



Interaction of leaf traits and soil fauna and their role for carbon sequestration in soil

J. Frouz
(frouz@upb.cas.cz)

Litter traits are assumed as one of the most important factor true which plants affect biogeochemistry of the stand where they grow including soil formation and nutrient dynamic which affect substantially function of whole ecosystem. Relationships between potential decomposition and leaf litter traits were extensively studied. Despite importance of potential decomposition, we believe that effect of leaf traits on litter quality is more complex: 1) litter potential decomposability affect litter processing by soil fauna and intensity of consequent fragmentation bioturbation and incorporation into soil aggregates. 2) litter, when supplied into soil for longer period of time affect also soil formation and composition of decomposer community which consequently affect dynamic of litter decomposition. In addition interactions between leaf traits and litter trait may nod be also quite complex. We will demonstrate several examples showing that litter with higher potential decomposability may sequester more in soil that less decomposable litter because it is in larger extend stabilized by soil fauna.