Physiological Toxicology and Environmental Toxicology

Practical course

Part 1. Aquatic toxicology (excursion, 1 week)

Univ-Prof Dr. Otto Seppälä (otto.seppaelae@uibk.ac.at)

Research Dept for Limnology (Mondsee, OÖ)

Research question: How does exposure to heavy metal Cadmium (Cd) affect the metabolism and fitness of the freshwater snail *Lymnaea stagnalis*?

Content:

1. Experimental research
2. Quantification of respiration rate, resource consumption, and fecundity of snails
3. Statistical analyses: analysis of variance, regression analysis

Accommodation is available at the Institute (12 students), key deposit EUR 50

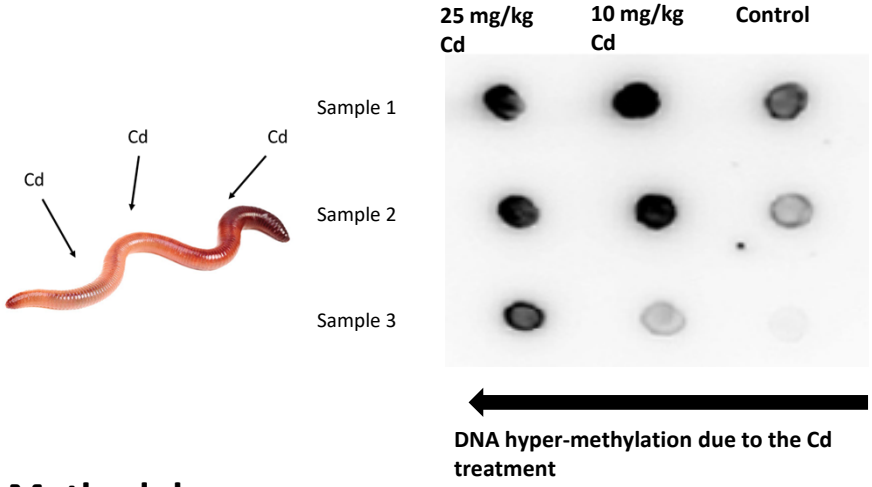
Travel info: https://www.uibk.ac.at/limno/location/

Part 2. Terrestrial toxicology

Dr. Maja Šrut

Institute of Zoology, University of Innsbruck

Research question: How does the exposure to heavy metal Cadmium (Cd) affect the DNA methylation of earthworms as a model organism?



Methodology:

1. Assessment of global DNA methylation using **Immuno-dot blot method**
2. **Statistical analyses using R:** Basic statistics of the obtained data; Multivariate analyses (PCA, correlation tests) to connect obtained data with other measurements