

Current research in air pollution and climate change effects on northern terrestrial ecosystems

Department of Biology, University of Oulu, Linnanmaa campus (Yliopistokatu),
Lecture room YB 210

Thursday, 1 December 2011

13.00-14.00 Registration

14.00-14.15 Welcome

Sirkku Manninen, University of Helsinki
Seppo Saarela, Head of Department of Biology, University of Oulu

Session I Carbon sequestration (Chair Pasi Rautio, Finnish Forest Research Institute)

14.15-14.50 Forest transition and the global trends of tree biomass

Pekka Kauppi, University of Helsinki, Finland

14.50-15.25 Winter and spring in northern forests: dynamic features and their consequences to climate change

Pertti Hari / Jaana Bäck, University of Helsinki, Finland

15.25-16.00 Climate change responses of boreal peatlands and forest trees – studies in Kuopio

Toini Holopainen, University of Eastern Finland, Finland

16.00-16.30 Coffee and tea (posters)

Session II Species and community responses (Chair Pasi Rautio, Finnish Forest Research Institute)

16.30-17.05 Dwarf shrubs under stress related to global change and air pollution

Kari Taulavuori, University of Oulu, Finland

17.05-17.40 Polluted areas of the Kola Peninsula: effects of multiple stressors on ecosystem structure and functions

Mikhail Kozlov, University of Turku, Finland

17.40-18.15 Climate change effects on reindeer pastures in Northern Scandinavia

Minna Turunen, Arctic centre, Rovaniemi, Finland

18.15-18.35 General Discussion

19-21 Buffet dinner at Botanical garden

Friday, 2 December 2011

Session III *Forest health (Chair Sirkku Manninen, University of Helsinki)*

9.00-9.45 Forest health monitoring from the 1980 to 2010, achievements, problems and perspectives

Marco Ferretti, TerraData environmetrics, spin off Accademico dell'Università di Siena, Italy

9.45-10.30 Decline and recovery of forests in the Black Triangle area of Europe
Josef Krecek, Czech Technical University, Prague

10.30-11.00 *Poster session*

11.00-11.30 *Coffee and tea (posters)*

Session IV *Effects on bryophytes (Chair Sirkku Manninen, University of Helsinki)*

11.30-12.05 Reactive nitrogen deposition: too much of a good thing for peatland ecosystems

Lucy Sheppard, Centre for Ecology and Hydrology, Edinburgh, Scotland

12.05-12.40 Ultraviolet radiation and bryophytes

Javier Martinez-Abaigar, University La Rioja, Spain

12.40-13.30 *Lunch (at your own cost)*

Session V *Phenological and biochemical responses (Chair Kari Taulavuori, University of Oulu)*

13.30-14.05 Growth of primordial shoot in Norway spruce buds preceding visible bud burst in relation to accumulated temperature in the field

Sirkka Sutinen, Finnish Forest Research Institute, Joensuu, Finland

14.05-14.40 Impact of geoclimate conditions on triterpenoid content of fruit and leaf cuticular waxes from Finnish and Polish *Vaccinium vitis-idaea* and *Vaccinium myrtillus*

Anna Szakiel, University of Warsaw, Poland

14.40- 15.10 *Coffee and tea (posters)*

Session VI *Ozone, nitrogen and climate effects (Chair Kari Taulavuori, University of Oulu)*

15.10-15.45 Plant acclimation under air pollution stress and changing climate

Sirkku Manninen, University of Helsinki, Finland

15.45-16.20 Prospects for future ozone effects on vegetation in the Nordic countries with consideration of climate change

Håkan Pleijel, Göteborg university, Sweden

16.20-16.45 *General discussion and closing remarks – Emerita professor Satu Huttunen*