



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 fish behavior in respect to hydrological changes.

Aims of the thesis:

- Assessment of the possible early-warning potential of underwater soundscapes for fish regarding imminent discharge changes (e.g. floods, hydropeaking events) in field experiments.
- Description, classification and quantification of behavioral responses following soundscape changes indicating imminent hydraulic stress.
- Monitor and record potential behavioral patterns of selected taxa following soundscape changes.
- Image-based automated tracking of animal movement and behavior is planned
- 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 April/May 2021 with pre-test and main experiments are planned for July /August. Data analyses should be finished by end of 2021.

Duties and responsibilities:

- Comprehensive literature research
- Proactive participation in planning and realization of field experiments
- Field work will be located at Lunz am See
- Data management and analyzes

Requirements:

- Interest in outdoor field experiments and behavioral studies of fish
- Basic knowledge and interest in fish ecology
- Basic statistical knowledge
- Ability to deal with new computer programs
- Experience with video and acoustics is of advantage but not a prerequisite

We offer:

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