



**Centre for
Ecology & Hydrology**

NATURAL ENVIRONMENT RESEARCH COUNCIL



CAPER 2010

**35th Annual Meeting
York University**

Monday 29th - Wednesday 31st

March 2010

Programme & Abstracts
Secretariat sponsored by DEFRA

Registration at Conference Rooms in Vanbrugh College,

(use this website for transport and location details <http://www.york.ac.uk/np/maps>)

MONDAY 29 MARCH, 2010

Surveys and N impacts		Session Chair: Gareth Phoenix
13.30	Will Cook <i>Defra</i>	How research helps to inform policy.
13.50	Chris Fields <i>MMU</i>	Identifying potential drivers of change from a multi-habitat survey.
14.10	Georgina Southon <i>Imperial College</i>	A survey of bioindicators as tools for inferring nitrogen deposition driven changes in heathland ecosystems.
14.30	Eva Remke <i>Netherlands</i>	Spatial trends in nitrogen content in <i>Cladonia portentosa</i> ; potential to use as a biomonitor for atmospheric nitrogen deposition.
14.50	Jason Lewis <i>CEH Edinburgh</i>	The value of epiphytes on twigs and trunks as indicators of ammonia concentrations across the UK.
15.10	Laurence Jones <i>CEH Bangor</i>	Nitrogen impacts in fixed sand dune grassland: results from a gradient survey and implications of ammonia point sources.
15.30	General Discussion	
15.45	TEA	
16.15	Marleen Pierik <i>Netherlands</i>	Recovery of plant species richness during long-term eutrophication of a species rich grassland.
16.35	Mark Lee <i>Imperial College</i>	The impacts of roads on the structure and function of calcareous grasslands.
16.55	Steven Lees <i>Sheffield University</i>	Bryophyte responses to N deposition: a national survey.
17.15	Netty van Dijk <i>CEH Edinburgh</i>	Soluble ammonium in mosses: its value as a bioindicator.
17.35	General discussion	
18.30	DINNER	
19.30	Poster pub (5 minute presentations on the posters)	
21.00	Committee meeting	

TUESDAY 30 MARCH 2010

Experimental Studies and N manipulations		Session Chair: Sally Power
9.00	Maaike de Graaf <i>Netherlands</i>	Biodiversity, vegetation gradients and key biogeochemical processes in the heathland landscape.
9.20	Teresa Dias <i>Lisbon University</i>	Increased N availability in a Mediterranean ecosystem in Portugal: linking above- and below-ground changes.
9.40	Ishaq Mian <i>York University</i>	Do plants evolve to regulate their own soil N supply?
10.00	Muhammad Riaz <i>York University</i>	Role of litter in the biogeochemical cycling of C and N in an acidic grassland ecosystem.
10.20	María Arróniz-Crespo <i>Madrid</i>	Foundation study for the establishment of a biomonitoring network for nitrogen deposition in México.
10.40	General Discussion	
10.50	COFFEE	
11.20	Pi-Hui Suzi Chang <i>Imperial College</i>	How do changes in heathland plant community composition affect ecosystem function?
11.40	Ros Jones <i>Aberystwyth University</i>	Metabolomic interrogation of mosses exposed to N deposition reveals plant responses at low doses at different spatial scales.
12.00	Pat Wolseley <i>Natural History Museum</i>	Lichens, air quality and citizen science.
12.20	Matt Jones <i>CEH Edinburgh</i>	Processes involved in surface exchange of ammonia with a fertilised canopy in North Carolina.
12.40	General Discussion	
13.00	LUNCH	
Climate Change		Session Chair: David Fowler
14.15	Invited lecture by Peter Cox <i>Exeter University</i>	Air pollution and climate change, implications for ecosystems.
15.15	James Clark <i>York University</i>	Getting chemical value from biomass.
15.45	TEA	

16.15	C Trust (tba)	
16.45	Magnus Kelly <i>CEH Edinburgh</i>	How N deposition affects CO ₂ exchange on an ombrotrophic peatland
17.15	Julia Drewer <i>CEH Edinburgh</i>	How do greenhouse gas emissions from bioenergy crops differ from conventional crops?
17.35	Muhammad Ahmad <i>York University</i>	Hydrogen fluoride pollution impacts on fruit trees in Peshawar.
18.30	DINNER	
19.30	Terrestrial Umbrella meeting to discuss last summers' survey	

WEDNESDAY 30 MARCH, 2010

Field studies of Ozone effects Session Chair: Mike Ashmore		
8.40	Chubamenla Jamir <i>York University</i>	Ground Level Ozone (O ₃) and Crop Yield in South Asia and its Subsequent Economic Effect.
9.00	Gina Mills <i>CEH Bangor</i>	Quantifying ozone effects on crops: Implications for food security.
9.20	Felicity Hayes <i>CEH Bangor</i>	From experiments to policy: flux-effect relationships for semi-natural vegetation.
9.40	Kirsten Wyness <i>CEH Bangor</i>	Ozone and nitrogen effects on soil microbial communities.
10.00	Muhammad Adrees <i>Imperial College</i>	Nitrogen deposition as a modifier of plant response to ozone.
10.20	General Discussion	
10.30	COFFEE	
11.00	Sofia Khalid <i>Imperial College</i>	Combined effects of ozone and drought on mesotrophic grassland communities.
11.20	Sylvie Toet <i>York University</i>	Effects of ozone on CH ₄ and CO ₂ fluxes from mire mesocosms.
11.40	Jeremy Barnes <i>Newcastle University</i>	Impacts of ozone on a legume-rich sand-dune community.
11.50	Kirstin Wedlich <i>York University</i>	A field study of the effects of ozone on an upland grassland.
12.10	Simon Peacock <i>Newcastle University</i>	Impacts of ozone on upland mesotrophic grassland.
12.30	Zoe Masters <i>JNCC</i>	A view from the Conservation Agencies.
12.40	David Fowler <i>CEH Edinburgh</i>	'Completion of the RoTAP report'.
13.00	LUNCH & END	