



Ozone Critical Levels Workshop

Convention on Long-range Transboundary Air Pollution

CIEMAT, Madrid, Spain

7th – 9th November, 2016

Programme

Local organisers: Ignacio González (ignacio.gonzalez@ciemat.es), Rocío Alonso (rocio.alonso@ciemat.es), Victoria Bermejo (victoria.bermejo@ciemat.es) and Isaura Rábago (isaura.rabago@ciemat.es), Ecotoxicology of Air Pollution, Environment Department, CIEMAT, Madrid.

Meeting chair: Gina Mills (gmi@ceh.ac.uk), Head of the Programme Coordination Centre for the LRTAP Convention's¹ ICP Vegetation², Centre for Ecology and Hydrology, Bangor, UK

Note: Speaker's names are in bold font in the programme. The numbers in brackets represent number of minutes for presentation followed by number of minutes for discussion.

¹United Nations Convention on Long-range Transboundary Air Pollution

²International Cooperative Programme on Effects of Air Pollution on Natural Vegetation and Crops



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Programme

Monday 7th November

08:15 Bus departs from Hotel Moncloa to CIEMAT

Session 1, 08:50 to 10:30. Chair Ignacio González, Spain

08:50 - 09:10 Welcome by:

Maj-Britt Larka Abellán (Deputy Director of Air quality and Industrial Environment, Ministry of Agriculture, Food and Environment)

Yolanda Benito Moreno (Director of the Environmental Department of CIEMAT)

Isaura Rábago (Chair of the Working Group on Effects of LRTAP Convention)

Gina Mills (Head of the ICP Vegetation Programme Coordination Centre)

09:10 – 09:30 Ozone impacts in Mediterranean areas (15, 5)

Ecotoxicology of Air Pollution Group, CIEMAT

09:30 - 09:45 New developments for crops (10, 5)

Håkan Pleijel, G. Mills, H. Harmens, H. Danielsson, G. Gerosa, F. Hayes, R. Marzuoli, A. Finco, M. Chiesa

09:45 – 10:15 New developments for trees (20, 10)

Patrick Büker, L. Emberson, R. Alonso, S. Braun, G. Gerosa, D. Gillies, H. Harmens, P.E. Karlsson, R. Marzuoli, G. Mills, C. Schindler, D. Simpson

10:15 – 10:30 Discussion

10:30 – 11:00 Coffee break with posters

Session 2, 11:00 to 13:00. Chair Jürg Fuhrer, Switzerland

11:00 – 11:45 New developments for (semi-)natural vegetation (2 x 15, 15)

Felicity Hayes, I. González, E. Bermann, J. Bender and members of the semi-natural vegetation working group

11:45 – 12:05 Representing certainty/uncertainty in critical levels and response functions (10, 10)

Håkan Pleijel and G. Mills

12:05 – 12:25 Choice of 'pre-industrial' ozone and examples of flux calculations (10, 10)

Harry Harmens, F. Hayes, G. Mills, P. Büker, H. Danielsson, H. Pleijel, I. González

12:25 – 12:45 Modelling the ozone concentration at the top of the canopy (10, 10)

Giacomo Gerosa, J.-P. Tuovinen, L. Grünhage, D. Simpson

12:45 – 13:00 Discussion

13:00 – 14:00 Lunch

Session 3, 14:00 – 15:30. Chair Lisa Emberson, UK

14:00 – 14:15 Budbreak of beech and birch in a changing climate (15, 0)

Sabine Braun, S. Müller and P.-E. Karlsson

14:15 – 14:30 Estimating ozone sensitivity periods for trees in northern Europe (15, 0)

Per Erik Karlsson, S. Braun, H. Pleijel, J. Klingberg, Å. Dahl, G. Wallin, M. Engardt, K. Bolmgren

14:30 – 14:45 Phenology, accumulation period and climate change (15, 0)

Ludger Grünhage & J. Bender

14:45 – 15:05 Discussion of timing of phenology (will be continued in groups)

15:05 - 15:20 Soil moisture and how it is included within the EMEP model (10, 5)

Dave Simpson

15:20 – 15:30 Discussion

15:30 – 16:00 Coffee break and poster viewing

Working Group Discussions

For the next three sessions, the meeting will split into two working groups:

Crops and (semi-) natural vegetation (Co-chairs, Håkan Pleijel, Sweden and Ignacio González, Spain)

- Decisions on changes to crops CLs
- New recommendations for (semi-)natural vegetation
- Agreeing on critical levels from functions provided in background documents
- Timing of phenology

Forest trees (Chair, Patrick Büker, UK)

- Analysis of dose-response curves: Proposal of the Random Effects Method (Christian Schindler and **Sabine Braun**)
- The Net Annual Increment approach and potential inclusion in the Mapping Manual (Patrick Büker or Lisa Emberson)
- Critical levels for Mediterranean forest species: evergreen and deciduous (Rocío Alonso, Giacomo Gerosa et al.,
- Agreeing on critical levels from functions in background documents

- Timing of phenology

16:00 – 17:30 Session 4. Discussion groups (1)

17:45 Bus departs for Hotel Moncloa

Tuesday 8th November

08:15 Bus departs from Hotel Moncloa to CIEMAT

08:45 - 10:30 Session 5. Discussion groups (2)

10:30 – 11:00 Coffee break

11:00 – 13:00 Session 6. Discussion groups (3)

13:00 – 14:00 Lunch

14:00 – 15:30 Plenary session (Session 7). Chair Gina Mills, UK

- Decisions and recommendations for the Mapping Manual
 - Crops
 - (Semi-)natural vegetation
 - Trees
- Discussion of new chapter structure (Harry Harmens to lead)
- Time schedule for making changes to the Mapping Manual Chapter.

15:30 – 16:00 Coffee break

16:00 - 17:00 Continued plenary discussions or working groups to discuss writing plans (to be decided)

17:15 Bus departs for Hotel

20:00 Conference Dinner at a city centre restaurant, details to follow

Wednesday 9th November

Scientific excursion (more details to follow during the meeting)

It is planned to visit the main forest ecosystems in the Guadarrama mountains and the National Park (<http://www.parquenacionalsierraguadarrama.es/>).

Departure time will be around 8:30 (time to be confirmed during the meeting) and finish around 15:30 with drop off in the airport for those wishing to leave immediately after the excursion.