**LICHENIC COMMUNITY STRUCTURE IN RIPARIAN FOREST AREAS IN DIFFERENT ENVIRONMENTAL MATRICES, SOUTH BRAZIL**

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The riparian forest function is to maintain and preserve water courses and biodiversity. The study aims to evaluate the structural parameters of the lichen community, richness of functional traits and to verify possible differences between structural and environmental variables in riparian forest areas in Southern Brazil. Lichen community structure, richness of functional traits (photosynthetic, reproduction, metabolities and growth strategies) and environmental factors: phorophytes bark, moisture, and pH, as well as photosynthetically active radiation (PAR) and altitude were analyzed in *loco*. Seven municipalities, in different matrices (rural, urban, and industrial) along the Sinos River Basin (BHRS) were analyzed. In each riparian area, 10 phorophytes were sampled in five levels of height in both the north and south sides using the acetate method. Non-metric multidimensional scaling (NMDS) and Spearman correlation were used to verify possible relationships between the lichen community, functional traits, and environmental variables. A total of 208 were recorded distributed in 25 families and 60 genera. The crustose morphological groups were predominant (47.1%). The highest richness was recorded in urban-industrial (63 species) and in the rural area the highest cover (87.9%). Forest areas of rural matrix presented higher number of species with apothecia, perithecia, septate spores and hyaline. The functional traits related to secondary metabolites revealed a distinction in the distribution of species in forest sites with a predominance of taxa with chemical compounds. NMDS demonstrated differentiations between the lichen community, functional traits, and the environmental variables (PAR and altitude), especially among forest areas of the rural matrix in relation to the urban- industrial. The highest representability of species of humid and shaded environments was observed in the forest areas of the rural matrix and modifications in the structure of forest areas associated with microclimate change, especially light availability and altitude contributed to the results. Funding: MIK (CAPES), JLS (CNPq)