

The Department of Forest- and Soil Sciences, Institute of Silviculture is currently seeking (subject to project funding) a

## **Postgraduate Research Associate Project employment** (Reference code: 166)

Extent of employment: 30 hours per week  
Duration of employment: 1<sup>st</sup> of October 2021, limited to 30<sup>th</sup> of September 2024

Workplace: 1190 Vienna, Peter-Jordan-Str. 82

Gross monthly salary and pay grade in terms of collective agreement for university staff (payable 14 times per year): B1, € 2.228,60

The research project EicheFit (Climate-smart oak forests: genetic adaptive potential of oak species, hybrids, seed sources and orchards), funded by the Austrian Forest Fund (Waldfonds), will investigate the genetic variability and drought stress tolerance of native and non-native oak species and provenances in Austria. In the framework of work package 4 (Northern red oak in Austria), genetic and genomic methods will be applied in order to examine the origin and genetic variation of northern red oak (*Quercus rubra* L.) populations in Austria and assess their suitability as a seed source for climate-smart forests.

For this project, we search a highly motivated research associate (without PhD) who will undertake both research and coordination activities. The project EicheFit will be conducted in cooperation with the Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW).

### **Responsibilities**

- Planning and implementation of leaf and seed collections in northern red oak stands
- Organisation and supervision of molecular genetic analyses in the lab (genotyping at marker loci), population genetic analysis of the data resulting from genotyping
- Contribution to the establishment and care of a progeny test, as well scientific supervision of the trial
- Conception and conduction of a genome-wide association study (GWAS; association between phenotype and genotype) based on DNA-sequences (from next-generation sequencing; NGS), phenotypic and physiological data
- Contribution to data management, project administration and work coordination with the partners
- Publication of the results in scientific journals and application-oriented media
- Planning and implementation of tendering and contracting for:
  - 1) Seed harvesting
  - 2) Genotyping by means of NGS, as well as
  - 3) Phenotyping of the northern red oak seedlings

### **Required skills and qualifications**

- Diploma degree in forest / environmental sciences, biology or other equivalent university degree
- Advanced knowledge in the research field of population genetics
- Advanced knowledge in statistics, data analysis and bioinformatics

- Experience in the use of statistical software packages (e.g. R)
- Willingness to work in field trips for several days
- Excellent knowledge of written and spoken English; a good knowledge of the German language is an advantage
- Teamwork and communication skills
- Driving licence of B class

### **Desirable skills and qualifications**

- Readiness to conduct a doctoral dissertation at the University of Natural Resources and Life Sciences (BOKU) Vienna
- Experience in population genetic analysis using suitable software packages
- Ability to deal with the Unix/Linux operating system
- Knowledge of computer programming languages (e.g. Perl, Python)
- Knowledge and experience in the field of forest reproductive material and forest genetics

Applications can be submitted until: 2<sup>nd</sup> of September 2021

University of Natural Resources and Life Sciences Vienna seeks to increase the number of its female faculty and staff members. Therefore qualified women are strongly encouraged to apply. In case of equal qualification, female candidates will be given preference unless reasons specific to an individual male candidate tilt the balance in his favour.

People with disabilities and appropriate qualifications are specifically encouraged to apply.

Please send your job application incl.

- motivation letter
- CV
- Copies of diplomas and certificates

to Personnel department, University of Natural Resources and Life Sciences, Peter-Jordan-Straße 70, 1190 Vienna; E-Mail: [kerstin.buchmueller@boku.ac.at](mailto:kerstin.buchmueller@boku.ac.at). (**Reference code: 166**)

We regret that we cannot reimburse applicants travel and lodging expenses incurred as part of the selection and hiring process.

**[www.boku.ac.at](http://www.boku.ac.at)**