Macrozoobenthos of a coastal lake in southern Brazil

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With 5 figures and 2 tables in the text

Abstract: Benthos of a coastal lake in southern Brazil, Lake Emboaba, was collected in summer and winter 1989/90 to describe the community and its spatial distribution, and to identify potential seasonal differences in composition and abundance. A total of 19 randomly distributed sites were sampled (van-Veen grab, 4 replicates, 500 μm) on two dates. Total mean densities of the heterogeneously distributed benthos were low with 921.3 ind./m² and 640.3 ind./m² in summer and winter, respectively. Neither density nor composition differed significantly between seasons. Insecta, mainly Chironomidae, were most abundant, followed by Crustacea, mainly Synelobus stanfordi (Tanaidae), and Oligochaeta. Cluster analyses, linked subsequently by a nodal analysis, revealed the presence of three benthic zones (centre, margin, marsh), distinguished by benthos density and composition, including differential species and species assemblages. This result is remarkable as the shallow lakes of Brazil’s coastal plains are exposed to permanently blowing north-east winds.

Introduction

The coastal plains of Brazil and Uruguay, extending for approximately 5800 km from the estuary of the Amazon south to the de la Plata, are studded with lakes and lagoons. In the state Rio Grande do Sul in southern Brazil, the region of our study, two-fifths of the plain’s surface is covered with water (SCHWARZBOLD & SCHÄFER 1984), and salty water bodies lay beside brackish-water and fresh-water lakes. These coastal wetlands are significant resting and brooding areas for waterfowl and migratory birds, and are important for man as the many Brazilian terms already imply with which the different

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