

Position for PhD Candidates - *Effects of small water retention measures on ecosystem functions and ecosystem services in an Austrian river basin*

Start: autumn / winter 2017

The good ecological status of surface water in EU in 2015 has improved by 10 % since 2009. However, there are still major efforts needed in order to achieve a better status of aquatic ecosystems. Various types of measures listed under the name Natural (Small) Water Retention Measures (N(S)WRM) can have significant positive effects on solving environmental problems such as hydrological retention, increased fine sediment erosion and deposition, nutrients' transport and decreased biodiversity. Still a major concern is to understand how different measures might interact and how these measures can be optimized to reach multiple aims and mitigate several management issues.

The PhD will be performed in the frame of the 3 year internat. project FRAMWAT within the Central Europe Interreg Program. The aim of the PhD thesis is to analyze the effects of a combination of small water retention measures on ecosystem functions and potential ecosystem service provision based on a model framework and a scenario approach for one specific river basin in Austria. The FRAMWAT framework will be applied including a specific model framework including a SWAT approach.

What we offer:

The PhD will cooperate with other project partners within the FramWat project and can be part of the newly established BOKU Doctoral Program HR21 (Human River systems of the 21st century), a program to provide an excellent interdisciplinary education in river science. The salary is based on the FWF standards (<http://www.fwf.ac.at/en/research-funding/personnel-costs/>). An extension of the PhD thesis after the project end in June 2020 can be targeted according to available additional funds.

What we expect:

The candidate should possess basic knowledge about GIS analyses, model applications (e.g. SWAT), water chemistry and limnology. The work will be performed in Vienna and Lunz, short research stays abroad are also foreseen.

Application / contact

For questions and applications, please contact Prof. Dr. Thomas Hein, University of Natural Resources and Life Sciences, Vienna, Inst. For Hydrobiology and Aquatic Ecosystem Management (IHG). Email: thomas.hein@boku.ac.at

Applicants are requested to submit a letter of motivation, CV and contact information of three potential referees in one single PDF document. Closing date: **September 30th 2017**.

Mentoring Team in Austria:

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Further information about the project will be available soon.