

TITLE: ANTS AS MYCORRHIZAL FUNGI CARRIERS IN ORCHIDS IN ITATIAIA NATIONAL PARK (RJ)

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ABSTRACT:

The germination of orchid seeds in natural environment depends on the involvement with fungi that provides a relevant symbiont relationship in maintaining the species. The orchids can have specificity with fungi associated with their roots, turning the presence of a specific fungi into a limiting factor for the dispersion of a particular species in a region. The main fungi found associated with the orchids belong to the group Rhizoctonia-like, the most common genera found are *Ceratorhiza*, *Epulorhiza* and *Moniliopsis*. These fungi are known for the non-formation of spores, having only propagation cells denominated monilioid. However, some organisms can carry these fungi as, for example, the ants that forage in search for food or use the interstices formed by the orchids roots in the construction of their nests. In the literature in the moment, there is not a description of any invertebrate specie as a dispersant. In this study were inspected in the Itatiaia National Park 43 individuals, belonging to 15 orchid species, to investigate the ants activities. The root material was collected to describe the species of associated fungi. All the orchids inspected were photographed and georeferenced with proper care to preserve their integrity. In the orchids with ants, specimens were collected and stored in distinct flasks, one with saline solution and other with alcohol 70%. In the laboratory, the ants were mounted in dry method of pointing and identified according to the available dichotomous keys. The radicular part collected from the orchid species were washed and macerated for the process of isolation and identification of the associated fungi rhizoctonia-like. This process was made in culture medium PDA, observing macroscopic and microscopic characteristics from their morphology. Two distinct fungi belonging to gender *Epulorhiza* were found in two species of ants from the genus *Linepithema*, foraging on the orchids *Gomesa praetexta* and *Bifrenaria harrisoniae*, the fungi isolated from the ants is morphologically identical to the isolated fungi of these orchids roots. This is the first report on the occurrence of the isolation of fungi rhizoctonia-like from ants. Therefore, it is possible that occasionally ants have the function of dispersion of these fungi in orchids on Atlantic Forest biome.

Keywords: Mycorrhizae, Orchids, Rhizoctonia-Like, Fungi, Ants.

Development Agency: CNPq.