



EXCELLENTIA
Forest Ecosystem Research



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ERA Chair: Striving for Excellence in the Forest Ecosystem Research

This is the 4st newsletter of the EXCELLENTIA project, WHERE YOU CAN:

- get information on the highlights of the first half of 2025
- learn more on the project activities, scientific results and upcoming events
- meet Phd students involved in the EXCELLENTIA research programme

CHALLENGES IN FOREST ECOLOGY - FFWT SEMINAR SERIES

EXCELLENTIA continued on **CHALLENGES IN FOREST ECOLOGY** – **FFWT Seminar Series** with leading experts presenting and discussing the latest findings in forest ecology. Daniel Binkley (Colorado State University) gave an interesting lecture on spatial ecology of rotational and continuous cover forestry in boreal landscapes, John Healey (Bangor University) shared the results of his research on spatial and temporal variation in Amazon deforestation and forest recovery in context of the climate and biodiversity, and Pauline Grierson (University of Western Australia) gave a talk about Karri (Eucalyptus diversicolor) forests

If you missed the lectures see the links to video recordings and the invitation to future lectures bellow.

SEMINAR SERIES'S VIDEO RECORDINGS

INVITATION TO WINTER SEMESTER SEMINAR SERIES

THE YOUNG BLOOD

The FER group also includes 4 PhD students, mainly enrolled in the Forest Ecology study programme funded by the FFWT MENDELU.



Daria Ovsiannikova - The function of the microbial community in biodiverse forests

The thesis aims to develop an understanding of the importance of ectomycorrhizal and saprotrophic fungal communities in European forest biomes, and the effects on biogeochemical cycles. The main hypotheses are: the ectomycorrhizal community controls the activity of the saprotrophic community in forest soils, and subsequently affects the turnover of soil organic matter.

Tamara Vukanović - Interaction of mycorrhizas and soil-borne root pathogens

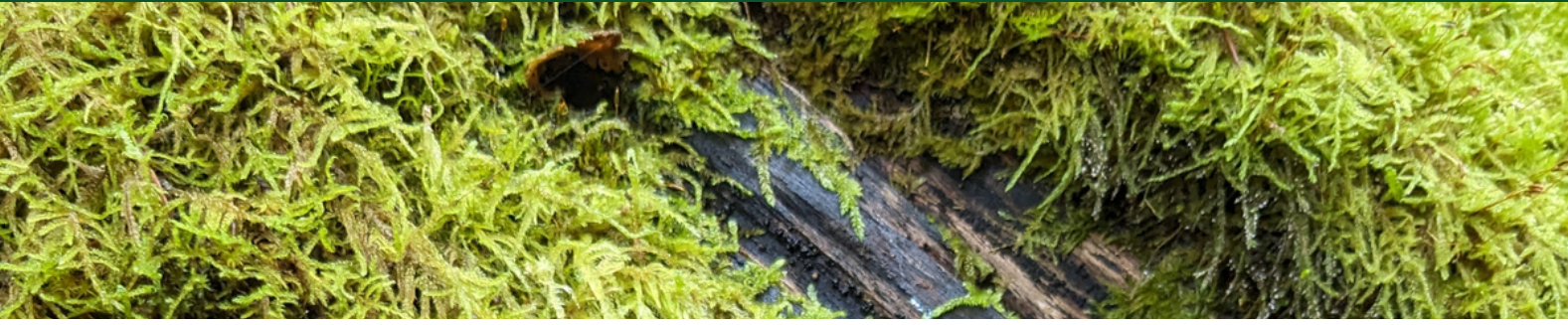
This dissertation investigates the critical interactions between mycorrhizal fungi and soil-borne pathogens in European forest biomes, focusing on their implications for biogeochemical cycles. The study hypothesises that colonisation of tree roots by ectomycorrhizal (EM) and arbuscular mycorrhizal (AM) fungi enhances tree resistance to soil-borne pathogens. S

Kateřina Kováčiková - Optimisation of methodologies for virus elimination in forest pathogens and examination of the effect of the virus absence and presence on their hosts

This PhD thesis addresses the largely unexplored relationship between the soilborne pathogen *Phytophthora cinnamomi* and the RNA viruses it harbours. The thesis aims to determine how these viral infections influence the virulence of *P. cinnamomi*.

Ilija Bićanin - The influence of tree diversity and forest management on ecosystem services below ground

This PhD thesis investigates how tree species identity, functional diversity, and forest management practices influence belowground ecosystem functioning, with a particular focus on fine-root ecology, mycorrhizal associations, and soil carbon cycling. Overall, the research will advance mechanistic understanding of belowground processes and provide evidence-based guidance for managing resilient, mixed-species forests under climate change.



KNOWLEDGE TRANSFER

Which tree species fix the most carbon?

To answer this important question, an international consortium of scientists, coordinated by INRAE and Bordeaux Sciences Agro, studied the growth of 223 tree species planted in 160 experimental forests in different parts of the world. They found that conservative species, which are the most efficient at conserving their resources (nutrients, water, energy), generally grow faster in forests. The study, involving ERA Chair Prof. Douglas Godbold from the Faculty of Forestry and Wood Technology, Mendel University in Brno, has been published in Nature and provides valuable insights for forest managers.

Congratulations to all the authors!

More information

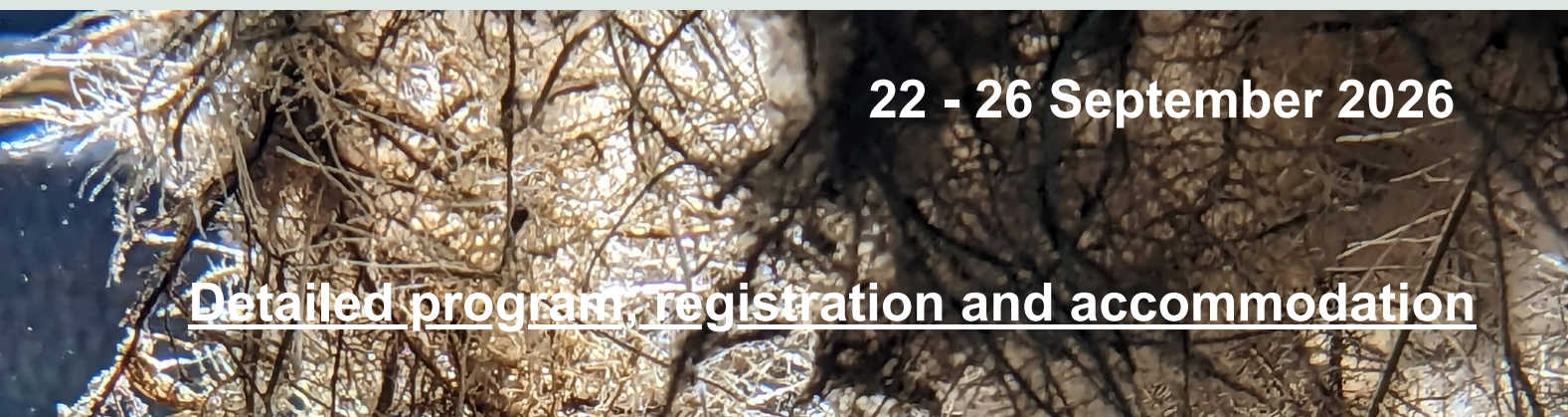
WRIGHT, I. J. et al. (2004): The world-wide leaf economics spectrum. Nature, 428, s. 821–827, doi: 10.1038/nature02403

SUMMER SCHOOL “THE HIDDEN HALF OF ECOSYSTEMS”

Are you interested to learn more about the function of the root system and identify the anatomical, morphological, and physiological parameters of roots and their distribution in space and time that underlie resource uptake and more....?

Come to Brno and participate in 5-day course!

Registration deadline 15 August 2025 (or until fully booked)



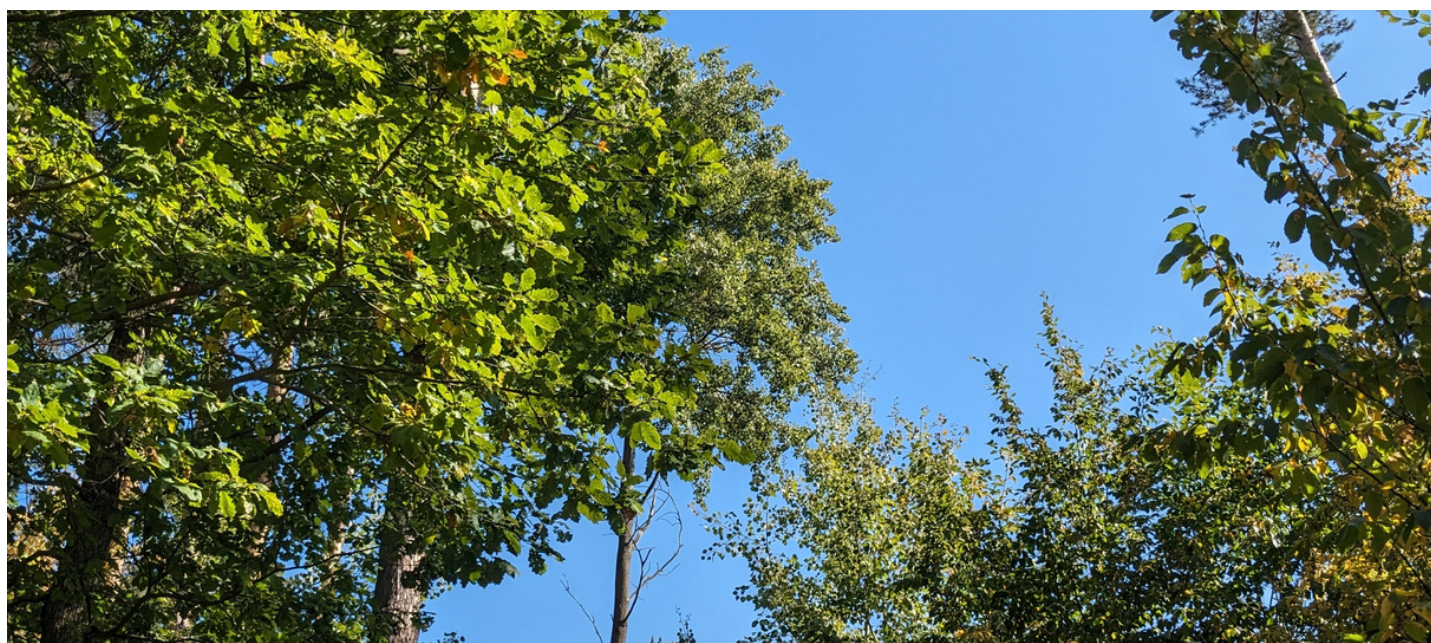
22 - 26 September 2026

Detailed program, registration and accommodation

Please get in touch with Mrs Alena Šamonilová, alena.samonilova@mendelu.cz if you have questions or would like to suggest a seminar topic / invite a guest speaker on topics related to forest diversity and functioning above and below ground.

EXCELLENTIA TEAM WISHES YOU A NICE SUMMERTIME

WITH A LOT TIME SPENT IN THE FOREST



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