



PhD position on micro-climates and response of alpine plants to climate change

The Biodiversity Dynamics and Conservation Group (<https://bdc.univie.ac.at/>) at the Department of Botany and Biodiversity Research of the University of Vienna is offering a PhD position within the framework of an EU-funded research project (ERC-AdG MICROCLIM, cf. <http://microclim.mountainresearch.at/>).

Background

The fate of alpine floras in a warming world is contentious. While some researchers expect massive loss of cold-adapted plants because they have little options to escape the heat ('mountaintop extinction'), others assume low vulnerability of high-mountain floras due to presumably widespread microclimatic refugia in the topographically complex alpine terrain. MICROCLIM aims to assess empirical evidence for these contradictory expectations by (1) linking observational, experimental and modelling studies in a particularly well-researched model system of the Austrian Alps; and (2) by analysing data on species turnover and micro-climatic trends collected on ~ 75 mountain summits across Europe over the past ~ 20 years within the GLORIA framework (<https://www.gloria.ac.at>).

Position announced

The position announced will focus on exploring the role of micro-climate and micro-environment for population dynamics observed at the GLORIA sites. Analyses shall include several approaches including a comparison of model predictions with the changes actually observed at the summits. Moreover, the candidate is expected to contribute to field work in the Austrian study regions (Ötztal, Tyrol) during the field seasons 2022 and 2023.

Qualifications

The position requires a master degree in ecology or a related field.

The successful candidate will have to spend 2–3 months in the field. Physical fitness and willingness to work under the (sometimes) demanding climatic conditions of the alpine terrain are necessary. We also expect candidates to have (1) interest and experience in population ecology, plant ecophysiology, biogeography, biodiversity research or a related field; (2) knowledge of or at least interest in high-mountain floras, ideally in the flora of the European Alps or surrounding mountains (e.g. Carpathians); (3) experience in writing scientific publications; (4) strong statistical and programming skills (preferably in R and GIS software); (5) strong collaborative skills; and (6) fluency in English, at least at the B2 level. Prior experience with modelling species distributions is an asset.

Offer

The position is for three years, and, in accordance with the standards of the Austrian Science Fund, for 30 h / week (approximately 30,000 € gross salary per year, <https://www.fwf.ac.at/en/research-funding/personnel-costs/>). The remaining 10 hours are meant to be spent for work required to acquire the

academic degree. The successful candidate will be part of the University of Vienna's Doctoral School of Ecology and Evolution (<https://vds-ecology-evolution.univie.ac.at/>).

All positions include health and other social insurance according to Austrian laws.

Supervisors and collaborators

Stefan Dullinger is PI of the project and will supervise the successful candidate in collaboration with Harald Pauli and colleagues from the team of the GLORIA monitoring network (<https://www.gloria.ac.at/home>).

Please see <http://microclim.mountainresearch.at/> for an overview on the entire project team.

Place of employment

The main working place is the Department of Botany and Biodiversity Research at the University of Vienna. Field work will mainly be conducted in the Ötztal (Schrankogel and Obergurgl), Tyrol, and at Hochschwab, Styria. At the Department, the successful candidate will be part of the working group on Biodiversity Dynamics and Conservation. The work of the group is focused on ecological consequences of global environmental change, including climate change, land use change and biological invasions. Methods applied include field studies and experiments as well as macroecological analyses and modelling of species' distribution and population dynamics.

Starting date

The position shall be filled by 01/05/2022 at the latest.

Contact

If you are interested in this position, send a letter of motivation, a CV, including a list of your scientific presentations and publications, and the contact details of two reference persons to stefan.dullinger@univie.ac.at. Please, merge all submitted documents into a **single PDF** file and include your name in the file name. The **application deadline** is **16.01.2022**.

Further information

Please contact Stefan Dullinger (stefan.dullinger@univie.ac.at) if you need any further information.