



RESEARCH AND PRACTICE IN FOREST ECOLOGY

— 2nd INTERNATIONAL CONFERENCE —

CONFERENCE AGENDA May 6, 2026 (Wednesday)

Przylądek Daglezja nad Jeziorem Kórnickim
Stanisława Woźniaka 7, Kórnik

08:00–09:00 Registration

09:00–09:30 OPENING CEREMONY

Prof. Andrzej M. Jagodziński Director of the Institute of Dendrology,
Polish Academy of Sciences

Kórnik Arboretum: the living heart of the Institute of Dendrology,
Polish Academy of Sciences

KEYNOTE SPEAKERS

Session Chairs: Prof. Ewa M. Kalemba, Prof. Marcin Pietras and Prof. Ewelina Ratajczak

09:30–09:50

Prof. Dominik Tomaszewski

Big Data fuels a Botanical Time Machine

09:50–10:10

Dr. Katarzyna Sękwicz

Genetic diversity and hybridization for forest resilience

10:10–10:30

Prof. Emilia Pers-Kamczyc

Does plant sex matter? Dioecious plants in the face of environmental change

10:30–10:50

Prof. Marzenna Guzicka

Winter – an enemy and an ally of trees

10:50–11:10

Prof. Joanna Mucha

Rooted in the past: climate memory in tree roots and microbiomes

11:10–11:40

COFFEE BREAK

11:40–12:00

Prof. Tomasz Leski

Diversity of ectomycorrhizal fungi in Polish bare-root forest nurseries: the key to successful forest regeneration

12:00–12:20

Prof. Leszek Karliński

Biomass of soil microorganisms as an indicator of changes in forest soil

12:20–12:40

Dr. Marta B. Kujawska

Hidden connections: Scotch broom and symbiotic fungi in forests

12:40–13:00

Prof. Agnieszka Szuba

Understanding tree physiological function and abiotic stress tolerance: the role of biochemical and omics analyses

13:00–13:20

Prof. Olena Blinkova

Multilevel responses of urban forest lianas along environmental gradients

13:20–13:40

Dr. Mikołaj K. Wawrzyniak

Every seed matters: seed storage, dormancy and germination in forestry practice



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13:40–14:40 LUNCH

14:40–15:00

Prof. Teresa Hazubska-Przybył

Somatic embryogenesis and cryopreservation of conifers: integrating biotechnological advances with practical forestry

15:00–15:20

Dr. Weronika B. Żukowska

Two species, one goal: contrasting genetic conservation challenges in forest trees

15:20–15:40

Dr. Francesco Latterini

LIDAR for smarter forest operations: Today's tools, tomorrow's pathways

15:40–16:00

COFFEE BREAK

ORAL PRESENTATIONS

Room A

Session 1: Session Chair – Prof. Joanna Mucha

16:00–16:15

Ondřej Nezval

Temperature-driven onset and light quality-linked senescence in *Fagus sylvatica* phenology

16:15–16:30

Shirin Alipour

Iranian oak habitats and space: a combined gap analysis to inform effective protected areas expansion

16:30–16:45

Michał Delikta

Estimating current and future bioclimatic suitability of alien tree species *Ailanthus altissima* on tree-related land cover types in Europe

16:45–17:00

Natalia Mazurek

The age of managed deciduous forest stands shapes opposing trends in biodiversity: lichens gain, plants lose

17:00–17:15

Sebastian Bury

Spatial and temporal climate signals in reproductive traits of Scots pine across Poland

17:15–17:40

DISCUSSION

ORAL PRESENTATIONS

Room B

Session 1: Session Chair – Prof. Leszek Karliński

16:00–16:15

Lydiane Lúcia de Sousa Bastos

Viability of native forest seeds through images: Contributions to forest restoration in the Amazon

16:15–16:30

Hanna Fuchs

Maples as a model system for comparative seed biology



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16:30–16:45

Katarzyna Kondrat

No seed size–number trade-off in European beech: climate governs investment per seed

16:45–17:00

Amir M. Mokhtari

Photosynthetic pigment accumulation and degradation during embryogenesis and seed maturation in *Acer platanoides* and *Acer pseudoplatanus*

17:00–17:15

Willian C. L. Souza

Combined effect of seed size and biofertilizer on the initial establishment of mulungu (*Erythrina velutina* Willd.) seedlings

17:15–17:40

DISCUSSION

19:00–20:30

DINNER

21:00

NIGHT TOUR OF THE KÓRNIK CASTLE

Kórnik Castle – Picturesquely situated and surrounded by a moat and a historic park, Kórnik Castle is a Neo-Gothic residence with a rich history dating back to the 15th century. It currently serves as the seat of the Polish Academy of Sciences Kórnik Library.

Visitors to the castle can admire its original interiors as well as valuable collections of literature, art, militaria, and manuscripts.

May 7, 2026 (Thursday)

Przylądek Dąglezja nad Jeziorem Kórnickim
Stanisława Woźniaka 7, Kórnik

ORAL PRESENTATIONS

Room A

Session 2: Session Chair – Prof. Emilia Pers-Kamczyc

09:30–09:45

Vicmar F. Jugado

Mangrove forest cover change assessment of Sibuyan Island, Philippines (2010–2020) using Landsat remote sensing

09:45–10:00

Magdalena Majchrzak

Early-spring vegetation dynamics in deciduous forests revealed by Sentinel-1 radar and ground phenological observations

10:00–10:15

Magdalena Kurłowicz

Tree rings as climate archives: Growth response of *Pinus sylvestris* in the Lower Silesian Forests

10:15–10:30

Mateusz Muzolf

Growth responses of pedunculate oak (*Quercus robur* L.) to extreme droughts in southern Sweden



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10:30–10:45

Jagoda Penkala

Pointer-year analysis in tree-ring chronologies of Scots pine, Norway spruce and pedunculate oak from the Lower Silesian Forests

10:45–11:05

DISCUSSION

ORAL PRESENTATIONS

Room B

Session 1: Session Chair – Prof. Joanna Mucha

09:30–09:45

Gustavo F. Mariano

Evaluation of the influence of environmental and nutritional factors on the *in vitro* cultivation of *Paubrasilia echinate* (Lam.) Gagnon, H.C.Lima & G.P.Lewis

09:45–10:00

Antonina M. Dubińska

Morphological responses and recovery potential of *Fagus sylvatica* L. and *Quercus robur* L. seedlings under water deficit and soil drought conditions

10:00–10:15

Joanna Kijowska-Oberc

Stress tolerance marker or protective substance? Proline as a tool in the fight against drought in forests

10:15–10:30

Elwira Nawrocka

Survival and physiological parameters of embryogenic tissues of *Picea abies* cultured *in vitro*

10:30–10:45

Adam Bąk

Morphophysiological factors regulating rooting of pedunculate oak (*Quercus robur* L.) *in vitro*

10:45–11:05

DISCUSSION

11:05–11:35

COFFEE BREAK

ORAL PRESENTATIONS

Room A

Session 3: Session Chair – Prof. Olena Blinkova

11:35–11:50

Shiekh M. Haq

Non-native forests enhance carbon storage at the cost of ecological integrity

11:50–12:05

Zofia Jabs-Sobocińska

Modeling post-agricultural forest regeneration using the forest maturity index

12:05–12:20

Natalia Kisiel

Changes in vegetation diversity in Dębowe Góry Nature Reserve – Impacts of the disintegration of thermophilous oak forest



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12:20–12:35

Joanna B. Barton

Hidden diversity of tree pathogens in an urban ecosystem: phytopathogenic fungi of deciduous trees in Szczytnicki Park

12:35–12:50

Martin Garnier

Connecting above- and below-ground genetic diversity in ectomycorrhizal fungi

12:50–13:10

DISCUSSION

ORAL PRESENTATIONS

Room B

Session 3: Session Chair – Prof. Tomasz Leski

11:35–11:50

Mihhail Brodski

Putting a young forest under a microscope – and seeing fungi

11:50–12:05

Tomasz Sobczak

Hidden in plain sight: *Artomyces microsporus* in the Polish mycobiota

12:05–12:20

Jan Sós

Genetic diversity and ecological niche assessment of silver fir (*Abies alba* Mill.) conservation resources in the Sudetes

12:20–12:35

Martyna Lasek

Balancing genetic integrity and adaptive potential under climate change: The Scots pine case

12:35–12:50

Mawsam Sammoudi

Genomic maladaptation to climate change within-populations and adaptive potential of Scots pine (*Pinus sylvestris* L.)

12:50–13:10

DISCUSSION

13:10–14:10

LUNCH

ORAL PRESENTATIONS

Room A

Session 4: Session Chair – Prof. Daniel J. Chmura

14:10–14:25

Agnieszka Hutniczak

Micromorphology of epicuticular waxes and cell wall chemical composition of aspen leaves (*Populus tremula*) from novel ecosystem habitats

14:25–14:40

Beata Ciak-Wojdyła

Forest understory plant responses to increased light and temperature: changes in functional traits and physiology

14:40–14:55

Mariola Rabska

Intersexual differences in common mistletoe (*Viscum album* L.)



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14:55–15:10

Yike Zou

Ontogenetic shifts in ecological strategy in a tall tropical tree species

15:10–15:25

Keyssa Laidi

Influence of canopy structure and light on the regeneration of Numidian fir (*Abies numidica* de Lannoy) in the mixed forest of Mount Babor

15:25–15:45

DISCUSSION

ORAL PRESENTATIONS

Room B

Session 4: Session Chair – Dr. Francesco Latterini

14:10–14:25

Muyisa Wasukundi

Growth dynamics and timber yield potential of underutilized tree species in the Congo Basin

14:25–14:40

Aurora Bonaudo

Spatial Decision Support System for harvesting and wood system selection in chestnut coppices: a GIS-AHP application in Central Italy

14:40–14:55

Nicolò Di Marzio

Harvesting of poplar clones in a silvoarable system: insights from an experimental case study in Italy

14:55–15:10

Konstantinos Filintas

Mating disruption for the management of *Lymantria dispar*

15:10–15:25

Kosta Đurica

Diameter growth of sessile oak as a basis for defining forest management objectives

15:25–15:45

DISCUSSION

15:45–16:15

COFFEE BREAK

ORAL PRESENTATIONS

Room A

Session 5: Session Chair – Dr. Weronika B. Żukowska

16:15–16:30

Fernanda Neves Lima

Genetic resources for a sustainable rosewood essential oil industry in South America: Insights from genetic, genomic, and chemical approaches

16:30–16:45

Airish Castillo

Integrated climate response and biomass modeling of the endemic conifer *Picea omorika*



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16:45–17:00

Magdalena Terlecka

The effect of sex and clonality on the climatic–hydrological response of radial growth in white poplar (*Populus alba*)

17:00–17:15

Sérgio Pedro Junior

Thermal plasticity and maturation-induced dormancy in *Anadenanthera macrocarpa* seeds

17:15–17:30

Ocean Williams

Trait variation across multiple biological scales in recalcitrant Fagaceae seeds

17:30–17:50

DISCUSSION

ORAL PRESENTATIONS

Room B

Session 5: Session Chair – Prof. Teresa Hazubska–Przybył

16:15–16:30

Maria C. Boukouvala

Evaluation of trunk and adhesive barrier traps as sustainable management strategies for *Thaumetopoea pityocampa* larvae

16:30–16:45

Lucija Žgela

Strengths, weaknesses, opportunities and threats in coppice forest management: Insights from the Croatian Dinarides

16:45–17:00

Petr Zapletal

Regeneration pathway shapes nutrient stocks and litter accumulation under newly established silver fir stands in secondary Norway spruce monocultures: a stand-level comparison

17:00–17:15

Irene Giubilei

From first reports to hidden reservoirs: emerging forest pathogens dynamics under climate pressure in Central Italy

17:15–17:30

Monika Sołowieicz

Origin matters: mechanical variability of Scots pine wood from different provenances

17:30–17:50

DISCUSSION

18:00–22:00

DINNER



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May 8, 2026 (Friday)

Institute of Dendrology, Polish Academy of Sciences
Parkowa 5, Kórnik

09:00–13:15 **WORKSHOPS AT INSTITUTE OF DENDROLOGY PAS**

Workshop: Population genetics of trees – DNA in forest ecology research

Workshop leaders: Dr. Weronika B. Żukowska, Dr. Katarzyna Sękwicz, Dr. Łukasz Walas

The workshop on population genetics focuses on demonstrating how information contained in DNA can be used to study forest tree populations and the processes occurring within them. Today, genetics constitutes an important complement to classical ecological research, allowing for a more accurate interpretation of field observations related to the origin of populations, their genetic diversity, and their responses to environmental factors.

During the workshop, participants will become familiar with basic concepts related to genetic variation in populations and will learn what types of information can be obtained from simple DNA analyses. The sessions will illustrate how genetic data help to understand relationships among individuals, levels of population admixture, and the influence of historical and habitat conditions on present-day population structure. Particular emphasis will be placed on the practical relevance of genetic information rather than on the technical aspects of genetic methods.

An integral part of the workshop will be a problem-oriented approach combining genetics and ecology. Participants will learn how to integrate genetic data with environmental knowledge in order to better interpret processes such as population regeneration, stability, and responses to natural and anthropogenic disturbances. The workshop aims to present genetics as an accessible and useful research tool that, even at a basic level, enables meaningful questions to be asked about the functioning of tree populations and the future of forest ecosystems.

Workshop: Cryopreservation and somatic embryogenesis – advanced technologies for the conservation of genetic resources

Workshop leader: Dr. Joao Paulo Rodrigues Martins

This workshop focuses on cryopreservation and somatic embryogenesis as modern, highly specialized technologies enabling the long-term preservation and controlled regeneration of genetic resources of woody plants. These methods are currently at the forefront of developmental biology, plant biotechnology, and modern forestry, offering practical solutions to challenges related to biodiversity loss, instability of generative reproduction, and the adaptation of organisms to rapidly changing environmental conditions.

Particular emphasis will be placed on somatic embryogenesis as a process requiring precise regulation at the cellular and molecular levels. Participants will learn about key mechanisms underlying the transition of somatic cells to a totipotent state, including the roles of oxidative stress, redox signaling, and interactions among endogenous growth regulators. Current research directions aimed at modulating these processes under in vitro conditions to enhance the efficiency of embryogenic tissue initiation and stability will also be discussed.



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An integral component of the workshop will be cryopreservation as a technology enabling the “suspension of time” at the cellular level. Participants will be introduced to the biological basis of cell survival at ultra-low temperatures, the importance of controlling the physiological status of biological material before and after freezing, and the role of cryopreservation in maintaining the developmental competence of stored tissues. These topics will be presented in the broader context of establishing biological material banks and implementing modern strategies for the conservation and utilization of genetic resources.

Workshop: Identification of tree and shrub species – practical field methods **Workshop leader: Katarzyna Broniewska, MSc**

Field workshops devoted to the identification of tree and shrub species will be conducted at the Arboretum of the Institute of Dendrology of the Polish Academy of Sciences and will focus on the practical development of skills related to the identification of woody plants. The sessions aim to familiarize participants with the Arboretum’s living collections, including a presentation of the oldest specimens preserved in Kórnik.

Participants will learn how to use dendrological identification keys and how to recognize morphological features essential for species identification, such as leaf structure, shoots, buds, bark, and fruits. The workshops will demonstrate how to interpret morphological variability and how to avoid common identification errors resulting from individual, seasonal, or environmental differences.

Participants will also become acquainted with the principles of basic floristic documentation, including recording diagnostic features, locations, and habitat conditions. During the sessions, issues related to the functioning of the collection database will be presented, including its structure and practical applications in collection management and information sharing, both for professional users and for educational and outreach purposes. The workshop will help systematize knowledge related to field species identification and the verification of correct botanical nomenclature.

13:30

LUNCH

15:00

DEPARTURE TO WOLIN NATIONAL PARK



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May 9, 2026 (Saturday)

Field excursion in Wolin National Park

08:00 BREAKFAST

09:30–18:00

Field excursion in Wolin National Park:

- Gosań Hill (cliff shore, orchid coastal beech forest *Cephalanthero rubrae-Fagetum*; Natura 2000 priority habitat 9150/5);
- European Bison Breeding Centre;
- Lake Turkusowe (Turquoise);
- Władysław Szafer Reserve (lowland fertile beech forest *Galio odorati-Fagetum*; habitat 9120);
- Zielonka Hill – a viewpoint overlooking the Bay of Pomerania, the Świna River delta and the Szczecin Lagoon.

20:00 DINNER

May 10, 2026 (Sunday)

Field excursion in Wolin National Park

08:00 BREAKFAST

10:30

Aquatic ecosystems of the Wolin National Park – cruise along the retrograde delta of the Świna River.

RETURN TO KÓRNIK – AROUND 18:00 (6 P.M.)

