

Eawag, the Swiss Federal Institute of Aquatic Science and Technology, is a Swiss-based and internationally networked aquatic research institute within the ETH Domain (Swiss Federal Institutes of Technology). It is committed to the ecologically, economically and socially responsible management of water resources and aquatic ecosystems. The Department of Fish Ecology and Evolution (FishEc) located in Kastanienbaum (Lucerne) has a vacancy for a **PhD Student** in Fish Migration & Evolutionary Ecology.

Movement is a fundamental and ubiquitous feature of animals, and the movement of individual organisms is integral for many vital ecological and evolutionary processes. Animal migration is one of nature's most spectacular forms of animal movement and has a long and illuminating scientific history, with exciting new discoveries year after year. Centuries of research on animal migration has made it clear that migratory individuals most often show distinct adaptations to the migratory travel and benefit from temporally changing relative benefits of alternative habitats. However, being migratory also means experiencing selection pressures for adaptation to at least two different habitats often under competition with either resident individuals or migratory individuals from other populations. Unfortunately, our knowledge on adaptation to a migratory life history is typically limited to adaptation to the migratory travel per se, although knowledge about all aspects of migratory versus non-migratory life history is crucially needed in order to understand the interaction between migration and adaptation to multiple alternative macrohabitats. The current project is aiming to study local adaptation and migration from stream to lake in multiple trout populations in Central Switzerland. Trout in these streams are known to display distinct phenotypes and ecologies dependent on stream characteristics, yet in all streams a part of the trout population migrates to the nearby Lake Lucerne and forms the distinct lake trout phenotype. However, also distinct eco- and phenotypes of trout exists in the lake, but until now, there is no knowledge of how these different phenol- and ecotypes are linked and no knowledge on how this is linked to migration. This projects aims to explore this and further shed light on some of the basic concepts concerning the interaction between migration, local adaptation and adaptive diversification.

Applications are sought from individuals with a profound interest in Fish Biology and Evolutionary Ecology. Applicants should have earned a MSc degree (or equivalent) in a relevant field of biology, ecology, or environmental science. Excellent communication skills in English and the ability to work in a team are essential.

The position is financed by the Swiss National Science Foundation. The successful candidate will have substantial opportunities to develop his or her own research skills and to assist in the

supervision of Bachelors, and Master students. The work will consist both of field- (e.g. electro fishing, fish tagging, PIT-antenna recording) and laboratory work (e.g. phenotypic-, isotopic and genetic analyses).

We are a research department of Eawag (Department of Fish Ecology and Evolution; [http://www.eawag.ch/forschung/fishec/index\\_EN](http://www.eawag.ch/forschung/fishec/index_EN)

) and a division (Aquatic Ecology) of the Institute of Ecology and Evolution of the University of Bern. The successful candidate will have a unique possibility to take advantage of both these excellent academic environments. The work place is at [UTF-8?]Eawag's Center for Ecology, Evolution and Biogeochemistry in Kastanienbaum (Lucerne) and offers a beautiful workplace at the shores of Lake Lucerne, a friendly international working climate and a strong cross-disciplinary research environment. The successful candidate will be enrolled in the University of Bern PhD-student program.

Applications must be submitted **by 31 October 2014** and should include an application letter describing your interests and their relevance to this position, a CV, university diplomas, and the names and contact information for two references.

Eawag is an equal opportunity employer. Women are explicitly encouraged to apply.

The starting date for the position is anticipated as soon as possible. For further information, please contact Jakob Brodersen ([log in to unmask]; [+41 58 765 22 04](tel:+41587652204)). We look forward to receiving your application through this webpage, any other way of applying will not be considered. Please click on the link below, this will take you directly to the application form.

<http://internet1.refline.ch/673277/0308/++publications++/1/index.html>