Abstract

The floristic variations of shrub and tree components were studied in two sites of Semideciduous Forest, initial forest and mature forest, located in the Mata do Paraíso Forest Reserve, in Viçosa, State of Minas Gerais, Southeastern Brazil, in order to analyze the floristic similarity and the correlations between environmental variables and the distribution of tree species in these forests. Individual trees with a diameter at breast height (DBH) ≥ 4.8 cm were sampled in twenty 10 x 30 m plots (10 plots in each site). The plots were distributed systematically at 10 m intervals. The environmental variables analyzed were: the canopy openness and soil chemical and texture characteristics. The two forest sites showed clear differences in the levels of canopy openness and soil fertility, factors that reflect the floristic and successional differences of the shrub and tree component, revealed by the low similarity between these forests by cluster analysis. The canonical correspondence analysis (CCA) of environmental variables and species abundance indicated that the species in these forests studied are distributed under strong influence of canopy openness, moisture and soil fertility. Rev. Biol. Trop. 56 (3): 1557-1569. Epub 2008 September 30.

Keywords

Semideciduous forest, canonical correspondence analysis, soil-vegetation relationship, hemispherical photographs, Brazil