

PROGRAM

THE HIDDEN HALF OF ECOSYSTEMS 22 - 26 September 2025

The **5-day school** aimed at MENDELU, CZ and international students provides a comprehensive overview on **woody roots** and their **fungal symbionts**. Experts will give **theoretical insight** into the state-of-the-art in root and mycorrhizal research and participants **practice techniques** from field sampling, root imaging, to morphotyping of ectomycorrhiza and molecular analyses of soil fungal communities (incl. Bioinformatics).

The in-person course will be held at the **Mendel University in Brno**, and the **University enterprise Masaryk Forest in Křtiny**. The free-to-attend summer school is designed for individuals interested in the hidden half of forest ecosystems, whether they are beginners or seeking to enhance their knowledge on root and mycorrhizal traits, ecosystem functioning below ground and methodology.

Program (Lectures and Seminar)

- Introduction to Root Systems
- Mycorrhizal Biodiversity and Function
- Root-Mycorrhizal Interactions
- Abiotic Effects on Root Systems and Mycorrhizae
- Roots and Mycorrhizae in Ecosystem Functioning

Program (Forest, Laboratory, Computer lab)

- Soil Sampling, Sample Preparation
- Root Classification and Imaging (Anatomy and Morphological Traits)
- Morphotyping of Ectomycorrhizal Root Tips (Imaging)
- Genetic Analyses of Fungal Soil Diversity (DNA extraction)
- Bioinformatic analyses of OTUs

Assessment Methods

- Participation in practical sessions, and continuous assessment on the lecture content

	Monday	Tuesday	Wednesday	Thursday	Friday
8-9		Field			
9-10:30	Welcome 10 am	Field	Lab Intro, Lab	Bioinformatics	Lab
10:30-12	Lecture 1	Field	Lab	Bioinformatics	Lab
Lunch	<i>Mensa</i>	<i>Sandwich</i>	<i>Mensa</i>	<i>Mensa</i>	<i>Mensa</i>
12:30-14	Lecture 2	Field	Lab	Bioinformatics	Lecture 5
14-15:30	Lecture 3	Field	Lab	Bioinformatics	Recap, Discussion
Coffee break		-			-
16-17:30	Lecture 4	Field / Lab	Lab	Lab	
~19		<i>Social evening</i>			

