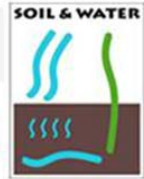


<b>Teacher</b>	Apl. Prof. Dr. Manfred Wanner
<b>Contact</b>	Brandenburg University of Technology Cottbus - Senftenberg, Faculty of Environment and Natural Sciences, Dept. Ecology wanner@b-tu.de
<b>Lectures</b>	Introduction in soil zoology General introduction to methods in soil zoology Soil degradation, disturbance, and organismic succession / Sustainable environmental management
<b>Key words</b>	Soil zoology, soil ecology, experimental methodology, disturbance, management
<b>Learning objectives</b>	<ul style="list-style-type: none"><li>- to understand the complexity of terrestrial biological systems</li><li>- to analyze terrestrial biological systems</li><li>- to analyze soil faunal biodiversity by use of determination keys</li><li>- to apply knowledge on soil organisms to evaluate soil fertility and soil functioning</li><li>- to apply soil organisms as bio-indicators</li><li>- to apply, analyse, evaluate, and create methods to understand epedaphic, hemiedaphic, and euedaphic soil micro-, meso-, and macrofauna</li><li>- to understand soil biology and -methodology as a career opportunity</li><li>- to create a soil scientific presentation focusing on the analysis and evaluation of own and published data</li></ul>
<b>Main subjects</b>	<ul style="list-style-type: none"><li>- soil as a habitat for soil organisms</li><li>- adaptations of soil organisms to their environment</li><li>- soil biodiversity, taxonomic and functional assignments</li><li>- soil organisms as decomposers for nutrient recycling</li><li>- soil organisms as predators</li><li>- soil organismic interactions</li><li>- soil food web</li><li>- soil degradation, disturbance, and organismic succession in the context of nature conservation</li><li>- post-mining landscapes and military training areas as secondary habitats for nature conservation</li></ul>

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University of South Bohemia  
in České Budějovice



Eesti Maaülikool  
Estonian University of Life Sciences

**Relevance to  
EduSaPMan**

Soil organisms are evaluated in the context of soil, plant, and water interactions, considering physiological and morphological adaptations to their environment, ecosystem functioning and ecosystem services.  
This is complementary to lectures providing basic and applied knowledge on soil science, botany, and hydrology.

**Recommended  
literature**

Bardgett, R.: The Biology of Soil. A community and ecosystem approach; Oxford Univ. Press, Oxford (2005)  
Coleman, D.C.; Crossley, D.A.Jr.; Hendrix, P.F.: Fundamentals of Soil Ecology. 2nd ed.; Elsevier, Amsterdam (2004)  
Silverstein, A.; Silverstein, V.: Life in a bucket of soil. Dover Pubs., Mineola, N.Y. (1972)