

FINAL PROGRAM



Woody Roots 9

3-5 June 2026
Como, Italy

June 3 (Day 1)

16.00

Open registration and poster setup

18:00

Welcome aperitif

June 4 (Day 2)

9:00

- 10 minutes - Institutional Welcome (Rector of the University of Insubria and Director of the Department of Biotechnology and Life Science)
- 5 minutes – Opening from Antonello Montagnoli
- 10 minutes - A brief historical overview of the Woody Root Symposium (Douglas Godbold)

9:30

Invited Speaker - *Boris Rewald* - Acclimating to Diversity? The Plasticity of Woody Roots and Their Symbionts Under Competition.

This speech is in blended mode and is part of the Seminar Series – EXCELLENTIA „CHALLENGES IN FOREST ECOLOGY“ organized by the Faculty of Forestry and Wood Technology (FFWT) at Mendel University in Brno.

Join Zoom Meeting

<https://cesnet.zoom.us/j/91212775978?pwd=PSXMBTEKMnflEeGT77CEffWFP0st8pl.1>

Meeting chat link

<https://cesnet.zoom.us/launch/jc/91212775978>

Meeting ID: 912 1277 5978

Passcode: 969562

10:00

Session 1 Part 1. Root Traits and Ecological Strategies

(Luke McCormack, chairperson)

- Oral 1 **10:00-10:15** *Monique Weemstra (Wageningen University)* Unique root trait strategies of (sub)tropical woody species expand the root economics space
- Oral 2 **10:15-10:30** *Alex Ceriani (University of Insubria)* Linking fine root traits to phytoremediation: development of *Salix aquatica grandis*' fine roots in a multi-contaminated technosol
- Oral 3 **10:45-11:00** *Zeqing Ma (Chinese Academy of Sciences)* Root nutrient acquisition strategies and forest productivity
- Oral 4 **10:30-10:45** *Matteo Chittò (University of Milan)* Root functional traits and microbial diversity following glacier retreat

11:00-12:00 *Coffee break + poster session*

June 4 (Day 2)

12:00

Session 1 Part 2. Root Traits and Ecological Strategies

(Douglas Godbold, chairperson)

Oral 5 **12:00-12:15** *Emily Palm* (University of Milan-Bicocca) Cu stimulates Zn accumulation but reduces biomass of *Salix matsudana* L. under heterogeneous supply

Oral 6 **12:15-12:30** *Anvar Sanaei* (Leipzig University) On the relationship between root economics and plant hydraulic traits

Oral 7 **12:30-12:45** *Michele Dalle Fratte* (University of Insubria) Intra-specific trait coordination of above- and below-ground plant economics in lentisk (*Pistacia lentiscus* L.) is driven by land cover

Oral 8 **12:45-13:00** *Hongbing Wang* (Shanghai Normal University) Coupling of root-shoot biomass allocation and sap flow azimuthal variation in *Cinnamomum camphora* in response to asymmetric growth

13:00-14:30 *Light lunch + poster session*

14:30

Session 2. Roots and Whole-Plant Processes

(Ivika Ostonen, chairperson)

Oral 9 **14:30-14:45** *Constanza Vera* (Centre national de la recherche scientifique, CNRS) Trade-offs between above- and belowground wood traits in an evergreen old-growth North Patagonian rainforest in southern Chile

Oral 10 **14:45-15:00** *Douglas Godbold* (Mendel University in Brno) Above and belowground phenology of four tree species in mixed forests and monospecific stands

Oral 11 **15:00-15:15** *Monica Rothwell* (Université catholique de Louvain)
Seasonal dynamics of osmotic potential and associated osmolytes in leaves and roots
of forestry trees in response to water limitation.

Oral 12 **15:15-15:30** *Meghna Krishnadas* (TIFR National Centre for
Biological Sciences) Co-ordination of leaf and root traits, corresponding to
rhizosphere mycobiome and phosphorus acquisition strategies, explain seedling
performance across a soil nitrogen gradient

15:30-16:30 *Coffee break + poster session + Visit to the Sant'Abbondio Church (1st tour)*

16:30

Session 3. Plant Resilience: Soil Health and Mycorrhizae Facilitation

(Barbara Hawkins, chairperson)

Oral 13 **16:30-16:45** *Burenjargal Otgonsuren* (Mendel University in Brno)
Ectomycorrhizal community structure and fine root biomass in forest stands across
Mongolia.

Oral 14 **16:45-17:00** *Mattia Terzagli* (University of Bari Aldo Moro)
Contrasting root and growth responses to untreated and bio-activated biochar in
degraded soils: evidence from a forest and an agro-food species

Oral 15 **17:00-17:15** *Barbara Hawkins* (University of Victoria) Interaction
of mycorrhizae and drought affects root exudate production and health of *Thuja* and
Acer

Oral 16 **17:15-17:30** *Joanna Mucha* (Institute of Dendrology Polish
Academy of Sciences) Contrasting root strategies of Scots pine and sessile oak
along vertical soil gradients

Social dinner at 19.00 (see details in the specific tab)

June 5 (Day 3)

9:00

Invited speaker - *Luke McCormack* - Fine roots in changing environments: from wide open spaces to closed concrete places.

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Passcode: 371756

9:30

Session 4. Plant Production in Changing Environments

(Martin Lukac, chairperson)

Oral 17 **9:30-9:45** *Cosmin Filipescu (Canadian Forest Service)* Root characteristics mediate response mechanisms to water stress in Douglas-fir and western redcedar seedlings: implications for plant productivity and resilience

Oral 18 **9:45-10:00** *Pedro Villa-Salvador (Universidad de Alcalá)* Root growth dynamics during the wet season in functionally different Mediterranean woody species. The ecological basis for deciding optimal planting windows

Oral 19 **10:00-10:15** *Marili Sell (University of Tartu)* Linking tree physiology, carbon fluxes, and root growth dynamics under constraining soil water and atmospheric treatments

Oral 20 **10:15-10:30** *Kerstin Pierick (University of Göttingen)* Deep roots matter – hydraulic efficiency increases with soil depth in European beech across a climatic gradient in Central Europe

10:30-11:30 *Coffee break + poster session*

June 5 (Day 3)

11:30

Session 5. Root–Soil–Ecosystem Interactions

(Pauline Grierson, chairperson)

Oral 21 **11:30-11:45** *Aważ Mohamed (University of Hamburg)* Drought and phosphorus limitation reshape root exudate chemistry in ectomycorrhizal European beech

Oral 22 **11:45-12:00** *Yasuhiro Hirano (Nagoya University)* Are root system traits related to aboveground traits of *Pinus thunbergia* in a coastal forest?

Oral 23 **12:00-12:15** *Alexandra Anthofer (TUD Dresden University of Technology)* Above- and belowground morphology and dynamics of European beech stands (*Fagus sylvatica* L.) under water limitations

Oral 24 **12:15-12:30** *Thuy Quynh Kieu (University of Göttingen)* Water foraging strategies of *Quercus petraea* roots under heterogeneous soil moisture: a split chamber experiment

12:30-14:00 *Light lunch + Visit to the Sant'Abbondio Church (2nd tour) + poster session*

14:00

Session 6 Part 1. Innovations for Root Research and Sustainable Ecosystem Management

(Yasuhiro Hirano, chairperson)

Oral 25 **14:00-14:15** *Gabriella Sferra (University of Molise)* Enhancing woody root research through AI-assisted species identification and vitality classification of fine roots.

Oral 26 **14:15-14:30** *Tetsuto Sugai (University of Tartu)* Comparisons of 10 experiments highlighting the complex technical factors driving significant variations in tree root exudates

Oral 27 **14:30-14:45** *Michael Renton (The University of Western Australia)* Getting to the root of evolutionary trade-offs in below-ground foraging and architecture with computational simulation

Oral 28 **14:45-15:00** *Saki Fujita (Forest and Forest Products Research Institute)* Estimating stress distribution of *Rhizophora mucronata* prop roots by pulling tests and strain gauges

15:00-16:00 *Coffee break + Visit to the Sant'Abbondio Church (3rd tour) + poster session*

June 5 (Day 3)

16:00

Session 6 Part 2. Innovations for Root Research and Sustainable Ecosystem Management

(Antonello Montagnoli, chairperson)

Oral 29 **16:00-16:15** *Hinata Yoshida (Nagoya University)* Site-adaptive automated image analysis using transfer learning for quantifying fine-root dynamics in a *Chamaecyparis obtusa* forest

Oral 30 **16:15-16:30** *Jonathan Barichivic (Centre national de la recherche scientifique, CNRS)* DENDROMET: Monitoring the pulse of the hidden half across global forest biomes

Oral 31 **16:30-16:45** *Yamuna Gianbastiani (Bluebiloba Startup Innovativa SRL)* Integrated non-invasive investigation of tree root systems combining geophysical imaging, laser interferometry and biomechanical modelling

Oral 32 **16:45-17:00** *Marian Klaus (University of Tartu)* Beyond annual averages: Near-real-time measurements of fine root dynamics reveal hidden growth dynamics of absorptive roots

Oral 33 **17:00-17:15** *Veronica Giorgi (Università Politecnica delle Marche)* Coordinated responses of roots and aerial organs to water stress in olive trees monitored by continuous proximal sensing

17:15

Closing and best poster and best picture

June 6 (Day 4)

Field trip

07:30

Departure from the conference venue (Sant'Abbondio)
Light lunch included

For details on the field trip, look at the conference website

17:30

Return to the conference venue