

Master Thesis Project

Niche differentiation of two subalpine *Salix* species

As a part of ongoing research on the ecology and evolution of the genus *Salix* in the European Alps an MSc thesis project is available on niche differentiation between the two closely related but geographically vicariant species *Salix alpina* and *Salix breviserrata*. The student is expected to make lists of species (vegetation relevés) accompanying the two *Salix* species at plot scale (1 – 10 m²) in regions where the species ranges overlap as well as outside these overlapping regions. The underlying hypothesis is that species' niches are separated where the two species co-occur, but become indistinguishable in the 'private' part of their ranges.

The MSc student is expected to:

- Collect vegetation relevés in different parts of the Austrian Alps
- Combine the collected relevé data with relevés already existing in databases
- Do statistical analysis of niche overlap
- Write the thesis, preferably in the form of an English manuscript (15 – 20 pages)

Field work shall be done in summer 2022. The student will be co-supervised by Prof. Elvira Hörandl, University of Göttingen.

The work requires sound knowledge of the alpine flora and a good basis in data handling and statistical analysis in R.

The thesis project is suitable for MSc students in ecology, botany and conservation biology.

Interested? If you are interested please contact Prof. Stefan Dullinger (stefan.dullinger@univie.ac.at).

