

“Forest under changing climate, enhanced UV and air pollution”

<http://iufromeeting oulu.fi/index.htm>

was held on August 25-30, 2004, in Oulu, Finland, hosted by Department of Biology, Thule Institute and University of Oulu. We would like to express our sincere gratitude to the local organizer, Prof. Satu Huttunen, and her group for organizing such a successful meeting. A special thanks to Heli Kinnunen for preparing the following report.

The Meeting began on August 25 with the **excursion to Paljakka National Park and Environmental Specimen Bank**. The 23 participants were hosted by The Finnish Forest Research Institute and Muhos Research Station. At Muhos Research Station the co-operation between Forest Research Institute and University of Oulu was presented. At Paljakka Research Area the participants were introduced to old forest, key biotypes and threatened species and slashed and burned area. Dr. Jarkko Utriainen gave presentation about the Paljakka Environmental Specimen Bank, the research area and the storage of long-term environmental samples and co-operation between research institutes.

Microscopy Workshop (WG 7.04.02 Mechanisms of action and indicator development) was held on August 26 in the Department of Biology, chaired of by **Madeleine Günthardt-Goerg, Switzerland**. The Workshop was attended by 63 persons. Nine oral presentations and seven posters (with five minute-long summaries) were delivered. A “Get Together” party was held after the Workshop at Botanic Gardens and hosted by Profs. Satu Huttunen and Kari Laine.

On August 27 the IUFRO RG 7.04 meeting started in the University Main Building, Saalasti Hall. Research Group Coordinator **Elena Paoletti, Italy** (Plenary Session Chair) opened the meeting. University Vice Rector Vilho Myllylä welcomed the participants to the University of Oulu.

Keynote speakers on this forenoon session were:

- **Dr. Hans Martin, Canada:** The changing atmosphere.
- **Prof. Risto Seppälä, IUFRO President, Finland:** Forest research in changing world.
- **Dr. Pierre Vollenweider, Switzerland:** Why is a leaf not green? Differential diagnosis of senescence, consumer and environmental factors.
- **Prof. Gerhard Müller-Starck, Germany:** Genetic adaptation of tree populations to environmental stress - cases of experimental verification.

After lunch the meeting continued with **Session 7.04.01: Detection, monitoring and evaluation** chaired by **Marco Ferretti, Italy**. This session included six oral presentations. After the coffee break the session was chaired by **Annemarie Bastrup-Birk, Denmark**, with three presentations. In the afternoon **Dale W. Johnson, USA**, chaired the **session 7.04.03: Atmospheric deposition, soils and biogeochemistry** with eight presentations. In the end of the day, the City of

Oulu organised a reception in the Oulu City Hall. Hosts were Matti Pennanen, Pekka Vuononvirta and Veli Puolakka.

On Saturday, 28 August the Meeting continued in the Saalasti Hall. Plenary Session was chaired by **Andrzej Bytnerowicz, USA**.

Keynote speakers of this morning session were:

- **Prof. William Manning, USA:** Assessing plant response to ambient ozone: establishing a cause and effect relationship for ozone and tree growth in the forest.
- **Dr. Maria Sanz, Spain:** Ozone injury assessment: an overview.
- **Dr. Elena Paoletti, Italy:** Does living in elevated CO₂ ameliorate stomatal response to ozone in trees?
- **Prof. David Karnosky, USA:** Effect of long-term O₃ exposure on the productivity of a northern Wisconsin forest ecosystem.
- **Prof. Joe Sullivan, USA:** Response of North American trees and forests to UV-B radiation.
- **Prof. Jelte Rozema, The Netherlands:** Depletion of stratospheric ozone over the Antarctic and Arctic: responses of plants of polar terrestrial ecosystems to enhanced UV-B.

The meeting continued with **Session 7.04.02: Mechanisms of action and indicator development** chaired by **Christian Andersen, USA** with four presentations. After coffee break **Annemarie Bastrup-Birk, Denmark**, chaired **Session 7.04.01: Detection, monitoring and evaluation** with eight presentations. Poster session (all groups 7.04.01, 7.04.02 and 7.04.03) included 44 posters and the best poster was rewarded (congratulations to Päivi Soppela, Arctic Centre, University of Lapland). The programme ended with a general discussion and closing remarks by the Coordinator of 7.04.00, Elena Paoletti. In the evening 50 persons participated in the banquet at the hotel Radisson SAS, Restaurant Toivo (Restaurant Hope).

On 29-30 August an excursion to Lapland, Forest Lapland – Living in northern boreal forests was guided by Satu Huttunen, Sirkku Manninen and Heli Kinnunen. First stop was on Hirvisuo where Phil. Lic. Antti Huttunen presented information about the appa mire to 31 participants of the excursion. A coffee break was held at Ranua Zoo and lunch at Rovaniemi Arctic Centre. Information Manager Scott Forrest gave a short introduction to the Activities of the Arctic Centre, University of Lapland, and after that the participants had chance to see the exhibitions of the Arctic Centre. Accommodation was at Hotel Pyhä where Director Pertti Itkonen, Pyhätunturi National Park, presented Pyhätunturi National Park and Visitor Center and Senior Researcher John Derome, Finnish Forest Research Institute, Rovaniemi Research Station, introduced research activities in Lapland.

On Monday morning the excursion continued to Sodankylä, Tähtelä. Research Professor Esko Kyrö (Finnish Meteorological Institute/Arctic Research Centre)

and Director Tauno Turunen (Sodankylä Geophysical Observatory, University of Oulu) presented their institutions and research activities. Jaana Haapala, University of Joensuu, presented the FUVIRC – Ecosystem Research on peatlands. On the return journey to Oulu a quick stop was made at the Arctic Circle.

Over 90 participants representing 18 countries attended the Oulu meeting, and there were 46 oral presentations and 44 poster presentations which were published in the Abstract book. The reviewed manuscripts will be published in a Special Issue of Environmental Pollution and in an additional proceedings–book.