



# FORECOMON Conference 2024

The Conference as well as the Task Force meeting is organized under the auspices of the Czech Ministers of Agriculture Marek Výchová and Environment Petr Hladík

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## Programme Tuesday, 11 June 2024

Venue: Grand Hotel International, Prague (<https://www.hotelint.cz/en/>), Koulova 1501/15, Prague 6  
GPS: 50.1093522N, 14.3936306E

- 08:00 - 09:00** Registration & coffee
- 09:00 - 09:30** Opening / welcome
- 09:00 - 09:05** Opening of FORECOMON 2024
- 09:05 - 09:10** Welcome by host country, Czech Republic
- 09:10 - 09:15** Welcome by host institution, Forestry and Game Management Research Institute
- 09:15 - 09:20** Welcome by ICP Forests Chair

### Session 1: Long-term forest ecosystem processes as affected by air pollution, drought or other extreme weather events

- 09:30 - 09:45** **D. Pitar et al.:** Air quality in European forests – ozone and nitrogen dioxide trends in the ICP Forests level II network
- 09:45 - 10:00** **J. Foest et al.:** Rising summer temperatures dampen masting of European Beech (*Fagus sylvatica*) across range
- 10:00 - 10:15** **Y. Sun et al.:** Crown density, growth and carbon sequestration in European forests over the period 1990-2022
- 10:15 - 10:30** **H. Hartmann et al.:** Monitoring forest damage to shape future forests
- 10:30 - 11:00** **Coffee break**
- 11:00 - 11:30** **Poster pitch**, 19 posters, there is one minute for the poster presentation

- 11:30 - 11:40** **G. Delhaye et al.:** Spatiotemporal drivers of ectomycorrhizal diversity in Europe
- 11:40 - 11:50** **P. Žemaitis et al.:** Norway spruce health and vulnerability in Lithuania – wind, decay and *Ips typographus* as the main drivers
- 11:50 - 12:00** **P. Krám et al.:** Soil water dissolved organic carbon patterns at spruce sites with geochemically contrasting substrate in the last three decades
- 12:00 - 12:10** **S. Etzold et al.:** 25 years of forest growth in Swiss Level II plots
- 12:10 - 12:20** **T. Dirnböck et al.:** Multi-decadal drought and disturbance effects on forest carbon sequestration in a mountain forest landscape
- 12:20 - 12:30** **Further questions to all session 1 speakers**
- 12:30 - 13:30** **Lunch**

## Session 2: Novel monitoring approaches to support the development of resilient forests

- 13:30 - 13:45** **R. Shackleton et al.:** Towards Advanced Forest Inventory and Monitoring (AIM): A Swiss example
- 13:45 - 14:00** **C. Guidi et al.:** From litter to soil carbon - harmonizing soil carbon stock estimates for a common European forest monitoring system
- 14:00 - 14:15** **R. Guerrieri et al.:** Quantifying tree canopy nitrification across European forests by combining stable isotope and molecular analyses
- 14:15 - 14:30** **M. A. Anthony:** From soils to canopy: a call to collaborate to disclose foliar microbiome diversity and function
- 14:30 - 15:00** **Poster pitch, 13 posters, there is one minute for the poster presentation**
- 15:00 - 15:30** **Coffee break**
- 15:30 - 15:40** **J. Černý et al.:** Optimisation of the measurement design for precise Green Leaf Area Index (GLAI) estimation by gap fraction methods in mature Norway spruce stands
- 15:50 - 16:00** **A. Principe et al.:** Scaling up tree mortality and survival in Mediterranean oak woodlands
- 16:00 - 16:10** **T. Molnár et al.:** Satellite-based forest health survey on ICP Forest Level II plots in Hungary
- 16:10 - 16:20** **E. Gril et al.:** Forest microclimate: how to quantify and predict the temperature buffering capacity of canopies
- 16:20 - 16:30** **N. Knapp et al.:** From single trees to country-wide maps: Modeling tree mortality across Germany based on level I data
- 16:30 - 16:40** **Further questions to all session 2 speakers**
- 16:40 - 17:00** **Mentimeter survey – and end of orals**

## 17:00-18:00 Poster session with refreshments

## Posters

### Session 1: Long-term forest ecosystem processes as affected by air pollution, drought or other extreme weather events

1. **Buculei et al.:** Assessment of atmospheric deposition in context of climate warming in Romanian forest ecosystems
2. **Cuciurean et al.:** Phenophase dynamics of European beech and Sessile oak in the intensive forest monitoring plot of Mihăești, part of the Level II ICP Forests network
3. **Damnjanović et al.:** Changes in forest floor P availability in an unmanaged mountain spruce forest after bark beetle-induced tree dieback: A 15 years study from Šumava mountains
4. **Fadrhonsová et al.:** Development of soil chemistry on Level II plots in the Czech Republic
5. **Galić et al.:** First Data of Carbon Dioxide (CO<sub>2</sub>) Emission from Soil in Two Level II Monitoring Plot in Serbia
6. **Gottardini et al.:** Pollen deposition in throughfall samples at sixty ICP Forests plots throughout Europe
7. **Göttlein et al.:** 35 years of monitoring at „Höglwald“ - Documentation of chemical climate change and its impact on the ecosystem
8. **Ingerslev et al.:** Temporal trends in nitrogen and sulfur throughfall fluxes and soil solution concentrations
9. **Kaňa et al.:** Changes in soil phosphorus availability in unmanaged spruce forest after bark beetle attack – from dieback to recovery
10. **Marra et al.:** Investigate the effect of soil water depth on ozone-induced visual foliar injury
11. **Nikagolla et al.:** On the relationship between forest status following bark-beetle disturbance and mineral nitrogen in soils of unmanaged mountain catchments: long-term in situ monitoring
12. **Pitar et al.:** Measured vs modelled: ozone concentrations in the Romanian forest plots (ICP-Forests Level II and LTER)
13. **Popa et al.:** Intra-annual tree growth patterns in level II ICP Forests plots from Romania
14. **Rybár et al.:** Development of Mortality Rates in Carpathian Temperate Forests
15. **Smart et al.:** Fifty years of change across forest ecosystems in Britain: a story of interacting drivers and historical legacy effects
16. **Tahovská et al.:** Response of soil microbes to long-term nitrogen input in spruce forest: results from Gårdsjön whole catchment N-addition experiment
17. **van Straaten et al.:** Transformation of Forest Humus Forms in Northwest Germany Across Three Decades
18. **Wohlgemuth et al.:** Environmental impacts on foliar nutrient trends of ICP Forests Level II data
19. **Zolles et al.:** Analysis of the effects of soil parameters on radial stem growth for four spruce stands in Austria

## Session 2: Novel monitoring approaches to support the development of resilient forests

20. **Češljár et al.:** Identification of the decline of individual trees due to the impact of drought using a database (Defoliation) as a „health card“ of previous events
21. **Fririon et al.:** Can Silviculture Foster Forest Genetic Evolution? A Demo-Genetic Modelling Approach Accounting for Within-Stand Individual Variability Estimated from ICP Forest Data
22. **Gollobich et al.:** Comparison of open land precipitation regimes with forest stand precipitation regimes and calculation of interception rates on the ICP-forest core plot „Klausenleopoldsdorf“
23. **Hůnová et al.:** Ambient ozone behaviour near the ground: Insight into seven-year continuous measurements at a rural Central European site tall tower
24. **Korakaki et al.:** Chlorophyll contents and their relationships with nutrients and  $\delta^{13}C$
25. **Krasylenko et al.:** Monitoring of the European mistletoe distribution based on remote sensing data
26. **Lukovic et al.:** AI-assisted time-series analysis
27. **Mc Kenna et al.:** Investigating the relationship between crown defoliation and remote sensing indicators of vitality at the single tree level
28. **Meusburger et al.:** How water isotopes can improve predictions of the water balance
29. **Michopoulos et al.:** Arsenic and Cadmium in the Hydrological Cycle and Soil in a Maquis Broadleaved Evergreen Forest Stand in Greece. Sources of Some Uncertainties
30. **Novotný et al.:** Impacts of ground-level ozone on vegetation in Czechia – assessment using visible foliar symptoms, AOT40F and MDA
31. **Schmitz et al.:** Underestimation of potassium in forest dry deposition? – A simulation experiment in rural Germany
32. **Vejpustková et al.:** Monitoring of tree growth with different types of dendrometers
33. **Zink et al.:** The International Soil Moisture Network (ISMN): providing a permanent service for environmental assessments