

## Short program

Time (GMT+2; CET+1)	Tuesday 12.09.2023	Wednesday 13.09.2023	Thursday 14.09.2023	Friday 15.09.2023
09:00 - 09:30		Excursion to <i>Dealul Lempes</i> forest and <i>Sânpetru</i> teaching and research station	Lecture: Potential applications of remote sensing in genomics (Mihai Daniel Niță)	Lecture: Introduction to adaptive silviculture (Norocel Valeriu Nicolescu)
09:30 - 10:30				
10:30 - 11:30	Registration & Coffee			
11:30 - 12:00				
<b>Lunch Break</b>	1:1 meetings	1:1 meetings	1:1 meetings	1:1 meetings
13:00 - 13:15	Welcome and Information	Information	Information	Information
	Session 1: Climate resilient forests		Session 4: Innovative methods and approaches	Session 5: Conservation genomics
13:15 - 14:00	Keynote	Poster Session A	Keynote	Keynote
14:00 - 14:40	Oral presentations Session 1		Oral presentations Session 4	Oral presentations Session 5
14:40 - 14:50	Short break		Short break	Short break
14:50 - 15:50	Oral presentations Session 1		Oral presentations Session 4	Oral presentations Session 5
15:50 - 16:20	Long break	Long break	Long break	Long break
	Session 2: Tree genomics & biotic interactions under climate change	Session 3: Evolutionary genomics	Poster Session B	Session 6: Tree breeding and sustainable use of forest genetic resources
16:20 - 17:05	Keynote	Keynote		Keynote
17:05 - 17:45	Oral presentations Session 2	Oral presentations Session 3		Oral presentations Session 6

<b>17:45 - 17:55</b>	Short break	Short break		Short break
<b>17:55 - 18:55</b>	Oral presentations Session 2	Oral presentations Session 3		Oral presentations Session 6
<b>18:55 - 19:15</b>				
<b>Evening</b>	1:1 meetings	1:1 meetings	Conference Dinner	1:1 meetings

### Categories

Scientific exchange
Networking
Teaching
Social event

## Session 1:

### Climate resilient forests

Tuesday 12 September 13:15 -15:50

Chair: Dr. Katharina Birgit Budde, Georg-August University, Göttingen, Germany

### Oral presentations

- 13:15      **Keynote**  
**Hamilton, Jill:**  
Hybrid zones as model systems to examine the genomic basis for climate adaptation
- 14:00      **Rellstab, Christian:**  
Identifying adaptive traits and genes to choose seed sources for climate resilient oak forests
- 14:20      **Müller, Niels A.:**  
Genomic variation of European beech across its distribution range reveals patterns of local adaptation and future maladaptation
- 14:40           ***Short Break***
- 14:50      **Toomey, Madeline:**  
Improving climate resilience in silver banksia (*Banksia marginata*) through landscape genomics and common garden experiments
- 15:10      **Kansu, Cigdem:**  
Genomic scans detect evidence of positive selection using SNP data in rangewide populations of *Populus trichocarpa* and *P. balsamifera*
- 15:30      **Chakraborty, Debojyoti:**  
Utilizing assisted migration to enhance and preserve European forest carbon sink

## Session 1:

### Climate resilient forests

Poster Session A: Wednesday 13 September 13:15 -15:50

#### Posters

**Neuwirthová, Eva:**

Genetic variation of drought-stress tolerance in Scots pine

**David-Schwartz, Rakefet:**

Natural hybrids of *Pinus brutia* and *P. halepensis* and their resistance to drought in regenerating forests

**Caicoya, Astor Toraño:**

Species mixtures research for the study of the role of genetic diversity in stands of Scots pine

**Lampej, Chrisitan:**

Beech seedlings from exposed dry sites show higher drought resistance

**Hazarika, Reneema:**

Stakeholder perception on risks and benefits of managing non-native tree species in the European alpine space

**Jansen, Simon:**

Large-scale genetic structure of European white oaks: on the search for climate-smart seed sources

**Müller, Markus:**

Association of genome-wide genetic variation with adaptation-related traits in European beech

**Chevalier-Mairet, Arnaud:**

Impact of abiotic factors on growth-related trait variability across populations of white oak species in Europe: applications to understanding future wood resources in managed forests

**Fussi, Barbara:**

Identification of potentially climate resilient beech seed stands (*Fagus sylvatica* L.) in Germany

**Hurel, Agathe:**

Searching for drought-resistant genetic variants in *Quercus cerris* for future Austrian climate

**Suliman, Tammam:**

The development of disturbance models on the basis of Austrian National Forest Inventory (ANFI)

**Kolech, Alebel Melaku:**

The state-of-the-art and future directions on sacred forests and ecosystem services

**Afifi, Lila:**

*Sorbus torminalis* and the WILDOBST project: using genetic analysis to inform conservation

**Korecky, Jiri:**

Comparative multi-genotype LC-MS metabolite profiling of Norway spruce in distinct environments

**Dominguez-Flores, Tania:**

Analysis of pollen flow inferred from paternity analysis in *Quercus rubra* in an urban landscape in Germany

**Vajana, Elia:**

Unveiling convergent adaptation in Mediterranean pines to inform a new tool for the management of forest genomic resources — the MedForAct project

**Avanzi, Camilla:**

Tree decline of Italian pedunculate oak populations: a multidisciplinary approach for selecting and producing resistant forest genetic resources

**Ciocîrlan, Mihnea-Ioan-Cezar:**

Bud-burst monitoring in the European beech population (*Fagus sylvatica* L.) along an altitudinal gradient in the South-Eastern Carpathian Mountains

## Session 2:

### Tree genomics & biotic interactions under climate change

Tuesday 12 September 16:20 -18:35

Chair: Dr. Hilke Schröder, the Thünen Institute, Germany

#### Oral presentations

- 16:20      **Keynote**  
**Swenson, Nathan G.:**  
Functional genomics as a window into the drivers community structure and dynamics in temperate and tropical forests
- 17:05      **Kjær, Erik Dahl:**  
Resilience of European ash forests influenced by ash dieback
- 17:25      **Fracchia, Félix:**  
Water deficit has a larger influence on fungal communities associated with beech root systems than soil edaphic parameters
- 17:45           ***Short Break***
- 17:55      **Coq-EtcheGARAY, Domitille:**  
Genetic architecture of leaf specialized metabolites natural variation within sessile oak populations
- 18:15      **Olofsson, Jill K.:**  
Can northern sessile oaks profit from southern genetic variants to face future climate change?
- 18:35      **Schröder, Hilke:**  
Surviving oaks as beacons of hope in climate change

## **Session 2:**

### **Tree genomics & biotic interactions under climate change**

Poster Session A: Wednesday 13 September 13:15 -15:50

## **Posters**

**Jakuš, Rastislav:**

Predicting Norway spruce resistance to bark beetle attack with the use of satellite imagery

**Chano, Victor:**

Transcriptomic analysis of the short-term response to ash dieback in two ash genotypes with different susceptibility to the disease

**Chano, Victor:**

Transcriptomics of the Dutch elm disease pathosystem

**Gathercole, Louise:**

The Centre for Forest Protection - a new British collaboration for future resilient forests

**Korolyova, Natalia:**

Why do some Norway spruce trees survive bark beetle outbreaks?

## Session 3:

### Evolutionary genomics

Wednesday 13 September 16:20 -18:55

Chair: Dr. Annika Perry, UK Centre for Ecology & Hydrology, UK

### Oral presentations

- 16:20            **Keynote**  
**Lind, Brandon M.:**  
The limits of predicting maladaptation to future climate using genomic data
- 17:05            **Gonzalez-Martinez, Santiago C.:**  
Genetic variation within and among populations underlies adaptation to climate in a Mediterranean pine species
- 17:25            **Tysklind, Niklas:**  
Plant mutations: slaying beautiful hypotheses by surprising evidence
- 17:45                   ***Short Break***
- 17:55            **Păun, Ovidiu:**  
The drivers of the adaptive radiation of persimmon trees on New Caledonia, a biodiversity hotspot
- 18:15            **Gathercole, Louise:**  
Genomic evidence for extensive introgression amongst British oaks and assessment of mal-adaptation
- 18:35            **Paulo, Octávio S.:**  
A landscape genomic approach on the cork oak and holm oak in the Western Mediterranean: insights into the species' capacity to respond to climate change



## Session 3:

### Evolutionary genomics

Poster Session A: Wednesday 13 September 13:15 -15:50

#### Posters

**Sergiadou, Dimitra:**

Molecular dating and selection analyses of the European white oak plastomes

**Bruxaux, Jade:**

First population genetic study on Scots pine based on whole genome resequencing

**Lazic, Desanka:**

Detecting genomic signatures of ecological speciation, adaptive divergence and evolution in oaks

**Čepl, Jaroslav:**

Exploring genetic divergence of quantitative trait during range expansion

**Lenga, Marieke:**

TREEvolution

**Szukala, Aglaia:**

An integrative perspective of species limits, gene-flow and local adaptation in Southeast European white oaks

**Hansart, Amandine:**

Assessing the response of temperate fruit trees to climate change: insight from the cultivated and wild apples

**Acar, Pelin:**

Comparative genomics of Turkish endemic *Salix purpurea* subsp. *leucodermis* reveals the sequence variations, homologous genes, and synteny across the relatives

## Session 4:

### Innovative methods and approaches

Thursday 14 September 13:15 -15:50

Chair: Dr. Christian Rellstab, WSL, Switzerland

### Oral presentations

- 13:15      **Keynote**  
**Schuman, Meredith Christine:**  
Leveraging remote sensing to support assessment of genetic variation in beech forests
- 14:00      **van Loo, Marcela:**  
Assessing drought stress adaptation potential in Norway Spruce seedlings: integrating high-throughput multi-sensor phenotyping (HTPP) approach with other -omics approaches
- 14:20      **Stejskal, Jan:**  
Revealing the hidden diversity: exploring genetic variation with hyperspectral phenotyping in Scots pine seedlings
- 14:40           **Short Break**
- 14:50      **Grigoriadou-Zormpa, Ourania:**  
Do we need high coverage whole-genome sequencing data to assess genetic variation and differentiation? A case study in *Fagus sylvatica* and *Quercus petraea*
- 15:10      **Xu, Jing:**  
Advancing drought stress assessment in trees: a fast and efficient method using drone-based remote sensing technologies
- 15:30      **Duvaux, Ludovic:**  
Testing pangenomic tools for detection of structural variant in populations of forest tree

## Session 4:

### Innovative methods and approaches

Poster Session B: Thursday 14 September 16:20 -18:55

#### Posters

**Imboden, Noemi:**

Introduction of a forest strategy for the canton of Valais based on the theory of the commons - approach and challenges

**Škipars, Vilnis:**

Use of low coverage whole genome sequencing to study DNA regions influencing transcription of disease resistance related genes in Scots pine

**Roman, Anamaria:**

The PHOTO module for rapid and accurate estimation of black locust (*Robinia pseudacacia*) inflorescence area

**Škipars, Vilnis:**

Elucidation of flanking sequences of Scots pine candidate genes for resistance against root rot using non-standard approaches for a non-model organism

**Fussi, Barbara:**

MicroRNA-mediated regulation may play a role in the resistance of ash trees (*Fraxinus excelsior* L.) to ash dieback

**Provazník, Daniel:**

Addressing the altitudinal and geographical gradient in European beech via photosynthetic parameters

**Krautwurst, Melina:**

QTL analyses for bud burst and ash dieback susceptibility in common ash (*Fraxinus excelsior*)

## Session 5:

### Conservation genomics

Friday 15 September 13:15 -15:50

Chair: Prof. Dr. F.A. (Phil) Aravanopoulos, University of Thessaloniki, Greece

### Oral presentations

- 13:15            **Keynote**  
**Scotti, Ivan:**  
Resilience: can we define it in an evolutionary framework?
- 14:00            **Krutovsky, Konstantin V.:**  
Dendrogenomics - a new interdisciplinary field of research in forest tree conservation genomics integrating dendrochronology, dendroecology, dendroclimatology and genomics
- 14:20            **Westergren, Marjana:**  
Estimates of effective population size are highly dependent on sampling design
- 14:40                   ***Short Break***
- 14:50            **Farsakoglou, Anna-Maria:**  
The challenge of estimating effective population size: Can standard genetic parameters be of use?
- 15:10            **Theraroz, Adélaïde:**  
The genetic consequences of population marginality: a case study in maritime pine
- 15:30            **Belton, Sam:**  
Molecular analysis of the oak syngameon in Ireland – genetic characterisation of the *Quercus robur* (L.) and *Quercus petraea* (Matt.) Liebl. species complex at its western limit

## Session 5:

### Conservation genomics

Poster Session B: Thursday 14 September 16:20 -18:55

#### Posters

**Budde, Katharina B.; Grigoriadou-Zormpa, Ourania:**

Fine scale spatial genetic structure in *Fagus sylvatica* along a steep elevational gradient in the Carpathian Mountains

**Vujnović, Zvonimir:**

Selection of European black poplar burl wood trees with contribution to gene pool conservation

**Maksimović, Filip:**

*In situ* conservation of forest genetic resources at the locality „Duboka” in the National Park „Kopaonik” – Serbia

**Maksimović, Filip:**

Identification of the field elm gene pool in the protected natural area "KOSMAJ" (Serbia) as a basis for its conservation and sustainable use

**Köbölkuti, Zoltan Attila:**

Allelic variation and post transcriptional regulation of candidate genes associated with virus defence in *Fraxinus excelsior* L.

**Rana, Anchal:**

Genotyping-by-sequencing to assess genetic variation in *Polygonatum verticillatum* Linn. for conservation measures

**Moro, Laura:**

Land-use change effects on habitat availability and genetic diversity of tropical trees

**Papadopoulou, Alik:**

Elucidating white oak phylogeographic diversity in an unexplored region of the Southern Balkans

**Lyrou, Fani:**

Genetic monitoring of *Quercus robur* and *Quercus petraea* populations in northern Greece

**Flores, Andrés:**

Priorities for conservation of forest genetic resources in two Mexican pines

**Grigoriadou-Zormpa, Ourania:**

Phenotypic and genotypic variation of European beech in natural forests and in a progeny trial representing an elevation gradient in Romania

## Session 6:

### Tree breeding and sustainable use of forest genetic resources

Friday 15 September 16:20 - 19:15

Chair: Associate Professor Dr. Ole Kim Hansen, University of Copenhagen, Denmark

#### Oral presentations

- 16:20      **Keynote**  
**Sánchez-Rodríguez, Leopoldo:**  
B4EST: a collaborative research effort on adaptive BREEDING for productive, sustainable and resilient FORESTs under climate change
- 17:05      **Pers-Kamczyc, Emilia:**  
Plant reproductive potential in the face of increased global nitrogen deposition
- 17:25      **Buggs, Richard:**  
Genomic prediction for ash dieback resistance and the potential for a rapid cycle ash breeding programme
- 17:45           ***Short Break***
- 17:55      **Neophytou, Charalambos:**  
Breeding sessile oak (*Quercus petraea*) for drought-stress tolerance
- 18:15      **Olsson, Sanna:**  
Improving conservation and sustainable use of *Pinus pinea*, a multipurpose forest tree with narrow genetic base, by using genomic tools
- 18:35      **Liepe, Katharina J.:**  
Accounting for phenotypic plasticity and local adaptation in species distribution models to support prescriptions on assisted migration
- 18:55      **Wu, Harry:**  
Genomic selection progress in conifers

## Session 6:

# Tree breeding and sustainable use of forest genetic resources

Poster Session B: Thursday 14 September 16:20 -18:55

## Posters

**Macaya-Sanz, David:**

Applying genomics to the breeding for Dutch elm disease resistance

**Kedra, Ousmael:**

Genomic evaluation for breeding and genetic management in *Cordia africana* - a multipurpose tropical tree species

**Blanc-Jolivet, Celine:**

Should genetic tracking of geographical origin be required for reproductive material used in provenance trials and seed stands?

**Szukala, Aglaia:**

Ash in distress: results from a large experimental field trial on ash dieback in Austria

**Postolache, Dragos:**

Exploring phylogeographic patterns of temperate broadleaved species in the Balkan Peninsula and the southeastern marginal range in Europe

**Mittelberg, Hannah S.:**

An insight into the current state of work on the population structure of *Carpinus betulus* L. in selected stands

**Mohytych, Vasyl:**

Estimating breeding values and genetic parameters in a series of Scots pine open-pollinated progeny trials in north-western Poland

**Heinze, Berthold:**

Oak seed stands and reproductive material genetics in Central Europe

**Kormann, Jonathan M.:**

Climate sensitivity of tree growth differs between northern red oaks (*Quercus rubra* L.) – a study in a 33-years-old provenance trial in Germany



**Bäucker, Cornelia:**

Recommendations for the use of seed of the alternative tree species Norway maple (*Acer platanoides* L.) based on genetic studies

**Kowalczyk, Jan:**

Programme of breeding and protection of genetic diversity of Scots pine in Poland

**Beşliu, Emanuel:**

Growth performances and transfer analyses of European beech (*Fagus sylvatica*) in two common garden experiments from Romania

**Arunyawat, Uraiwan:**

Insights into evolutionary history of landrace rice varieties in Thailand

**Kjær, Erik Dahl:**

A regional effort to develop ash trees with high tolerance towards ash dieback based on phenotypic selection

**Woodward, George Malcolm:**

Analysing the transcriptional, anatomical, and physiological responses of trees to altered cambial dynamics in order to define the control and coordination of secondary growth and vascular continuity in the vertical growth axis

**Alexandru, Alin:**

The response to drought of Norway spruce (*Picea abies*) provenances in Romania

**Chano, Victor:**

Genome- and epigenome-wide association studies of wood quality and disease resistance-related traits in Norway spruce

**Seidel, Hannes:**

Genetic characterisation of selected *Fraxinus excelsior* L. trees with low susceptibility to ash dieback

**Muessig, Maxi Kristin Marie:**

First study of native oaks in Denmark based on full genome sequencing

**Ramanenka, Maryna:**

Early pathogenesis – specific *Heterobasidion annosum* transcriptome in the *Pinus sylvestris* - *Heterobasidion annosum* pathosystem stochastic simulation of landscape breeding programs

**Sagariya, Christi:**

Stochastic simulation of landscape breeding programs