

Integrative Diversity of Forest Ecosystems

EVOLTREE-FORGENIUS Conference

18 – 21 November 2025

CSIC, Madrid, Spain

Book of Abstracts



Short program

Time (CET)	Tuesday 18.10.2025	Wednesday 19.10.2025	Thursday 20.10.2025	Friday 21.10.2025
09:00-13:00	FORGENIUS ExCom General Assembly	Session 2: Forest Adaptation: Improving Resilience to Biotic and Abiotic Pressures	Session 3: Navigating Multiple Global Change Pressures: The Role of Phenotypic Variability	Session 5: Prioritising forest conservation through genetic diversity
13:00-14:00	Lunch break	Lunch break	Lunch break	Lunch break
	Welcome			
14:00-18:00	Session 1: New tools for science to reach practise	Field trip	Session 4: Breeding for Resilience: Integrating Novel Phenotyping & Genomics for Urgent Adaptive Solutions	EVOLTREE Governing board
18:00-19:00	Poster session S1+S2		Poster session S3+S4+S5	
		19:00-22:00 Social dinner		

Session 1 - New Tools for Science to Reach practice

Tuesday 18 November 13:30-17:00

Chair: Mari Rusanen, Natural Resources Institute Finland (Luke), Helsinki, Finland

Oral presentations

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| 14:30 | Keynote - David O'Brien
Bridging the gaps between science, policy and practice |
| 15:15 | Michele Bozzano
The European Information System on Forest Genetic Resources (EUFGIS): A transnational tool for genetic conservation and policy support |
| 15:45 | van Moorsel Sofia
Using a planted tree biodiversity experiment to validate remote sensing of tree species |
| 16:00 | Coffee break |
| 16:30 | Neophytou Charalambos
Assisted Gene Flow for climate-smart forests: the gap between research and policy in Europe |
| 16:45 | Chludil David
Pollen-based assisted migration |
| 17:00 | Rellstab Christian
Lifting borders: The potential role of hybridization and adaptive introgression in drought resilience of mixed stands of European white oaks (<i>Quercus</i> spp.) |
| 17:15 | Blanc-Jolivet Céline
How can genomic data be useful for the timber market? |
| 17:30 | Gugerli Felix
Multifaceted tools for reaching out to conservation practitioners through teaching, infographics, and visualization of data on genetic diversity |
| 17:45 | Flash Poster session |

Session 2 - Forest Adaptation: Improving Resilience to Biotic and Abiotic Pressures

Wednesday 19 November 09:00-13:00

Chair: Marcela van Loo, Austrian Research Centre for Forests, Vienna, Austria

Oral presentations

- 9:00 **Keynote - Silvia Matesanz**
Phenotypic plasticity and adaptive evolution in Mediterranean gypsum
endemics: insights into climate change response
- 09:45 **Stejskal Jan**
Hyperspectral detection of genetic variation in Scots pine (*Pinus sylvestris*
L.): implications for forest resilience across environmental gradients
- 10:00 **Muhammad Ahmad**
Natural variation in drought sensitivity and associated metabolic
adaptations in European black pine (*Pinus nigra* Arnold s.l.): A step toward
integrated provenance selection
- 10:15 **Rezaie Negar**
Does intra-population genetic variability enhance productivity and drought
resistance in silver fir?
- 10:30 **Ramires Marcelo**
Mimicking bark beetle attacks: field and phytotron insights into Norway
spruce defense responses
- 10:45 Coffee break
- 11:15 **González-Martínez Santiago**
Adaptation to Climate in European Conifers: Lessons Learned
- 11:30 **David-Schwartz Rakefet**
Leveraging interspecific hybridization for drought adaptation in forest trees
- 11:45 **Garibay-Hernández Adriana**
Analysis of in situ performance of the European Beech (*Fagus sylvatica* L.)
through the lens of leaf proteomics
- 12:00 **Budde Katharina**
Loss of genetic diversity and signs of selection in response to ash dieback in
natural populations of *Fraxinus excelsior*
- 12:15 **Kremer Antoine - online**
Temporal genetic changes and evolutionary rates at contemporary
timeframes in oaks
- 12:30 **Flash Poster session**

Session 3 - Navigating Multiple Global Change Pressures: The Role of Phenotypic Variability

Thursday 20 November 09:00-13:00

Chair: Maurizio Mencuccini, Center for Ecological Research and Forestry Application - CREAM, Barcelona, Spain

Oral presentations

- 9:00 **Keynote - Mantova Marylou**
In the era of change: when genetics, physiology and modelling collide for more resilient forests
- 09:45 **Ramirez-Valiente Jose Alberto**
Plastic and evolutionary responses in hydraulic traits in a context of global change
- 10:00 **Tobias Bruegmann**
Ecophysiology meets molecular physiology and genetics: drought stress experiment with four European beech provenances
- 10:15 **Thomas Hay**
Architectural phenotyping of spruce trees based on TLS and QSMs
- 10:30 **Aida Solé Medina - online**
Genetic architecture and selection across populations and sexes in *Populus nigra*
- 10:45 Coffee break
- 11:15 **McNamara Simone**
Deciphering phenotypic variability in fitness-related leaf spectral traits in European white oaks
- 11:30 **Rozenberg Philippe**
From Annual Rings to Adaptive Response: Quantifying Phenotypic Plasticity in Douglas-fir
- 11:45 **Belmokhtar Nassim**
The use of Near Infrared Spectroscopy for high-throughput characterization of four European Forest Genetic Conservation Units
- 12:00 **Maurizio Mencuccini**
Environmental and genetic signals in continental scale variability in functional traits and growth of European trees
- 12:15 **Flash Poster session**

Session 4 - Breeding for Resilience: Integrating Novel Phenotyping & Genomics for Urgent Adaptive Solutions

Thursday 20 November 14:00-17:00

Chair: Jan Stejskal, Czech University of Life Sciences Prague, Czech Republic

Oral presentations

- 14:00 **Keynote - Fikret Isik**
Tree Breeding in the Age of Genomics for Climate Change: Challenges and Opportunities
- 14:45 **Carlos Trujillo-Moya**
Harnessing High-Throughput Phenotyping and Metabolomics to Reveal Intraspecific Variation in Drought Sensitivity of Norway Spruce (*Picea abies* (L.) H. Karst.) for Climate-Resilient Forestry
- 15:00 **Hayatgheibi Haleh**
Are fast growth and drought tolerance two opposed properties in conifers? Scots pine case
- 15:15 **Soto Álvaro**
Use of natural hybrids for *Q. suber* and *Q. ilex/Q. rotundifolia* breeding
- 15:30 **Chuchlík Jiří**
From Subjective to Objective Bud-burst Assessment: CNN-Assisted RGB Imaging in Norway Spruce Seed Orchard
- 15:45 **Milan Lstibůrek**
A dynamic breeding framework for bridging local adaptation and assisted migration
- 16:00 Coffee break
- 16:30 **Zavala-Paez Michelle**
The role of climate and interspecific gene flow in stomatal evolution across a *Populus* hybrid zone
- 16:45 **Sagariya Christi**
Genotyping error and its consequences for heritability estimation
- 17:00 **Chano Victor**
Genome-wide genotyping and epigenotyping strongly correlated in Norway spruce breeding material
- 17:15 **Irene Cobo-Simón**
Benchmarking Genomic Selection Methods for Nut Yield in Stone Pine (*Pinus pinea*)
- 17:30 **Flash Poster session**

Session 5 - Prioritising forest conservation through genetic diversity

Friday 21 November 09:00-13:00

Chair: Giovanni Giuseppe Vendramin, Institute of Biosciences and BioResources, National Research Council of Italy, Florence, Italy

Oral presentations

- 09:00 **Keynote - Victoria Sork**
Genetic and genomic strategies for conservation of natural populations of California oaks
- 09:45 **Fady Bruno**
Native trees of the Mediterranean region: distribution, diversity and conservation challenges
- 10:00 **Kravanja Marija**
Does genetic diversity underpin forest resilience?
- 10:15 **Farsakoglou Anna-Maria**
Can we detect genomic drivers of performance in natural conifer tree populations?
- 10:30 **Vajana Elia**
Uncovering the genetic origin and diversity of Mediterranean pine forests in the Italian peninsula
- 10:45 Coffee break
- 11:15 **Olsson Sanna**
Tracking forest material: Assessing the impact of managed materials on genetic diversity in Spanish forest trees using National Forest Inventory
- 11:30 **Robledo-Arnuncio Juan J**
Using genotypic data for monitoring recent and contemporary seed and pollen migration and their environmental determinants
- 11:45 **McEvoy Susan**
Site Frequency Spectrum-based Inference of Demography and Fitness Effects as a Conservation Metric
- 12:00 **Olofsson Jill K**
Comparative genomics reveals extensive structural variants within and among European white oak species (*Quercus* spp.)
- 12:15 **Flash Poster session**