XIII Congresso de ECOLOGIA
III International Symposium of Ecology and Evolution
Múltiplas ecologias: evolução e diversidade
08 a 12 de outubro de 2017 • UFV - VIÇOSA | MG

DIVERSITY AND STRUCTURE IN MOSAIC OF HABITATS IN RUPESTRIAN FIELDS OF SERRA DO CIPÓ, BRAZIL

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Tema/Meio de apresentação: Ecologia de comunidades/Pôster

Rupestrian fields are a highly diverse vegetation, and part of this diversity is due to the mosaic of environments formed by soil classes, rugged relief, and microclimatic variation. Thus, we sought to verify the relationship between vegetation diversity and structure with native habitat types common in rupestrian fields of Serra do Cipó, in the Espinhaço Range. We allocated 91 plots of one m^2 along an altitudinal gradient(1400-800 meters)to encompass the broad heterogeneity of the area. We sampled the regenerating woody vegetation (diameter at ground height ≤ 1 cm). In each plot, the habitat type was classified into sandy bogs, peat bogs, rocky outcrops, quartz gravel fields and Cerrado according to the description made by Carvalho et al. 2012. In order to verify if the type of habitat influences the diversity and structure, we used richness, Shannon and Simpson diversity index, basal area and number of individuals in generalized linear models. Significance was assessed using chi-square and F test. Non-Metric Multidimensional Scalingwas constructed to assess the structural similarity between habitat types. We used Permanova to confirm if the classification of the plots in habitat types was significant. Bray-Curtis index was used as measure of similarity. Habitat type influenced species richness, Shannon, and Simpson index and number of individuals ($p<0.05$).The Cerrado habitat had a higher diversity, and sandy bogs fewer individuals. Species composition was also related to habitat ($p=0.001$). Some authors have reported that topography and characteristics of habitat (e.g. relief, soil, and others) can influence plant species composition and diversity since the environmental heterogeneity of the rupestrian fields is a remarkable peculiarity. Our study showed that habitat type, one proxy of the environmental characteristics, is one of the factors that explains the vegetation diversity, number of individuals and species composition of the woody regeneration at Serra do Cipó.