SECURING OUR NATURAL ENVIRONMENT FOR FUTURE GENERATIONS

23–24 MAY 2018 MANCHESTER, UK #N4FG18

A JOINT MEETING OF THE BES AND UK CONSERVATION AGENCIES





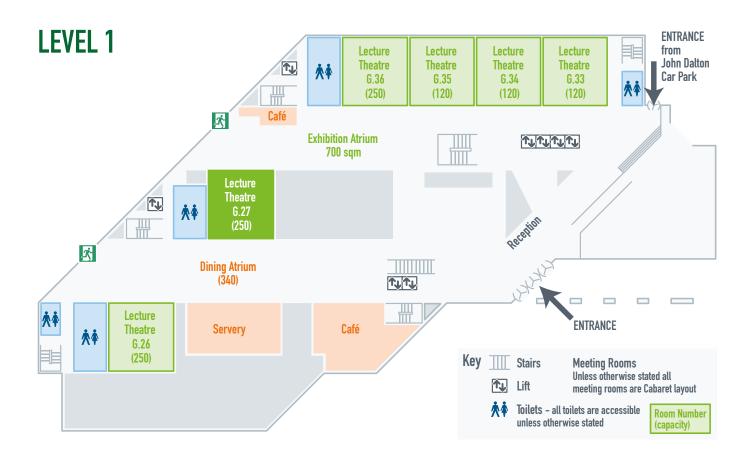








BUSINESS SCHOOL FLOOR PLAN

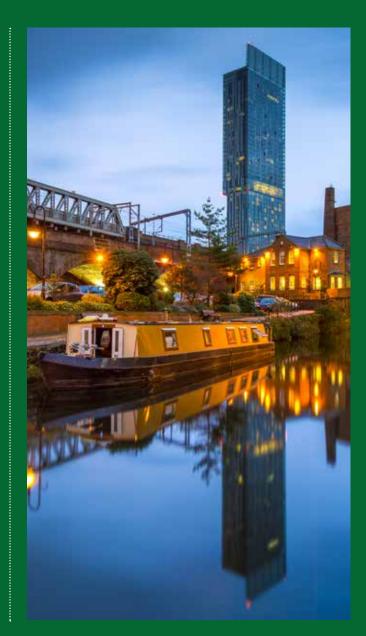




A JOINT MEETING 23–24 MAY 2018 MANCHESTER, UK CONSERVATION AGENCIES

CONTENTS

FLOOR PLAN	2
CONTENTS	3
CODE OF CONDUCT	4
WELCOME FROM ORGANISERS	5
PRESIDENT'S INTRODUCTION	6
PROGRAMME OVERVIEW	7
INVITED SPEAKERS	8
WORKSHOPS	12
BES POLICY FELLOWSHIP	14
ORAL PRESENTATIONS	16
POSTER PRESENTATIONS	18
DELEGATE INFORMATION	20
OUR EXHIBITORS	22



CODE OF CONDUCT

The British Ecological Society believes that no one should experience discrimination or harassment of any kind.

We want to ensure that everyone who attends any event hosted by or on behalf of the BES and its special interest groups feels welcome, safe and comfortable. We also seek to ensure that everyone feels they are able to report any incidences of discrimination, harassment or abuse of any kind.

Everyone can face discrimination or harassment and all reported incidents will be treated with respect and managed appropriately. The BES has a full safeguarding policy that covers all our activities and you are welcome to ask the main office for a copy. Part of our policy is to share our code of conduct with you.

We ask all organisers of and participants in our events to read and abide by the following code of conduct, so that everyone is able to enjoy, learn and share their research in a safe and welcoming environment.

Everyone is encouraged to demonstrate exemplary behaviour to promote the welfare of all participants and reduce the likelihood of any allegations of misconduct being made. This includes

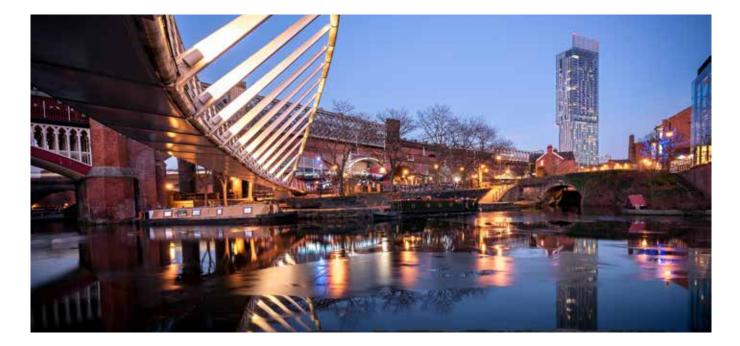
- Working in an open environment where ever possible
- Treating everyone equally, with respect and dignity at all times
- Always putting the welfare of individuals first

- Maintaining a safe and appropriate physical and emotional distance in all interactions
- Maintaining a professional and friendly but nonpersonal, non-sexual dialogue at all times with all participants

Any manual or physical contact should be avoided wherever possible and when required seeks permission, is openly provided and reported where necessary

If you feel you would like to make a complaint or report any negative behaviour you have experienced or witnessed please do find a member of BES staff. All our staff have been provided with training and will be able to offer support.

If you do not wish or feel you cannot report to staff at the event, you can send a confidential email to Karen Devine, Karen@britishecologicalsociety.org our safeguarding lead. All emails will be responded to as a matter of priority.



WELCOME FROM ORGANISERS

Welcome to the first joint conference between the UK's five nature conservation agencies and the British Ecological Society.

The conference aims to help set the direction for nature conservation in the UK. We know that climate change, consumption, population growth, changing land use and competition for resources are already impacting nature heavily. We are also undergoing pivotal social and political change: trading relationships, new technologies, natural capital approaches, innovations in practice, responses to inequalities, people's changing relationship with nature and the devolved and rapidly evolving policy agendas, notably following the UK's decision to leave the European Union, are just some examples. Where does nature conservation sit in relation to these changes? Who is nature conservation for and what should be our policy and delivery priorities? What role should the natural environment play in the UK's future?

We hope all of these questions will be touched upon during this conference, which brings together policy officials, practitioners and natural and social scientists: you are the people who have the ideas and who can help build the strong science-policy partnership we need to face these challenges. We have a fantastic programme of speakers, but we have planned a truly interactive event, where all participants can contribute. Please make the most of the many opportunities to do so, both to make your views heard and to make new and lasting contacts. We are hugely grateful to the Manchester Metropolitan University for hosting us, and we look forward to two informative and enjoyable days.

Dr Helen Baker

Marine Species Team Leader Joint Nature Conservation Committee (JNCC)

Dr Peter Brotherton

Director of Specialist Services and Programmes Natural England

Dr Catherine Duigan

Evidence Analysis Manager Natural Resources Wales

Dr Clive Mitchell

Strategy Development Scottish Natural Heritage

Prof Des B.A. Thompson

Principal Adviser on Science and Biodiversity Scottish Natural Heritage

Prof Zoe Davies

Professor in Biodiversity Conservation Durrell Institute of Conservation and Ecology (DICE) University of Kent



School of Anthropology and Conservation

PRESIDENT'S INTRODUCTION

It is a great pleasure to welcome you to Manchester for this joint meeting of the British Ecological Society and UK's Statutory Nature Conservation agencies: Securing our Natural Environment for Future Generations.



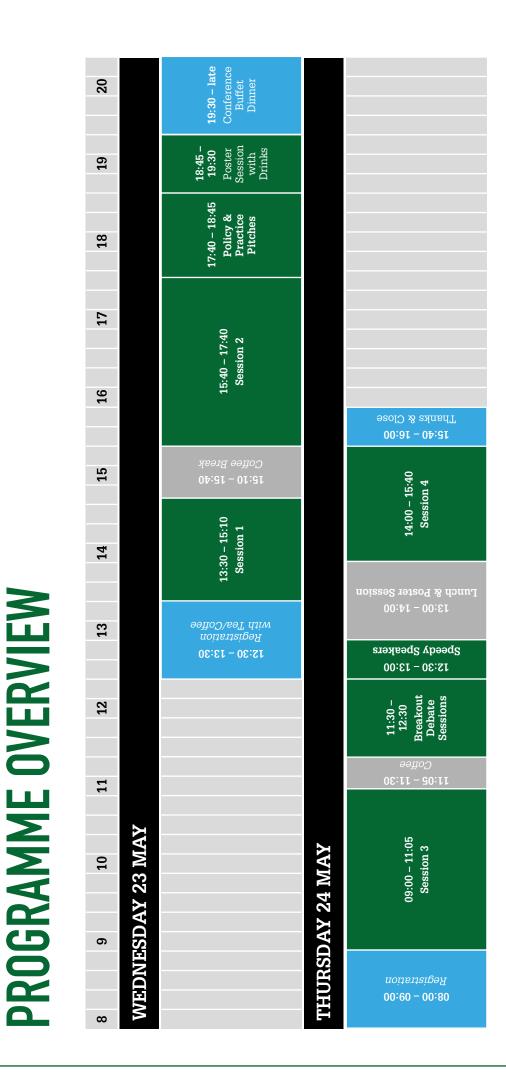
The theme of this meeting couldn't be timelier. The natural environment is changing fast due to increasing pressure from human activities, but also we are undergoing a period of major political and societal change, including changing attitudes to nature. These changes will not only influence our future use of our natural environment, but also our impact upon it. For these reasons, nature conservation is clearly at an important crossroads.

This conference tackles these issues by bringing together policy officials, practitioners, natural, and social scientists to ask important questions about our natural environment and the challenges it faces, and to set a new direction of travel for nature conservation in the UK. The theme couldn't be more relevant to the BES, especially our strategic goal of building capacity for interdisciplinary work through collaboration between scientists, practitioners, and policy-makers. Understanding basic principles of ecology is also crucial for setting the future direction of nature conservation in the UK. And through our Policy Team - who will be attending the meeting - the Society is committed to ensuring that such decisions are underpinned by worldleading ecological science.

The conference organisers have put together an exciting programme, covering many perspectives and formats that will no doubt encourage lively discussion and debate. Organising conferences is rewarding, but it is also hard work. As such, I would like to take this opportunity to thank all involved for putting together such a timely and interesting programme.

Finally, it is always a pleasure to welcome people to Manchester. It will be a busy meeting, but I very much hope that you find some time to explore at least a bit of this vibrant, diverse and creative city.

Richard Bardgett BES President



PROFESSOR SIR JOHN LAWTON CBE FRS



RSPB Vice President, President of the Yorkshire Wildlife Trust, President of The Institution of Environmental Sciences

John is a retired environmental scientist and currently (amongst many other things) President of the Yorkshire Wildlife Trust. He was Chairman of the Royal Commission on Environmental Pollution (2005-2011), Chief Executive of the Natural Environment Research Council (1999-2005), and Chair of Making Space for Nature (2010). He trained as a zoologist at Durham, and subsequently held posts at Oxford and York Universities, and Imperial College London. He is a passionate natural historian, and enjoys walking, gardening and cooking. He is married to Dot, with two grown up children and five (almost grown up) grandchildren.

DARA MCANULTY



Young Fermanagh Naturalist

Dara McAnulty is a 14 year old naturalist from County Fermanagh, Northern Ireland. He is passionate about wildlife, nature and conservation. He has articles published for New Nature. The Wildlife Trusts, Wader Quest, Wildlife Watch and The Curlew. In 2017 he was awarded the Springwatch Unsprung Wildlife Hero, Birdwatch Magazine Local Hero, 30Days Wild Junior Blogger Award and Runnerup BBC Wildlife Magazine blogger of the year. Dara has appeared on BBCNI's 'Homeground' and recorded two BBC Radio 4 'Tweet of the Day' programmes. All of Dara's writing, appearances and recordings focus on the plight of nature and conservation. He strives to make people more aware of many conservation issues and importantly- how they can help. View Dara's blog at: www.youngfermanaghnaturalist.com

CHRIS GILLIGAN

Chair of the Joint Nature Conservation Committee



Professor Gilligan is Chair of the Joint Nature Conservation Committee. He is also Professor of Mathematical Biology at the University of Cambridge, where he was previously Head of the School of Biological Sciences. He has chaired a number of complex bodies including a number of research review committees for BBSRC, the Science Advisory Council for Defra and Defra's Tree Health and Plant Biosecurity Taskforce. He is currently a Trustee of the Natural History Museum. Professor Gilligan's research is focused on establishing and testing a theoretical framework that identifies the mechanisms that control invasion, persistence, scaling and variability of epidemics within changing agricultural and natural landscapes.

SOPHIE HOWE

Future Generations Commissioner for Wales



Sophie was appointed as the first Future Generations Commissioner for Wales in February 2016. Her role is to act as a guardian for the interests of future generations in Wales, and to support the public bodies listed in the Well-being of Future Generations (Wales) Act 2015. Prior to this role, Sophie was the first Deputy Police and Crime Commissioner for South Wales. In this role, she led programmes to tackle violent crime and violence against women and girls, focusing on early intervention and partnership working. With a background in equality and diversity having managed the legal department in the Equal Opportunities Commission, Sophie has also been a policy adviser in the Equality and Human Right Commission, a Special Adviser within the Welsh Government and was a local councillor at the age of 22.

HENK VAN ZEIJTS



Project manager Nature Outlook 2016, PBL Netherlands Environmental Assessment Agency

Henk van Zeijts (1966) is senior researcher at PBL Netherlands Environmental Assessment Agency, in The Hague. Since 2013, he is project manager of the four-yearly Nature Outlook, on the future of nature and landscapes in The Netherlands. As an exception, the report 'European nature in the plural' (2017) covered the European Union (www.pbl.nl/ natureoutlook). Henk is an agronomist, graduated at Wageningen University. He started his career at the Centre for Agriculture and Environment (CLM), after which he moved to the National Institute for Public Health and the Environment (RIVM), focussing on agri-environmental policies and the EU Common Agricultural Policy.

LOUISE MACDONALD OBE



CEO of Young Scot, and Chair of the Scottish Government's

Advisory Council on Women and Girls

Louise is CEO of Young Scot, the award-winning youth information and citizenship charity. Working in partnership across all sectors, Young Scot supports young people aged 11-26 to make informed decisions and choices, connecting them to their communities – contributing to Scotland's ambition of being the best place in the world to grow up. There are currently 670k members of Young Scot – over two thirds of young people in Scotland. Louise is Chair of the First Minister's Advisory Council on Women and Girls; on the Board of the Scottish Parliament think tank Scotland's Futures Forum and President of the European Youth Card Association (37 countries and 7m+ young cardholders). She can be found online @Louisemac – often featuring her passion for nature photography.

JULIETTE YOUNG

NERC Centre for Ecology and Hydrology



Juliette Young is a social scientist working at the NERC Centre for Ecology and Hydrology. She has extensive experience of working with practitioners and scientists from different fields on the understanding and management of conservation conflicts, and evaluating the social and environmental outcomes of conservation initiatives. She also works on understanding and improving the science-policy-society interface. She is currently coordinating the EKLIPSE project that aims to develop a mechanism to support better decisions on our environment based on the best available knowledge.

HELENA CRAIG

Black2Nature



Helena Craig has been interested in race equality, diversity and inclusion since a teenager. As a Partner in a large Bristol law firm, she tackled white elitism, successfully turning her department into a diverse one of 30% Black Asian Minority Ethnic (BAME) people. Since retiring, she has been involved in conservation, supporting her 16-year-old daughter Mya-Rose Craig (AKA Birdgirl http://birdgirluk.blogspot.co.uk) with her Camp Avalons and Race Equality in Nature Conference June 2016. She is Chair of Black2Nature, aiming to make nature ethnically diverse. Come and understand the barriers and what can be done.

TONY JUNIPER CBE

Executive Director of Advocacy and Campaigns, WWF-UK



Prior to joining WWF. Tony spent ten years as an independent sustainability and environment advisor. including as Special Advisor with the Prince of Wales's International Sustainability Unit. Tony joined Friends of the Earth in 1990, and was the organisation's Executive Director from 2003-2008, as well as the Vice Chair of Friends of the Earth International from 2000-2008. Tony remains a Fellow with the University of Cambridge Institute for Sustainability Leadership and President of the Wildlife Trusts. In 2017 he was appointed Commander of the British Empire (CBE) for services to conservation. He speaks and writes extensively on conservation and sustainability, and has authored many books, including the multi-award winning 2013 best-seller 'What has Nature ever done for us?' His latest book, 'Rainforest - dispatches from Earth's most vital frontlines' was published in April 2018.

PROFESSOR CHRIS THOMAS FRS



Chris D Thomas is an ecologist,

University of York

evolutionary biologist and conservation scientist who has worked on the impacts of habitat fragmentation (metapopulation biology), climate change and biological invasions. He is interested in how we might develop sustainable conservation strategies that work with, rather than against, the responses of species and ecosystems to inevitable future environmental change. He has recently authored the book 'Inheritors of the Earth', which takes a long-term and large-scale look at biodiversity change, and what we might do about it. Chris is a Fellow of the Royal Society and Presidentelect of the Royal Entomological Society.

AOIFE MARTIN

Operations Director, Seafish

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Aoife has recently re-joined Seafish

after 14 years working for the civil service in New Zealand and the UK. She holds a BA (Hons) degree in History and Geography from Trinity College, Dublin, and an MBA from the University of Edinburgh. An experienced resource management professional, Aoife spent 12 years working for the New Zealand Government in fisheries, forestry and land management. During her time in New Zealand, Aoife worked on policy development, regulatory implementation and compliance issues. This included working as the deep-water fisheries manager where she established a collaborative partnership between government and the commercial industry to ensure the sustainable management of deep-water stocks and to grow the value of the sector. Most recently Aoife has worked as the Director for Spatial, Forestry and Land Management with the Ministry for Primary Industries in New Zealand, and as the Registrar for Scotland with Companies House. Aoife is also a Non-Executive Director of Scottish Natural Heritage.

SUSAN DAVIES

Scottish Wildlife Trust Director of Conservation



Susan Davies joined the Scottish Wildlife Trust in May 2016 as Director of Conservation, after a 25 year career in the public sector with the UK Joint Nature Conservation Committee and Scottish Natural Heritage. She shaped environmental legislation, policy and practice at national, UK and international levels. Susan took a secondment to Scottish Government in 2013 to oversee their rural affairs, food and environment research programmes. A zoology and environmental science graduate of the Universities of St. Andrews and Aberdeen, Fellow of the Royal Society of Biology, a non-executive Director of the James Hutton Institute and Trustee of Venture Trust.

MARTIN HARPER

Executive Director for Global Conservation, RSPB



Martin Harper is the Global Conservation Director of the RSPB. He leads the charity's strategy for evidence, practical conservation and influence (in the UK, the 14 UK Overseas Territories and, working with the BirdLife International partnership, across the Africa-European flyway and globally where we can make a difference). He is a member of Defra's Biodiversity Programme Board and the BirdLife European and Central Asia Committee.

HELEN BROWNING OBE



Chief Executive of the Soil Association

Helen has a very mixed organic farm in Wiltshire, with dairy, beef, pigs, cereals and is now also experimenting with agro-forestry. Her products are sold through the Helen Browning's Organic brand in retailers, big and small, as well as through her mini hotel and restaurant/pub on the farm, and through her restaurant in Swindon. She is Chief Executive of the Soil Association, a member of the Food Ethics Council, trustee of the RSPB and was recently appointed to the Food Farming and Countryside Commission hosted by the RSA (Royal Society for the encouragement of Arts. Manufactures and Commerce). Prior to re-joining the Soil Association. Helen was Director of External Affairs for the National Trust. She has had a number of roles in agri-politics over the years, including the Government's Policy Commission on the Future of Farming and Food ('the Curry Commission') and chaired the England Animal Health and Welfare Implementation Group. Helen was awarded an OBE in 1998 for her services to organic farming.

COLIN MOFFAT



Chief Scientific Advisor Marine, Scottish Government

Initially studying chemistry, Colin completed a PhD in heparin biochemistry, including links to tumour angiogenesis, before joining Torry Research Station where he investigated the structure of fish lipids and their nutritional benefits. He subsequently investigated organic contaminants in the marine and terrestrial environments, pathological samples, food producing animals and food products with a specific interest in their biological effects on marine biota. Colin has specialised in methodology associated with determining the state of marine ecosystems. He led on the production of assessments of the North-East Atlantic, including the Intermediate Assessment 2017 which utilised new indicators and targets, providing an assessment of progress towards achieving a clean, healthy and biologically diverse North-East Atlantic.

THÉRÈSE COFFEY MP

MP for Suffolk Coastal and Minister for the Environment, DEFRA



Thérèse has been the Member of Parliament for Suffolk Coastal since 2010. Thérèse is the Minister for the Environment having previously served as Deputy Leader of the House, Government Whip and Parliamentary Private Secretary to Michael Fallon. On entering Parliament, she was first a member of the Culture, Olympics, Media and Sports Committee. Thérèse grew up in the North West and after graduating from UCL with a PhD in Chemistry, joined the international company Mars. Qualified as a chartered management accountant, she became Finance Director for a UK subsidiary and has also worked at the BBC. Outside politics, she enjoys watching football, gardening, is a CAMRA member and enjoys music, especially Muse.

BARONESS BARBARA YOUNG OF OLD SCONE HONFRSE, House of Lords



Chair of the Woodland Trust, and Chancellor of Cranfield University

Barbara. Baroness Young of Old Scone, is a Member of the House of Lords with special interests, among others, in the environment, agriculture, natural resources and climate change. She is Chancellor at Cranfield University and her voluntary positions include President of Bedfordshire. Cambridgeshire and Northamptonshire Wildlife Trust; Honorary President of the South Georgia Heritage Trust: Patron of Lantra and the Chartered Institute of Environmental Management; and Vice President of RSPB, Bird Life International and Flora and Fauna International. She has formerly held a variety of other environmental roles, including Chief Executive of RSPB, Chairman of English Nature and Chief Executive of the Environment Agency. Barbara joined the Woodland Trust's Board in January 2016 and became Chair of the Trust on 9 June 2016.

WORKSHOPS

Thursday, 11:30 - 12:30

1. New Technologies in Conservation	BS 3.20
2. Climate Ready Conservation	BS 3.22
3. Ecological Networks	BS 3.23

All workshops will be running at the same time on the Third Floor of the Business School Building. All delegates are free to attend any workshop. Please note the location of the workshop you wish to attend below.

These debates will explore specific aspects of the Future of Nature Conservation, picking up themes from the brief attached. Each will be framed around 5 main questions, with key points contributing to the principles/recommendations.

1. New Technologies in Conservation

Colin Bean and Lawrence Way

Location: BS 3.20

Technology offers us transformative opportunities for monitoring and managing nature and the wider environment. It also shapes our behaviours and use of natural resources. This debate will explore the roles of technology such as eDNA and Earth Observation in helping to inform action for species and habitats as examples of the role of technology in the future of conservation.

2. Climate Ready Conservation

Clive Mitchell and Mike Morecroft

Location: BS 3.22

Climate and nature have co-evolved as a system over the last four billion years and will continue to move together. Rates of change increasingly reflect anthropogenic forcings. The over-exploitation of natural resources is the ultimate cause of both climate change and the state of nature: they are both measures of whether we are living within our means (we are not). The same over-exploitation diminishes the resilience of both social and natural systems in response to a changing climate. What does 'climateready conservation' look like in the 21st Century? What factors should we take into account? How does conservation live with change?

3. Ecological Networks

Humphrey Crick and Nick Isaac

Location: BS 3.23

Central to the concept of landscape scale conservation is the development of ecological networks. While the Making Space for Nature report (Lawton et al. 2010) provided a basis for how they should be developed (Bigger, Better, More and Joined), the detail of what makes a site better, how much bigger they should be, how many more sites do we need and what joined really means (distinguishing functional vs. physical connectivity) is unclear. This workshop will explore how we design ecological networks at a range of spatial scales – whether we should be thinking fractally; and how ecological networks can be designed for species that occur in the wider countryside and not restricted to high quality sites. How important are the interdependencies between the network and the surrounding countryside? Are there some further general principles that need to be formulated and how useful or safe can the application of generalised "rules of thumb" be for helping conservation practitioners at the sharp end?

WORKSHOPS

Thursday, 11:30 - 12:30

4. Natural Capital in Practice	BS 3.24
5. Nature, Health and Wellbeing	BS 3.26
6. CBD Targets Post 2020; Where Next?	BS 3.27

4. Natural Capital in Practice

Ruth Waters, Claudia Rowse and Jane Lusardi

Location: BS 3.24

It's vital that we're able to speak to multiple audiences about nature in ways that are relevant to them. Business and the economy are essential because all business ultimately rely on the use of natural resources, or nature. 'Stocks' of natural capital yield 'flows' of prosperity and wellbeing – ecosystem services - but we must invest in the stock. By investing in natural capital we not only ensure prosperity and wellbeing for the next generations, but we also reduce the rate of climate change, enhance our capacity to adapt and improve the state of nature, and the benefits it can provide. This workshop explores how we make this real for countries, regions and businesses to stimulate more investment in the natural capital.

5. Nature, Health and Wellbeing

Susan Williams and Mark Hammond

Location: BS 3.26

The nature that most people experience every day is their main contact and shapes the relevance of nature more widely to them. Good quality local environments foster good health and wellbeing – as places to enjoy physical activity, active travel, local food, or enjoyment and nourishment for mental health. But poor quality local environments do none of these things and intensify poor physical and mental health problems – and these are often in the poorest communities, intensifying health inequalities. This debate will explore the role of nature in health and wellbeing, in towns and rural areas, defining our relationships with nature in the future of conservation.

6. CBD Targets Post 2020; Where Next?

Debbie Bassett and Mark Stevenson

Location: BS 3.27

What should the targets for post-2020 look like? Are targets the right approach for complex socio-ecological systems? If we have targets, should they be based on the state of nature or the direct and indirect driving pressures and enhancers? What is a relevant baseline if nature is constantly changing in relation to a changing climate?

THE BES POLICY FELLOWSHIP

Interested in learning more about the BES Policy Fellowship and how it can give you a better understanding of engaging with and informing policymaking?



Come and meet the current BES Fellows Deepa Senapathi and Bethan O'Leary who are both seconded to the Defra Wildlife Evidence and Nature Strategy teams. Deepa is helping to set up a framework for the evaluation of the Biodiversity 2020 Strategy. While Bethan is focusing on working to support the UK's 6th National Report to the Convention on Biological Diversity.

WHERE AND WHEN

You will find Bethan and Deepa at a dedicated table in the Atrium during the poster session (18:45-19:30) on 23 May and during the lunchtime poster session (13:00-14:00) on the 24 May. They will be happy to discuss their Fellowships and answer any questions you may have on the value of doing such a fellowship. **Camilla Morrison-Bell, BES Policy Manager** will also be available to answer any questions about the next (2018) Policy Fellowship, which is due to start in September with Defra.

BACKGROUND

The BES Policy Fellowship offers mid-career ecologists a unique opportunity to gain first-hand experience of working in a policy environment, enhancing their professional development. The Fellow will develop a greater understanding of the sciencepolicy interface, and enhanced understanding of pathways to research impact, vital knowledge that can be shared with colleagues at a particularly opportune time to engage with and inform policymaking. In addition, the placement will provide an opportunity to raise the profile of the research work of the Fellow and their home institution within a core UK Government department, creating potential for further research collaboration. Participants in similar schemes such as NERC Policy Placements have gone on to develop lasting collaborations with policy hosts. With permission, the Fellow's home institution will be named in all publicity materials and outputs generated from the placement.



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ORAL PRESENTATIONS

All talks take place in Lecture Theatre G27, in the MMU Business School.

Wednesday 23 May

12:30 - 13:30 - Registration with Tea & Coffee

13:30 - 15:00

Session 1: The challenge and opportunities Chair: Andrew Sells (Natural England)

- 13:30 Conference Opening
- 13:35 Making Space for Nature: a brief history and hopes for the future Professor Sir John Lawton CBE FRS (President of the Yorkshire Wildlife Trust)
- 13:55 Taking account of future generations Sophie Howe (Future Generations Commissioner for Wales)
- 14:15 Meeting the challenge together Chris Gilligan (Joint Nature Conservation Committee)
- 14:35 A view from the next generation Dara McAnulty (Young Fermanagh Naturalist)
- 14:55 Discussion
- 15:10 15:40 Tea & Coffee
 - **15:40** Principles and priorities for the future of nature conservation: the search

15:50 - 17:40

Session 2:

Conserving nature for everyone

Chair: Richard Bardgett (President of the British Ecological Society)

- 15.50 Who's nature? Henk van Zeijts (Netherlands Environment Assessment Agency)
- 16:10 Engaging young people Louise Macdonald OBE (Young Scot)

- 16:30 Managing conservation conflicts Juliette Young (NERC Centre for Ecology and Hydrology)
- 16:50 Engaging minority ethnic communities Helena Craig (Black2Nature)
- 17:10 Discussion
- 17:40 Policy and Practitioner pitch 'My top challenge' pitches from policy officials and practitioners to the conference to encourage discussion and networking
- 18:45 19:30 Poster Session & Drinks reception
- 19:30 late Conference Dinner

Thursday 24 May

08:00 - 09:00 - Registration

09:00 – 10:35 Session 3: New opportunities for nature conservation

Chair: Sally Thomas (Scottish Natural Heritage)

- 09:00 Welcome 09:05 From slowing the decline of nature, to restoration **Tony Juniper CBE** (WWF) 09:25 Should we respond to environmental change? **Professor Chris Thomas FRS** (University of York) 09:45 Action by marine industries **Aoife Martin (Seafish)** 10.05 Priorities and approaches for species conservation Susan Davies (Scottish Wildlife Trust) 10.25 Discussion
- 11:05 11:30 Tea & Coffee

ORAL PRESENTATIONS

11:30 - 12:30 - Workshops

12:30 - 13:00

Speedy Speakers

Chair: Catherine Duigan (Natural Resources Wales)

Grazing management and recovery of exposed soils, on Trotternish Ridge SAC, Isle of Skye Vanessa Brazier (Scottish Natural Heritage)

Use of eDNA analysis to identify sites important for fungal conservation Gareth Griffith (Aberystwyth University)

Just add water – small waterbodies and landscape scale change **Stewart Clarke (National Trust)**

What makes a "Better" site? Humphrey Crick (Natural England)

25 years from now: what use are reintroductions? Sarah Dalrymple (Liverpool John Moores University)

Naturetrade: creating a marketplace for ecosystem services **Peter Long (University of Oxford)**

Climate change threats and opportunities for nature conservation in the UK **Mike Morecroft (Natural England)**

The return of the native: how a pine marten reinforcement study in Wales may inform species recovery in the UK more widely **Lucy Rogers (The Vincent Wildlife Trust)**

Is Brexit a critical opportunity for improving plant biosecurity Louise Hill (University of Oxford)

Are land purchase or agri-environment schemes the best way to develop ecological networks on private land? **Robert Smith (DICE, University of Kent)**

Natural capital as a driver for habitat management **David Gowing (Open University)**

13:00 - 14:00 - Lunch & Poster Session

14:00 – 15:00 Session 4: Future Directions

Chair: Patrick Casement, Northern Ireland Environment Link

- 14:00 Future directions for nature conservation Martin Harper (RSPB)
- 14:20 Future directions for agriculture Helen Browning OBE (Soil Association)
- 14:40 Seizing marine opportunities Colin Moffat (Scottish Government)
- 15:00 Government's perspective and priorities Thérèse Coffey MP (Minister for the Environment)
- 15:10 Discussion

15:40 - 16:00

Conference Close

Chair: Christine Maggs, Joint Nature Conservation Committee

- 15:40 Conference 'Principles' taking us forward
- 15:50 Closing summary Baroness Barbara Young
- 16.00 Conference End

POSTER PRESENTATIONS

Poster presentations will be located in the MMU Business School Atrium. Your poster will be on display for the duration of the meeting. There is a dedicated poster session taking place on Wednesday from 18:45 - 19:30. If you submitted your poster to the Student Poster Prize, there will be a coloured sticker on your poster board and your presentation will be highlighted below in green.

Student prize judging is based on categories including: style, scientific content, originality of research and effectiveness of communication.

- 1 Mary Lane (Plymouth University): Restoring heathlands after mineral extraction: exploring processes and patterns
- 2. Henry McGhie (Manchester Museum, University of Manchester): Making UK museum collections work effectively in support of nature conservation research
- **3. Sara King** (Ecosulis): Improved Decision Making from Measuring Biodiversity
- 4. Robert Edmonds (SLR Consulting Ltd): An Introduction to the New UK Habitat Classification System
- 5. Anne Oxbrough (Edge Hill University): The forgotten 10%: understanding the ecological value of plantation forests and promoting ecosystem resilience
- 6. Chloe Barnes (2Excel Geospatial): Hyperspectral remote sensing for ash dieback assessment in hedgerow and woodland environments
- **7. Deborah Harvey** (Royal Holloway): School grounds a perfect opportunity for nature conservation?
- 8. Rob Brooker (James Hutton Institute): Exploring opportunities for nature conservation in the Scottish Government's Strategic Research Programme
- **9. Isreal Oshiojum** (Lagos State University, Nigeria): Vulnerability and Resilience of the Niger Delta Coastal Communities to Pollution and Environmental Degradation
- **10. Peter Lawrence** (Manchester Metropolitan University): New methods to restore better saltmarsh: the importance of topography
- **11.** Ashley Lyons (Edge Hill University): Evidence based conservation: the academic practitioner link

- **12. Philip Stephens** (Durham University): New opportunities for citizen-led mammal monitoring in the UK
- **13. Jessica Lea** (Jacobs UK): Policies into practice: improving mitigation strategies for large-scale infrastructure projects
- **14.** Charlotte Hawkins (Bat Conservation Trust): Plugging species evidence gaps: putting woodland bats on the map
- **15. Emily Clark** (Atkins): Crown Farm Ouarry breaking new(t) ground; Securing the future of great crested newts and wider biodiversity on an active quarry
- **16. Eleanor Atkins** (Staffordshire University): The improvement of biodiversity and wellbeing value of urban road verges with hedges and wildflowers
- **17.** Ruth Cromie (Wildfowl Wetlands Trust, WWT): Lead poisoning: the role for land managers in realising a non-toxic future
- Louise Montgomery (Royal Holloway University of London): Schools Biodiversity Project: Nurturing Nature & Wellbeing
- **19. Ellie Barham** (Yorkshire Wildlife Trust): Empowering volunteers to survey and treat invasive species throughout Yorkshire
- **20. Matthew Greenwell** (University of Reading): Developing an indicator of the genetic diversity of UK wildlife- the 2020 BGEMS pilot scheme
- **21. Anna Ferretto** (University of Aberdeen): Can we set a boundary for loss of biodiversity in Scotland?
- **22.** Colm Bowe (Liverpool John Moores University): Exploring scenarios for UK agri-environment policy post-Brexit: business, investment and natural capital

POSTER PRESENTATIONS

- **23. Robert Smith** (DICE, University of Kent): Using systematic conservation planning to inform the potential expansion of England's protected area network
- 24. Martha Crockatt (Earthwatch Institute): Citizen Science: a conservation opportunity
- **25. Thomas Smith** (University of Leeds): Mainstreaming biodiversity for business
- **26.** Marie Longnecker (University College London): Exploring the Nature Improvement Area Initiative: An investigation of the design, implementation and management of NIAs and their potential impact on England's ecological network
- **27. Humphrey Crick** (Natural England): Eight principles for ecological network design
- **28. Humphrey Crick** (Natural England): Rules of thumb for designing ecological networks
- **29. Deborah Dawson** (University of Sheffield): The NERC Biomolecular Analysis Facility at Sheffield (NBAF-S)
- **30. Alexandra Ferguson** (Liverpool John Moores University): Basic ecological knowledge gaps for England's threatened plants and fungi: identifying research needs ahead of 2020.
- **31. Lisbeth Morrison** (University of Reading): Developing a national indicator of functional connectivity using long-term species monitoring data
- **32. Prue Addison** (University of Oxford): Using conservation science to advance corporate biodiversity accountability
- **33. Macarena Cárdenas** (Earthwatch): Citizen Science: transformative collective action is also for corporates

- **34.** Rebecca Robertson (University of Leeds): Who is nature for? Changing urban greenspaces to improve biodiversity and the health of 0-4-year-olds.
- **35.** Ian Crosher (Natural England): Creating a national habitat network mapping GIS tool.
- **36.** Melanie Fletcher (Natural England): Predicting the unpredictable: a long term vision for evidence in an uncertain future
- **37.** Chloe Bellamy (Forest Research): Hyperspectral remote sensing for ash dieback assessment in hedgerow and woodland environments
- **38. Jean McKendree** (Animal and Plant Health Agency): Reducing and Preventing Invasive Alien Species Dispersal (RAPID) in Freshwater Aquatic, Riparian and Coastal Ecosystems

DELEGATE INFORMATION

ABOUT MANCHESTER

Known throughout the world as the birthplace of the industrial revolution, Manchester has a proud history in science, politics, music, arts and sport. The city centre is jam-packed with unique and eclectic restaurants, bars, shops, museums, galleries and hotels, whilst the surrounding Greater Manchester boroughs offer a patchwork of visitor experiences including quaint market towns, traditional pubs and beautiful green spaces and waterways to be explored on foot or bike.

VENUE ADDRESS

Manchester Metropolitan University Business School

All Saints Campus Oxford Road Manchester M15 6BH United Kingdom

TRAVELLING WITHIN THE CITY

Journey Planning

Transport for Greater Manchester is the official public transport body for the city. Its website has a wealth of information and a number of journey planning tools. www.tfgm.com

By Bus

Commercial bus services run right across Greater Manchester. Take the 147 bus from Piccadilly railway station to the stop outside the surface car park on Oxford Road. You can also get numerous buses heading towards south Manchester (Bus Number 41, 42, 43, 85, 111, 250, and 256) which all stop at the Manchester campus. www.tfgm.com/buses

Metroshuttle Bus

Within the city centre, Metroshuttle provides a free 'hop on, hop off' service linking all of the main rail stations, shopping districts and business areas. There are three services which operate on circular routes. www.tfgm.com/metroshuttle

Tram

The Metrolink network runs frequent services to the campus from St Peter's Square Metrolink Stop, which takes 10 minutes. Walk down Oxford Street/Oxford Road, in the opposite direction to the Midland Hotel, past the Palace Theatre and Oxford Road Railway Station. The Manchester campus is on your right. Travelcards offer unlimited travel across the network. Please be sure to purchase a ticket from the on-stop ticket machines before boarding. www.metrolink.co.uk/

By Bike

Manchester is a bike-friendly city with many marked cycle lanes and dedicated routes throughout the city centre and beyond. The Transport for Greater Manchester cycling website has everything you need to know about cycling in Greater Manchester. www.tfgm.com/cycling

By Taxi

There are plenty of choices for taxi companies in Manchester. Below are the top 3 listed on Visit Manchester:

Manchester Cars Private Hire

Tel: +44 (0)161 228 3355 Email: customer.services@ilovemanchestercars.co.uk

Mantax

Tel: +44 (0)161 230 3333 Email: bookings@mantax.co.uk

Streetcars Private Hire

Tel: +44 (0) 161 228 7878 Email: enquiries@streetcarsmanchester.co.uk

By Car

Manchester is well connected to the rest of the UK via excellent motorway links. The M60 ring road connects the city to motorways north, south east and west. There is limited on-road parking and multi-story car parking facilities around the Manchester Campus, although spaces are limited and parking charges are expensive. Whenever possible, please use public transport.

By Train

Manchester Oxford Road Railway Station

The Manchester campus is just a five minute walk away. Turn right out of Oxford Road Station and walk underneath the railway bridge. The Manchester campus is to your right.

Manchester Piccadilly Railway Station

Follow the signs for Fairfield Street taxi ranks and take the 147 bus to Oxford Road/All Saints. The bus runs every 10-15 minutes. You can also walk, which takes 10-15 minutes.

Manchester Victoria Railway Station

Follow the signs for the free metro shuttle bus service 2 (green). Get off at Chester Street and walk up to Oxford Road and turn right. The Metro Shuttle service runs every 10 minutes.

System One

System One Travelcards are accepted by most bus, train and tram companies running locally, and enables you to transfer between the various modes of transport as many times as you like. www.systemonetravelcards.co.uk

Manchester on foot

Manchester is easily explored on foot, with a city centre that you can navigate within 20 minutes.

DELEGATE INFORMATION

SOCIAL EVENTS

Registration and refreshments open at 12:30 on Wednesday 23 May.

The poster session will take place in the MMU Atrium from $18\!:\!45-19\!:\!30$ on Wednesday.

The Symposium Dinner takes place on Wednesday evening in the MMU Business School. This is a ticketed event. All tickets must be purchased in advance of the meeting. If you have any questions, please ask a member of BES staff on the Registration Desk.

SOCIAL MEDIA/SOCIAL MEDIA POLICY

All attendees are encouraged to join the discussion via social media, so please use the hashtag #N4FG18 and follow @BritishEcolSoc to ensure you are part of the conversation.

Speakers reserve the right to ask delegates not to disseminate their research via the internet, so please respect this request if made.

PHOTOGRAPHY

There will be a photographer present at the event. Photographs taken may be used for promotional purposes; if you have any concerns or queries regarding this, please come and see us at the Registration Desk.

INTERNET

There is complimentary WiFi for all delegates at the venue. Please connect to _BTWi-fi_ManMet from the list of networks and click 'Get online' on your browser.

FOOD & REFRESHMENTS

Your registration includes tea/coffee on Wednesday, tea/coffee and lunch on Thursday, and a drinks reception on Wednesday evening. All catering will be available in the MMU Business School Atrium during the designated breaks.

BADGES

For security and regulation purposes, please ensure you wear your registration badge at all times throughout the venue.

MOBILE PHONES

As a courtesy to speakers and other delegates, we ask that all mobile phones and electronic devices be changed to silent mode before entering into any session.

STORAGE ROOM

Lecture Theatre G.33 is available to store any coat and bags throughout the Symposium. This is free of charge.

LOST PROPERTY

Please hand in lost property to the Registration Desk where it will be made available for collection.

SMOKING POLICY

Please note that smoking is not permitted inside the building.

FIRST AID

Should you require first aid assistance during the Annual Symposium, please contact a BES team member who will be able to guide you to the appointed first aider.

VENUE SECURITY & LIABILITY

In the event of an emergency, security and venue staff will guide you to safety. The weekly fire alarm test is on Friday, which will not affect the meeting and therefore any alarms should be considered the real thing.

INSURANCE AND LIABILITY

The Symposia organisers will not accept liability for personal injury or loss/damage to property/belongings of participants or accompanying persons, before, during or following the Symposium, or their stay in Manchester. It is therefore recommended that participants arrange their own personal health, accident and travel insurance.

OUR EXHIBITORS

We are delighted to welcome: Pelagic Publishing an independent academic publisher of books on wildlife, science and conservation and The Chartered Institute of Ecology and Environmental Management who are exhibiting at the symposium.





Chartered Institute of Ecology and Environmental Management

#BES2018 EXHIBITION 10% DISCOUNT

We will be providing premium exhibition space at our 2018 Annual Meeting taking place at the Birmingham ICC from 16 - 19 December. Prices range from £650 for a table to £2,450 for a feature stand & sponsor package.

If you would like to join Wiley, OUP, PR Statistics, CUP and CABI from the UK, and overseas exhibitors BEXIS Research Data Management (Germany), Wildlife Acoustics (USA), MPDI (Switzerland) and the Global Biodiversity Index Facility (Denmark), please visit www.britishecologicalsociety.org/exhibition or contact Paul Bower: paul@britishecologicalsociety.org and claim your 10% discount by quoting the code MANC18 before 30 June.





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ANNUAL MEETINGS

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