

Title: ARBUSCULAR MYCORRHIZAL FUNGAL DIVERSITY IN AREAS OF TROPICAL DECIDUOUS FORESTS IN THE TRANSITION BETWEEN CAATINGA AND CERRADO IN MG

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Abstract:

The arbuscular mycorrhizal fungi (AMF) are required symbionts that need to associate with plant roots to complete its life cycle, which is beneficial to both parties, since the composition of the soil directly affects the growth and development of plants and presence of AMF causes an increase in root area facilitating access to limited minerals or immovable in the soil and improves the absorption of water and nutrients to the fungus acquires its development and sporulation. The Biological Reserve Serra Azul (RBSA), Biological Reserve Jaíba (RBJ) and the Parque Estadual Lagoa do Cajueiro (PELC) in the transition region of Caatinga and Cerrado in the north of Minas Gerais, belong to the original Mata Seca whole training drought, the field of Tropical Dry Forests (TDF). The aim of this study was to evaluate the effects of successional stages and seasonal in diversity of AMF. Samplings were made in the dry and rainy seasons in 9 installments in PELC, 3 installments both in RBSA as in RBJ in three successional stages, retiring three composite samples of soil per plot. 50g was removed from each sample that passed through extraction processes, centrifugation, quantification and identification of species. 43 taxa of AMF were identified, of which 41 species were identified in PELC, 13 species in the RBSA and 12 species in the RBJ most representative of *Acaulospora* and *Glomus* genera. Because the effects of successional stages and seasonality, the *Acaulospora rhemii* and *Glomus glomerulatum* species showed greater abundance in the three studied protected areas and species *Acaulospora paulinae* and *Acaulospora mellea* shown to be unique to the RBSA and RBJ respectively. The frequency of species showed differences over the succession stages and seasonality, since the ecological processes such structure, dispersion and plant species composition, incidence of light, soil attributes, among other factors, varying in each stage and seasons, which affected the distribution of species of mycorrhizal fungi in this study. We conclude that in addition to environmental factors, it is likely that pedological factors (data not yet analyzed) may have contributed to this pattern of distribution of AMF between areas, and that new analyzes can explain more categorically their participation in the composition and structure of AMF communities in tropical dry forests in Brazil.

Keywords: spores, mycorrhizae, succession, fungi, seasonality

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