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Soil formation in post mining sites: the role of vegatation soil microflora and fauna interactions

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The role of vegetation and soil micro flora and fauna interaction during soil formation was studied in post mining sites in Czech Republic, Germany and USA. Vegetation and character of substrate substantially effect, micro flora, namely fungal bacterial ration, fauna composition and resulting microstructure of soil. Plants that bring more nitrogen in to the system support larger biomass of soil fauna and namely occurrence of earthworms which yield in larger bioturbation and associated faster production of A horizon in newly developing soil. Manipulation experiment show that presence of fauna have crucial effect of soil formation in these soil and positive effect of many plant species which are assumed to beneficial for reclamation is in fact indirect and caused by its positive effect on soil fauna development.