, Naithirithi Tiruvenkatachary; PASSAVANTE, José Zanon de Oliveira. Studies on diatom populations in relation to salinity variation from hypersaline regions of Galinhos, Rio Grande do Norte, Brazil. In: Plankton Symposium, 2001. Espinho. **Proceedings...** Espinho: 2001. p. 124

ABSTRACT

Hypersaline ecosystems are considered a simple environment due to reduced biotic diversity at each trophic level. Salinity is considered a determinant factor that influences the composition and dynamics of these aquatic ecosystems. The aim of this study is to describe the diatom populations and the abiotic parameters, in three stations with different salinity gradients (42.70 and 90 ppt), in a saltwork as well as to compare those data to the natural environment of the Estuarine System of Galinhos located at the Rio Grande do Norte State, Northeastern Brazil. The area is situated between the National grid lines 05° 05' 00" to 05° 08' 00" S 36° 11' 00" to 36° 18' 13" W. This estuary is considered a negative estuary due to a lack of fresh water input and high salinity (average of 42ppt). The study area is situated in the tropical region where the temperature variation restricted to a minimum of 26°C and a maximum of 31°C. The dissolved oxygen varied from 2.3 to 7.4mg.l⁻¹ and pH from 7.0 to 9.0, and higher values of these two parameters were associated to lower salinity. Chlorophyll *a* varied from 1.1 to 8.2mg/m³, showing the highest values during the dry season. The overwhelming dominance of diatom populations throughout the study period suggest preferential selectivity induced by the salinity variation.