Abstract

A community of Ferns and Lycophytes was investigated by comparing the occurrence of species on different slopes of a paleo-island in Southeastern Brazil. Our goal was to evaluate the hypothesis that slopes with different geographic orientations determine a differentiation of Atlantic Forest ferns and lycophytes community. We recorded these plants at slopes turned towards the continent and at slopes turned towards the open sea. Analysis consisted of a preliminary assessment on fern beta diversity, a Non Metric Multidimensional Scaling (NMDS) and a Student t-test to confirm if sites sampling units ordination was different at each axis. We further used the Pearson coefficient to relate fern species to the differentiation pattern and again Student’s t-test to determine if richness, plant cover and abundance varied between the two sites. There was a relatively low number of shared species between the two sites and ferns and lycophytes community variation was confirmed. Some species were detected as indicators of the community variation but we were unable to detect richness, plant cover or abundance differences. Despite the evidence of this variation between the slopes, further works are needed to evaluate which processes are contributing to determine this pattern.

Keywords

Key words, Atlantic rain forest, topography, pteridophytes, richness, environmental factors.