Geophysical Research Abstracts
Vol. 17, EGU2015-14192, 2015
EGU General Assembly 2015

Ruderal plants in remaining Cerrado areas: floristic survey, origin and mycorrhization

Maria José Neto (1), Helena de Cássia Brassaloti Otsubo (2), Kátia Luciene Maltoni (2), and Ana Maria Rodrigues Cassiolato (2)

(1) UFMT-Univ Federal do Mato Grosso do Sul, CEUL, Campus II, Três Lagoas, MS, Brazil, (2) UNESP-São Paulo State Univiversity, Faculdade de Engenharia, Ilha Solteira Campus, Brazil (anamaria@bio.feis.unesp.br)

The urbanization process creates new ecosystems that harbor flora which has specialized in living in anthropogenically altered environments, since the advent of agriculture and urbanization. Plant specialization in new ecosystems has been due to accelerated population growth and extensive occupied spaces on the planet surface. This study was looking at the floristic survey and origin, as well as arbuscular mycorrhization of ruderal plants, in remaining Cerrado areas in the city of Três Lagoas-MS, Brazil. It was also to expand knowledge about native and introduced vegetation in anthropogenic environments. The survey was conducted for a year. From all species ruderal plants founded, plants from 49 species were collected with the purpose of this study and report the occurrence or not of AM colonization, by classifying root colonization, of the species as: very high; high; medium; low and absent when presented a index of colonization> 80%, 79-50%, 49-20%, 19-1% and 0%, respectively. Two hundred sixty-six species, distributed into 53 botanical families were found. The flora of Três Lagoas-MS is composed of native and exotic plants (82.72% from the Americas and 17.28% from the Old World and Australia). There were 220 species native to the America's, but the largest amount (60.45%) were Brazil native growing plants. Smaller percentage of this (28.63%) was found to come from the cerrado, which indicates that the ruderal vegetation was well represented by native species. Of the 49 species chosen for verification of arbuscular mycorrhizal colonization, 27 exhibited very high colonization; two were high; two were medium; eleven were low and seven species showed no mycorrhizal colonization, leading to the conclusion that most ruderal plants showed mycorrhizal colonization. The soil fertility, for both area, were considered higher than the typical cerrado, and by the average number of AMF spores (152 per 100 g of dry soil-1) may not even be considered degraded. This urban vegetation can contributed to the environmental preservation.