



DR. MARTIN SCHÄDLER

UFZ ecologist Martin Schädler coordinates a large field experiment on the effects of climate change and land use on ecosystem functions at the UFZ. He has a special interest in the experimental exploration of global change effects on interactions in plant-invertebrate-microbe systems from an above-belowground perspective, rhizosphere interactions and biotic soil processes with the main focus on agro-ecosystems.

CLIMATE CHANGE INDUCED CHANGES IN AGRICULTURAL SOILS UNDER DIFFERENT LAND-USE SCENARIOS

Climate change and land-use change are considered as major threats to ecosystems and can be expected to have interacting influences on ecosystem functions directly and indirectly via changes in biodiversity above- and belowground. Knowledge about these interactions is limited due to a lack of studies which investigate climate change effects under different land-use scenarios especially in soil systems. Based on results from a large-scale field experiment, evidence for striking effects of climate change on soil biota from fauna to microbes in agro-ecosystems will be presented. Consequences for soil multifunctionality and associated ecosystem services will be evaluated.

