

Dendroecological perspectives on temperate mountain forest dynamics of central, east and south-east Europe

Type of employment: Initial two-year post-doc term appointment that may develop into a permanent position
Working hours: Full time
First day of employment: fall 2022
Number of positions: 1
Location: Prague, Czech Republic

Czech University of Life Sciences in Prague, Faculty of Forestry and Wood Sciences, Department of Forest Ecology, <https://www.remoteforests.org/>

We are seeking a postdoctoral researcher to join our team within the Forest Dynamics Lab of the Department of Forest Ecology. The project is titled "Disturbance regimes as drivers of structural variability, carbon dynamics and biodiversity at multiple geographic scales in primary mountain forests of central and eastern Europe."

Disturbance plays a dominant role in shaping the structure and function of forest ecosystems, but quantification of disturbance effects is typically limited by missing information on a location's history and a region's disturbance regime. Our lab uses tree-ring data to reconstruct site histories, providing insight into how forests recover from disturbances of variable severity. We are particularly interested in linking patterns in the severity and frequencies of disturbance to variation in tree size structure, carbon dynamics and biodiversity.

This region of Europe still has extensive remnants of primary mountain forests, particularly in the Carpathian and Dinaric mountain ranges. The large sub-continental region covered by the current research project includes the two dominant forest types in Europe, Norway spruce and mixed broad-leaf forests dominated by European beech.

The project will link biomass and biodiversity indicators to disturbance histories in primary forests that permit such direct contrasts of endogenous and exogenous drivers. The project will therefore provide novel insights on whether the predictions of present biomass and forest biodiversity indicators can be improved by more accurately partitioning the relative importance of exogenous and endogenous drivers. At the same time, this project will be the first to reconstruct biomass trends in large patches of primary forests in central and eastern Europe. Currently, our research is organized into interlinked projects quantifying the main drivers of forest dynamics, biomass and biodiversity indicators.

Project 1. Drivers of disturbance dynamics
Project 2. Tree growth history and forest biomass
Project 3. Stand structural diversity and biodiversity indicators

The successful candidate will have access to a completed database of 20 000 tree cores collected from 1000 forest plots distributed throughout remaining patches of old-growth forest in central and eastern Europe. Plots are distributed in a hierarchical design (i.e. plots nested within stands, within landscapes throughout the Carpathian mountain range). The aim of the design is to partition the effects of disturbance at a variety of scales, from local variation among neighboring locations due to smaller-scale gap dynamics to more extreme events impacting entire landscapes.

The selected candidate will be expected to lead projects using available tree-ring data to link tree growth, disturbances and biomass dynamics to abiotic and biotic factors. Responsibilities will predominantly be data analysis and manuscript preparation. Opportunities to visit some of our

impressive field locations will be available, but the candidate is not expected to participate in data collection.

We are a young, energetic, international research team and have close collaborations with foreign partners. Opportunities exist for exchange visits and meetings. To obtain more information about our team, visit <http://scholar.google.cz/citations?user=DaBJTM4AAAAJ> or www.remoteforests.org

Applicants should have a PhD (at time of hire) in environmental or related sciences (biology, ecology, geography, forest sciences). English communication and writing skills at the level of a native speaker are essential.

Salary: 22000 to 26000 Euro per year depending on previous experience. In addition, annual bonuses are awarded contingent on performance. Estimated cost of living ~1300 Euro per month.

Location: Prague is a tourist destination and desirable place to live. The city has an international cosmopolitan population and a friendly, laid-back atmosphere. Many locals speak English. Cost of living is very affordable relative to other large international cities in Europe or North America. The city is vibrant with many cultural offerings and well preserved, historical downtown neighborhoods. Prague is dense and very walkable, but also has a modern, efficient transportation system. Located in the center of Europe, access to other major European cities and mountain ski areas is convenient and inexpensive.

Applications: Please provide a CV listing skills, qualifications and publication record. Applicants should provide a short cover letter outlining why they believe themselves to be suitable for this position. Applicants should include contact information for two references, one being the current or most recent employer.

Please email application materials to:

Miroslav Svoboda

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