



# 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

### INFLUENCY OF ENVIRONMENT VARIABLES ON BASIDIOMYCETES COMMUNITY IN RIPARIAN FOREST AND PINE GROOVE

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Theme/Presentation Method: Community Ecology/Poster

In Brazil, there is an enormous diversity of dwelling fungi species. The current work has aimed to quantify the response variables, both abundance and richness of Basidiomycetes fungi found on two different fragments at Federal University of São Carlos, SP, Brazil. The first area was a Riparian Forest circled by Cerrado, and the second was a Pine (*Pinus elliotii*. Engelm) Grove with native Forest regeneration. The study hypothesis was that the diversity encountered in the Riparian Forest would be higher than Pine Grove diversity. Data collection was performed in three transects from the edge to interior for each fragment during the summer. Richness and abundance were assessed as independent variables and biotic factors, such as crown cover, and abiotic factors, such as temperature and humidity were evaluated as dependent variables. The analysis performed was based on Shannon diversity model, Jaccard and Kulczynski similarity coefficients. Moreover, GMLER analysis was performed utilizing the software *R*, intending to obtain more qualified models to correlate the studied variables. Shannon diversity index of basidiomycetes was superior in Pine Grove with regeneration woods ( $H' = 2.123$ ) to the Riparian Forest ( $H' = 2.054$ ). However, Jaccard coefficient have denoted a similarity of 0.37 for abundance, and 0.36 for richness when comparing both fragments. Furthermore, the richness of basidiomycetes in the Riparian Forest presented none correlation with the studied variables, while fungi abundance in this area was related to crown cover enhancement. On the other hand, for Pine Grove area with forest in regeneration, it was observed that the decreasing temperature have led to a more elevated fungi abundance, while increasing levels of fungi richness were due to higher crown cover. Therefore, this research highlights the need to conserve the native environment intending to develop and maintain the Basidiomycetes fungi, since they are very important to nutrient cycling and primary matter production.