



Master's thesis opportunities

We seek a Master's students to join a 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), the University of Konstanz in Germany, 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.

This subproject examines how temperature, microclimate, snow conditions and competition affect the growth, demography and physiology of the dwarf willow *S. herbacea*. This species is of particular interest in the context of global change because it is a widespread species that covers a large altitudinal range and indicates environments with long snow cover duration. This study involves both natural environmental gradients and experimental transplants of *S. herbacea*. Specific research questions can include (but are not limited to!):

- How *S. herbacea* performs at the uppermost range of its distribution
- If seedlings are viable above the current range of *S. herbacea*
- How neighbour interactions affect the performance of *S. herbacea*
- How growth rings of *S. herbacea* reflect environmental conditions

The Master's student will join a team of researchers at the Swiss Federal Institute for Forest, Snow, and Landscape Research (WSL) in investigating these questions. Applicants should be highly motivated, have experience with ecological data collection and statistical analysis and should be comfortable working in steep alpine terrain. The thesis should start in spring/early summer 2012. The working place is Davos, Switzerland. The student will be supervised by Christian Rixen, Sonja Wipf and Julia Wheeler (Davos).

For more information about the position and application procedure, please contact: Julia Wheeler (julia.wheeler@slf.ch) or Christian Rixen (rixen@slf.ch, 081-417-02-14). http://www.slf.ch/ueber/mitarbeiter/homepages/rixen/index_EN



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