

Título: Spatio-temporal scale colonization and diversity of morphotypes of endophytic fungi in *Cavanillesia arborea* in a successional gradient in Tropical Dry Forest

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Resumo:

The endophytes are a group of microorganisms having the ability to colonize the plant tissues in at least one stage of its development without causing apparent damage to the host. The endophytic fungi can be found in all plants families known. However, relations between the endophytes fungi and their host plants in tropical areas such as Tropical Dry Forests are still largely unexplored. This study aimed to verify the diversity of endophytic fungi associated with *Cavanillesia arborea* K. Schum. (Malvaceae) leaf, deciduous plant of common occurrence in Tropical Dry Forests present in the north of Minas Gerais. Forty-four leaves were collected from 22 young individuals of *C. arborea* (height between 1.50 and 2.10 m) in good phytosanitary conditions in the late successional stage area of the State Park of Mata Seca, in the municipality of Manga - MG. The leaves were disinfecting with alcohol and sodium hypochlorite. 8 mm discs were made with sterile punch and plated on Petri dishes containing potato dextrose agar (PDA) and amoxicillin (100mg / L). The Petri dishes were incubated at 28 °C for 30 days. As growing the colonies were picked into new Petri dishes containing PDA medium. The 78 isolates were grouped into 70 morphospecies. In relation to the relative frequency, morphospecies M1 was the most frequent, accounting for 7.70% (n = 6) isolates, followed by M4, M9 and M39, each equivalent to 2.57% (n = 2). The abundance, there was an average from 2 to 4 isolates / sheet. The average time of growth of colonies was 5 days, except strain M79, transferred to a new plate after 29 days. Research carried out on host plants of temperate regions show greater diversity of endophytic fungi in these places compared to regions of tropical climates. In a previous work with adult plants of *C. arborea* in same park, they were isolated 23 morphospecies. However, the number of morphotypes isolated *C. arborea* young hosts show a considerable diversity despite of the influence of seasonal, environmental and low precipitation rates for most of the year at the study site. Further investigations are necessary in relation to diversity and strategies to be best described the relationship between these endophytes and *C. arborea*, as well as interaction of both with this environment.

Palavras-chaves: Endophytic fungi, diversity, Deciduous Forest, *Cavanillesia arborea*

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