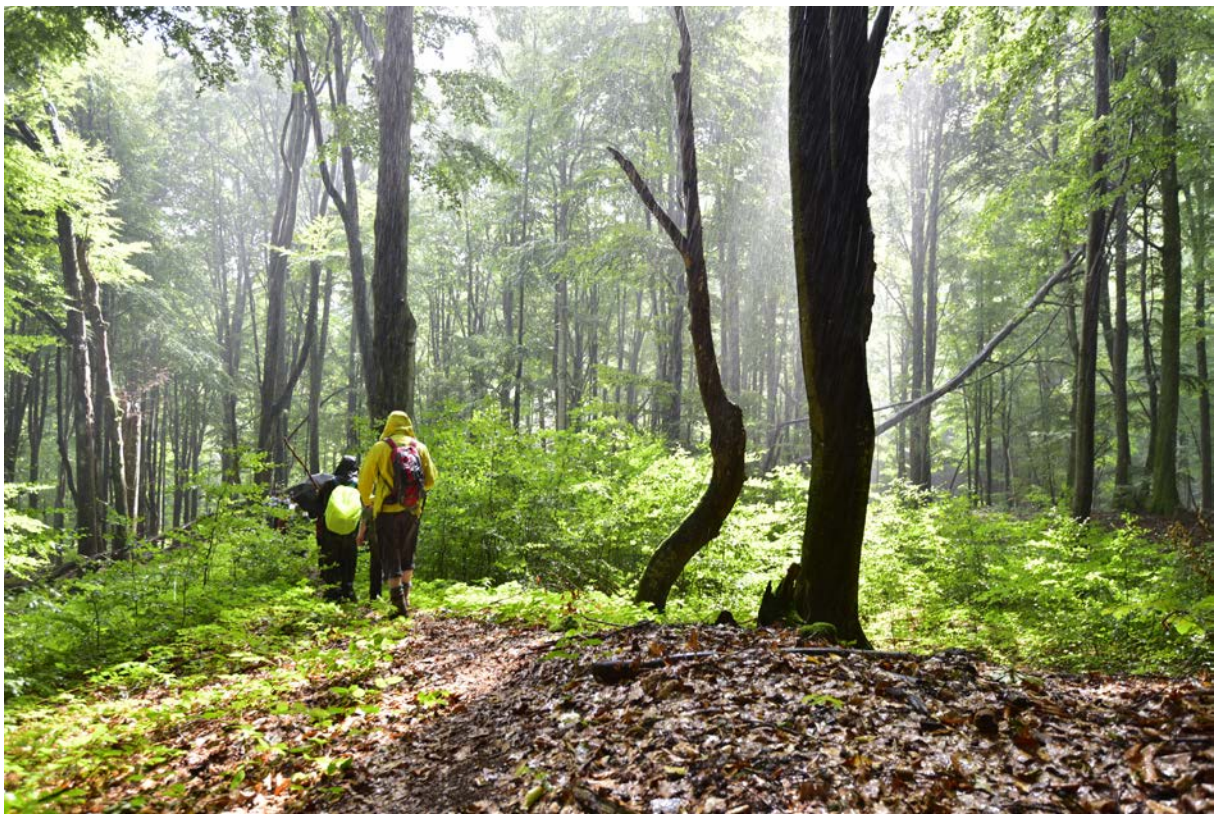

Call for 4 forest-related PhD Grants for Ukrainian students

Version 21 June 2021

Do forest ecosystems and their biodiversity fascinate you?

Are you curious to understand their functioning?

Could the next step in your scientific career be a PhD at a Ukrainian university?

Would you like to build a personal international network?

If your answer to these questions is yes, here is an opportunity for you.

The Swiss Federal Institute for Forest, Snow and Landscape Research WSL (www.wsl.ch) has been cooperating with Ukrainian research institutions and universities since 1999. In 2016, the Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences HAFL (www.bfh.ch/hafl/en/) has joined this cooperation.

Within the project "Cooperation in Forest Research Ukraine-Switzerland: Capacity building for improved forest conservation and management", financed by the Swiss State Secretariat for Education, Research and Innovation (SERI), we offer four grants for Ukrainian PhD students.

This call is directed to graduates of Ukrainian universities planning to start their scientific career with a doctoral thesis after completing their master's program. The topic of the thesis must be within the thematic fields of forest ecology and forest biodiversity.

Goal of the funding scheme

The main goal of this funding scheme is to motivate young Ukrainian students to pursue a scientific career and to enable them to conduct doctoral studies in close collaboration with and under co-supervision of Swiss and Ukrainian scientists. This will foster their international network and thus opportunities for a scientific career.

Requirements for potential applicants

Potential applicants

- must be eligible to enroll in a PhD program of a Ukrainian university in the thematic fields of this call
- have a good command of English (see note below)
- must not be older than 30 years

We are aware of the fact that few Ukrainian students are proficient in English. We therefore explicitly encourage also students who need additional language training to apply. We expect students to reach a good command of English within the first year of the PhD project.

Fields of the four PhD theses

- 2 PhDs in forest ecology and silviculture
- 2 PhDs in forest biodiversity and entomology

The thematic fields are described in the annex, but we expect the applicants to actively contribute to the formulation of their PhD project.

Application procedure

Applicants need to take the following steps:

Step	**Date**
Contact a Ukrainian supervisor of the PhD thesis	5 July 2021
Send a short letter of motivation (up to 500 words) and a CV (max. 2 pages) to peter.brang@wsl.ch, with cc: to the foreseen supervisors in Ukraine and Switzerland	10 July 2021
Discuss your interest in a zoom call with the Ukrainian and the Swiss supervisor	12-15 July 2021
Send the following documents to peter.brang@wsl.ch, with cc: to the foreseen supervisors in Ukraine and Switzerland: 1. an updated letter of motivation 2. your CV 3. a statement (max. 500 words) about potential topic(s) of your PhD project 4. a letter of the Ukrainian supervisor in which he/she agrees to act as main supervisor of the thesis and to cooperate with the Swiss co-supervisor at WSL or HAFL	31 July
Feedback to your application and notice of acceptance	10 August
Hand in the application for enrollment at your University, according to its regulations	17-25 August

Additional online discussions with the foreseen Swiss supervisor or with Peter Brang are possible on request.

Supervision and training period in Switzerland

The grant includes the co-supervision by a scientist in Switzerland (see list of potential co-supervisors in annex). This co-supervisor will help to develop the research proposal, make sure the applicant has a productive training period in Switzerland and assist in method development, statistical analysis and paper writing. The goal of this co-supervision is to train students so that they reach a high level of scientific competence.

To foster training, the 4 PhD students and additional postdocs and master students will form a group with regular exchange and training sessions.

Amount of funding

The funding covers

- A monthly salary of 350 Euro (4 years duration), which will be converted to UAH and paid through the student's home university (with deductions of social insurance and taxes)
- Participation fees, travel costs, board and lodging for 1-2 international scientific conferences
- A 6 month stay at WSL/HAFL, with a remuneration of about 2000 CHF and additional coverage of rent of a room, travel costs and administrative fees

- All expenses for the necessary field work and research material

Evaluation procedure and criteria

Evaluation of the proposals submitted will start after the submission deadline of 31 July. All proposals will be evaluated by the team of supervisors (see annex). Only complete proposals of applicants that meet the requirements listed above will be evaluated.

The evaluation criteria are:

- Professional qualifications of the applicants
- Credible motivation of the applicant to start a career in science
- Skills of the applicant which are needed for the PhD
- Overlap between the interests of the applicants and the proposed projects (see annex)

The evaluation team may ask for additional information or for a Skype or Zoom interview with the applicants.

Reporting

Successful applicants and their co-supervisors at WSL are responsible to provide a progress report of max. 1 page to Dr. Peter Brang once per year (30.11.). This report includes a short description of the work performed during the last months and compares the progress to the initial schedule.

Successful applicants are expected to give a talk during their stay at WSL about the progress of their work.

Communication

This document will be made available on the website of the cooperation project, and distributed by the project partners.

Birmensdorf, Switzerland, 21 June 2021**Annex**

Annex 1: Supervisors in Switzerland

Dr. Peter Brang, WSL, peter.brang@wsl.ch, topics forest ecology and silviculture

Jonas Stillhard, WSL, jonas.stillhard@wsl.ch, topic forest ecology

Prof. Dr. Thibault Lachat, HAFL, thibault.lachat@bfh.ch, topic forest biodiversity and entomology

Prof. Dr. Martin Gossner, WSL/ETH, martin.gossner@wsl.ch, topics forest biodiversity and entomology

Dr. Martina Hobi, WSL, martina.hobi@wsl.ch, topics forest ecology and remote sensing

Annex 2: Thematic framework of the theses

Topics 1 and 2:

Structure and dynamics of primary and secondary Norway spruce forests and of primary beech forests in the Ukrainian Carpathians

The thematic field of these 2 theses is so far only vaguely defined, and in addition to the topics described below, other topics in the field of forest dynamics and silviculture can be proposed, but need to be discussed with the supervisors in Switzerland. Norway spruce is naturally widespread in the Ukrainian Carpathians. However, only small areas of primary subalpine spruce forests remain, while many spruce forests are secondary stands, which originate from large-scale cutting of former primary mixed mountain forests. The theses could address forest dynamics in the primary forests using existing permanent plots and dendroecological methods, the factors determining the vulnerability of these stands to disturbance and the natural dispersal and establishment of admixed species like sycamore maple, European beech and rowan.

It is also possible to complement recent studies in the largest beech primary forest in Uholka-Shyrokiy Luh, with a focus on the competitive behavior of beech, sessile oak, sycamore and Norway maple and wych elm in the pole and timber stage. We would like to gain a better understanding of the origin of isolated individuals of these species in a beech matrix.

Topics 3 and 4:

Importance of primeval forest for biodiversity conservation and for maintaining important ecosystem functions at different spatial scales

Primeval forests are known as natural ecosystems harboring intact species communities. The remnants of such forests are therefore unique refuges and worthy of conservation and can provide valuable information about the dynamics of forest structure, diversity and species interactions and related processes at different spatial and temporal scales. However, while the dynamics of primeval forests and how they are affected by management are still poorly understood, they are crucial to design effective management strategies. In this project, we aim to better understand the scale-dependencies of species interactions and related ecosystem functions in different habitats and substrates such as dead wood, leaf litter, and tree microhabitats (water-filled tree holes, fruiting bodies of saprophytic fungi). Whereas biodiversity studies in primeval forests were so far mainly based on correlative ecology, we will use experimental approaches in the field to increase our mechanistic understanding. We will generate an added value by linking our study design to the existing network of sampling plots in the primeval forest of Uholka-Shyrokyi Luh, which provides detailed information on the spatial and temporal variation of structural forest properties. In addition, we will install control plots along a gradient of management intensity to discover differences between managed and unmanaged forests.