## NAVICULA BORY AND ITS RELATIONSHIP WITH SALINITY IN SALT MARSH FROM SOUTHERN BRAZIL

Dávia Talgatti<sup>1</sup> & Lezilda Carvalho Torgan<sup>2</sup>

The greatest amount of saltmarshes in southern Brazil is located adjacent to the Patos Lagoon estuary (32°S-52°W) and occupies an area of 70 Km2. It is covered with herbaceous vegetation, mainly Spartina species, which are adapted to periodic flooding by saline waters. In this region, Navicula s. str. is rich in species number. The aim of this study is to understand the composition and distribution of these species in different salinity zones. The samples were collected using a 10 cm diameter core in sites with salinity between 0,1‰ and 35‰, adjacent to the Patos lagoon estuary, in Rio Grande do Sul state (31°57′S-52°06′W). In the laboratory, the living species were isolated from superficial sediment by the "trapping method", using the Whatman® 105 paper. They were later oxidized using nitric acid for analysis of light and scanning electron microscopes. It was found a total of 12 species and one variety from which only N. erifuga Lange-Bertalot, N. gregaria Donkin and N. veneta Kützing are cosmopolitan taxons. Some species were related to specific salinity zone, such as Navicula cf. recens (Lange-Bertalot) Lange-Bertalot, N. gregaria Donkin, N. gregaria Donkin var. reductissima Metzeltin, Lange-Bertalot & Garcia-Rodríguez e N. veneta, which only occurred in oligohaline zone, on other hand Navicula amphiceropsis Lange-Bertalot & Rumrich were restricted to the polyhaline zone. Whereas Navicula cf. fernandae Metzeltin, Lange-Bertalot & Garcia-Rodríguez showed a wide tolerance to salinity, once it maintained high frequency since limnetic zone to euhaline zone. It is interesting to observe that Navicula cf. fernandae was abundant (corresponding 30% valves observed) in the limnetica zone, while Navicula cf. cryptotenelloides (16%) and Navicula erifuga (7.79%) were abundant in oligohaline zone. Illustrations of the morphological and structures characteristics of these species are presented, contributing to the taxonomic knowledge of this genus, fairly unknown in southern Brazil.

<sup>&</sup>lt;sup>1</sup>Programa de Pós-Graduação em Botânica, Universidade Federal do Rio Grande do Sul

<sup>&</sup>lt;sup>2</sup>Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul