Diatoms (Bacillariophyceae) of the Tibagi River, southern Brazil

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With 6 figures and 1 table in the text

Abstract: Notwithstanding the extensive hydrographic area of Brazil, floristic studies on planktic algae of lotic environments are scarce. This work ends a series of papers on a floristic survey of microalgae at the Tibagi river, in the subtropical region of Brasil. This river, which is a source of water supply for tens of cities in southern Brazil, receives diverse pollutants along its 550 km of extension. Sampling was seasonal, in six collection stations along the river, comprising two dry seasons (04/90: autumn and 08/90: winter) and two rainy seasons (11/90: spring and 02/91: summer). Fifty-six species were identified, distributed in eight families: Achnanthaceae, Diatomaceae, Eunotiaceae, Eupodiscaceae, Naviculaceae, Nitzschiaeae, Surirellaceae and Thalassiosiraceae. Melosira varians, Aulacoseira granulata and Synedra ulna were the most frequent taxa. The family Naviculaceae was the most representative with 24 species and the genus Eunotia presented the highest number of species (9).

Key words: Bacillariophyceae, Brazil, diatoms, lotic, microalgae, river, taxonomy.

Introduction

Notwithstanding the extensive hydrographic area of Brazil, floristic studies on planktonic algae of lotic environments are few. The same is true for other tropical countries. This river, which is a source of water supply for tens of cities in southern Brazil, receives diverse pollutants along its 550 km of extension.

Pioneer floristic studies in lotic environments are reported for rivers and “igapós” of the Amazon Region (Northern Brazil): FÖRSTER (1963, 1964, 1969, 1974), SCOTT et al. 1965, THOMASSON 1971, SCHMIDT & UHERKOVICH 1973, UHERKOVICH & RAJ 1979, UHERKOVICH & FRANKEN 1980 and UHERKOVICH 1981. Studies dealing with freshwater diatoms began with the works of ZIMMERMANN (1913, 1915a, 1915b, 1916, 1917). However, only after the 80’s, more detailed studies were pub-