

# 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.

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** **Yu Qin (Northeast Forestry University)** Effects of tree age and season on fine root traits across root orders in *Pinus koraiensis*
- Oral 3      **10:30-10:45** **Matteo Chittò (University of Milan)** Root functional traits and microbial diversity following glacier retreat
- Oral 4      **10:45-11:00** **Zeqing Ma (Chinese Academy of Sciences)** Root nutrient acquisition strategies and forest productivity

**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.

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** *Mohamed Awaz* (**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      **12:30-12:45** *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      **12:45-13:00** *Thuy Quynh Kieu* (**University of Göttingen**) Water foraging strategies of *Quercus petraea* roots under heterogeneous soil moisture: a split chamber experiment

**13:00-14:30** *Light lunch + Visit to the Sant'Abbondio Church (2nd tour) + poster session*

14:30

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

(Yasuhiro Hirano, chairperson)

Oral 25      **14:30-14:45** *Gabriella Sferra* (**University of Molise**) Enhancing woody root research through AI-assisted species identification and vitality classification of fine roots.

Oral 26      **14:45-15:00** *Tetsuto Sugai* (Institute of Ecology and Earth Sciences) Comparisons of 10 experiments highlighting the complex technical factors driving significant variations in tree root exudates

Oral 27      **15:00-15:15** *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      **15:15-15:30** *Saki Fujita* (Forest and Forest Products Research Institute) Estimating stress distribution of *Rhizophora mucronata* prop roots by pulling tests and strain gauges

**15:30-16:30** *Coffee break + Visit to the Sant'Abbondio Church (3rd tour) + poster session*

## June 5 (Day 3)

16:30

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

(Antonello Montagnoli, chairperson)

Oral 29      **16:30-16:45** *Hinata Yoshida (Nagoya University)* Site-adaptive automated image analysis using transfer learning for quantifying fine-root dynamics in a *Chamaecyparis obtusa* forest

Oral 30      **16:45-17:00** *Jonathan Barichivic (Centre national de la recherche scientifique, CNRS)* DENDROMET: Monitoring the pulse of the hidden half across global forest biomes

Oral 31      **17:00-17:15** *Yamuna Gianbastiani (Bluebiloba Startup Innovativa SRL)* Integrated non-invasive investigation of tree root systems combining geophysical imaging, laser interferometry and biomechanical modelling

Oral 32      **17:15-17:30** *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      **17:30-17:45** *Veronica Giorgi (Università Politecnica delle Marche)* Coordinated responses of roots and aerial organs to water stress in olive trees monitored by continuous proximal sensing

17:45

**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