LRTAP
Long-range Transboundary Air Pollution

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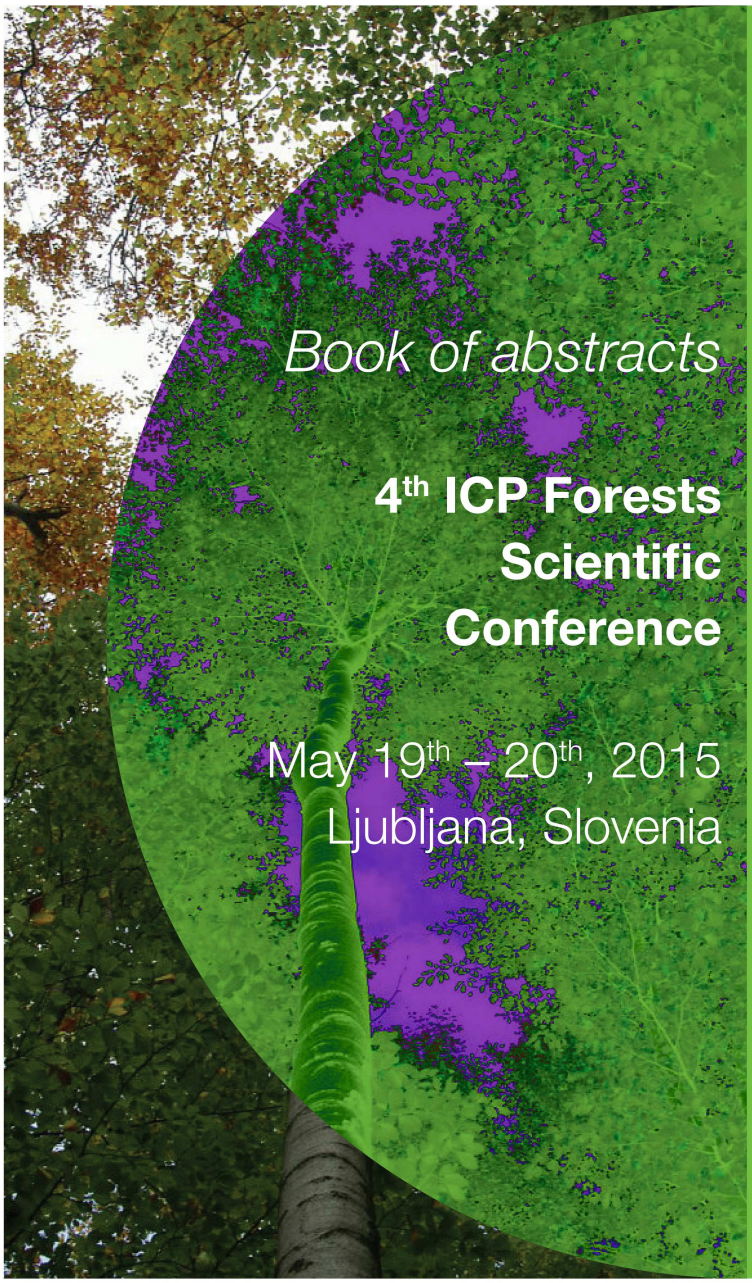
Working Group on Effects
of the
Convention on Long-range Transboundary Air Pollution

ICP Forests



Book of abstracts

4th ICP Forests Scientific Conference

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Long-term trends and effects of air pollution on forest ecosystems, their services, and sustainability

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Key note presentation

2000-2013 ozone trends across Europe

Marcus Schaub[1], Marco Ferretti[2], Elena Gottardini[3], Vicent Calatayud[4], Matthias Haeni[1]

[1] Swiss Federal Research Institute WSL, Zuercherstrasse 111, 8903 Birmensdorf, Switzerland.
E-mail: marcus.schaub@wsl.ch
[2] TerraData srl, 58025 Monterotondo Marittimo (GR), Italy
[3] IASMA Research and Innovation Centre, Fondazione Edmund Mach, Via E. Mach 1, 38010 San Michele all'Adige (TN), Italy
[4] Fundación CEAM, 46980 Paterna, Valencia, Spain

Tropospheric ozone (O_3) has been recognized as an important factor within global change, that has the capacity of reducing carbon sink strength of forest ecosystems and thus represents a priority for the UNECE Convention on Long-range Transboundary Air Pollution.

The ICP Forests Expert Panel on Ambient Air Quality has coordinated the monitoring of ozone concentration and effects (i.e. foliar injury on native vegetation) since 2000 on an annual basis on intensive long-term forest monitoring sites across Europe (Level II). Methodologies, including quality assurance such as data harmonization, completeness and plausibility tests have been applied according to the ICP Forests Manual, parts X and XV (Schaub et al. 2010a & 2010b). Here, the authors evaluate ozone concentration, exposure, and foliar injury data that have been collected at the very forest sites across Europe from approx. 200 plots and 20 countries. Emphasis will be put on European scale analyses for spatial and temporal trends for ozone concentration and AOT40 exposure. These harmonized and aggregated data sets will serve as a valuable basis for further integrated analyses and validation of models, such as from EMEP.

Schaub M, Calatayud V, Ferretti M, Brunialti G, Lövblad G, Krause G, Sanz MJ (2010a) Monitoring of Ozone Injury. Manual Part X, 22 pp. In: Manual on methods and criteria for harmonized sampling, assessment, monitoring and analysis of the effects of air pollution on forests. UNECE ICP Forests Programme Co-ordinating Centre, Hamburg [http://www.icp-forests.org/Manual.htm]
Schaub M, Calatayud V, Ferretti M, Brunialti G (2010b) Monitoring of Air Quality. 13 pp. Part XV. In: Manual on methods and criteria for harmonized sampling, assessment, monitoring and analysis of the effects of air pollution on forests. UNECE, ICP Forests Programme Co-ordinating Centre, Hamburg [http://www.icp-forests.org/Manual.htm]