

CAPER 2019: Meeting Programme

Day 1: Wednesday 8th May

0915. *Whim Bog field trip. Please meet at ECCI car park.*

1200. *Lunch.*

1300. Dave Reay (University of Edinburgh). Welcome to ECCI and CAPER 2019; introduction to keynote speaker.

1310. Keynote talk: Dick Bal (Dutch Ministry of Agriculture, Nature, and Food Quality). Avoiding deterioration due to nitrogen deposition by applying ecological measures in Natura 2000 sites: lessons learned in The Netherlands.

Session 1. Air pollution impacts on plants and soils. Chair: Susan Zappala

1400. Kirsti Ashworth (Lancaster Environment Centre, Lancaster University). Ozone impacts on respiration and photosynthesis rates in three contrasting forest ecosystems.

1420. Katrina Sharps (Centre for Ecology & Hydrology (CEH), Bangor). Closing the global ozone yield gap.

1440. Emmanuel Boateng (Manchester Metropolitan University). Fractions of soil phosphorus and their availabilities to plants in a fertilised lowland heath.

1500. Netty van Dijk (CEH Edinburgh). Nitrogen damage and signs of recovery in Moninea Bog, Northern Ireland.

1520. *Coffee*

1550. Mark Sutton (CEH Edinburgh). Nitrogen science and champions: from South Asia to the world.

Session 2. Metrics and predictions of air pollution effects. Chair: Stefan Reis

1610. Sam Tomlinson (CEH Lancaster). Predicting topsoil concentrations of five metals in the UK from 1750 to 2100.

1630. Ed Rowe (CEH Bangor). Are current metrics of air pollution impacts adequate for planning policy responses?

1650. Richard Payne (University of York). Ecologically-meaningful metrics of nitrogen deposition.

Short poster presentations

1710. Clare Brewster (CEH Bangor). Ozone tolerance found in *Aegilops tauschii* and synthetic wheat.

1720. Isabel Thomas (CEH Edinburgh). Atmospheric N input to a designated site in Northern Ireland: modelling and measurement.

1730. Sim Tang (CEH Edinburgh). Integrating UK environmental networks to monitor air pollution impacts on terrestrial and freshwater ecosystems: a new initiative.

1740. Catharine Pschenyckyj (Northumbria University). Effects of acidity on DOC in peatland soil extracts, pore water and surface litters.

1750. Alexandra Burkitt (University of York). Peering into the hidden world: photosynthetic microbes as functionally-significant indicators of peatland degradation and restoration.

1800. *Reception and poster session*

1930. *Conference Dinner: Vittoria on the Bridge, 19 George IV Bridge, Edinburgh EH1 1EN*

Day 2: Thursday 9th May

0900. Panel discussion on public engagement in air pollution impacts science. *Chair: Mark Sutton*

Panel: Jenny Hawley (Plantlife), Felicity Hayes (CEH Bangor), Dave Reay (University of Edinburgh).

10 minute presentation per panellist followed by 30 minute open discussion.

Session 3. Public health & pollution mitigation. Chair: Mat Heal

1000. Keith McWhinnie (Scottish Government). The agriculture chapter of Scotland's climate change plan 2018-2032.

1030. *Coffee.*

1100. *Mike Ashmore Bursary Award:* Karina Corada (Imperial College London). The influence of leaf traits and external factors to maximise particulate matter removal in urban areas.

1120. Sirkku Manninen (University of Helsinki, Finland). Relationships between occurrence of epiphytic lichens and atmospheric NO_x and SO₂ concentrations – urban case studies from Helsinki, southern Finland.

1140. Edward Carnell (CEH Edinburgh). Measures for mitigating ammonia: assessment of the effects of Rural Development Programme for England (RDPE) environmental land management schemes on air quality.

1200. Sumil Thakrar (University of Minnesota, USA). Assessing avoided air quality-induced premature mortality from agricultural interventions.

1220. *Lunch.*

Session 4. Modelling of pollution emissions, deposition, and impacts. Chair: Rob Kinnersley

1330. Jessica Virdo (Ricardo Energy and Environment). Dispersion modelling of ammonia emissions from vehicles and prediction of air quality impacts at designated sites.

1350. Tony Dore (CEH Edinburgh). Modelling the concentration of ammonia and deposition of nitrogen in the UK and exceedance of critical loads and levels.

1410. David Kelleghan (University College Dublin). AmmoniaN2K: Ireland, ammonia and Natura 2000 sites.

1430. Ulli Dragosits (CEH Edinburgh). Impact of ammonia emission reduction scenarios on predicted N deposition and effects on designated sites in Northern Ireland.

1450. Nancy Dise (CEH Edinburgh). Close of meeting, and CAPER 2020.

1500. *Coffee.*

1530. *CAPER Steering Committee meeting. Location: ECCI breakout room.*