

## 2023 AUTUMN CONFERENCE PROGRAMME 22<sup>ND</sup> & 23<sup>RD</sup> NOVEMBER 2023 MODERNISING ECOLOGY – TECHNIQUES AND APPROACHES

SESSION 1. Modernising ecological approaches	
<b>Chair: Richard Handley CEcol MCIEEM, CIEEM President</b>	
<b>09:45</b>	<b>Welcome and Introduction</b>
<b>09:50</b>	<b>Keynote: evidence based approaches to transform ecology</b> Prof Bill Sutherland CBE, University of Cambridge
<b>10:15</b>	<b>Modernising the monitoring and assessment of SSSIs in England</b> Richard Askew, Natural England
<b>10:40</b>	<b>Machine Learning-Driven Species Distribution Modelling: advancing ecological impact assessments</b> Matt Whittle ACIEEM, Jacobs
<b>11:05</b>	<b>Break</b>
SESSION 2. Innovative approaches to monitoring biodiversity	
<b>11:35</b>	<b>The Good Practice Guidelines for Long-term Ecoacoustic Monitoring in the UK</b> Dr Carlos Abrahams FCIEEM, Baker Consultants
<b>12:00</b>	<b>Innovating radio-tracking of bats: an approach to remote data collection</b> Charlotte Wevill MCIEEM and Chris Kerfoot CEcol MCIEEM, Jacobs
<b>12:25</b>	<b>How Natural England is collecting and using DNA derived data in monitoring</b> Dr Harriet Knafler, Natural England
<b>12:50</b>	<b>Lunch</b>
SESSION 3. Workshops / Breakout Sessions	
<b>13:50</b>	<ol style="list-style-type: none"> <li><b>1. Using open source tools to automate analytics and reporting</b> Dr Dan Carpenter CEnv, Digital Ecology</li> <li><b>2. Software and apps for planning and monitoring the implementation of Biodiversity Net Gain</b> <ul style="list-style-type: none"> <li>- Using data management software to help Local Planning Authorities monitor the implementation of Biodiversity Net Gain. Dr Helen Markland MCIEEM, and Dr Mikael Forup CEnv MCIEEM, Verna</li> <li>- The UKHab Survey application – Streamlining Habitat Surveys and BNG assessments for Professional Ecologists. Dave Kilbey, Natural Apptitude</li> </ul> </li> <li><b>3. Mainstreaming molecular methods in survey and monitoring</b> <ul style="list-style-type: none"> <li>- The pros and cons of traditional microscopy and eDNA as indicators of forest-to-bog restoration success. Dr Angela Creevy AFHEA, Liverpool Hope University</li> <li>- Soil environmental DNA metabarcoding can quantify local plant diversity for biomonitoring across varied environments. Emma Duley and Dr Julian Donald, University of Plymouth and Eden Project University Centre</li> </ul> </li> <li><b>4. Revisiting satellites and remote sensing</b></li> </ol>

	<ul style="list-style-type: none"> <li>- The truth about satellites - advantages and limitations of utilising an ever-present and growing source of information for environmental monitoring. Richard Flemmings FRGS, CGeog, Map Impact</li> <li>- Mapping the wetlands without getting wet; how technology is helping tropical wetland monitoring. Christopher May, TCI Gov, and Dr Katie Medcalf CEnv MCIEEM M.I. Soil Sci, Environment Systems</li> </ul>
<b>14:50</b>	<b>Break</b>
<b>SESSION 4. Innovation in landscape scale planning and assessment</b>	
<b>15:20</b>	<b>Using innovation to build Derbyshire's Natural Capital Strategy</b> Gemma Bell CEnv, MCIEEM, Environment Systems
<b>15:45</b>	<b>A landscape-scale approach to ecological impact assessment and net gain delivery</b> Lucy Fay, Arcadis
<b>16:10</b>	<b>Green bridging with AI: quantitative analysis of ecological connectivity for green infrastructure</b> Dr Lewis Deacon MCIEEM CEnv, and Dr Peter Hurley AECOM
<b>16:35</b>	<b>Summary and Close Day 1</b>

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<b>09:00 - Welcome and Introduction</b>	
<b>AGM 09:00 – 09:55</b>	
<b>SESSION 5: Modernising our profession</b>	
<b>Chair: Sally Hayns CEcol FCIEEM, CEO CIEEM</b>	
<b>10:05</b>	<b>New approaches to Raising Standards in ecology and environmental management</b> Dr Mark Nason, CIEEM
<b>10:15</b>	<b>New routes into the profession – could vocational career paths help reach capacity crisis goals?</b> Dr Alina Congreve, Resources for Change
<b>10:40</b>	<b>Hidden barriers and breaking taboos</b> Sarah Simons CEnv MCIEEM, Amey, and Naomi Webster, Bat Conservation Trust
<b>11:05</b>	<b>Break</b>
<b>SESSION 6. Workshops / Breakout Sessions</b>	
<b>11.35</b>	<ol style="list-style-type: none"> <li>1. Proud to have a Green Job for Nature. Sally Hayns CEcol FCIEEM, (CIEEM), and CIEEM Early Career Special Interest Group members Marcus Kohler MCIEEM (MKA Ecology), and Rachel Bentley MCIEEM, Environment Agency</li> <li>2. Challenges and opportunities of the four-day working week. Julian Arthur Cicol MCIEEM (Tyler Grange), Tom Tew MCIEEM FRSA FRSB (NatureSpace Partnership), and Gavin Ward CEnv MCIEEM PIEMA, Baker Consultants</li> <li>3. Transforming access to careers in ecology and environmental science – build your dream team. Dr Alina Congreve and Neil Smith (Resources for Change)</li> <li>4. The Miseducation of Lauryn Hornbill: The role of arts practices in driving conservation change, representation and wellbeing. Daniel Flenley MCIEEM, WSP</li> </ol>
<b>12:35</b>	<b>Lunch</b>
<b>SESSION 7: New applications and analysis of spectral data</b>	

<b>13:35</b>	<b>Using LiDAR to detect hazel dormouse hibernaculum</b> Leo Gubert CEnv MCIEEM, University of Exeter
<b>14:00</b>	<b>Thermal imagery as a tool for ornithological survey and beyond</b> Lucy Covell, Atkins, and Paul Watts CEnv MCIEEM, NIRAS
<b>14:25</b>	<b>Digibat</b> Dave Byett MCIEEM, Jo Bates CEnv MCIEEM and Iwan Munro, Mott MacDonald
<b>14:50</b>	<b>Break</b>
<b>SESSION 8: New directions</b>	
<b>Chair: Richard Handley CECol MCIEEM, CIEEM President</b>	
<b>15:20</b>	<b>Robotics and Autonomous Systems: silver bullets or threats for ecologists?</b> Dr Stephen Pringle, University of Kent
<b>15:45</b>	<b>The use of AI and bioacoustics for short and long term monitoring of biodiversity</b> Geoff Carrs, Wilder Sensing, and Ken Lipscomb CEnv MCIEEM, Atkins
<b>16:10</b>	<b>Soil acoustics – the sounds of the underground</b> Karthik Ashok and Dr Carlos Abrahams FCIEEM, Baker Consultants
<b>16:35</b>	<b>Summary and Close</b>