



1. Title

Interactions Between Soil Structure, Living Organisms And Organic Matter

2. Type

Commission Symposium: Comm. 1.1-Soil Morphology

3. Organizer(s) & Convener

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4. Rationale

The interaction of the soil organic matter and soil minerals leads to soil aggregate formation and stabilization, which reciprocally contributes to organic C storage in the soil. This interaction is controlled by the soil biological activity, which decomposes organic matter; by the soil physical-chemical properties, which depend on the composition of the mineral fraction; and by environmental factors.

5. Objectives

To show the spatial relationships between soil structure, porosity and different types of organic matter in soils, as affected by biological activity, soil mineral composition, soil/water relationships or any other environmental factors. In situ bioremediation effects on polluted soils would be interesting to compare with natural process on unpolluted soils.

6. Description

The study of the interaction between the soil pore system and soil organic matter is of primary importance given the role of soil as carbon pool. The spatial organization of





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mineral and organic components, only revealed through morphological analyses, can explain many mechanisms of carbon sequestration, either in agricultural or in forest environments. This symposium welcomes any contribution dealing with the application of organic amendments, SOM physical protection, identification of SOM types in undisturbed samples, factors controlling SOM in forest soils, with a morphological approach at any scale.

