

3 PhD positions (UNIVERSITÄTEN BASEL, BERN, FRIBOURG, UPPSALA)**Bewerbungsfrist: 15.09.2010**

Three PhD positions in Plant Ecology, Evolutionary Ecology and Ecological Genetics

We are seeking three PhD students for a new SNF-funded project about the adaptation of the long-lived alpine shrub *Salix herbacea* to different altitudes and habitats, and its ecological and evolutionary responses to climate change. The project is a collaboration between the Swiss Federal Institute for Forest, Snow and Landscape Research WSL in Davos, the Universities of Basel, Bern and Fribourg (all in Switzerland), and the University of Uppsala in Sweden.

The project consists of three sub-projects that are tightly linked through common field surveys and transplant experiments. The field sites are in the Swiss Alps near Davos.



Position 1: Plant Ecology, Davos. This project will examine how temperature, microclimate, snow conditions and competition affect the growth, demography and physiology of *S. herbacea*. The student will be supervised by Christian Rixen and Sonja Wipf (Davos, www.wsl.ch/fe/oekosystem/alpine) and Günter Hoch (Basel, pages.unibas.ch/botschoen/hoch).

Position 2: Evolutionary Ecology, Bern. This project will examine the heritability of plant traits, natural selection in different habitats, and the potential evolutionary responses of *S. herbacea* to climate change. It will also study the role of biotic interactions in constraining plant adaptation. The student will be supervised by Mark van Kleunen and Oliver Bossdorf (Bern, www.botany.unibe.ch/planteco).

Position 3: Ecological Genetics, Uppsala. This subproject will examine variation, selection and adaptation in *S. herbacea* at the molecular level. It will use population genomic approaches to study associations between molecular markers/candidate genes, ecologically important plant traits and habitat factors. The student will be supervised by Sophie Karrenberg (Uppsala, www.vaxtbio.uu.se/resfold/karrenberg.htm) and Christian Lexer (Fribourg, www.unifr.ch/biol/ecology/lexer/).

For more information about the projects, research groups and places of work, please visit the websites, or contact the three subproject leaders, using the email addresses below.

All positions require a MSc degree (or equivalent), fluency in English, a driver's licence, and the ability to work in an Alpine environment, sometimes independently and sometimes in a team. Previous experience with ecological field work/experiments and statistical skills are generally a plus. Position 3 requires experience with genetic lab work and analysis of genetic data. The durations of the positions are 3 years for PhD positions 1 & 2, and 4 years for PhD position 3.

Applicants should send a letter of application, explaining your motivation, research interests and relevant experience as well as a CV and contact details of at least two references, to rixen@slf.ch (position 1), vkleunen@ips.unibe.ch (position 2) or sophie.karrenberg@ebc.uu.se (position 3). The application deadline is 15 September 2010. Starting date for the positions will be 1 January 2011, or shortly thereafter.