



Master thesis at the BOKU IHG

The sound of rivers – a trigger for riverine biota?

The master thesis will be conducted in the frame of the FWF project “The sound of rivers – a trigger for riverine biota?”. One aim of this project is to analyze effects of soundscapes as a potential trigger of benthic invertebrate behavioral response in respect to hydrological changes.

Aims of the thesis:

- Assessment of the possible early-warning potential of underwater soundscapes for benthic invertebrates regarding discharge changes (e.g. floods, hydropeaking events) in an experimental setup.
- Description, classification and quantification of behavioral responses following soundscape changes indicating hydraulic stress.
- Monitor and record potential behavioral patterns of selected taxa following soundscape changes.
- Compile and discuss results comprehensively including international literature.

Contact:

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Time frame:

Literature research and planning should start asap, field work will start in March 2022 with pre-tests. Experiments should be finished by mid-April. Identification and counting in the lab will take place in May-July. Data analyses should be finished by end of 2022.

Duties and responsibilities:

- Comprehensive literature research
- Proactive participation in planning and realization of field experiments
- Sample identification and counting in the lab
- Field work will be located at Lunz am See (HyTEC facility)
- Data management and analyzes

Requirements:

- Interest in outdoor field experiments and behavioral studies of benthic invertebrates
- Basic knowledge and interest in benthic invertebrate ecology
- Basic statistical knowledge
- Willingness to deal with new computer programs

We offer:

- Thorough guidance and space for self-responsibilities
- Insights into applied and innovative research
- Financial compensation for field activities