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2017 Annual Meeting | Oct. 22-25 | Tampa, FL



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104835 Rhizospheric Effect on the Diversity of Archaea in Amazonian Dark Earth. Poster Number 1122

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Monday, October 23, 2017

Tampa Convention Center, East Exhibit Hall

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[Author Index](#)[CEU Approved Sessions](#)[Register Now!](#)**Abstract:**

The objective of this work was to evaluate the rhizospheric effect of legumes on the Archaeal diversity in Amazonian Dark Earth. For this, non-deformed soil samples were collected, which were used in legume cultivation in a greenhouse. Experiments were carried out on the species *Senna alata*, *Flemingia macrophylla* and *Mimosa debilis* grown on two types of soil: Amazonian Dark Earth (secondary forest and cultivated area) and Ultisol (secondary forest and cultivated area). In these experiments non-cultivated soils were used as control. Diversity access was performed using T-RFLP (Terminal Restriction Length Polymorphism). Two primers were used for Archaea (21-f-FAM, 958r). The restriction enzyme used was HhaI. The data obtained were analyzed using PCA (Principal Component Analysis). The results showed that the microbial communities' richness was higher in the *S. Alata* rhizosphere in both soils with secondary forest than in the rhizosphere of the other legumes and the non-cultivated control. Relative abundance varied due to the presence of dominant T-Rfs in all treatments. With the PCA support it was possible to detach the Archaeal communities from the rhizosphere in the two soil types. It is concluded that the rhizosphere effect is influenced by the species of legume cultivated and the soil type.

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