

## Ph.D. position in ecological & evolutionary genomics

### Coupling genomics with experiments to study divergence-with-gene-flow in trees

A Ph.D. student position is available in the lab of Christian Lexer, Department of Biology, University of Fribourg, Switzerland. We are looking for a highly motivated candidate with a keen interest in evolutionary and speciation genomics and prior experience with / exposure to key methodologies relevant to this field. The post is funded by a 3-year project grant from the Swiss National Science Foundation.

The Ph.D. project will address key questions related to the ecological & evolutionary genomics of 'divergence-with-gene-flow' in *Populus alba* and *P. tremula*, two wide-spread Eurasian tree species related to *Populus trichocarpa*, the first completely sequenced forest tree. Possible study topics include (1) assessing the roles of early vs. late-acting reproductive barriers in the maintenance of species boundaries with genomic tools, (2) inferring the genomic architecture and selective value of species differences maintained in the face of gene flow, (3) testing the role of meiotic drive and other early post-mating barriers in species isolation. You will address these topics using high-throughput 'genotyping-by-sequencing' approaches in experimental populations. Depending on your interests, you may also participate in field collections in Europe and/or Asia and subsequent whole genome resequencing of natural populations, addressing defined questions on the genomics of the divergence continuum in this group. Prior experience with the use of DNA-based genetic markers to answer evolutionary questions is essential for this project. Also essential is a keen interest in gaining experience with the analysis of (ultra-) high throughput DNA sequencing data. Considerable expertise in bioinformatics and computational biology is available locally in the department, from the Swiss Institute of Bioinformatics, and from Swiss Ph.D. programs to facilitate first-year training.

The starting date is negotiable (from March 2014 onwards). Funding is available for at least three years. Knowledge of French or German is helpful in every day life, but the working language in the group is English. A Master or diploma degree in biology or related subject is required. Fribourg is a lively town with pleasant surroundings and an excellent quality of life. It is located ca. 30 minutes from the Alps, close to other cities such as Berne and Lausanne and just a little over an hour from Geneva and Zürich.

To apply, please send an e-mail with the application materials in a single pdf file to Christian Lexer ([christian.lexer@unifr.ch](mailto:christian.lexer@unifr.ch)). Application materials should include a CV, a list of publications, and a short (less than one page) statement of research interests. Please give names and email addresses of two persons who are willing to write a letter of recommendation. Applications received before 28 November 2013 will be given full consideration.

Further information and address for application:

Dr. Christian Lexer, Associate Professor of Evolutionary Biology

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