European forests in a changing environment: Air pollution, climate change and forest management



# Programme

# 22 – 23 May 2018 7<sup>th</sup> ICP Forests Scientific Conference

Tuesday 22 May 2018 ------

08:00-09:00 Registration

#### 09:00-09:30 Opening. Chair: Walter Seidling

- 09:00-09:15 Welcome Address by host country
- 09:15-09:25 Opening address by Marco Ferretti, Chair of ICP Forests
- 09:25-09:30 Opening address by Karin Hansen, Chair of the Scientific Committee
- 09:30-12:20 Session 1: Changes in ecosystem processes in forests under various management regimes, Chair: Bruno De Vos
- 09:30-10:00 **Keynote: Susanne Brandl** *et al.***:** Effects of climate and management on productivity and mortality of European beech and Norway spruce in Europe
- 10:00-10:20 **Maija Salemaa** *et al.*: Functional significance of nitrogen productivity of boreal forest plants
- 10:20-10:40 **Roberto Canullo et al.:** Drivers of plant functional traits in understory communities of Italian forests
- 10:40-11:00 Coffee break
- 11:00-11:20 **Elena Vanguelova et al.:** Links between soil biochemistry and biodiversity with Oak health status
- 11:20-11:40 **Tiina Tonteri** *et al.*: Declining macrolichens respond to forest management in boreal forests
- 11:40-11:50 **Henning Meesenburg et al.:** Specific Leaf Area reconstruction may provide the missing link between litterfall and Leaf Area Index
- 11:50-12:00 **Nenad Potočić** *et al.*: The use of monitoring data for improving the management of pedunculate oak (*Quercus robur* L.) stands in Spačva basin, Croatia
- 12:00-12:10 Alexander Russ et al.: Water balance of selected sites and tree species Retrospect of 20 years of monitoring in the federal state of Brandenburg, Germany
- 12:10-12:20 Bruno de Vos: Wrap up of Session 1

#### 12:20-13:20 Lunch

- 13:20-16:30 Session 2: Time series of forest ecosystem processes and their interrelationship. Chair: Nenad Potočić
- 13:20-13:50 **Keynote: Marco Ferretti** *et al.*: Changing perspective more ecology is necessary for air pollution studies
- 13:50-14:10 **Tiina Nieminen** *et al.*: Comparison of soil solution sampling techniques in a Norway spruce forest in Finland
- 14:10-14:30 **Rita Sousa-Silva** *et al.*: The impact of forest diversity on tree growth and recovery to drought
- 14:30-14:50 **Héctor García-Gómez et al.:** Deposition of nitrogen in Mediterranean forests of *Quercus ilex*: significance of dry deposition

#### 14:50-15:10 Coffee break

- 15:10-15:30 **Iben M Thomsen** *et al.*: Phenology observations in beech and oak by daily photos: experiences from Denmark
- 15:30-15:40 **Vincent Boulanger** *et al.*: Ungulates increase forest plant species richness to the benefit of non-forest specialists
- 15:40-15:50 **Carmen lacoban** *et al.*: Trends of pollutants concentrations and fluxes in depositions and soil solution in Romania (1998-2016)
- 15:50-16:00 **Martina Pollastrini** *et al.*: Relationships between crown defoliation and tree diversity depend on the environmental context
- 16:00-16:10 **Arne Verstraeten** *et al.*: Establishing a link between pollen dispersal, seed production and throughfall dissolved organic carbon (DOC) flux in temperate forests
- 16:10-16:20 **Sabine Braun** *et al.*: Ecological conclusions from long-term growth series of beech and Norway spruce in Switzerland
- 16:20-16:30 Nenad Potočić: Wrap up of Session 2

#### 16:30-18:30 Session 3: Poster session, Chair: Karin Hansen

- 16:30-17:00 Poster pitching, 1 min per 1 poster slide
- 17:00-18:30 Poster session including refreshments

Wednesday 23 May 2018 -----

- 09:00-11:50 Session 4: Climate change adaptation of forests and their contribution to climate change mitigation. Chair: Marcus Schaub
- 09:00-09:30 Keynote: Lars Vesterdal: Responses of soil carbon to forest management
- 09:30-09:50 **Ainars Lupikis:** Filling the gaps of modelling of the soil carbon cycling through better forest litter input data

- 09:50-10:10 **Maxime Cailleret** *et al.*: Sensitivity of mean ozone concentration, AOT40, and POD1 estimates to different sources for ozone, climate and vegetation data
- 10:10-10:30 **Mirco Rodeghiero** *et al.*: Soil nitrogen explanatory factors across a range of forest ecosystems and climatic conditions in Italy
- 10:30-10:50 **Maryam Salehi** *et al.*: Leaf nutrients and leaf morphological traits in beech stands across a water availability gradient in Switzerland
- 10:50-11:10 Coffee break
- 11:10-11:20 **Elena Gottardini** *et al.*: Ozone removal by Norway spruce forests: a case study in Trentino, North Italy
- 11:20-11:30 **Hubert Jochheim** *et al.*: Mitigation potential of forest management and wood products use Simulation study for intensive monitoring plots of Brandenburg, Germany
- 11:30-11:40 **Vidas Stakėnas** *et al.***:** Changes of deciduous tree species areas during the last decades in Lithuania
- 11:40-11:50 Marcus Schaub: Wrap up of Session 4
- 11:50-12:30 Session 5: Research data management, Chair: Tom Levanič
- 11:50-12:00 **Volodymyr Trotsiuk** *et al.***:** Quantifying, Understanding and Predicting Forest growth In Switzerland QUPFiS a novel analytical pipeline, leveraging a Swiss network of long-term forest-related observations
- 12:00-12:10 **Ionut Iosifescu Enescu et al.:** Forest data integration in the WSL environmental data portal EnviDat
- 12:10-12:20 **Till Kirchner et al.:** ICP Forests & LTER a first handshake between data infrastructures
- 12:20-12:30 **Tom Levanič**: Wrap up of Session 5
- 12:30-12:40 Chairs: Karin Hansen and Marcus Schaub: Closing
- 12:40-13:30 Lunch
- 13:30-18:30 Field trip together with participants of ICP Forests Task Force Meeting

## List of Posters

Poster session incl. pitching, Tuesday 16:30-18:30 (authors in alphabetical order)

Patricia Adame et al.: Litter carbon stock variability in the Spanish forest types

Edita Baltrenaite et al.: Processes and barriers involved in the contaminant mobility reduction through the life cycle of a tree

Vicent Calatayud et al.: Current ambient and elevated ozone effects on poplar: a global meta-analysis and response relationships

Goran Češljar et al.: Trends of average tree defoliation on sample plots Level I in Serbia

Albert Ciceu et al.: Crown defoliation effect on tree growth rates recorded at the Romanian Level II plots

Alexandru - Liviu Ciuvat et al.: Influence of climatic changes on the foliar nutrition of the main forest species found in ICP Level II core plots in Romania

Nicholas Clarke et al.: One size does not fit all: climate, N deposition and management of forest biomass removal in Norway

**Andrea Cutini** *et al.*: Shaping future forestry for sustainable coppices in southern Europe: the contribution of LIFE FutureForCoppiceS project

**Turgay Dindaroglu:** Determination of eco-region and corridor sensitivity for reclamation in the karst ecosystems

**Héctor García-Gómez** *et al.*: Eutrophication risk of European forests: a first approximation using empirical critical loads and atmospheric chemical models

Morten Ingerslev et al.: Time trends in nitrogen, and sulfur throughfall fluxes and soil solution concentrations

**lonuț losifescu Enescu et al.:** The conceptual framework of the WSL environmental data portal EnviDat

**Sheila Izquieta-Rojano** *et al.***:** Eco-physiological response of *Hypnum cupressiforme* Hedw. to increased atmospheric ammonia concentrations in a forest agrosystem

**Hubert Jochheim** *et al.*: Quantification of soil respiration and vertical partitioning of soil CO<sub>2</sub> production in a beech and a pine forest stand in the Northeast German Lowland

Vita Kreslina *et al.*: Changes in vascular plant communities in the third to fifth year in an experimental tree trial on arable land

Dagnija Lazdina et al.: Development of reforested stand on former peat mining area - a case study

**María López-Aizpún et al.:** Atmospheric ammonia concentration modulates soil enzyme and microbial activity in an oak forest soil microbial biomass

Miroslava Markovic et al.: Biological measure in seedlings protection

Katrin Meusburger et al.: Trends in dissolved organic carbon in soil solution at Swiss Level II plots

**Panagiotis Michopoulos** *et al.*: Nutrients in litterfall and forest floor in two adjacent forest ecosystems in the area of the mountain Ossa in northeastern Greece

Radek Novotný et al.: Trends in tree nutrition within the ICP Forests Level II plots in the Czech Republic

Heike Puhlmann et al.: Critical nitrogen loads for N sensitive forest communities

Snezana Rajkovic et al.: Ozone injury - Kopaonik - Level II

Hiroyuki Sase et al.: Multi-isotopic approach for monitoring on atmospheric deposition in forests in Japan

**Patrick Schleppi** *et al.*: Nitrate leaching and soil acidification in a long-term N-addition experiment to a sub-alpine forested catchment on Gleysol

**Cristian Gheorghe Sidor:** Phenological observations at 6 species of trees in the growing seasons 2014, 2015 and 2016 from Level II ICP Forests Romanian Network

**Inga Straupe** *et al.*: The assessment of anthropogenic air pollution in urban ecosystem using lichenoindication and snow samplings

Leho Tedersoo: Mycorrhizal types differ in ecophysiology and ecosystem functioning

Liisa Ukonmaanaho et al.: Concentrations of heavy metals in litterfall and soil in boreal forest

Lena Wohlgemuth et al.: Approach for a comprehensive assessment of the Hg pool in foliage across Europe

**Ružica Ždero Pavlović et al.:** Poplar cuttings under drought conditions induced with PEG6000

# **Programme Committee**

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## **Scientific Committee**

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