

# ANNUAL MEETING



**BRITISH  
ECOLOGICAL  
SOCIETY**

**16–19 DECEMBER 2018  
ICC BIRMINGHAM, UK**

**#BES2018**

# PLENARY LECTURES

At the core of our Annual Meeting, there are four internationally renowned plenary speakers. This year we are exceptionally excited to welcome the following.

Monday 17 December  
09:00 – 10:00

**Samuel M.  
'Ohukani'ōhi'a Gon, III**  
Senior Scientist and Cultural  
Advisor, The Nature  
Conservancy of Hawai'i, USA



Sponsored by *People and Nature*



## Bio

Sam was the Ecologist for the Hawai'i Natural Heritage Program of The Nature Conservancy of Hawai'i from 1986 to 1999, coordinator for the Hawai'i Natural Heritage Program from 1992 to 1994 and then Director of Science. In his current role, Sam maintains his science guidance and adds his cultural expertise to enhance the mission of The Conservancy. Sam is also a Commissioner for the International Union for the Conservation of Nature (IUCN).

Sam's experience in Hawaiian ecology includes biological inventories and research, field ecology, entomology, arachnology, ethology, natural community classification, ecological modelling, climate change vulnerability analysis, ecological landscape change, and biological database management.

In 2013 Sam received the Distinguished Service Award in Conservation and, in 2014, the designation of Living Treasure of Hawaii by the Honpa Hongwanji Mission of Hawaii. In 2014, Sam was invited to present a TED talk highlighting his blend of science and culture. In 2017, Sam was a recipient of the Alii Award recognizing 20 for the Next 20: Hawaii individuals whose leadership will be instrumental in the coming decades.

Sam received his bachelor's degree in Zoology at the University of Hawai'i at Mānoa. He then went on to receive his masters in Zoology and doctorate in Animal Behavior at the University of California, Davis. He holds an affiliate faculty post with the Department of Urban and Regional Planning at the University of Hawai'i, and regularly lectures at the University of Hawaii at Mānoa in the upper division course BOT/ZOO 450: Natural History of the Hawaiian Islands.

## Abstract

### The Hawaiian Islands as a Model for Biocultural Conservation

The remarkable habitat diversity of the Hawaiian archipelago is reflected by its equally remarkable biota: disharmonic and highly endemic, demonstrating a plethora of evolutionary radiations. This extremely rich and isolated setting also gave rise to one of the pinnacles of Oceanian societies that developed a social-ecological system that resulted in a small footprint of displaced endemic habitats while building a high human population and intensive agriculture and pisciculture. This Hawaiian system was driven by a worldview rendering higher elevation ecosystems as sacred and restricted, leading to religious monitoring and limitations on resource use, and a summit-to-reef system of land divisions that

provided for human needs and minimized conflict between adjacent communities. When this social-ecological system was supplanted by commodification of nature, and land use practices developed in continental settings, greatly accelerated degradation of endemic island biota and ecosystems occurred, with the result that the Hawaiian biota is currently one of the most critically endangered on the planet. Conservation efforts in the islands have evolved from focussing on endangered species to recognizing natural communities and functional native-dominated landscapes, and are moving towards an approach that is inclusive of human communities—both the greatest threat and the greatest hope for conservation. Biocultural conservation focuses on the vital relationships between biota and people that can powerfully enhance conservation values. Indigenous Hawaiian values that created both a small footprint and high self-sufficiency seem optimally suited for such an approach. Recapturing the best of indigenous Hawaiian values regarding relationships between land and people, and coupling those with the best of 21st century science may offer not only the best hope for the Hawaiian biota, but a model of island conservation that can be applied to the world as an island of life.

Tuesday 18 December  
08:45 – 09:45

**Danielle Lee**  
Visiting Assistant Professor,  
Southern Illinois University  
Edwardsville, USA



## Bio

Danielle is a research biologist, blogger, and outreach scientist focused on increasing minority participation in STEM fields. Her research interests focus on how ecology and evolutionary components contribute to the behaviour of animals. Her research involves examining behavioural variation across gradients. This also involves examining the African giant pouched rat (*Cricetomys ansorgei*) to determine the extent to which this species demonstrates behavioural syndromes and if there is a genetic component to the behavioural differences. Danielle will be expanding her research to examine behavioural differences of small rodents across urban gradients in the St. Louis Metropolitan region. Danielle's science outreach efforts emphasize sharing science with general audiences, particularly under-served groups, via outdoor programming and social media. This includes The Urban Scientist, a blog about urban ecology, evolutionary biology and diversity in the sciences, hosted by Scientific American Blog Network.

## Abstract

### Building Bridges: Connecting Your Science to Your Communities.

As ecologists, we are often in public spaces doing our science – monitoring the environment, assessing biodiversity, advocating for conservation, or examining the connected interactions between organisms and their environment. Our formal training has prepared us for careers doing research, teaching and mentoring students. However, our professional

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# WILEY

We thank WILEY for supporting all our plenary lectures in 2018.

responsibilities often call on us to do more, such as advocating for accessibility and inclusion or engaging the public. Public engagement in science can take many forms – science communication, science outreach and citizen science. Doing science funded by the public, presumably for the public good, and ideally with the public with proper planning and preparation, does not have to result in extra duties - your science is your outreach. I will outline how you can weave effective, engaging science outreach and communication activities into your ongoing research projects.

Wednesday 19 December  
09:00 – 09:30

**Ken Thompson**

Senior Research Fellow and  
Honorary Senior Lecturer,  
University of Sheffield, UK  
Senior Editor, *Functional  
Ecology*



Sponsored by *Functional Ecology*



## Bio

Ken carried out his PhD with Phil Grime at Sheffield University in the 1970s and returned to Sheffield in 1990, eventually becoming senior lecturer in ecology, before recently retiring and moving from Sheffield to Devon. Ken has broad interests in plant ecology and has published over 160 papers in peer-reviewed journals. He has been a member of the BES for longer than he can remember, was for many years an Associate Editor of *Journal of Ecology*, and has been a Senior Editor of *Functional Ecology* since 2004. He has edited the plain-language summaries of *Functional Ecology* papers since they were introduced in 2011.

He still lectures extensively, to both amateur and professional audiences, and gave the concluding plenary at the New Zealand Ecological Society Annual Meeting in Palmerston North in 2014, and the opening plenary at Botany 2015, Edmonton, Canada in 2015. He is an author of two academic books on the ecology of seeds and has written seven books on gardening and popular science. A book containing his collected gardening columns from the Daily Telegraph was published by Icon Books in 2015 and his latest book, on Charles Darwin's botany, will be published by Profile Books at the end of 2018.

For many years it was Ken's proud boast that he had never received a prize of any sort, but in 2016 the Royal Horticultural Society ruined everything by awarding him their Veitch Memorial Medal for his contribution to the advancement and improvement of the science and practice of horticulture.

## Abstract

**12 Months in Ecology: A personal selection of the important topical issues from the past year that ecologists should be aware of**

Maybe it is just because I have been paying more attention, but it seems to me that it has been a good year for ecological research. Not that the results of that research always make comforting reading; there is plenty of rigorously researched bad news. There is also depressing news about the discipline itself: the 'best' model is often rubbish, many of us (including me, I suspect) apparently do not understand graphs with logarithmic axes, and there is more evidence that single-blind reviewers prefer papers from famous authors and top universities.

On a more positive note, there are several examples of imaginative solutions to apparently intractable conservation problems, and 'big data' has helped to provide answers not only to big questions, but some big questions about big things. As a result I am closer than I have ever been to understanding the evolutionary history of root functional traits, and who knew that the largest 1% of trees comprise half of all above-ground live forest biomass?

Other themes that emerge from my year of reading widely include invasions, long-term monitoring, biodiversity and ecosystem function, retrospectives, mobile phones, great (and not so great) paper titles, and why much ecological research tells us more about the researchers than it does about its intended subject matter. Having said that, since I am writing this in September, I reserve the right to include some, all or none of the above when I finally get around to writing the talk.

Wednesday 19 December  
15:15 – 16:15

**Amy Austin**

Associate Professor of Ecology  
at the University of Buenos  
Aires/Principal Research  
Scientist at CONICET,  
Argentina  
Senior Editor, *Journal of Ecology*



Sponsored by *Journal of Ecology*



## Bio

Amy's broad-scale research interests are in the area of terrestrial ecosystem ecology, particularly related to abiotic and biotic controls on ecosystem processes. Amy's field sites cover a range of natural and human-modified ecosystems in Patagonia, Argentina, where she is researching controls on litter decomposition, biogeochemical cycles, natural abundance of stable isotopes, and the potential impacts of global change in a range of grassland and forest ecosystems.

Amy is a Senior Editor for *Journal of Ecology* and was recently named the Latin America winner of the renowned international L'Oréal-UNESCO 'For Women in Science Award'

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for 2018. The annual award recognises five outstanding women scientists from Latin America, North America, Africa and Arab States, Europe and Asia Pacific for their remarkable contribution to the advancement of research. Amy was awarded the prize “for her remarkable contributions to understanding terrestrial ecosystem ecology in natural and human-modified landscapes”.

## Abstract

### What Makes Leaves Rot? An Exploration of Novel Controls on Litter Decomposition in Terrestrial Ecosystems

Litter decomposition in terrestrial ecosystems has been explored extensively – and rightly so, given that our understanding of how leaf litter is incorporated into soil organic matter and released as carbon dioxide (CO<sub>2</sub>) to the atmosphere are key components of the carbon cycle that link ecosystem processes from the local to the global scale. Regional gradients of temperature and precipitation have been useful in demonstrating the importance of climate in determining decomposition and nutrient release. Both local and global analyses of leaf traits highlight the importance of physical and chemical characteristics in determining rates of CO<sub>2</sub> respiration and microbial activity. Nevertheless, there are still many unanswered questions as to the integrated controls on litter decomposition, above all in a world that is changing in many ways due to human impact. The previously unexplained high rates of decomposition in arid zones, the growing recognition of key plant–soil interactions, the shady side of afforestation, and the real meaning of ‘litter quality’ and recalcitrant carbon collide with an ever-expanding amount of genetic and functional information on decomposer organisms. There is a growing need to revisit and renew our thinking about what makes leaves rot and what the consequences are for terrestrial ecosystem ecology now and for the future.

## NEW FOR #BES2018

### Ecology – the Next Generation Christmas Appeal

Our *Ecology – the Next Generation* initiative supports young ecologists to get a place at a leading university, prosper while they are there and build a career after they graduate. Programmes like our A-Level Summer School give talented students from some of the most disadvantaged communities in the UK the opportunity to take part in residential field work for the first time. So why not text a fiver to help us inspire more young people to share the excitement and understand the importance of ecology? Or you can make a single or monthly donation at [justgiving.com/britishecologicalsociety](http://justgiving.com/britishecologicalsociety)



# SESSION OVERVIEW

MONDAY 17 DECEMBER		TUESDAY 18
AM 10:30 – 12:30	PM 15:30 – 17:45	AM 11:00 – 13:00
<b>T1: Microbial Influence on Climate Change Feedbacks</b> Location: Hall 1 Page: 51	<b>T2: Infectious Disease Ecology at the Human–Wildlife Interface: Management and Conflicts</b> Location: Hall 1 Page: 54	<b>T3: Advancing Our Understanding of Long-term Ecology: Combining Ecological and Palaeoecology Approaches and Metrics</b> Location: Hall 1 Page: 58
<b>S1: Nature &amp; Humans (Social-ecological Systems)</b> Location: Hall 5 Page: 51	<b>S11: Agricultural Science &amp; Policy</b> Location: Hall 5 Page: 54	<b>INT1: Across the Aquatic–Terrestrial Boundary</b> Location: Hall 5 Page: 58
<b>S2: Ecosystem &amp; Functional Ecology (Diversity, Traits, Function)</b> Location: Hall 6 Page: 51	<b>S12: Ecosystem &amp; Functional Ecology (Global Change I)</b> Location: Hall 6 Page: 54	<b>S21: Ecosystem &amp; Functional Ecology (Vegetation Dynamics)</b> Location: Hall 6 Page: 58
<b>S3: Parasites, Pathogens or Wildlife Disease (Host Individuals &amp; Populations)</b> Location: Hall 7 Page: 52	<b>S13: Nature &amp; Humans (Perceptions, Values &amp; Preferences)</b> Location: Hall 7 Page: 55	<b>S22: Novel Methods in Biodiversity and Ecosystem Monitoring</b> Location: Hall 7 Page: 58
<b>S4: Evolutionary Ecology (Demography, Life History or Reproduction)</b> Location: Hall 8a Page: 52	<b>S14: Theoretical or Computational Ecology (Modelling Disturbance &amp; Distributions)</b> Location: Hall 8a Page: 55	<b>S23: Nature &amp; Humans (Forests, Trees &amp; People)</b> Location: Hall 8a Page: 59
<b>S5: Community Ecology (Climate Change)</b> Location: Hall 8b Page: 52	<b>S15: Community Ecology (Diversity &amp; Function)</b> Location: Hall 8b Page: 55	<b>S24: Conservation Policy</b> Location: Hall 8b Page: 59
<b>S6: Species Interactions (Foodwebs or Networks I)</b> Location: Hall 9 Page: 52	<b>S16: Conservation Science &amp; Policy (Spatial Patterns, Landscapes &amp; Distributions)</b> Location: Hall 9 Page: 56	<b>S25: Population Ecology (Dynamics, Dispersal or Distributions)</b> Location: Hall 9 Page: 59
<b>S7: Population Ecology (Methods, Models or Theory)</b> Location: Hall 10a Page: 53	<b>S17: Population Ecology (Global Change)</b> Location: Hall 10a Page: 56	<b>S26: Environmental Physiology</b> Location: Hall 10a Page: 59
<b>S8: Macroecology &amp; Biogeography (Biogeography)</b> Location: Hall 10b Page: 53	<b>S18: Macroecology &amp; Biogeography (Species or Trait Diversity I)</b> Location: Hall 10b Page: 56	<b>S27: Species Interactions (Predation, Herbivory or Parasitism)</b> Location: Hall 10b Page: 60
<b>S9: Urban Ecology</b> Location: Hall 11a Page: 53	<b>S19: Species Interactions (Foodwebs or Networks II)</b> Location: Hall 11a Page: 56	<b>S28: Community Ecology (Environmental Change)</b> Location: Hall 11a Page: 60
<b>S10: Soil Ecology &amp; Plant–Soil Interactions (Decomposition &amp; Carbon Dynamics)</b> Location: Hall 11b Page: 53	<b>S20: Soil Ecology &amp; Plant–Soil Interactions (Plant–Soil Interactions)</b> Location: Hall 11b Page: 57	<b>S29: Soil Ecology &amp; Plant–Soil Interactions (Belowground Diversity)</b> Location: Hall 11b Page: 60

# SESSION OVERVIEW

TUESDAY 18	WEDNESDAY 19 DECEMBER	
PM 15:00 – 17:15	AM 10:00 – 12:00	PM 13:00 – 15:00
<b>T4: Long-term Ecological Experiments Forever! – Unique Challenges and Opportunities</b> Location: Hall 1 Page: 60	<b>T5: All Creatures Fast and Slow</b> Location: Hall 1 Page: 64	<b>T6: Upscaling Biodiversity–Ecosystem Functioning Research</b> Location: Hall 1 Page: 67
<b>S30: Ecosystem &amp; Functional Ecology (Disturbance or Environment)</b> Location: Hall 5 Page: 61	<b>S39: Microbial Ecology</b> Location: Hall 5 Page: 64	<b>T7: People and Nature</b> Location: Hall 5 Page: 67
<b>INT2: When and How are Land-Sparing and Land-Sharing Appropriate for Environmental Management?</b> Location: Hall 6 Page: 61	<b>S40: Ecosystem &amp; Functional Ecology (Global Change II)</b> Location: Hall 6 Page: 64	<b>S49: Ecosystem &amp; Functional Ecology (Carbon &amp; Nutrient Dynamics)</b> Location: Hall 6 Page: 67
<b>S31: Parasites, Pathogens or Wildlife Disease (Communities &amp; Species Interactions)</b> Location: Hall 7 Page: 61	<b>S41: Species Interactions (Climate Change &amp; Disturbance)</b> Location: Hall 7 Page: 65	<b>S50: Species Interactions (Competition or Facilitation)</b> Location: Hall 7 Page: 67
<b>S32: Nature &amp; Humans (Human–Nature Experiences)</b> Location: Hall 8a Page: 62	<b>S42: Behavioural Ecology (Movement Ecology)</b> Location: Hall 8a Page: 65	<b>S51: Parasites, Pathogens or Wildlife Disease (Environment &amp; Stressors)</b> Location: Hall 8a Page: 68
<b>S33: Conservation Science &amp; Policy (Threats &amp; Climate Change)</b> Location: Hall 8b Page: 62	<b>S43: Community Ecology (Community Assembly, Structure &amp; Stability)</b> Location: Hall 8b Page: 65	<b>S52: Community Ecology (Diversity &amp; Disturbance)</b> Location: Hall 8b Page: 68
<b>S34: Community Ecology (Demography, Distributions &amp; Dispersal)</b> Location: Hall 9 Page: 62	<b>S44: Theoretical or Computational Ecology (Theory, Transitions or Diversity)</b> Location: Hall 9 Page: 65	<b>S53: Population Ecology (Demography or Life History)</b> Location: Hall 9 Page: 68
<b>S35: Behavioural Ecology (Resources, Habitat, Environment)</b> Location: Hall 10a Page: 63	<b>S45: Evolutionary Ecology (Adaptation &amp; Plasticity)</b> Location: Hall 10a Page: 66	<b>S54: Behavioural Ecology (Communication, Interactions or Decision-Making)</b> Location: Hall 10a Page: 68
<b>S36: Macroecology &amp; Biogeography (Global Change)</b> Location: Hall 10b Page: 63	<b>S46: Macroecology &amp; Biogeography (Habitats &amp; Environment)</b> Location: Hall 10b Page: 66	<b>S55: Macroecology &amp; Biogeography (Species or Trait Diversity II)</b> Location: Hall 10b Page: 69
<b>S37: Population Ecology (Genetic or Trait Diversity)</b> Location: Hall 11a Page: 63	<b>S47: Nature &amp; Humans (Exploitation or Ecosystem Services)</b> Location: Hall 11a Page: 66	<b>S56: Conservation Science &amp; Policy (Species &amp; Diversity)</b> Location: Hall 11a Page: 69
<b>S38: Palaeoecology</b> Location: Hall 11b Page: 64	<b>S48: Soil Ecology &amp; Plant–Soil Interactions (Land-Use &amp; Soil Properties)</b> Location: Hall 11b Page: 66	<b>S57: Invasive Species</b> Location: Hall 11b Page: 69

# THEMATIC SESSIONS

We are pleased to announce a series of seven Thematic Sessions that are focused around stimulating, diverse and topical issues in ecology. These sessions aim to provide a forum for the discussion of timely and important questions, and to encourage the integration between disciplines. All sessions were chosen by open competition and include a keynote presentation and invited speakers.

Below is the complete list of Thematic Sessions. Please refer to the main Oral Presentations section for the full list of speakers.

## MONDAY 17 DECEMBER

10:30 – 12:30

### T1: Microbial influence on climate change feedbacks

**Organisers:** Pablo García-Palacios (King Juan Carlos University) and Mark A. Bradford (Yale School of Forestry & Environmental Studies)

**Keynote:** Thomas Crowther (ETH Zurich)

**Location:** Hall 1

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15:30 – 17:30

### T2: Infectious disease ecology at the human-wildlife interface: management and conflicts

**Organiser:** Olivier Restif (University of Cambridge)

**Keynote:** Becki Lawson (Institute of Zoology, ZSL)

**Location:** Hall 1

**Support from:** Parasite and Pathogen *Ecology and Evolution* SIG

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## TUESDAY 18 DECEMBER

11:00 – 13:00

### T3: Advancing our understanding of long-term ecology: combining ecological and palaeoecology approaches and metrics

**Organisers:** Althea Davies (University of St Andrews) and Ambrose Baker (Teesside University)

**Keynote:** John Williams, University of Wisconsin-Madison

**Location:** Hall 1

**Sponsored by:** Frontiers in Ecology and Evolution

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15:00 – 17:00

### T4: Interactive Thematic Session: Long-term ecological experiments forever! – Unique challenges and opportunities

**Organisers:** Jonathan Silvertown (University of Edinburgh) and Emma Sayer (University of Lancaster)

**Keynote:** Bridget Emmett (Centre for Ecology and Hydrology, Bangor)

**Location:** Hall 1

**Sponsor:** Ecological Continuity Trust

**See the BES journals' companion Virtual Issue**

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This is a thematic session with a difference. Expect an interactive format with short back-to-back presentations, followed by a facilitated Q&A session and open discussion about challenges and opportunities: How can we maintain long-term research while facilitating the use of LTEs as a platform for new ideas?



# THEMATIC SESSIONS

## WEDNESDAY 19 DECEMBER

10:00 – 12:00

**T5: All creatures fast and slow**  
**Organisers:** Iain Stott (University of Southern Denmark) and Owen Jones (University of Southern Denmark)

**Keynote:** Dave Hodgson (Centre for Ecology and Conservation, University of Exeter)

**Location:** Hall 1

**Sponsors:** Wiley & *Ecology and Evolution*

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**WILEY**

**Ecology and Evolution** Open Access

## WEDNESDAY 19 DECEMBER

13:00 – 15:00

**T6: Upscaling biodiversity–ecosystem functioning research**

**Organisers:** Malte Jochum (University of Bern) and Anne Ebeling (Friedrich Schiller University Jena)

**Keynote:** Forest Isbell (University of Minnesota)

**Location:** Hall 1

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13:00 – 15:00

**T7: People and Nature**

**Organiser:** Emilie Aimé (BES Managing Editor)

**Keynote:** Kevin J. Gaston (University of Exeter & Editor-in-Chief, *People and Nature*)

**Location:** Hall 5

**Sponsor:** *People and Nature*

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**PEOPLE AND NATURE**  
A journal of relational thinking

## NEW FOR #BES2018

### Ecology on Demand – Coming to Your Device in January 2019

Next year we are piloting a BES Annual Meeting online on-demand channel. Ecologists in any country in the world will be able to access recordings of all 2018 Annual Meeting plenaries and three thematic sessions from their computer or smartphone. Content will be available from January 2019 for a small fee through the Panopto platform. Unlike YouTube, Panopto is not blocked in China, so

we hope to offer a truly global service. We also hope to make more features such as past Annual Meeting plenaries and workshops available online in the spring of 2019. Card payment will be via the secure In-Player paywall system. We will email all BES members and delegates and post on social media as soon as the service goes live. Access to Ecology on Demand will be available to anyone with an interest in ecology – not just BES members.

For more details on our plans to widen access to the latest research to ecologists across the world at an affordable price, please contact BES Development Manager Paul Bower [paul@britishecologicalsociety.org](mailto:paul@britishecologicalsociety.org).



# INTERACTIVE SESSIONS

The Interactive Sessions are an exciting and high-profile new initiative, through which session participants and meeting delegates can engage with each other on important topics in an innovative manner.

## TUESDAY 18 DECEMBER

11:00 – 13:00

### INT1: Across the aquatic–terrestrial boundary

**Organisers:** Björn K. Klatt (Lund University) and Christian M. Alsterberg (Lund University)

**Location:** Hall 5

Aquatic and terrestrial ecosystems are in an active and constant exchange of energy, material and organisms across boundaries. However, bound by disciplines traditionally separating aquatic and terrestrial research, such interactions across ecosystem boundaries are often neglected in research, albeit having major consequences for ecosystem functions and services in both aquatic and terrestrial ecosystems. Hence, knowledge is not only theoretically and empirically sparse, but we are also in need of a better understanding of how to implement current and forthcoming knowledge in common practice, i.e. within agricultural landscapes, management decisions or ecological intensification.

For those reasons the aim of this interactive session is (i) to bring researchers together who are actively working across boundaries which will provide a base of knowledge for (ii) informing researchers who are not yet working across boundaries to develop a common understanding of the research subject as well as induce interdisciplinary collaborations. Thus, our hope and intention is that this session will enable researchers to discuss and expand ideas that explicitly focus on flows across aquatic–terrestrial boundaries and to determine key topics and methodological challenges related to the interactions between terrestrial and aquatic ecosystems.

## TUESDAY 18 DECEMBER

15:00 – 17:00

### INT2: When and how are land-sparing and land-sharing appropriate for environmental management?

**Organiser:** Gavin Siriwardena (British Trust for Ornithology)

**Location:** Hall 5

Under *land-sparing*, areas are removed from agricultural production or protected from anthropogenic influence, while production or development is focused elsewhere. *Land-sharing* sees integration of environmental management with human activity. When and where are these approaches most suitable for biodiversity conservation and other priorities, such as ecosystem service provision and human interactions with nature?

This session will consider how sparing and sharing recommendations are affected by factors such as: (i) whether conservation targets are based upon species abundance or richness; (ii) the importance of direct human experience of nature (cultural services); (iii) priority for wider environmental priorities (soil, water, air, pollinators, predators); (iv) metapopulation context and patch sizes required by target species; (v) spatial scale (field, farm, landscape, regional, national); (vi) landscape context (e.g. extent of landscape modification or presence of primary habitat).

The session will begin with a general introduction and three short presentations giving different perspectives on the issue. These will be followed by a facilitated discussion of the points above, with others suggested by participants before the conference. The aim is to reach a consensus as to when to recommend different solutions, avoiding a dogmatic focus on a particular approach, leading to a published output as a 'Perspectives' piece in *People and Nature*. Volunteers for getting more involved with the session, chairing discussion groups or taking notes, or for preparing the paper afterwards, are welcome.

## SPECIAL OFFER

### National Geographic Subscription Offer

Come and visit the National Geographic stand (Stand A) and subscribe to 12 issues of National Geographic Magazine for just **£22.50** – a special saving of 68% off the full price.

Subscribing to National Geographic will give you access to award-winning photography and writing, and free access to the magazine's archives dating back more than 130 years.

# WORKSHOPS

Please also see Social Events and Other Lovely Things To Do for an informal Brexit Policy workshop.

**MONDAY 17 DECEMBER**

**13:15 – 14:15**

## **Saving the world with Lego: using Lego Serious Play to address research proposals**

Organisers: Martha Crockatt (Earthwatch) and Alan Jones (Earthwatch)

Location: Hall 8a

Lego Serious Play is an established communication tool that allows effective exchange of ideas in groups. LEGO elements allow us to engage with problems visually and in three dimensions, allowing complex abstract problems to be evaluated in a creative way. A key feature of the medium is that it encourages everyone to contribute in group setting – and ensures that not just those with the loudest voices prevail. At this workshop we will demonstrate how Lego Serious Play can be used to address the big ecological challenges of our time. Following an induction session with our experienced workshop facilitators, participants will gather together to work in small groups and develop solutions to these big problems, using Lego to both model and discuss them. At the end of the workshop, groups will present back their solutions, using Lego again as a unique communication medium. Our workshop will give you the opportunity to learn more about this powerful tool for effective group work and communication, while potentially generating some interesting ideas for solving big ecological problems.

## **Myth busting academic publishing – a cross-publisher perspective for early career researchers**

Organisers: Emilie Aimé (BES), Helen Eaton (Royal Society Publishing), Simon Harold (Nature *Ecology and Evolution*), Simon Hoggart (BES), Genevieve Horne (Wiley), James Ross (BES)

Location: Hall 8b

This interactive workshop from an experienced multi-publisher team will help you to avoid the common pitfalls when submitting to ecology journals and give you the best chance of being published. The workshop will comprise of an introduction to the publishing process, discussions, tips and tricks and a chance to quiz our expert panel of editors.

## **An introduction to a novel climate downscaling procedure for microclimate and SDM research**

Organisers: Rob J. Lewis (Aarhus University) and Vincent Pellissier (Aarhus University)

Location: Hall 7

Predicting climatic conditions at relevant scales for organisms has proven to be a very important step towards understanding the ecology of organisms, ecosystem dynamics and modelling spatial and temporal distributions of species. Climatic downscaling procedures are widely used for such purposes; however, at fine spatial scales (ca. 25m-100m) extant methods can poorly represent detailed local variations.

In this workshop, facilitators will introduce a novel climate downscaling procedure, one, which through explicit consideration of multiple environmental variables (e.g. land-class, geodiversity, oceanicity, etc.) and through accounting for the non-stationary relationships of these variables across space, improves the environmental realism of fine-scale climate data. The workshop will begin with an introduction to the method and a run-through of the climate downscaling R package, briefly touching on its design, data and spatial statistics. Participants will then work interactively with the facilitators downscaling real climatic data, and gain hands-on experience within R on the features and functions of the package. The workshop will close with an interactive discussion synthesising the potential research questions applicable to the method.

Participants will leave with knowledge and experience of modelling fine-resolution climate data and a broad understanding of its application within the realms of microclimate and SDM research. Participants will receive access to the R package and a detailed guide to adopt the method in their own research. This workshop will be useful for community, macro and population ecologists with interests in methods in ecology and modelling. Solid understanding of spatial statistics is not required, but knowledge of and experience with the R platform is essential.

## **Setting up a successful field course**

Organisers: Alice Mauchline (University of Reading) and Dan Forman (Swansea University)

Location: Hall 6

Field-based learning is one of the most important components of any environmental and ecology study, permitting insight and understanding of key concepts and applications in a real-world setting whilst providing unique opportunities to develop key practical skills. The purpose of this interactive peer-to-peer workshop is to provide an informal but guided forum to share ideas and best practice with inexperienced individuals when developing field-based learning. It is intended for those interested or currently engaged in the teaching of field-based ecological and environmental subjects at any level, but will be especially relevant for individuals working and teaching in higher education. Participants will benefit from the provision of shared information and advice from experienced individuals relating to core elements of field-based learning. This will include developing learning outcomes, inclusivity, practical skill development and competences, logistics, risk assessment and other potential pitfalls and opportunities. We will also produce a list of 'golden rules' and access to additional resources when planning field work which will be made available online by the Teaching and Learning SIG and the Enhancing Fieldwork Learning group after the event.



# WORKSHOPS

## Building resilience: maintaining your ability to stay mentally healthy

Organisers: Andrea Baier (BES Senior Managing Editor) and Bernie Lynch (Mind, mental health charity)  
Location: Hall 10b

This workshop focuses on mechanisms that build resilience: the ability to maintain mental wellness during challenging times and to come through difficult work and personal issues more quickly and with less stress.

The workshop will:

- Consider what we mean by resilience and mental wellness
- Explore the challenges of working life, particularly in the academic world
- Reflect on the importance of self-awareness (triggers, signs of stress, coping mechanisms)
- Reflect on the importance of self-care in good and not so good times
- Offer a range of strategies to maintain self-care, build resilience and maintain good mental health
- Reflect on the importance of building healthy working cultures and environments so that individuals are supported in maintaining self-care, resilience and good mental health

The facilitator will use a presentation to frame the session, but the workshop will benefit from optional attendee participation. You are under absolutely no obligation to share, although we aim to create a safe space in which people feel comfortable.



**TUESDAY 18 DECEMBER**

**13:45 – 14:45**

## Social media for science communication

Organisers: Steph Januchowski-Hartley (Swansea University) and Daniella Rabaiotti (Institute of Zoology, ZSL)  
Location: Hall 8b

In this workshop participants will gain an introduction to different social media platforms and get an opportunity to create and enhance their online profile to more effectively communicate their science. A strong focus will be on communication about science and scientific findings using Twitter, particularly building an audience and the use of hashtags and online games.

## Population modelling... minus all that wretched coding

Organiser: Iain Stott (University of Southern Denmark)  
Location: Hall 8a

Do you study a population of an awesome species and want to evaluate its dynamics? But maybe you are not a coder... what can you do?

Do you know how to code but need to compare many models? You can do it but... coding is a chore.

Do you need good tools to teach population ecology? More than just a lecture slide, something interactive... but where can you find it?

Do you just want to understand what the title of this workshop means? Perhaps you are sceptical, but... you NEED to find out!

This short workshop will present 'ShinyPop', a WebApp for population modelling using Matrix Projection Models (MPMs), implemented using RShiny. All the power of R, all the ease of a simple web interface. No coding!

It will showcase the abilities of the popdemo and Rage packages, including: population projection; stable, transient and stochastic dynamics; sensitivity and nonlinear perturbation analysis; age-trajectory and life cycle analysis. Please bring your own MPMs if you like, but the app connects to the COM(P)ADRE Plant and Animal Matrix Databases, so even if you do not have an MPM yourself, you have plenty to play with.

The app works on almost any internet-connected smart device. Come with your laptops, tablets, smartphones... ok, smartwatches is pushing it a bit. We will do some population modelling... minus all that wretched coding.

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# WORKSHOPS

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## The inclusivity challenge

Organisers: Lesley Batty (Birmingham University) and Dan Forman (Swansea University)  
Location: Hall 7

Fieldwork is one of the core activities in ecology, whether in teaching or research, but how do we ensure that everyone can experience the great outdoors? We want to ensure that all ecologists are able to access the field and the aim of this campfire session is to increase awareness of the opportunities, tools and solutions to ensure that field-based teaching approaches in ecology are fully inclusive and accessible.

Following a short introduction, attendees will work through a number of case studies in small groups in order to generate a series of possible solutions that can be enacted (e.g. campus-based teaching, virtual field trips). Groups will discuss, identify and develop inclusive solutions to increase the value and accessibility of ecology. Participants will be encouraged to consider a wide range of challenges and to think about options beyond the usual replacement activities. We will generate a series of guidelines from the workshop that will be disseminated through the Teaching and Learning SIG and the BES Education and Careers Committee.



## Eight questions to make you a pedagogical pro

Organisers: Darcey Gillie (University of Sheffield Careers Service)  
Location: Hall 6

This workshop distills roughly a century of research in pedagogy and cognitive psychology into eight questions that can be used to design more effective, engaging and theoretically sound teaching and learning strategies.

We will introduce participants to some of the most fundamental pedagogical theories and concepts that we need to support our work as teachers, science communicators or people involved in public outreach and related professional activities. Participants will have the opportunity to put ecological survey skills into action by using the Theory Spotters Guide to identify and monitor presence of specific pedagogical approaches during the workshop. Working in small groups, participants will be able to discuss, explore, debate and capture ideas about how they might use the eight questions to teach basic ecological principles.

## Turning science into policy via government consultations and inquiries

Organisers: BES Policy Team  
Location: Hall 10b

Government consultations and inquiries are the main way in which the government hopes to obtain evidence to inform future policies, yet scientists are often unaware of the opportunities for engaging, or are uncomfortable at the prospect of doing so. This session will explain the main types of consultations and inquiries and how they are intended to inform policy-making. It will then provide training and advice on how to choose the right consultations and inquiries to respond to, how to present written or verbal evidence, and how to maximise the chances of being asked to speak at an inquiry.

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# PRESENTER INFORMATION

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## ORAL PRESENTERS

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Sessions are split into 15-minute slots. Presentations for standard oral sessions must not exceed 13 minutes, allowing 2 minutes for discussion. **Please refrain from preparing a 15-minute talk.** The session chair will keep you to time, signalling when you have 5 minutes and 1 minute speaking time remaining until you must stop to take questions. They will stop you if you reach 15 minutes.

If you are the **keynote speaker in a Thematic Session**, you will have received information about the length of your presentation from the session organisers in advance of the meeting. You will be kept to time as above.

All **lightning talks** are limited to 1 minute. You are also limited to a single slide. The Session Chair will introduce you and your presentation title, so there is no need for you to repeat this. The Session Chair will also keep you to time.

The meeting supports PowerPoint. We can also support PDF presentations (but these will be locked down so edits will not be possible) and Prezi (we recommend you bring the file rather than running from online). Presentations should be at a 16:9 ratio.

All lecture theatres are equipped with a projector, lectern and laser pointer. A volunteer will be available in each room to assist in your session. There will also be an AV technician on each floor. Delegates are NOT permitted to run presentations from their own laptop.

All presentations should be uploaded in advance onto the central server in the Speakers' Area (**Hall 3 Foyer**). Please report to the Speakers' Area no later than **2 hours** before your scheduled presentation time. Please attempt to upload your presentation the day before your talk. If your presentation is scheduled for the morning of Monday 17 December, please try to report to the Speaker's Area on **Sunday 14 December from 14:00 to 17:00**.

The Speakers' Area is located in the **Hall 3 Foyer** and will be open during the following hours:

Sunday 16 December	14:00 – 17:00
Monday 17 December	08:00 – 17:00
Tuesday 18 December	08:00 – 17:00
Wednesday 19 December	08:30 – 13:00

In the Speakers' Area, facilities will be available to view your presentation before submitting. You will be able to control the advance of your slides from the lectern in your session room.

Please arrive at your session 15 minutes prior to the published start time. Before the start of your session, please make yourself known to your Chair and indicate how you would like to be introduced. For multi-author papers it is essential you have all authors' permission to give the presentation.

## POSTER PRESENTERS

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Your poster will be displayed in **Hall 3** – the main Exhibition Hall of the conference centre – either on the ground level or on the balcony.

All posters should be **portrait/vertical** orientation measuring 841mm wide and 1189mm tall. This is the **International A0** format. Posters will be attached with material provided on the day.

You can put up your poster from 18:30 on Sunday 16 December. All posters **MUST** be in place by 10:30 on Monday 17 December.

Your poster will be displayed according to your poster number found in this programme. There will be a volunteer on the Poster Desk to help you on the day.

Posters will be on display for the duration of the meeting. Your poster will be allocated to one of the two formal poster sessions listed below, during which you are required to stand at your poster and discuss your work with delegates. This is a valuable opportunity to publicise your research.

All poster numbers with a letter followed by the number 1 (A1 - K1) will be part of Poster Session 1, which will take place on **Monday 17 December, 18:00 – 19:30**.

All poster numbers with a letter followed by the number 2 (A2 - K2) will be part of Poster Session 2, which will take place on **Tuesday 13 December, 17:30 – 19:00**.

Posters must be **removed between 13:00 and 15:00 on Wednesday 19 December**. Posters remaining after this time may be disposed of.

## E-POSTER PRESENTERS

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All e-poster screens will be located in the main Exhibition Hall (**Hall 3**). Delegates will be able to access all e-posters on each of the screens throughout the conference, exploring your content interactively. Your e-poster will be allocated to one of the two formal poster sessions (as above): If your number is an EP.1 followed by a number you will be required to stand at one of the screens during Poster Session 1 on Monday 17 December. If your number is an EP.2 followed by a number you are in Poster Session 2 on Tuesday 18 December.

## BES STUDENT PRIZE

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Student prize judging is based on categories including: style, scientific content, originality of research, and effectiveness of communication. The winners will be announced after the meeting.

If you submitted your poster for the Student Poster Prize, there will be a coloured sticker on your poster board. Judging will take place throughout the poster sessions.

If you entered your talk for the Anne Keymer Student Talk Prize, judging will take place during your session.

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# PRESENTER INFORMATION

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## SOCIAL MEDIA POLICY

We love social media – it is a great way to connect with people across the world to share ideas and create collaborations. We heartily encourage delegates to tweet, post and share their experiences – our Annual Meeting is all about building relationships.

However, we understand that not everyone may want their research broadcast. We respect that, so have created a 'do not share' image for you to add to your poster or talk presentation. We ask that fellow attendees respect that request and refrain from sharing that particular talk or poster. If you do not include this image on your presentation, we will assume you are happy for your research to be shared. You can find the image at:  
[www.britishecologicalsociety.org/BES2018/PRESENTER-GUIDELINES](http://www.britishecologicalsociety.org/BES2018/PRESENTER-GUIDELINES)



## ABSTRACT PUBLICATION AND ACCESS

All abstracts can be accessed via our Annual Meeting app.

**Access the App via your Phone:** Check your email for an invitation message from the BES CrowdCompass app. Click **Download the App** to be taken to the App Store. Click **Download** and wait for the app to install itself on your device. Once installed, open your invitation email again. Click **Verify Account**. Click **Open App** to complete the verification via your new mobile app.

**Access the App via the Web:** Check your email for an invitation message from the BES CrowdCompass app. Open your invitation email on the device that you plan to use at the event.

Tap **Verify Account**. Click **mobile web browser** to complete the verification via the Online Event Guide.

You can also access this through: <https://event.crowdcompass.com/bes2018>

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# ORAL PRESENTATIONS

Monday 17 December

Please note that lunch, coffee breaks and other events are not included in the following printed scientific programme, so please ensure you check the start time and refer back to the main meeting overview (Page 32) when planning your schedule for the day. Prize winners are highlighted in orange.

Lightning talks will be given at the end of the afternoon oral sessions, giving poster presenters an opportunity to promote their work before the poster session. These talks are highlighted in red.

Please note presenter names only are listed in the printed programme. A full list of authors is accessible along with abstracts on the mobile app.

## T1: Microbial influence on climate change feedbacks

**Location:** Hall 1

**Chairs:** Pablo García-Palacios & Mark A. Bradford

- 10:30 **Thomas Crowther:** Global understanding of soil biota improved carbon-climate feedback predictions
- 11:00 **Marina Dacal:** Soil microbial respiration adapts to ambient temperature in global drylands
- 11:15 **Johannes Rousk:** How soil microbial temperature relationships respond to environmental change: evidence from warming experiments, seasonal surveys and climate gradients
- 11:30 **Iain Hartley:** Microbial community responses and the temperature sensitivity of decomposition in cold ecosystems
- 11:45 **Riikka Rinnan:** Thawing permafrost – a potential source of climate-relevant volatiles to the atmosphere
- 12:00 **Sabine Reinsch:** Soil microbial communities adapt to climate-driven changes in the physico-chemical soil matrix
- 12:15 **Mark Bradford:** From evolutionary trade-offs to community shifts: how can we tease out the net effect of multiple mechanisms underlying thermal responses of soil microbial respiration?

## S1: Nature and Humans (Social-Ecological Systems)

**Location:** Hall 5

**Chair:** Sarah Marley

- 10:30 **Ruth Waters:** The good, the bad and the ugly: Trials and tribulations of developing and using natural capital indicators
- 10:45 **Martin Dallimer:** The insurance value of ecosystems: a comprehensive review of the evidence
- 11:00 **Rebecca Spake:** How and where to manage natural capital sustainably: an analytical framework
- 11:15 **Christopher Hassall:** Linking biodiversity and wellbeing in real and virtual urban landscapes
- 11:30 **Clare Lawson:** The Natural Capital of floodplains and the multiple benefits of restoring floodplain meadows

- 11:45 **Simon Kapitza:** Integrating drivers of biodiversity change in a coupled modelling framework: an assessment of biophysical and socio-economic impacts of climate change on species habitat in Vietnam and Australia.
- 12:00 **Francesca Mancini:** Is tourism helping to achieve the Sustainable Development Goals?
- 12:15 **Caroline Howe:** Societal Intersectionality and the Sustainable Development Goals

## S2: Ecosystem and Functional Ecology (Diversity, Traits, Function)

**Location:** Hall 6

**Chair:** Robin Pakeman

- 10:30 **Kathryn Barry:** Spatial resource partitioning does not predict enhanced ecosystem functioning: A meta-analysis of grassland biodiversity experiments
- 10:45 **Hongmei Chen:** Temporal scale alters the effects of plant diversity on community root dynamics in grasslands
- 11:00 **Maria Dolores Hidalgo-Galvez:** Influence of climate change on the functional structure of herbaceous communities in Dehesa ecosystems
- 11:15 **Franca Bongers:** Growth–trait relationships in subtropical forest are stronger at higher diversity
- 11:30 **Emily Warner:** The effect of re-establishment of native woodland on components of biodiversity and ecosystem functions in the Scottish Highlands
- 11:45 **Tereza Mašková:** N:P:C seed stoichiometry of plants
- 12:00 **Jeneen Hadj-Hammou:** Assessing the evidence base for functional response and effect traits of coral reef fish
- 12:15 **Marcos Fernández-Martínez:** Water chemistry drives functional traits of aquatic and semi-aquatic mosses

# ORAL PRESENTATIONS

Monday 17 December

## S3: Parasites, Pathogens or Wildlife Disease (Host Individuals & Populations)

Location: Hall 7

Chair: Paula Tierney

- 10:30 **Hamish McCallum:** Improved prognosis for persistence of Tasmanian devil populations following two decades of an emerging infectious cancer epizootic
- 10:45 **Richard Hassall:** The dynamics of *Bartonella* spp. in a metapopulation of water voles: exploring the influence of factors at the individual, population and landscape scale
- 11:00 **Klara Wanelik:** A taxonomy of immune response in the wild: classifying individual differences in immune response in a natural population of field voles (*Microtus agrestis*)
- 11:15 **Olivier Restif:** Unravelling the dynamics of infection and immunity in the Straw-Coloured Fruit Bat (*Eidolon helvum*), the main reservoir host of African Henipaviruses
- 11:30 **Emily Bailes:** Investigating the impact of bee density on disease transmission in bumble bees
- 11:45 **Cassandra Raby:** Going over the same ground: repeated use of habitats impacts chacma baboons (*Papio ursinus*) exposure to parasites
- 12:00 **Thomas Smallwood:** Modelling rabies in African wild dogs (*Lycaon pictus*) to inform conservation management
- 12:15 **Elaine Ferguson:** How do dog movements, heterogeneous dog density and the spatial scale of mass dog vaccination impact the persistence of canine rabies?

## S4: Evolutionary Ecology (Demography, Life History or Reproduction)

Location: Hall 8a

Chair: Samantha Patrick

- 10:30 **Hannah Froy:** Lifelong telomere dynamics in Soay sheep
- 10:45 **Mark Roper:** Senescence: Still an Unsolved Problem of Biology
- 11:00 **Marjorie Lundgren:** Manipulating source-sink relationships to understand perenniality in *Brachypodium* grasses
- 11:15 **Eric Holton:** Density-dependant senescence in the native orchid *Cypripedium parviflorum*
- 11:30 **Martin Weiser:** Same size, different outlooks: allometries in herbs and saplings
- 11:45 **Anastashia Chetty:** Functional dioecy in the African baobab (*Adansonia digitata* L.): solving the fruiting disparity mystery
- 12:00 **Laura Touzot:** How increasing frequency of masting events affects wild boar (*Sus scrofa*) population dynamics?

- 12:15 **Samantha Patrick:** Coordination in parental effort decreases with age in a long-lived seabird

## S5: Community Ecology (Climate Change)

Location: Hall 8b

Chair: Rob Lewis

- 10:30 **Kate Parr:** Termites mitigate the ecological effects of drought in tropical rainforest
- 10:45 **Daijun Liu:** High-habitat dependency for the sensitivity of plant communities to climate change globally
- 11:00 **James Stewart:** Climate impacts on trophic phenological matching in the Brown Argus butterfly, *Aricia agestis*
- 11:15 **Coline Jaworski:** Pollination in a drier world: how climate change affects pollination networks via the alteration of floral traits
- 11:30 **François Duchenne:** Climate warming decreases redundancy and complementarity of European pollinators' assemblages
- 11:45 **Mahasweta Saha:** Macrophytes in "hot" water: habitat forming macrophytes tolerate short term simulated marine heatwaves
- 12:00 **Eoin O'Gorman:** Warming indirectly simplifies food webs through effects on apex predators
- 12:15 **Andrew Beckerman:** Hot and bothered – predation alters thermal performance

## S6: Species Interactions (Foodwebs or Networks I)

Location: Hall 9

Chair: Owen Petchey

- 10:30 **Adam Vanbergen:** Robustness of insect-flower networks to disturbance
- 10:45 **Ainhoa Magrath:** Evaluating how plant-pollinator network structure affects plant reproductive success
- 11:00 **Simon Segar:** Friends and foes: elevational trends in plant defences and pollinator attractants mirror insect community structure and gene flow along a mountain gradient
- 11:15 **Gita Benadi:** Frequency dependence of pollinator visitation rates suggests that pollination niches can promote plant species coexistence
- 11:30 **Thomas David:** Understanding the links between soil, plants, and pollinators
- 11:45 **Rachel Kehoe:** Shifting day length regimes associated with range shifts alter aphid-parasitoid community dynamics
- 12:00 **Michael Pocock:** Inferred carabid-seed food web networks informs knowledge of seed predation in arable fields
- 12:15 **Montserrat Vilà:** Spillover of managed bumble bees to Mediterranean woodlands across a greenhouse landscape gradient

# ORAL PRESENTATIONS

Monday 17 December

## S7: Population Ecology (Methods, Models or Theory)

Location: Hall 10a

Chair: Steve Albon

- 10:30 **Marlène Gamelon:** On the importance of accounting for interspecific competition and age structure in demographic analyses of density dependence
- 10:45 **Simon Rolph:** Does density-dependence limit the comparative analysis of demographic data?
- 11:00 **Markus Eichhorn:** Can competition kill large trees?
- 11:15 **Hannah Wauchope:** Quantifying the robustness of population trends to sampling effects
- 11:30 **Patrick Barks:** Embracing sampling uncertainty in analyses with the COMPADRE projection matrix database
- 11:45 **Vincent Hin:** A bio-energetic model for long-finned pilot whales reveals how density-dependent processes hide the population consequences of disturbance
- 12:00 **Kiran Dhanjal-Adams:** Connectivity impacts population viability in migratory networks
- 12:15 **Jessica Schaus:** A comparative study to estimate population densities of the European hedgehog across urban and rural British landscapes

## S8: Macroecology and Biogeography (Biogeography)

Location: Hall 10b

Chair: Crystal McMichael

- 10:30 **Jennifer Baltzer:** State changes following fire in boreal forests are driven by seedbed conditions and biogeographic context
- 10:45 **Clare Rowland:** UK Land Cover Mapping, with a focus on Land Cover Map 2015 (LCM2015)
- 11:00 **Axelle Amstutz:** Facing up to climate change? How slope orientation in the rocky inter-tidal affects present and future biogeographical distributions in a warming world
- 11:15 **Natalie Briscoe:** Virtual reciprocal transplants: how does intraspecific trait variation in mammals influence distribution limits?
- 11:30 **Roi Maor:** The ecological underpinnings of mammalian activity patterns
- 11:45 **Darren O'Connell:** Multiple lines of evidence identify a sympatric pair of undescribed white-eye species with very different evolutionary origins: a single island endemic and an isolated population of an Indo-Pacific 'supertramp'
- 12:00 **Lowri Evans:** Gigantism: Opportunity or Rule?
- 12:15 **Rob Salguero-Gomez:** The biogeography of life histories

## S9: Urban Ecology

Location: Hall 11a

Chair: Helen Roe

- 10:30 **Jill Edmondson:** Soil and the city: understanding ecosystem service provision across the urban landscape
- 10:45 **Miriam Dobson:** Urban Food Cultivation in the UK: Identification of losses of allotment land over the past century and potential to increase provision for food security and ecosystem services
- 11:00 **Jiao Qu:** Plants are favoured by our city: selection for larger and more tolerant to insect herbivore
- 11:15 **Vinka Anic:** "Seeing the light: growth and flowering responses in wildflowers under artificial nighttime lighting"
- 11:30 **Thomas Davies:** Coastal light pollution and its impacts on marine ecosystems
- 11:45 **Kirsten Parris:** Doves increase call duration but not call frequency in urban noise
- 12:00 **Vicki Pattison-Willits:** Is breeding in the city a walk in the park? Investigating the dual impacts of urbanisation and extreme weather events on breeding phenology and success in Blue Tits (*Cyanistes caeruleus*)
- 12:15 **Dan Richards:** Rapid methods for mapping urban ecosystem services using novel datasets

## S10: Soil Ecology and Plant-soil Interactions (Decomposition & Carbon Dynamics)

Location: Hall 11b

Chair: Eva Kolle

- 10:30 **Shun Hasegawa:** Investigation into the effects of increased CO<sub>2</sub> concentrations and drought on organic acids composition in plant root exudates
- 10:45 **Abby Wallwork:** Linking soil carbon dynamics and tree community functional change in a naturally regenerating tropical forest, Panama
- 11:00 **Anjana Atapattu:** The legacy of leaf litter on fine-scale soil nutrient heterogeneity in a hyper-diverse tropical rainforest, southwestern China
- 11:15 **Jennifer Michel:** Soil carbon priming across contrasting treelines
- 11:30 **Brian Wilsey:** Greater soil carbon accumulation in deeper soils in native- than in exotic-dominated calcareous grassland is due to changes in carbonates
- 11:45 **Yu Fukasawa:** How does a fungal mycelium respond to the quantity and direction of new resources?
- 12:00 **Noémie Pichon:** Individual and interactive effects of diversity, functional composition and nitrogen on grassland litter decomposition
- 12:15 **Janna Barel:** Winter cover crop legacy effects on litter decomposition in agriculture act through litter quality and microbial community changes

# ORAL PRESENTATIONS

Monday 17 December

## T2: Infectious disease ecology at the human-wildlife interface

Location: Hall 1

Chair: Olivier Restif

- 15:30 **Becki Lawson:** The interrelationship of human and wildlife health and well-being in peri-domestic habitats in Great Britain
- 16:00 **Herwig Leirs:** Small mammals and One Health: linking ecology to human society
- 16:15 **Katie Hampson:** Cross-species transmission of canine rabies in Tanzania
- 16:30 **Emmanuel Serrano Ferron:** Attempts to control sarcoptic mange in Iberian Ibex populations: lessons from uncoordinated disease management actions in the field
- 16:45 **Robyn Manley:** Herding bees – management and policy implications of pollinator diseases
- 17:00 **Daniel Streicker:** Better off dead? Evaluating prospects for rabies control by culling or vaccinating vampire bats
- 17:15 **Christina Faust:** Deforestation and ecological conditions for zoonotic malaria spillover events from non-human primates

## S11: Agricultural Science and Policy

Location: Hall 5

Chair: Anne Mupepele

- 15:30 **Angela Lomba:** Assessing the dynamics of High Nature Value farmlands in space and time: the case-study of the Entre-Douro-e-Minho Region, Portugal
- 15:45 **Louis Sutter:** Nation-wide assessment of pollination deficits in four major pollinator dependant crops under independent gradients of wild and managed pollinators
- 16:00 **Emma Gardner:** Validating Models of Bumblebee Abundance with Observational Data Collected Across the UK
- 16:15 **Elena Krimmer:** Flower-rich agri-environmental schemes and landscape structure influence biological pest control of pollen beetles in oilseed rape fields
- 16:30 **Marko Debeljak:** Diversity of beneficial carabid species in agricultural fields
- 16:45 **Gesine Pufal:** Effects of orchard design and management on apple pollinators
- 17:00 **Katharine Preedy:** Improved models of the effects of winter chilling on blackcurrant (*Ribes nigrum* L.) show cultivar specific sensitivity to warm winters
- 17:15 **Robin Pakeman:** Long-term impacts of changed grazing regimes in upland grasslands
- Louise Hutchinson:** Bee Diversity & Sustainable Crop Pollination of Apple, Bean, Oilseed and Strawberry
- Michelle Felton:** Delivering climate change and environmental policy commitments through agroforestry in the UK

**Alejandra Parreño:** Controversial effects of light and nutrients on plant biodiversity and productivity

**Susan Quick:** Revealing the secrets of woodland resilience to climate change

## S12: Ecosystem and Functional Ecology (Global Change I)

Location: Hall 6

Chair: David Coomes

- 15:30 **Josep Penuelas:** Slowdown of current anthropic carbon dioxide and nitrogen fertilization of ecosystems. Physical, chemical and biological laws driving life responses to global changes
- 15:45 **Ambroise Baker:** Modification of pollen production in response to global change: a review
- 16:00 **Rosanne Broyd:** High and dry: are oceanic-alpine ecosystems resilient to summer drought?
- 16:15 **Michiel Bortier:** Soil heterogeneity modulates physiological plant responses to extreme drought in experimental grassland communities
- 16:30 **Tiina Salo:** In situ warming alters community and intraspecific trait composition in benthic grazers
- 16:45 **Nicola Steer:** A biologically meaningful time distribution of phenological phenomena
- 17:00 **Daniel Metcalfe:** First results from a large-scale cloud-reduction experiment designed to provide insights into likely impacts of future climate change on tropical cloud forest ecology
- 17:15 **Georgina Adams:** Predicting climate change effects on African ecosystems using a mechanistic model
- Raquel Arias Font:** Testing the effect of flow alteration on stream ecosystem structure and functioning
- Mariann Biro:** The community composition of benthic foraminifera in the saltmarshes of Y Foryd Nature Reserve, Menai Strait, Wales
- Ellen Goddard:** The invasion of *Sarracenia purpurea* across Europe
- Oloyede Adekolurejo:** Survival and functional responses in freshwater algae, crustaceans and amphipods exposed to varying concentrations of microcystins
- Cristina Blandino:** Effect of volcanogenic heavy metals on seed germination of Mt. Etna native plants
- Rebekah Butler:** Investigating the influence of heavy metal pollution on the thermal tolerance of *Parasesarma bidens* – a case study from the subtropical mangroves of Hong Kong
- Mukesh Kumar:** Effects of invasive plants on soil nutrients and microbial biomass in Central Himalaya chir pine forest, India
- Yasuhiro Asakura:** Ability evaluation for mangrove species in absorbing and removing active nitrogen derived from human activities
- Ko Hinokidani:** Marine productivity may be enhanced on through interaction between mangroves and herbivorous snail

# ORAL PRESENTATIONS

Monday 17 December

## S13: Nature and Humans (Perceptions, Values & Preferences)

Location: Hall 7

Chair: Heather A Sander

- 15:30 **Emma McKinley:** What is a saltmarsh worth? An assessment of community values
- 15:45 **Jennifer Ball:** Stakeholder perceptions of the benefits of chalk rivers: the importance of cultural ecosystem services and relational values associated with the River Test and River Itchen, UK
- 16:00 **Tim KING:** The yellow meadow ant as the most important invertebrate species in UK grazed grasslands
- 16:15 **Samantha Mason:** Quantifying bias in data from the MammalWeb citizen science project
- 16:30 **Angie Elwin:** Local ecological knowledge and the shifting baseline syndrome in relation to coastal ecosystem health in Thailand
- 16:45 **Maire Kirkland:** Assessing the tourism potential of bird and terrestrial mammal species in the context of protected area management
- 17:00 **Heather Sander:** Assessing spatial variation in the habitat preferences of urban humans and birds to support urban landscape management
- 17:15 **Julie Peacock:** The value of trees in stately home gardens

## S14: Theoretical or Computational Ecology (Modelling Disturbance & Distributions)

Location: Hall 8a

Chair: Jordan Chetcuti

- 15:30 **Rob Lewis:** Dark diversity improves the ecological realism of species distribution models
- 15:45 **Jonathan Potts:** From animal movement decisions to spatial distributions: some recent theoretical advancements
- 16:00 **Remo Ryser:** Networks on networks: How spatial networks constrain food web structure
- 16:15 **Rhys Munden:** An algorithm for inferring sites of interest from high-resolution data
- 16:30 **Garrett Street:** An unsupervised machine-learning algorithm for behavioral classification from animal-borne accelerometers
- 16:45 **Angeles Mayor:** Sudden regime shifts in drylands: the role of interplay between positive and negative ecohydrological feedbacks
- 17:00 **Lisanne Van Willegen:** Preparing for climate change modelling: optimization of the Modflow model for coastal wetlands
- 17:15 **Mara Baudena:** Predicted increase in aridity could drive post-fire recovery of Mediterranean forests towards open shrublands

**Laura Lee:** Are differences in maternal production rates related to apparent curvilinear scaling of mammalian basal metabolic rate with body size?

**Laura Merritt:** Dispersal kernels for predicting animal movement patterns

**Georg Albert:** Integrated modelling of tree individuals and animal population dynamics

**Alejandra Garcia Cabanillas:** Small world network and the Prisoner's dilemma: how does cooperation survive?

**Anna Turbelin:** Mapping interactions between invasive species and natural hazards

## S15: Community Ecology (Diversity & Function)

Location: Hall 8b

Chair: Imma Oliveras

- 15:30 **Marc Cadotte:** Do traits and phylogeny tell us the same thing about communities?
- 15:45 **Yoann Le Bagousse-Pinguet:** Phylogenetic and functional attributes of subordinate species are key for the multifunctionality of terrestrial ecosystems
- 16:00 **Ankita Sinha:** Species traits and communities of river birds in the Indian Himalayan Mountains
- 16:15 **Fons Van der Plas:** Biodiversity and ecosystem functioning in naturally assembled communities
- 16:30 **Zhenhong Wang:** A sufficient, integrative model of the processes connecting species richness with productivity in plant communities
- 16:45 **Luisa Conti:** Plant species' temporal stability is linked to the leaf economic spectrum across biomes – evidence from a global compilation of long-term data
- 17:00 **Elsa Field:** Impacts of tree diversity and drought on insect herbivory and disease in a model forest system
- 17:15 **Oscar Godoy:** Plant functional traits and species coexistence in variable environments
- Isobel Bramer:** A global analysis of forest microclimatic edge effects
- Pen Holland:** CATASTROPHIC: A card game supporting systems thinking in biology
- Shyamali Roy:** Evaluating the impact of emergent disease on microbial and insect populations in the tree ecosystem
- Laura Cappelatti:** Seaweed functional traits reflect resource acquisition – stress tolerance trade-offs across the intertidal emersion gradient
- Chabi Djagoun:** Stable isotope niche segregation between rare topi antelope (*Damaliscus korrigum*) and other sympatric bulk grazers in Pendjari Biosphere Reserve (Northern Benin): Implication for topi conservation
- Justin Byrne:** The Ageing of Woodland Soils: Examining plant – microbial decomposer communities in woods of all ages

# ORAL PRESENTATIONS

Monday 17 December

**Phil Grime:** Ecological insights and predictions emerging from the comparative study of flowering plants in North Central England between 1961 and 2018.

**Roxane Beys:** What are the controlling mechanisms of spatial distributions of woody species in a natural temperate forest? Disentangling the effects of habitat heterogeneity and dispersal limitation through a trait-based perspective

**Alexandra Jebb:** Bigger is Not Always Better: Stabilizing Selection Regulates Body Mass in a Hibernating Mammal

**Oskar Löfgren:** A closer look at the pixels - the NDVI and grassland plant communities

## S16: Conservation Science and Policy (Spatial Patterns, Landscapes & Distributions)

Location: Hall 9

Chair: Katherine Yates

- 15:30 **Fabio Carvalho:** Using aggregate ranking for conservation prioritisation of protected areas: a case-study from Madagascar
- 15:45 **Manuel Schneider:** Quantifying browsing impact on shrubs by grazing animals
- 16:00 **Mark Tittley:** Global patterns in the impacts of climate change on bird and mammal distributions
- 16:15 **Genevieve Finerty:** Evaluating performance of resistance surfaces in predicting movement of wild lions at a multi-country scale
- 16:30 **Gwili Gibbon:** Informing conservation planning within the Mount Kenya landscape
- 16:45 **Andrew Bladon:** Managing reserves for tomorrow's climate: the impacts of temperature and habitat on butterflies
- 17:00 **Philip Chapman:** Minimal spillover of native small mammals from Bornean tropical forests suggests limited impact on adjacent oil palm plantations
- 17:15 **Jenny Hodgson:** A method for prioritising habitat connections for range-shifting species – tested in a fragmented tropical landscape

## S17: Population Ecology (Global Change)

Location: Hall 10a

Chair: Richard Gill

- 15:30 **Steve Albon:** How warmer springs and wetter autumns influence population growth rate in a temperate herbivore
- 15:45 **Brage Hansen:** Spatial heterogeneity buffers synchronizing effects of climate on high-arctic reindeer meta-population dynamics
- 16:00 **Daniella Rabaiotti:** Dog days are over? Predicting the impact of climate change on a population of African wild dogs

- 16:15 **Kate Layton-Matthews:** Climate change affects the population dynamics of Arctic barnacle geese through bottom-up and top-down effects
- 16:30 **Camilla Bertolini:** Intermediate disturbance can help speed up a facilitative process
- 16:45 **Nina McLean:** Warmer temperatures reduce body condition, but have little demographic or population consequences in birds
- 17:00 **Callum Macgregor:** Phenological advancement enables multivoltine butterflies and moths to benefit from warming climate
- 17:15 **Tom Oliver:** Natural experiments reveal continent-wide signatures of drought sensitivity in butterflies

## S18: Macroecology and Biogeography (Species or Trait Diversity I)

Location: Hall 10b

Chair: Rebecca Spake

- 15:30 **Frederick Draper:** De-coupled hyperdominance in understory and canopy Amazon tree communities
- 15:45 **Gergana Daskalova:** Population and biodiversity change increase after forest cover change globally
- 16:00 **Timothy Harris:** Functional richness and its relationship with species richness: flowering plant trait diversity across the continent of Africa
- 16:15 **Owen Middleton:** Changes in the functional diversity of terrestrial, mammalian carnivores from the Late Pleistocene
- 16:30 **Sarah Alewijnse:** How does metabolic rate vary across species of fishes?
- 16:45 **Faith Jones:** The number of rare species within assemblages are on the rise globally
- 17:00 **Martin Jung:** Using remote sensing to assess biotic lag in post-disturbance species assemblages globally
- 17:15 **Guillaume Latombe:** Drivers of species turnover vary with species commonness for native and alien plants with different residence times

## S19: Species Interactions (Foodwebs or Networks II)

Location: Hall 11a

Chair: Katie Dunkley

- 15:30 **Ally Phillimore:** The macroecology of a forest passerine's diet prior to breeding: a faecal metabarcoding approach
- 15:45 **Felix Fornoff:** Tree diversity increases multitrophic interaction network robustness
- 16:00 **Benno Simmons:** Motifs in bipartite ecological networks: uncovering indirect interactions
- 16:15 **Ulrich Brose:** Structure and dynamics of meta-foodwebs
- 16:30 **Anton Potapov:** Size structure and size compartmentalization of food webs across aquatic and terrestrial ecosystems

# ORAL PRESENTATIONS

Monday 17 December

- 16:45** **Arron Watson:** The good the bad and the ugly: how signal crayfish impact benthic invertebrate communities
- 17:00** **David Soto:** Disentangling the Congo River food web using multiple stable isotopes (H, C, N)
- 17:15** **Mike Fowler:** Inferring eco-evolutionary feedbacks in a cycling host-parasitoid system forced by environmental fluctuations
- Harriet Lambert:** A spiny problem; structural defences affect volatile signalling and oviposition choice of herbivores in Purple Devil (*Solanum atropurpureum*)
- Fay Voller:** Comparison of the ectomycorrhizal communities of sympatric Lime (*Tilia* spp.) trees in UK woodlands
- Lorna Drake:** Investigating the diet of the Eurasian otter (*Lutra lutra*) using high throughput sequencing
- Bernhard Eitzinger:** Molecular analysis of predator-prey interactions of Arctic arthropods reveals conservative prey choice in a variable environment
- Sarah Davies:** Who ate all the flies? Local climate, prey availability and dietary competition in European wetland warblers

## S20: Soil Ecology and Plant-soil Interactions (Plant-Soil Interactions)

Location: Hall 11b

Chair: Mark Hodson

- 15:30** **Kelly Ramirez:** Network Analyses Can Advance Above-Belowground Ecology
- 15:45** **Anja Vogel:** Strengthening biodiversity effects on aboveground productivity through time depend on shared plant and soil history
- 16:00** **Pil Rasmussen:** The impact of elevated temperature and drought on the ecology and evolution of plant-soil microbe interactions
- 16:15** **Zuzana Münzbergová:** Intraspecific plant soil feedback as a key trait explaining species invasive potential
- 16:30** **Judy Simon:** Influence of mycorrhizae on the competition for different nitrogen sources in deciduous tree species
- 16:45** **Marina Semchenko:** Fungal diversity regulates plant-soil feedbacks in temperate grassland
- 17:00** **Emily Schofield:** Temporal dynamics of root architecture and soil nutrient turnover processes in response to plant-plant competition
- 17:15** **Bjorn Robroek:** Multitrophic interactions underlie functional stability of peatland ecosystems under climate change
- Pavĺina Knobova:** Root foraging in heterogeneous soil: temporal dynamics
- Reuben Margerison:** Hydroponics are not soil – how plants differ fundamentally in root exudation in different growth media
- Laura Reinelt:** Intraspecific variability in plant traits in a grassland biodiversity experiment

**Christopher Sweeney:** Plant traits and phylogeny as drivers of plant-soil-feedbacks in grassland plant species

**Veronika Jilkova:** Wood ant nest surroundings as natural carbon gradients in forest ecosystems

**Aileen Baird:** Fungi of the future: Assessing the effects of elevated carbon dioxide on fungal communities in temperate forests

**Amy Newman:** Getting to the root of the issue: circadian rhythms in the rhizosphere microbiome

# ORAL PRESENTATIONS

Tuesday 18 December

## T3: Advancing our understanding of long-term ecology

Location: Hall 1

Chair: Ambrose Baker

- 11:00 **Maria Dornelas:** Temporal change in biodiversity change in the Anthropocene
- 11:15 **Elizabeth Jeffers:** Plant controls on Late Quaternary whole ecosystem structure and function
- 11:30 **Will Gosling:** Advancing palaeo-fire ecology: A new method for reconstructing past fire temperatures
- 11:45 **Helen Bennion:** Assessing the potential for aquatic plant recolonisation after local extirpation: linking historical baselines, contemporary distributions and connectivity to guide lake restoration
- 12:00 **Alistair Seddon:** Assessing ecological resilience using long-term ecological data: perspectives and prospects
- 12:15 **Sandra Nogué:** Comparative ecology of the Laurel forest pollen rain from Tenerife and La Gomera
- 12:30 **John Williams:** Ecological and Environmental Novelty: Bridging Among Paleocology, Ecological Forecasting, and Ecological Management

## INT1: Across the aquatic-terrestrial boundary

Location: Hall 5

Chairs: Björn K. Klatt & Christian Alsterberg

- 11:00 **Introduction**
- 11:10 **Andy Green:** Migratory waterbirds as vectors across the aquatic-terrestrial boundary
- 11:20 **Matthew Guy:** Marine resource management influences terrestrial plant community and nutrient availability in great skua *Stercorarius skua* breeding colonies
- 11:30 **Francis Burdon:** Agriculture and mining contamination contribute to a productivity gradient driving cross-ecosystem associations between stream insects and riparian arachnids
- 11:40 **Bethany Pudifoot:** The impact of a cross boundary trophic cascade; from fish to bees
- 12:50 **Discussion**
- 12:20 **Jessica Marsh:** Take cover! Does higher *Ranunculus* cover promote higher juvenile Atlantic salmon (*Salmo salar*) densities and growth rates?
- 12:30 **Jessica Finan:** Spatial Econometric Modelling of Land Use systems and Pollinator Populations
- 12:40: Discussion

## S21: Ecosystem and Functional Ecology (Vegetation Dynamics)

Location: Hall 6

Chair: Oscar Godoy

- 11:00 **Hannah Mossman:** Role of local topographic diversity in influencing the success of restored saltmarshes
- 11:15 **Ciara Sugrue:** A Botanical Perspective: The Ecology and Hydrology of Coastal Wetlands
- 11:30 **Laura George:** The hydrological requirements of vegetation, including the elusive Fen Violet, in Ireland's 'dry lakes' (turloughs)
- 11:45 **Jakob Assmann:** Snow-melt and temperature – but not sea-ice – explain variation in spring plant phenology at coastal tundra sites
- 12:00 **Lucy Ridding:** Assessing long-term vegetation change and its drivers using surveys over three time periods
- 12:15 **Jules Christian ZEKENG:** Topography and soil conditions as drivers of local-scale variation in diversity in a tropical rainforest in Cameroon
- 12:30 **Kate Vogiatzis:** Use of drones and machine learning in deadwood surveys
- 12:45 **Mark Champion:** Hay cutting and *Rhinanthus* minor redirect meadow creation in a synanthropic Nature Reserve

## S22: Novel methods in biodiversity and ecosystem monitoring

Location: Hall 7

Chair: Jon Yearsley

- 11:00 **Mark Goddard:** Opportunities and threats associated with the emergence of robotics and autonomous systems in urban ecosystems: a horizon scan
- 11:15 **Joel Forsmoo:** Drone-based structure-from-motion photogrammetry: A new era for grassland invertebrate species conservation
- 11:30 **Thomas Dally:** Acoustic differentiation between insect pollinator groups using wing-beat frequencies – a future monitoring tool
- 11:45 **Stuart Newson:** Citizen Science in the dark: passive acoustic monitoring for the masses
- 12:00 **Carlos Abrahams:** Bioacoustic techniques for monitoring bird populations: a case study with capercaillie *Tetrao urogallus*
- 12:15 **Solohery Rasamison:** Monitoring bird communities across forest landscapes in Madagascar using acoustic methods
- 12:30 **Maria del Pilar Martin Gallego:** Using Sentinel-2 satellite imagery to map alien tree invasions in the Valdivian temperate forests of Chile
- 12:45 **Emily Lines:** Extracting forest structural information from satellite data using Sentinel-1

# ORAL PRESENTATIONS

Tuesday 18 December

## S23: Nature and Humans (Forests, Trees & People)

Location: Hall 8a

Chair: Keith Kirby

- 11:00 **Louise Hill:** Ash dieback: the fifteen billion pound pathogen
- 11:15 **Paul Woodcock:** Natural Selection, Tree Breeding or Species Replacement? Exploring Three Strategies for Responding to Ash Dieback
- 11:30 **Eleanor Tew:** Ecosystem services in modern forestry: from theory to practice
- 11:45 **Ewuketu Mekonnen:** Plant Species Diversity of Homegarden Agroforestry Practice in Jabithenan District, Ethiopia: Implication for climate change adaptation
- 12:00 **Serban Proches:** Constraints and opportunities in a small urban conservation area located in a biodiversity hotspot
- 12:15 **Dominic Martin:** Vanilla boom and biodiversity: Birds in the human-dominated landscape of north-eastern Madagascar
- 12:30 **Ofir Katz:** Short- and long-term effects on plant biodiversity of contour bench-terracing afforestation in a semi-arid region
- 12:45 **Matthew Struebig:** Heterogeneous impacts of community forestry on forest conservation and human well-being: evidence from Indonesia

## S24: Conservation Policy

Location: Hall 8b

Chair: Ruth Waters

- 11:00 **Gorm Shackelford:** Combining evidence synthesis and decision analysis for environmental management
- 11:15 **David Rose:** Effective engagement of decision-makers in conservation: why, who, and how?
- 11:30 **Arup Hazarika:** Strategic policies for conservation of rhinoceros in the World famous Kaziranga National Park, India
- 11:45 **Chloe Montes:** Navigating a shifting policy landscape to conserve butterflies in England
- 12:00 **Edmand Aryampika:** Implementation dynamics of collaborative forest management in Uganda: Implications for practitioners and policy makers
- 12:15 **Mengjia Xu:** China's Ecological Conservation Redline: A Line that Governs the Vital Ecological Space
- 12:30 **David O'Brien:** Developing a method to assess Aichi Target 13 – Genetic diversity maintained
- 12:45 **Louise Mair:** Understanding actions needed to accelerate progress towards international species conservation targets

## S25: Population Ecology (Dynamics, Dispersal or Distributions)

Location: Hall 9

Chair: Matthew Bond

- 11:00 **Yvonne Buckley:** How to be common: Global population structure and trait distribution of the cosmopolitan herb *Plantago lanceolata*
- 11:15 **Christopher Clements:** Early warning signals of recovery in complex systems
- 11:30 **Akira Terui:** Metapopulation stability in branching river networks
- 11:45 **Lisbeth Morrison:** Temporal trends in population synchrony relate to bird and butterfly mobility attributes
- 12:00 **Gerard Talavera:** The longest butterfly migration: integrative research to track long-range insect movements
- 12:15 **Jacob Davies:** Spatial integrated population models to understand range change in an Afro-Palaearctic migrant bird
- 12:30 **Dominik Behr:** Proximate causes of natal emigration in the endangered African wild dog (*Lycaon pictus*)
- 12:45 **Annette Fayet:** Linking foraging ecology and population declines in Atlantic puffins

## S26: Environmental Physiology

Location: Hall 10a

Chair: Marjorie Lundgren

- 11:00 **Danielle Levesque:** Hot squirrels: temperature, energetics and the distribution of flying squirrels in eastern North America
- 11:15 **Julia Nowack:** Keeping up with a warming world: Risks and benefits of torpor use during climate change
- 11:30 **Grant Duffy:** Better out than in: Insect tracheal branching contradicts assumptions of network transport models
- 11:45 **Ruth Wade:** Morphogenetic basis of faster growth
- 12:00 **Rupali Sharma:** Response and Adaptation of Physiology, Morphology and Carbon Partitioning of *Withania somnifera* (L.) Dunal Grown under Elevated CO<sub>2</sub> Regimes
- 12:15 **Charlotte Seal:** Resilience of seed germination to environmental change: integrating functional and mechanistic traits
- 12:30 **Mick Hanley:** Variation in sand dune plant species response to simulated seawater inundation treatments
- 12:45 **Mariam EL-Barghathi:** Response of *Medicago sativa* L. to ionic toxicity of some heavy metal salts

# ORAL PRESENTATIONS

Tuesday 18 December

## S27: Species Interactions (Predation, Herbivory or Parasitism)

Location: Hall 10b

Chair: Lohen Cavieres

- 11:00 **Kevin Leempoel:** Return of an apex predator (Puma concolor): Long-term camera-trapping reveals a dynamic trophic cascade in a human-dominated landscape
- 11:15 **Myriam Hirt:** Rethinking Trophic Niches: Speed and Body Mass Co-Limit Prey Space of Mammalian Predators
- 11:30 **Henrietta Pringle:** Associations between gamebird releases and generalist predators
- 11:45 **Johan Eklöf:** The stickleback wave: a gradual regime shift through a large marine ecosystem
- 12:00 **Edward Hall:** Environmental variability as a driver of life history variation in the moth *Plodia interpunctella* and its parasitoid *Venturia canescens*
- 12:15 **Peihua Zhang:** Underground communication of root attack: its spatiotemporal extent in relation to competition
- 12:30 **Tobias Zuest:** Novel plant defenses as an escape from co-adapted herbivores: cardenolides in the Brassicaceae
- 12:45 **Jennifer Rowntree:** The contrasting roles of host species diversity and parasite population genetic diversity in the infection dynamics of the keystone parasitic plant *Rhinanthus minor*

## S28: Community Ecology (Environmental Change)

Location: Hall 11a

Chair: Michael Pocock

- 11:00 **Owen Petchey:** Stronger organism-environment feedback increases nonlinearity and hysteresis of ecosystem response to environmental change
- 11:15 **Jan Plue:** Climate and Land-use Change May Erode Key Components of Plant Community Resistance and Resilience
- 11:30 **Michael Boyle:** Disturbance-induced microclimate change drives community shifts in rainforest ants after logging and conversion to oil palm
- 11:45 **Martin Skov:** Mangrove forest degradation: global research disparity and mixed functional effects
- 12:00 **George Short:** Shifts in reef-associated fish communities with habitat degradation in the East Central Red Sea
- 12:15 **Haoyu Li:** Does 'quirks' or abundance dominate impacts of an invader? Uncovering context-dependent associational effects
- 12:30 **Rebekah Stanton:** Drivers of desert communities: fire and rodent seedling folivory in the Great Basin Desert, Utah, USA

- 12:45 **Frederik De Laender:** Community- and ecosystem-level effects of multiple environmental change drivers: beyond null model testing

## S29: Soil Ecology and Plant-soil Interactions (Belowground Diversity)

Location: Hall 11b

Chair: Kelly Ramirez

- 11:00 **Catherine Preece:** History repeats itself: The effects of past and current drought on soil microbial communities, and links with root exudation
- 11:15 **Fiona Seaton:** The impact of soil and plant diversity upon belowground microbial diversity
- 11:30 **Irena Maček:** Locally Extreme Environments as Natural Long-Term Experiments of Soil Microbial Ecology
- 11:45 **Paul George:** Diverging trends of belowground biodiversity richness revealed within temperate ecosystems
- 12:00 **Katja Steinauer:** Time matters: Temporal dynamics of root exudates shape soil microbial community composition
- 12:15 **Petr Smilauer:** Taxonomic and phylogenetic diversity of assemblages of arbuscular mycorrhizal fungi in a temperate grassland: contributions of surrounding community and host identity
- 12:30 **Tara Dirilgen:** Is there a limit to soil microarthropod abundance? – a laboratory microcosm manipulation study
- 12:45 **Walter Andriuzzi:** Does warming enhance top-down control in an Antarctic soil food web?

## T4: Long-term ecological experiments forever!

Location: Hall 1

Chair: Emma Sayer

- 15:00 **Jonathan Silvertown:** Introduction
- 15:05 **Bridget Emmett:** Long term field experiments: Is it worth it and where next?
- 15:30 **Raj Whitlock:** Buxton Climate Change Impacts Lab (England): adaptive responses to climate change, from plants, to genes, to ecosystems
- 15:40 **Andy Hector:** Future directions for long-term ecological research: The Raindrop project
- 15:50 **Merlin Sheldrake:** Gigante Litter Manipulation Project & Gigante Fertilisation Project (Panama) – Responses of arbuscular mycorrhizal fungi to long-term inorganic and organic nutrient addition in a lowland tropical forest
- 16:00 **Alexandra Weigelt:** The Jena Biodiversity Experiment (Germany) – The importance of LTE for root ecology
- 16:10 **Ruth Mitchell:** Long-term experiments for long-lived species: tree colonisation on moorland in Scotland (MOORCO)

# ORAL PRESENTATIONS

Tuesday 18 December

**16:20 Diane Campbell:** PACE (Rocky Mountain Biological Lab, Colorado, USA) -How will a changing climate influence selection and evolution in plant-pollinator systems?

**16:30** Q&A with speakers

**16:45** Discussion

## INT2: When and how are land-sparing and land-sharing appropriate for environmental management?

Location: Hall 6

Chair: Gavin Siriwardena

**15:00 Introduction**

**15:15 Ignasi Bartomeus:** Integrating species community level landscape responses using species-habitat networks

**15:30 Katie Threadgill:** Field margins can benefit habitat connectivity in land sharing agricultural landscapes

**16:00 Tom Finch:** The land sharing-sparing continuum: insights from the English lowlands

**16:15 Interactive Discussion**

## S30: Ecosystem and Functional Ecology (Disturbance or Environment)

Location: Hall 5

Chair: Hannah Mossman

**15:00 Mark Hodson:** Flooding causes changes in earthworm populations in arable and pasture fields

**15:15 Tamsyn Kiss:** Oxygen requirements differ between anecic (*Lumbricus terrestris*), endogeic (*Allolobophora chlorotica*) and epigeic (*Lumbricus castaneus*) earthworms with implications for survival in flooded soils

**15:30 Ryan Edge:** The effects of competition, waterlogging and microbial interactions on saltmarsh plant traits

**15:45 Ian Thornhill:** Drivers of leaf litter breakdown in the streams of tropical Dominica following Hurricane Maria

**16:00 Sanne Govaert:** Understorey plant diversity responses to macro to micro-temperature gradients in temperate forests across Europe

**16:15 Imma Oliveras:** Sources of leaf trait variation across contrasting tropical abiotic gradients

**16:30 Claire Jacquet:** How disturbance frequency and intensity shape community size-structure?

**16:45 Natalie Clay:** Salt and the geography of omnivory: Omnivorous ants increase carnivory when sodium is limiting

**Amy Sing Wong:** Functional role of herbivorous fish communities in driving benthic structure in coral reef systems

**Harry Watkins:** Tender, thirsty and shallow rooted? Challenging species stereotypes by exploring trait variation and the biogeography of temperate Magnolia species

**Laura Bentley:** A global meta-analysis of catchment responses to afforestation: significant, enduring and precipitation dependent through space and time

**Aradhana Roberts:** Effects of different forest disturbances on insect herbivory and ecosystem nutrient fluxes: fire, logging and drought

**Catherine Bayliss:** Freshwater UK microalgae responses to dissolved organic nutrients – Initial isolate responses

**Tristan Allerton:** Short-term physiological responses of Puerto Rican dry forest after Hurricane Maria

**Safirun Pervin:** Screening of Crop Plants for Sustainable Agriculture: Use of Stable Isotope to Estimate N-Cycle Flux

## S31: Parasites, Pathogens or Wildlife Disease (Communities & Species Interactions)

Location: Hall 7

Chair: Morgan Eisenlord

**15:00 Andy Fenton:** Experimental perturbation reveals limited cross-species transmission in a multihost-multivector-multipathogen system

**15:15 Suvi Sallinen:** Host genotype of *Plantago lanceolata* in explaining within-host virus communities in a transplant experiment

**15:30 Joanne Griffin:** Rapid evolution of compatibility to novel heritable microbes in the melanogaster subgroup of drosophilids

**15:45 Paula Tierney:** Invasive freshwater fish as a driver of change in native helminth communities in Ireland

**16:00 Sara Gandy:** The Impacts of Host Community Composition on Lyme Disease Transmission Risk

**16:15 Peter Graystock:** Temporal dynamics of parasite emergence and spread between wild pollinators (and flowers) from March to September

**16:30 Shaun Keegan:** The Spatial Influence of Within-Host Parasite Interactions Varies with Transmission Mode

**16:45 Simon Elliot:** Avirulence of the fungi *Escovopsis* and *Escovopsioides* (Hypocreales: Hypocreaceae) within the leafcutter ant-fungus symbiosis

**Saudamini Venkatesan:** Is sex-biased parasitism in wild mice consistent across space and time?

**Bryony Allen:** Multi-host pathogens and multi-parasitised hosts: an individual-level approach to understanding transmission of two pathogens (*Batrachochytrium dendrobatidis* and *Ranavirus*) across three amphibian host species

**Brian Boag:** The Demise of the Wild Rabbit: a Case History

**Lewis Bartlett:** Understanding when the evolution of host resistance to pathogens makes or breaks theory

# ORAL PRESENTATIONS

Tuesday 18 December

## S32: Nature and Humans (Human-Nature Experiences)

Location: Hall 8a

Chair: James Pearce-Higgins

- 15:00 Helen Hoyle:** Plant species or flower colour diversity? Identifying the drivers of public and invertebrate response to designed annual meadows
- 15:15 Solène Guenat:** Untangling the motivations of different stakeholders for urban greenspace conservation in Sub-Saharan Africa
- 15:30 Jessica Fisher:** Biodiversity and wellbeing: the role of bird communities in green and blue spaces in a neotropical city
- 15:45 Deborah Harvey:** Can monitoring biodiversity in school grounds boost pupils' wellbeing, engagement with science and connection to nature?
- 16:00 Rebecca Robertson:** Do you know what lives in your local park? Exploring the links between perceived biodiversity, user quality and wellbeing of park users
- 16:15 Heather Campbell:** The Baboon Spider Atlas – using citizen science and the 'fear factor' to map baboon spider distributions and diversity in Africa
- 16:30 Valentine Seymour:** Measuring nature's impact on health: A volunteering case study
- 16:45 Emma Peasland:** Maximising fieldwork engagement: Using motivation to explain students' fieldwork choices
- Caroline Mckeen:** COMPADRE-PREDICTS: Demographic traits mediate plant population responses to local land use change
- Jay Mackinnon:** Visitor perceptions of captive, endangered Barbary macaques (*Macaca sylvanus*) used as photo props in Jemaa El Fna Square, Marrakech, Morocco
- Luke Hecht:** Welfare Biology: The Study of Wild Animal Wellbeing
- Kathryn Nelson:** Ecological knowledge dissemination: the role of cultural intermediaries
- Steve Dudley:** #TheTweetingBird: its rise, relevance and impact in ornithology
- Henry McGhie:** How can natural history collections in UK museums support biodiversity and nature conservation research effectively?
- Yoseph Araya:** iSpot: a citizen science platform for inclusive learning and teaching
- Joanna Clark:** Citizen Science for sustainability: What we can learn about nature and people by studying how land management affects the ecosystem services delivered by urban trees

## S33: Conservation Science and Policy (Threats & Climate Change)

Location: Hall 8b

Chair: Mike Morecroft

- 15:00 Anne-Christine Mupepele:** Evaluating the evidence base of declining insect population and the potential drivers – a systematic review
- 15:15 Harry Siviter:** Sulfoxaflor- a potential replacement for neonicotinoid insecticides- has negative impacts on bumblebee colony fitness
- 15:30 Teegan Docherty:** Avian diversity and fire in African savannas: Understanding mechanisms and pathways with implications for conservation management
- 15:45 Viktor Löki:** Urbanization and modern management cause loss of conservation value of Turkish cemeteries: a field survey using terrestrial orchids
- 16:00 Mike Morecroft:** Ecological impacts of a hot dry summer: lessons for climate change
- 16:15 Kirsten Lees:** Drought stress in Sphagnum moss; effects on photosynthesis and spectral reflectance.
- 16:30 Martha Crockatt:** Successive droughts: no joke for oaks?
- 16:45 Keith Kirby:** Wytham Woods, at the start of its Ash Dieback outbreak
- Caroline Coogan:** Assessing the effectiveness of novel aging techniques in *Lobatus gigas* and implications for local fishery management in the Turks and Caicos Islands
- Susanna Quer:** Early implications of the fishery discard ban on great skua diet
- Sarah Fenn:** Quantitative assessment of supplementary feeding for red-billed chough conservation
- Moya Burns:** The Leicester Bee Road Project: A conservation research partnership between Leicester City Council, Buglife, the University of Leicester and the local community
- Margaret Gold:** The EU Landscape of Citizen Observatories

## S34: Community Ecology (Demography, Distributions & Dispersal)

Location: Hall 9

Chair: Martin Skov

- 15:00 David Murrell:** When can we infer biological interactions from spatial patterns of diverse communities?
- 15:15 Kyle Zawada:** Bridging the gap between functional traits and demography: morphological traits explain variation in demographic parameters in scleractinian coral communities
- 15:30 James Cant:** Coral Community Demographics: A predictive framework for the long-term viability of subtropical corals

# ORAL PRESENTATIONS

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- 15:45 **Rucha Karkarey:** Habitat history determines the functional structure of mesopredatory reef fish assemblages in coral reefs of the Lakshadweep archipelago
- 16:00 **Rachel Farrow:** The rare five-spot ladybird (*Coccinella quinquepunctata*: Coccinellidae) surviving in an invaded habitat
- 16:15 **Thomas Vanneste:** Plant diversity patterns in ecological corridors along a macroclimatic gradient
- 16:30 **Tarek Mukassabi:** Does altitude affect the growth and reproduction of *Cynara cyrenaica* (Asteraceae) on the southern edge of the Mediterranean?
- 16:45 **Tomas Herben:** Within-community demographic differentiation of species: slow-fast continuum and dispersal in a mountain grassland

## S35: Behavioural Ecology (Resources, Habitat, Environment)

Location: Hall 10a

Chair: Damien Farine

- 15:00 **Sarah Marley:** Effects of human activity on the acoustic habitats and behaviour of bottlenose dolphins in Western Australia
- 15:15 **Sophie De Grissac:** Best restaurant at sea: Seabirds and humans sharing space and food
- 15:30 **Lucy Mitchell:** Multi-year tracking for detailed, dynamic habitat selection of European nightjars (*Caprimulgus europaeus*)
- 15:45 **Stephanie Maher:** Solitary bee nesting ecology; tackling the missing piece
- 16:00 **Veronica Wignall:** Season affects exploitative competition between honeybees and bumblebees
- 16:15 **Georgia Hennessy:** Gone with the wind; how wind speed and flower movement influence Honey bee foraging behaviour
- 16:30 **Daniel Kenna:** Flight of the Bumblebee: Bee flight performance under variable temperature scenarios and pesticide stress
- 16:45 **Richard Gill:** Attractive pesticide affects bumblebee brood development predisposing adults to become poorer task performers
- Aditya Ghoshal:** Temporal Patterns and Sex Differences in Dyadic Interactions of Wild Zebrafish
- Holly English:** Biologging data from captive and domesticated animals aids behavioural interpretation of data from related wild species
- Snigdha Mukhopadhyay:** Path optimization in a non-trail laying Indian ant *Diacamma indicum*
- Natasha Ellison:** Mechanistic Modelling of the Home Range Patterns of Long-Tailed Tits
- Kathryn Whittey:** The role of habitat complexity in sharknose goby (*Elacatinus evelynae*) cleaner-client interactions
- Lucinda Kirkpatrick:** ProxLogs: Miniaturised proximity loggers for monitoring interaction behaviour in small mammals

## S36: Macroecology and Biogeography (Global Change)

Location: Hall 10b

Chair: Emily Lines

- 15:00 **David Coomes:** Canopy structure and topography jointly constrain the microclimate of human-modified tropical landscapes
- 15:15 **Belen Fadrique:** Ecotonal barriers to plant species migration in Andean forest
- 15:30 **Mariana García Criado:** Woody plant encroachment intensifies under climate change in biomes at the extremes
- 15:45 **Tim Newbold:** Interactive effects of land-use and climate change on bumblebee biodiversity in North America and Europe
- 16:00 **Curtis Horne:** Unifying major body size gradients: a meta-analysis of Arthropoda
- 16:15 **Josephine Mahony:** The Impact of Precipitation Variability on the Serengeti-Mara Wildebeest Population
- 16:30 **Tatsuya Amano:** Global waterbird populations show contrasting responses to climate change according to latitudes
- 16:45 **Jane Delany:** Understanding species' responses to changing environmental conditions using citizen science approaches to data gathering
- Matthew Kerr:** Biogeographic controls on Australian marine diversity
- Nick Isaac:** Data Integration for Large Scale Ecological Models
- Melissa Minter:** Genetic signatures of post-glacial range shifts in a montane butterfly
- Toshiaki Jo:** High water temperature and fish biomass can accelerate the shedding and degradation of the Japanese jack mackerel (*Trachurus japonicus*) environmental DNA
- Rebecca Whitla:** Phylogeography of the Marsh Fritillary in Britain and Ireland
- Maria Dance:** The influence of Holocene sea ice variability on Arctic biota: using the past to predict the future
- Katie Marshall:** Towards a macroecology of "the little things that run the world"

## S37: Population Ecology (Genetic or Trait Diversity)

Location: Hall 11a

Chair: Katharine Preedy

- 15:00 **Jean-Francois LEMAITRE:** Stress level predicts short-term telomere dynamics in wild roe deer
- 15:15 **Nia Thomas:** Population genetic changes in Eurasian otters (*Lutra lutra*) during recolonisation of the UK
- 15:30 **Gaurav BARUAH:** Abundance and trait-based signals of population collapse

# ORAL PRESENTATIONS

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- 15:45 Etienne Boncourt:** Landscape genetics of a montane pond-breeding amphibian in ski resorts
- 16:00 Rachel Jones:** Factors influencing population change of the Lulworth Skipper *Thymelicus acteon* (Lepidoptera: Hesperiidae) at its northern range edge
- 16:15 Chanida Fung:** Intraspecific Genetic and Phenotypic Variation effects on Rice Weevil Population Dynamics
- 16:30 Marcelo Gomes:** The effect of warming sea surface temperature on fish body condition in the North Sea
- 16:45 Yuichi Yamaura:** Genomic reconstruction of 100,000 year grassland history in a forested country: population dynamics of flowering specialist forbs
- Gesa Römer:** Biases in global demographic data in plants limit usefulness for climate change research
- Naveed Bhatti:** Do Occupancy Models Work for Monitoring Populations of Sessile Species?
- Megan Holgate:** How does land use change impact the population expansion of the hairy wood ant, *Formica lugubris*?
- Nilanjan Chatterjee:** Density and habitat use of two sympatric small cats in a Tiger Reserve in Maharashtra, India

## S38: Palaeoecology

Location: Hall 11b

Chair: Will Gosling

- 15:00 Thomas Ezard:** The alternative dimensions of palaeoecological competition
- 15:15 Emily Mitchell:** The relative influence of niche versus neutral processes on the first Eumetazoan ecosystems
- 15:30 Keechy Akkerman:** Local versus regional controls on aquatic production in two adjacent low-arctic lakes in West Greenland
- 15:45 Helen Roe:** The 'ECOTRAIT' Project: Understanding the links between functional traits and palaeoecological processes in lake Arcellinida (testate lobose amoebae)
- 16:00 M. Jane Bunting:** A British everglades? The ten thousand year story of the formation and destruction of the Humberhead Levels wetlands
- 16:15 Milan Teunissen van Manen:** Environmental response in leaf wax n-alkane composition of six tropical tree species along the NW Andean flank
- 16:30 Helen Shaw:** Palaeoecology and community ecology, potential for close linkages: testing the ability to detect diversity and herbaceous pastoral species in pollen diagrams
- 16:45 Crystal McMichael:** The Legacy of the Rubber Boom on Amazonian Forests
- Tessa Driessen:** Anthropogenic versus climatic impacts on crater lake ecosystems in western Uganda
- Althea Davies:** Grazing bioindicators: coprophilous fungal spores as a proxy for herbivory
- Mahmuda Islam:** Long-term response of theoretical hydraulic conductivity of South Asian moist forest trees to changing climate

Wednesday 19 December

## T5: All creatures fast and slow

Location: Hall 1

Chairs: Iain Stott & Owen Jones

- 10:00 Mirte Bosse:** A genomics perspective on rapid adaptation in widespread continental species
- 10:15 Matthew Silk:** The role of host and pathogen life-history traits in infectious disease dynamics
- 10:30 Virpi Lummaa:** Evolutionary ecology of historical Finnish people: how famines, disease and cold weather shaped individual life histories
- 10:45 William Allen:** Life history and invasion success across terrestrial vertebrate classes
- 11:00 Anna Csergő:** Plant strategies in the face of global environmental changes
- 11:15 Jessica Needham:** Tree communities from globally distributed forests occupy different regions of demographic niche space
- 11:30 David Hodgson:** All Creatures Fast and Slow? Statistical and Theoretical Challenges for an Emerging Paradigm

## S39: Microbial Ecology

Location: Hall 5

Chair: Helen Fones

- 10:00 Francisca Garcia:** Scaling the temperature dependence of metabolism from individuals to ecosystems: the role of biotic interactions
- 10:15 Daniel Padfield:** Ecological and evolutionary mechanisms alter the thermal performance of the bacteria *Pseudomonas fluorescens* in the presence of its bacteriophage
- 10:30 Concha Cano-Díaz:** Ecological preferences of terrestrial cyanobacteria at the global scale
- 10:45 Simon Okiobe:** Disentangling direct and indirect effects of mycorrhiza on potential nitrous oxide and denitrification activities
- 11:00 Andres Arce:** How do agricultural pesticides affect the bumblebee microbiome?
- 11:15 Calum Bridson:** Drivers of Variation in the Honeybee Gut Microbiome
- 11:30 Sophie Watson:** Global change-driven use of onshore habitat impacts polar bear faecal microbiota
- 11:45 Christopher Taylor:** Gut microbes form a link between diet and immunity in wild house mice *Mus musculus domesticus*

## S40: Ecosystem and Functional Ecology (Global Change II)

Location: Hall 6

Chair: Chris Smillie

- 10:00 Björn Klatt:** Neonicotinoid-exposure of wild bees depends on experience during larval development
- 10:15 Marie-Claire Danner:** Effects of antibiotic mixtures and temperature in aquatic microcosms

# ORAL PRESENTATIONS

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- 10:30 Fred Windsor:** Persistent organic pollution provides a continued threat to UK freshwater ecosystems
- 10:45 Pasky Miranda:** Sieved, Stored, Bottled: Effects of Soil Processing on Microbial Community and Function in Pesticide Degradation Studies
- 11:00 Veronika Kolářiková:** Genetic differentiation and phenotypic plasticity of ecophysiological traits: does it help to understand plant performance of *Festuca rubra* under changing climate?
- 11:15 Haben Blondeel:** Functional traits dictate soil nitrogen (N) uptake by plants in response to land-use legacies and environmental change
- 11:30 Michael Agunbiade:** Effects of Land Use/Cover Change on Land Surface features in the Western Region of Nigeria – A time series analysis
- 11:45 Moritz Lürig:** Species interactions and the resilience of aquatic ecosystems to nutrient perturbation

## S41: Species Interactions (Climate Change & Disturbance)

Location: Hall 7

Chair: Kathryn Barry

- 10:00 Gustavo Romero:** Climate predicts global patterns and redistribution of predation pressure
- 10:15 David Gilljam:** Coloured environmental variation alters insect-natural enemy dynamics
- 10:30 Mathieu Santonja:** Increasing temperature and decreasing specific leaf area amplify centipede predation impact on Collembola
- 10:45 Elena Valdés-Correcher:** Latitudinal variation in bottom-up and top-down drivers of insect herbivory on oak at the European scale
- 11:00 Marianne Mugabo:** Environmental degradation affects species responses to temperature variation in a trophic interaction between the moth *Plodia interpunctella* and the parasitoid *Venturia canescens*
- 11:15 Dirk Sanders:** Low Levels of Artificial Light at Night Strengthen Top-Down Control in Insect Food Web
- 11:30 Roswitha Ehnes:** Forest soil invertebrate communities change due to disturbance by artificial wild boar rooting
- 11:45 Ivan Nijs:** Neighbours determine whether a plant resists drought extremes

## S42: Behavioural Ecology (Movement Ecology)

Location: Hall 8a

Chair: Garrett M Street

- 10:00 Thomas Clay:** Behavioural responses of albatrosses to local wind conditions
- 10:15 Emily Shepard:** When flight control fails: Wind strength and “runway” type determine when cliff-nesting auks can land

- 10:30 Damien Farine:** High-resolution GPS tracking of vulturine guineafowl groups reveals how ecological factors shape collective movement
- 10:45 Femke Batsleer:** Self-organisation of nest aggregates in a digger wasp: a spatial pattern driven by density-dependent movement
- 11:00 David Shohami:** Movement ecology in a social context: foraging movement, tree selection and colony membership in the Egyptian Fruit Bat (*Rousettus aegyptiacus*)
- 11:15 Keely Maynard:** Ontogeny and monthly home-ranging patterns in Javan slow lorises (*Nycticebus javanicus*) in West Java, Indonesia
- 11:30 Zehidul Hussain:** Movement ecology of tiger in the Eastern Vidarbha Landscape, Maharashtra, India
- 11:45 Lucy Taylor:** Movement reveals reproductive tactics in male elephants

## S43: Community Ecology (Community Assembly, Structure & Stability)

Location: Hall 8b

Chair: Judy Simon

- 10:00 Daniel Fitzgerald:** Using trophic structure to reveal patterns of trait-based community assembly across niche dimensions
- 10:15 Samuel Ross:** Using ecoacoustics to monitor ecological stability along an urbanisation gradient in Okinawa, Japan
- 10:30 Julio Alcántara:** Abundance, phylogeny and the structure of plant-plant replacement networks in Mediterranean mixed Pine-Oak forests
- 10:45 Adam Kimberley:** Unbalanced species losses and gains lead to non-linear trajectories as grasslands become forests
- 11:00 Stephanie Law:** Darker ants dominate the canopy: colour lightness of ant assemblages is vertically stratified.
- 11:15 Julie Sheard:** Limited support for trade-offs as a mechanism for coexistence in ant communities across a latitudinal gradient
- 11:30 Cássio Nunes:** Impact of forest degradation and species loss on the functional structure of dung beetle communities in Amazonian forests
- 11:45 Sara Cousins:** Temporal lags in extinctions across different levels of diversity after 165 years of habitat change

## S44: Theoretical or Computational Ecology (Theory, Transitions or Diversity)

Location: Hall 9

Chair: Jenny Hodgson

- 10:00 Stéphane Boyer:** Rethinking Ecology: fostering forward thinking and the publication of novel ideas in all areas of ecology

# ORAL PRESENTATIONS

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- 10:15 Katherine Yates:** Outstanding Challenges in the Transferability of Ecological Models
- 10:30 Jon Yearsley:** The ecological significance of rare species in community dynamics
- 10:45 J. Jelle Lever:** Critical transitions in complex food webs
- 11:00 Alexis Synodinos:** Transitions in ecology caused by the rate of change in conditions
- 11:15 Tatjana Thiel:** Influence of plant trait variation on the fitness of specialist and generalist herbivores
- 11:30 Phil Bouchet:** Transferring biodiversity models for conservation: Opportunities and challenges
- 11:45 David Wilkinson:** Mechanisms for Gaia – why has life persisted for so long on our planet?

## S45: Evolutionary Ecology (Adaptation & Plasticity)

Location: Hall 10a  
Chair: Tom Ezard

- 10:00 Anna Nekaris:** Facial masks as aposematic signals in a venomous primate – the Javan slow loris (*Nycticebus javanicus*)
- 10:15 Orestes Gutierrez Al-Khudhairy:** How trophic interactions strengths are constrained over evolutionary time-scales
- 10:30 Laura Dean:** Unusually strong reproductive isolation between sympatric three-spined stickleback ecotypes on the Scottish island of North Uist
- 10:45 Hanna Granroth-Wilding:** Do three-spined sticklebacks alter parental care patterns adaptively in response to environmental change?
- 11:00 Jacob Johansson:** Understanding adaptive colony responses to seasonal variation in energy intake in an important social insect pollinator
- 11:15 Elisa Schaum:** Plastic plankton prosper – ecology, evolution, and plasticity across a natural gradient of thermal variability
- 11:30 Andy Griffiths:** Constrained by clouds: evolutionary heritage shapes the distribution of trees along an Amazon to Andes elevation gradient
- 11:45 Stephen Bonser:** What is the value of shade avoidance plasticity in plants?

## S46: Macroecology and Biogeography (Habitats & Environment)

Location: Hall 10b  
Chair: Natalie Cooper

- 10:00 Donatella D'Onofrio:** The role of rainfall intra-seasonal variability for grass and tree cover in African tropical grassy biomes varies along a rainfall gradient
- 10:15 Sacha Houry:** Mediterranean forests resilience to climate change
- 10:30 Gabriel Yesuf:** Modelling future plant range shifts gaps in Madagascar: How important are estimates of habitat connectivity for accurate predictions?

- 10:45 Sarah Mayor:** Landscape diversity promotes landscape-scale ecosystem functioning
- 11:00 Jess Neumann:** Applying methods used in temporal landscape ecology to deliver co-benefits for biodiversity and flood risk mitigation
- 11:15 Katharine Keogan:** Patterns and drivers of breeding phenology across multiple seabird species in the North Atlantic
- 11:30 Jordan Chetcuti:** A new method to assess species' habitat preference
- 11:45 Florian Zellweger:** Advances in microclimate ecology arising from remote sensing

## S47: Nature and Humans (Exploitation or Ecosystem Services)

Location: Hall 11a  
Chair: Adam Vanbergen

- 10:00 Sarah Brotherton:** Global offtake of wild animals from inland wetlands
- 10:15 Tatsiana Barychka:** What could a general ecosystem model tell us about sustainable bushmeat harvesting?
- 10:30 Florence Hecq:** Effects of wooded networks on biological control: synergy or antagonism?
- 10:45 Martin Lilley:** How product design can progress the stock enhancement of lobster fisheries
- 11:00 Maarten Wynants:** Land degradation in East-Africa: erosion of social and natural capital in socio-ecological systems
- 11:15 James Pearce-Higgins:** Global impacts of renewable energy upon biodiversity – an overlooked cost of climate change mitigation?
- 11:30 Cian White:** Predicting network role of plants in plant-pollinator interactions networks to inform creation of Nature-based Solutions
- 11:45 Darren Grafius:** How much heat can we grow in our cities? Modelling biofuel production potential in ten UK urban settings

## S48: Soil Ecology and Plant-soil Interactions (Land-use & Soil Properties)

Location: Hall 11b  
Chair: Annabel Smith

- 10:00 Simon Smart:** Modelling the relationships between Soil Quality and physical, chemical and biological characteristics
- 10:15 Aneta Trajanov:** Predicting mineralizable nitrogen in temperate grassland soils from soil properties using data mining models
- 10:30 José Van Paassen:** Temperature, nitrogen deposition and grazing as drivers of grassland soil chemical properties

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- 10:45 **Catharine Pschenyckyj:** Acidity controls on recent changes in carbon cycling in upland organic soils; the results of an acidity manipulation field experiment on decomposition and microbial communities
- 11:00 **Mathilde Chomel:** 13 C and 15 N flow between plants and soil food web in semi-natural grassland in response to drought and land management
- 11:15 **Stuart Dick:** Legumes contribution to nitrogen supply in other plants and microhabitats in a green roof substrate
- 11:30 **Susannah Bird:** Short term agricultural land use changes affect plant nutritional status
- 11:45 **Agnès Ardanuy:** Contrasting responses of temperate tree species to soil legacies

## T6: Upscaling biodiversity-ecosystem functioning research

Location: Hall 1

Chair: Malte Jochum & Anne Ebeling

- 13:00 **Forest Isbell:** The dependence of ecosystem functioning on local and larger scale biodiversity
- 13:30 **Malte Jochum:** Do biodiversity experiments accurately represent "real-world" ecosystems?
- 13:45 **Chelsea Little:** If one shredder is good, are more shredders better? Upscaling biodiversity experiments to functioning of riverine catchments
- 14:00 **John Griffin:** Beta-diversity – ecosystem multifunctionality relationships depend on the mechanism of community assembly
- 14:15 **Elise Filotas:** Impact of landscape transformation on the spatial scaling of the biodiversity – ecosystem function relationship
- 14:30 **Gaetane Le Provost:** Linking local-scale biodiversity and ecosystem function to landscape biodiversity
- 14:45 **James Bullock:** Cultural ecosystem services and upscaling biodiversity-ecosystem function relationships in Wessex BESS

## T7: People and Nature

Location: Hall 5

Chair: Kevin Gaston

- 13:00 **Kevin Gaston:** People and Nature
- 13:30 **Steve Redpath:** Stakeholder values and the conflict between red grouse shooting and hen harrier conservation.
- 13:45 **Laura Graham:** Scale-dependency in drivers of outdoor recreation.
- 14:00 **Aletta Bonn:** Green Space and Health – How does biodiversity matter?
- 14:15 **Robert Fish:** Emerging Frameworks for Relational Thinking at the Intersection of People and Nature
- 14:30 **Rosemary Hails:** Valuing Landscapes
- 14:45 **Kai Chan:** Bringing in the Unusual Suspects: Relational Values in Programs for Sustainability

## S49: Ecosystem and Functional Ecology (Carbon & Nutrient Dynamics)

Location: Hall 6

Chair: Roswitha Ehnes

- 13:00 **Lidiany Carvalho:** The soil pyrogenic carbon stock in the northern of Amazon forest depends of ignition source distance and hydro-edaphic conditions
- 13:15 **Adham Ashton-Butt:** Oil palm replanting has long term effects on soil quality and soil carbon
- 13:30 **Eva Koller:** The interactive effects of plant biodiversity and climate on soil nutrient concentrations in a semi-natural grassland: a 15-year experiment
- 13:45 **Dries Landuyt:** Drivers of aboveground biomass and nutrient stocks in the understorey of temperate deciduous forests across Europe
- 14:00 **Ben Keane:** Grasslands and climate change: how will phosphorus limitation affect ecosystem responses to elevated CO<sub>2</sub>?
- 14:15 **Aino Korrensalo:** Aerenchymous plant species differ in their CH<sub>4</sub> transport in a boreal peatland complex
- 14:30 **Thomas Pugh:** The contribution of forest disturbances to global forest dynamics and carbon cycling
- 14:45 **Jordi Pagès:** Resilience of carbon sequestration to ecosystem transitions

## S50: Species Interactions (Competition or Facilitation)

Location: Hall 7

Chair: Heather Campbell

- 13:00 **Teng-Chiu Lin:** Growing under substrate-forming epiphytes: trade-off between water and nutrients for epiphytes
- 13:15 **Helen Fones:** Interactions between epiphytic *Zymoseptoria tritici*, ice-nucleating *Pseudomonas syringae*, and competing bacterial epiphytes
- 13:30 **Ádám Lovas-Kiss:** Variation in duck-plant seed dispersal interactions throughout the annual cycle
- 13:45 **Pierre-Alain Van Griethuysen:** How viruses manipulate their host plants to attract the vectors they need for successful transmission
- 14:00 **Michal Bogdziewicz:** Consumer-mediated indirect interaction with a native plant lowers the fitness of an invasive competitor
- 14:15 **Caren Pauler:** Pasture vegetation is affected by cattle breed
- 14:30 **Jelmer Samplonius:** Does phenological synchrony with interspecific competitors shape niche use in pied flycatchers?
- 14:45 **Andrew Davis:** Third party volatiles reverses mould-*Drosophila suzukii* interactions

# ORAL PRESENTATIONS

Wednesday 19 December

## S51: Parasites, Pathogens or Wildlife Disease (Environment & Stressors)

Location: Hall 8a

Chair: Andy Fenton

- 13:00 Claire Risley:** Climate Change and Host-Pathogen Interactions: Predicting Future Pathogen Transmission and Emergence in European Mammals
- 13:15 Liam Brierley:** Tropism and transmission ecology predicts virulence of human RNA viruses
- 13:30 Morgan Eisenlord:** Virulence in a widespread marine pathogen of seagrass is mediated by strain and environment
- 13:45 Maria Faticov:** Climate and host genotype jointly shape tree phenology, fungal and insect attacks
- 14:00 Nichar Gregory:** El Niño drought and tropical forest conversion synergistically determine mosquito life-history
- 14:15 Maureen Williams:** Warming can alter host behavior to the same extent as behavior-manipulating parasites in aquatic ecosystems
- 14:30 Rory Gibb:** Systematic global effects of land use on zoonotic host communities
- 14:45 Brian Fredensborg:** Evidence of synergistic interactive effects on insect host fitness between a pathogen and chronic exposure to sub-lethal concentration of a common insecticide

## S52: Community Ecology (Diversity & Disturbance)

Location: Hall 8b

Chair: Louise Mair

- 13:00 Daisy Dent:** Lianas slow the recovery of biomass in Neotropical secondary forests
- 13:15 Emilia Haimbili:** Current vegetation structure and composition of woody species in community-derived categories of land degradation in a semi-arid rangeland of Kunene Region, Namibia
- 13:30 Emiel De Lombaerde:** Significance of the understory community for tree regeneration in temperate forests
- 13:45 Antonio Perea:** A test of Janzen-Connell effect in Mediterranean forest communities
- 14:00 Balázs Lukács:** Changes in the trait composition of river plant communities along environmental gradients: A trait-based study
- 14:15 Christopher Doble:** Testing the performance of eDNA metabarcoding for surveying hyper-diverse tropical fish communities: A case study from Lake Tanganyika
- 14:30 Cristina Di Muri:** Harnessing eDNA samples to investigate seasonal variability of fish species genetic signals at Arctic charr (*Salvelinus alpinus*) spawning grounds in Windermere
- 14:45 Mathew Seymour:** Biodiversity monitoring using traditional and environmental DNA metabarcoding across seasons and landuse types

## S53: Population Ecology (Demography or Life History)

Location: Hall 9

Chair: Kevin Leempoel

- 13:00 Katie Willis:** Estimating the intrinsic population growth rate of *Anopheles gambiae* using insecticide and bed net field trial data
- 13:15 Eva Conquet:** Population responses to changes in vital-rate periodic patterns
- 13:30 Matthew Bond:** Asymmetry in energy efficiency throughout development: changes in resource allocation drive changes in population size and structure
- 13:45 John Jackson:** Long-term fluctuation in demographic structure is a key determinant of population growth in a long-lived mammal
- 14:00 Ayan Sadhu:** Demography of a small, isolated tiger (*Panthera tigris tigris*) population in a semi-arid region of western India
- 14:15 Claire Branston:** The role of habitat and climate on the breeding phenology and productivity of blue tits (*Cyanistes caeruleus*) in the UK
- 14:30 Paul Huxley:** Interactive Effects of Temperature and Density on Life-history Traits Relevant to the Geographical Range Distribution and Abundance of *Aedes aegypti*
- 14:45 Pol Capdevila:** Are marine life history strategies different from terrestrial ones?

## S54: Behavioural Ecology (Communication, Interactions or Decision-Making)

Location: Hall 10a

Chair: Sam Elliot

- 13:00 Cristina Jasso del Toro:** The effect of habitat type on social play in immatures howler monkeys (*Alouatta palliata mexicana*) at Los Tuxtlas Biosphere Reserve (Veracruz, Mexico)
- 13:15 Lucy Garrett:** Friends with benefits: the importance of chick sociality for survivorship in a precocial seabird
- 13:30 Thomas Oudman:** How barnacle geese learn their spring migration strategy
- 13:45 Friederike Hillemann:** Individual variation and consistency in inter-specific associations in mixed-species flocks
- 14:00 Danai Papageorgiou:** The distribution of resources shapes how groups of wild vulturine guineafowl make collective decisions
- 14:15 Arne Schröder:** State-dependent behavioural decision making of *Daphnia pulex* under multiple trade-offs
- 14:30 Katie Dunkley:** Within and between species diversity influences the dynamics of cleaner fish-client interactions

# ORAL PRESENTATIONS

Wednesday 19 December

14:45 **Matthew Hasenjager:** Disentangling the relative importance of honeybee communication pathways using network-based diffusion analysis

## S55: Macroecology and Biogeography (Species or Trait Diversity II)

Location: Hall 10b

Chair: Jessica Neumann

- 13:00 **Natalie Cooper:** Sex bias in natural history collections
- 13:15 **Heather Wood:** Using natural history collections to detect the effects of landscape and climate change on bat morphology
- 13:30 **Tom Bishop:** The scaling and sharing of global variation in ant shape
- 13:45 **Hannah White:** Functional homogenisation of birds: the role of climate, distributions and diversity at multiple spatial scales
- 14:00 **Colin Beale:** Pyrodiversity and the distribution of bird and mammal diversity in African savannahs
- 14:15 **Emma Hughes:** The effects of secondary forest regeneration on avian phylogenetic diversity
- 14:30 **Joseph Tobias:** Re-evaluating patterns and predictors of species coexistence in birds
- 14:45 **Gavin Thomas:** Stranger things: elaboration and innovation of island avifaunas

## S56: Conservation Science and Policy (Species & Diversity)

Location: Hall 11a

Chair: Helen Shaw

- 13:00 **Katherine Baldock:** Assessing the effectiveness of urban flower meadows for pollinator conservation
- 13:15 **Friederike Bolam:** Predicting Red List status of plants in the Caatinga, Brazil, and using Value-of-Information to decide on future conservation action
- 13:30 **Stuart Robertson:** Conserving the primate tree of life: Phylogenetically-informed spatial prioritisation of global primates reveals shortcomings in traditional taxonomic based approaches
- 13:45 **Andrew Stringer:** Assessing the feasibility of a pine marten (*Martes martes*) reintroduction to the Forest of Dean and Wye Valley, UK
- 14:00 **Chris Smillie:** Nest site variables and breeding progress of the shag *Phalacrocorax aristoleis* population of the Isle of Lunga
- 14:15 **Kevin Wood:** Predicting the individual- and population-level effects of land use changes on three species of overwintering swan (*Cygnus spp.*)
- 14:30 **Kirsty Park:** Fodder crop management benefits Northern Lapwing (*Vanellus vanellus*) outside agri-environment schemes
- 14:45 **Emma Sheard:** Lime as a conservation management tool for farmland breeding waders

## S57: Invasive Species

Location: Hall 11b

Chair: Rachel Farrow

- 13:00 **Roger Trout:** The slow invasion of Edible Dormice (*Glis glis*); the background to approaching the management of an increasing pest of woods and buildings but which may hibernate for 20 months
- 13:15 **Lohengrin Cavieres:** Assessing impacts of plant invasions in alpine habitats of the central Chilean Andes
- 13:30 **Jesamine Bartlett:** Ecological consequences of a single introduced species to the Antarctic
- 13:45 **Jodie Cosham (Lia):** Thermotolerance capacities of native and exotic coastal plants will lead to changes in species composition under increased heat waves
- 14:00 **Annabel Smith:** Can invasive species bypass life history constraints on genetic diversity?
- 14:15 **Stephen Cornell:** Anomalous invasion speeds: tradeoffs, sex, and incumbents
- 14:30 **Audrey Lustig:** Pest control at a regional scale: identifying key criteria using a spatially explicit and agent-based model
- 14:45 **Tim Blackburn:** Colonization pressure: a second null model for biological invasions?

# POSTER SESSION 1

Monday 17 December

Posters will be displayed in Hall 3 – the main Exhibition Hall of the conference centre – either on the ground level or on the balcony.

Posters will be on display for the duration of the meeting. Your poster will be allocated to one of the two formal poster sessions listed below, during which you are required to stand at your poster and discuss your work with delegates. Your poster will be displayed according to your poster number found in this programme.

All poster numbers with a letter followed by the number 1 (A1 - K1) will be part of Poster Session 1, which will take place on Monday 17 December, 18:00 – 19:30.

All poster numbers with a letter followed by the number 2 (A2 - K2) will be part of Poster Session 2, which will take place on Tuesday 13 December, 17:30 – 19:00

## e-Posters I

- EP1.0** **Alejandra Parreño:** Controversial effects of light and nutrients on plant biodiversity and productivity
- EP1.1** **Oskar Löfgren:** A closer look at the pixels – the NDVI and grassland plant communities
- EP1.2** **Veronika Jilková:** Wood ant nest surroundings as natural carbon gradients in forest ecosystems
- EP1.3** **Susan Quick:** Revealing the secrets of woodland resilience to climate change
- EP1.4** **Alejandra Garcia Cabanillas:** Small world network and the Prisoner's dilemma: how does cooperation survive?
- EP1.5** **Jamie Weir:** The evolution of colour polymorphism in British winter-active Lepidoptera in response to search image use by avian predators
- EP1.6** **Ko Hinokidani:** Marine productivity may be enhanced on through interaction between mangroves and herbivorous snail
- EP1.7** **Yasuhiro Asakura:** Ability evaluation for mangrove species in absorbing and removing active nitrogen derived from human activities

## Agricultural Science and Policy

- A1.0** **Elisabeth Bowles:** Exploring Perenniality in Grasses
- A1.1** **Louise Hutchinson:** Bee Diversity & Sustainable Crop Pollination of Apple, Bean, Oilseed and Strawberry
- A1.2** **Melanie Edgar:** Optimizing grazing management for climate mitigation in upland grasslands – a study of the long-term, landscape scale impacts
- A1.3** **Alexa Varah:** Multiple impacts of human-induced evolution in an agricultural system
- A1.4** **Rob Brooker:** The role of crop genetic diversity in determining plant community resilience to experimental drought
- A1.5** **Mike Shewring:** Drone-Mounted Thermal-Imaging Cameras for Finding Cryptic Ground Nesting Birds
- A1.6** **Christopher Adams:** Targeted Detection of *Zymoseptoria tritici* in Wheat

- A1.7** **Michelle Felton:** Delivering climate change and environmental policy commitments through agroforestry in the UK
- A1.8** **Sofia Franco:** Multifunctional landscapes- making theory practice
- A1.9** **Emma Bailey:** Enhanced silicate rock weathering for climate change mitigation and crop protection in maize
- A1.10** **Morag McCracken:** Conserving biodiversity and enhancing ecosystem services: implementing agri-environment schemes with multiple benefits
- A1.11** **Kristina Grenz:** Understanding the impact of phylloplane biocontrol agents on insects

## Community Ecology

- B1.0** **Margaret Pilkington:** Sussex gills: plant habitat preference linked to soil parent materials
- B1.1** **Benjamin Phillips:** Road verges and hedges support plants and pollinators in agricultural landscapes
- B1.2** **Chabi Djagoun:** Stable isotope niche segregation between rare topi antelope (*Damaliscus korrigum*) and other sympatric bulk grazers in Pendjari Biosphere Reserve (Northern Benin): Implication for topi conservation
- B1.3** **Joel Brown:** The metacommunity concept for horizontal transmission of insect-associated heritable symbionts
- B1.4** **Michael Bartoš:** Correlation of floral and life history traits with self-compatibility and autonomous selfing in plants of wet meadow communities
- B1.5** **Toshifumi Minamoto:** Spatio-temporal detection patterns of fish eDNA in lentic ecosystems
- B1.6** **Isobel Bramer:** A global analysis of forest microclimatic edge effects
- B1.7** **Jose Garrido:** Evidences of Janzen-Connell effects in Mediterranean forest communities
- B1.8** **Justin Byrne:** The Ageing of Woodland Soils: Examining plant – microbial decomposer communities in woods of all ages

# POSTER SESSION 1

Monday 17 December

- B1.9 Antonio Manzaneda:** Landscape complexity and management effects on ant taxonomic and functional diversity in olive orchards: implications for pest biological control
- B1.10 Guy Rotem:** Does grazing effect plant species community in heaper arid environment? The northern Negev as a case study
- B1.11 Hiroki Yamanaka:** Detection of zebrafish messenger RNAs from tank water: implications for the practicability of environmental RNA analysis for aquatic macroorganisms
- B1.12 Hsien-Yu Lee:** Species composition and functional traits of vascular epiphytes show vertical trends in a montane forest in northern Taiwan.
- B1.13 Laura Cappelatti:** Seaweed functional traits reflect resource acquisition – stress tolerance trade-offs across the intertidal emersion gradient
- B1.14 Shyamali Roy:** Evaluating the impact of emergent disease on microbial and insect populations in the tree ecosystem
- B1.15 Matthew Perkins:** Ecological engineering of marine infrastructure in subtidal habitats: what can exploration of material properties teach us about relationships between habitat diversity, biodiversity and ecosystem function?
- B1.16 Chaim Lasmar:** What do ants eat and where do they feed in contrasting Brazilian biomes?
- B1.17 Reem Almealla:** Interannual variation in carbonate budgets at optimal and turbid reefs in the Wakatobi Marine National Park, Indonesia
- B1.18 Roxane Beys:** What are the controlling mechanisms of spatial distributions of woody species in a natural temperate forest? Disentangling the effects of habitat heterogeneity and dispersal limitation through a trait-based perspective
- B1.19 Alice Lown:** Density and seasonally dependent associations of biodiversity with the European flat oyster (*Ostrea edulis*): evidence for marine planning
- B1.20 Oluwabukunola Olapoju:** Multiple stressor effects on macrobenthic invertebrate: responses of estuarine species to environmental variability of nutrients and heavy metals in tropical coastal waters
- B1.21 Pen Holland:** CATASTROPHIC: A card game supporting systems thinking in biology
- B1.22 Phil Grime:** Ecological insights and predictions emerging from the comparative study of flowering plants in North Central England between 1961 and 2018
- B1.23 Thanate Kerdkaew:** Germination inhibition, not frugivore reward, is the likely function of the jelly that surrounds the seeds of *Ficus oligodon*

## Ecosystem and Functional Ecology 1

- C1.0 Oloyede Adekolurejo:** Survival and functional responses in freshwater algae, crustaceans and amphipods exposed to varying concentrations of microcystins

- C1.1 Mariann Biro:** The community composition of benthic foraminifera in the saltmarshes of Y Foryd Nature Reserve, Menai Strait, Wales
- C1.2 Carolina Galleguillos:** Is there really exist a Trade-off between flowering and tolerance to water stress in a vascular Antarctic plant *Colobanthus quitensis* (Kunth) Bartl?
- C1.3 Cristina Blandino:** Effect of volcanogenic heavy metals on seed germination of Mt. Etna native plants
- C1.4 Ian Acuña-Rodríguez:** Unraveling the role of biotic and abiotic factors in the colonization success of *Colobanthus quitensis* in Maritime Antarctica
- C1.5 Liam Crowley:** Mines bigger than yours: Responses of leaf-mining larvae to elevated Carbon Dioxide
- C1.6 Raquel Arias Font:** Testing the effect of flow alteration on stream ecosystem structure and functioning
- C1.7 Sharif Mukul:** What determines the distribution and recovery of aboveground biomass carbon in tropical secondary forests following shifting cultivation?
- C1.8 Ellen Goddard:** The invasion of *Sarracenia purpurea* across Europe
- C1.9 Luisa Nunes:** Wildland Fire research: responses of invertebrates to prescribed fire in a Mediterranean shrubland

## Environmental Physiology

- D1.0 Rebekah Butler:** Investigating the influence of heavy metal pollution on the thermal tolerance of *Parasesarma bidens* – a case study from the subtropical mangroves of Hong Kong
- D1.1 Danielle Gilroy:** Physiological responses to environmental stress in a wild population of Welsh Mountain Ponies
- D1.2 Hanrong Tan:** Contrasting correlations among body-mass scaling of metabolic rate, metabolic level and body shape change: cephalopods versus teleost fish
- D1.3 Joni Cook:** Developing and applying a novel high-resolution 3D modelling approach to explore leaf morphometric traits
- D1.4 Benjamin Archer:** Dynamics and Drivers: Carbon fluxes in temperate freshwater reservoirs of southeast England
- D1.5 Radim Matula:** Low-cost automatic measuring devices: The cost-effective and reliable approach for studying tree responses to varying climate on a global scale

## Evolutionary Ecology

- E1.0 Francesco Santi:** Multi-dimensional phenotypic divergence of invasive mosquitofish *Gambusia holbrooki* from Italy and Spain
- E1.1 Alexandra Jebb:** Bigger is Not Always Better: Stabilizing Selection Regulates Body Mass in a Hibernating Mammal

# POSTER SESSION 1

Monday 17 December

## Invasive Species

- F1.0 John Ete:** The Effect of Weather Factors on the Population Density of *Oxycarenus* Spp (*Hemiptera: Lygaeidae*) on Roselle and Kenaf
- F1.1 Kate Mathers:** Invasion dynamics of two Ponto-Caspian amphipods, *Dikerogammarus villosus* and *Dikerogammarus haemobaphes*, in a lowland reservoir
- F1.2 Richard Beason:** Investigating effects of forest understorey invasion by rhododendron on bats and owls using passive acoustic monitoring and temporal activity mapping
- F1.3 Daniel Warren:** Amphians at Risk! Superior Functional Response and Abundance Predicts Significant Impact by Invasive Killer Shrimp
- F1.4 Mark Fennell:** Japanese knotweed (*Fallopia japonica*): an analysis of capacity to cause structural damage (compared to other plants) and typical rhizome extension
- F1.5 Mukesh Kumar:** Effects of invasive plants on soil nutrients and microbial biomass in Central Himalaya chir pine forest, India
- F1.6 Noboru Kuramoto:** Spreading of alien 'wild flowers' (*Coreopsis* spp.) in the Tama River basin
- F1.7 Hannah Fielder:** New developments in the Invasive Species Compendium for better management and prevention of invasive species threats
- F1.8 Martin Nuñez:** Highly invasive species are more dependent on mutualisms: evidence from tree invasions and mycorrhizal fungi
- F1.9 Joshua Copping:** Predicting the spread of invasive species; can distribution models be transferred to new areas?
- F1.10 Jeanine Raw:** Optimal surveillance for invading plant diseases: an epidemiological modelling approach
- F1.11 Marciana Galambao:** Molecular detection and identification of endosymbionts in banana aphid from Abaca (*Musa textilis* Nee) in the Philippines
- F1.12 Anna Turbelin:** Mapping interactions between invasive species and natural hazards
- F1.13 Marco Benucci:** Molecular food webs in arboreal communities: investigating the diet of the invasive *Harmonia axyridis* in the UK

## Soil Ecology and Plant-soil Interactions

- G1.0 Leigh-Anne Kemp:** The role of soil fertility in the function of mycorrhizal associations
- G1.1 Aileen Baird:** Fungi of the future: Assessing the effects of elevated carbon dioxide on fungal communities in temperate forests
- G1.2 Kelly Mason:** How sticky dead microbes form stable soil carbon
- G1.3 Leonie Grünfeld:** Limited arbuscular mycorrhizal fungal propagule availability in a temperate European forest
- G1.4 Stuart Dick:** MOVED TO ORAL PRESENTATION IN S48

- G1.5 G. Kenny Png:** Effects of grazing-induced degradation and restoration on the vegetation and soil functioning of alpine grasslands on the Qinghai-Tibetan Plateau
- G1.6 Amy Newman:** Getting to the root of the issue: circadian rhythms in the rhizosphere microbiome
- G1.7 Jim Downie:** Coevolution in the Caledonian pinewoods: Scots pine and its fungal partners
- G1.8 Reuben Margerison:** Hydroponics are not soil – how plants differ fundamentally in root exudation in different growth media
- G1.9 Pavlina Knobová:** Root foraging in heterogeneous soil: temporal dynamics
- G1.10 Christopher Taylor:** Grassland carbon and climate change: will soil nutrients limit carbon uptake in a high CO2 future?
- G1.11 Christopher Sweeney:** Plant traits and phylogeny as drivers of plant-soil-feedbacks in grassland plant species
- G1.12 Laura Reinelt:** Intraspecific variability in plant traits in a grassland biodiversity experiment
- G1.13 Clare Brewster:** Wild relatives to the rescue. Can wheat's increasing ozone sensitivity be reversed?

## Species Interactions

- H1.0 Seraina Cappelli:** sick plants in a community context
- H1.1 Bernhard Eitzinger:** Molecular analysis of predator-prey interactions of Arctic arthropods reveals conservative prey choice in a variable environment
- H1.2 Emily Simmonds:** Using multivariate autoregressive state-space models to quantify species interactions from time series
- H1.3 Pauline Gardin:** Mutualism or antagonism in tripartite relationships between ants, aphids and parasitoid wasps: understanding of coexistence mechanisms of concerned species
- H1.4 Lorna Drake:** Investigating the diet of the Eurasian otter (*Lutra lutra*) using high throughput sequencing
- H1.5 Sarah Davies:** Who ate all the flies? Local climate, prey availability and dietary competition in European wetland warblers
- H1.6 Fay Voller:** Comparison of the ectomycorrhizal communities of sympatric Lime (*Tilia* spp.) trees in UK woodlands
- H1.7 Sanaa Alhadidi:** The relationship between predator functional diversity and pest control is driven by species identity in a model system
- H1.8 Harriet Lambert:** A spiny problem; structural defences affect volatile signalling and oviposition choice of herbivores in Purple Devil (*Solanum atropurpureum*)
- H1.9 Benoit Gauzens:** fluxweb: a package to easily estimate energy fluxes in food webs
- H1.10 Andrea Barrera:** Great friends, Endophytic fungi-vascular plants: A friendship that allows tolerate the adverse Antarctic conditions
- H1.11 Cristian David Navarro Waggerhauser:** Is human-induced top-predator suppression releasing meso-predators in Scotland?

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# POSTER SESSION 1

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Monday 17 December

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**H1.12 Tomas Koubek:** Nutritional value of the proboscis monkey food in the mangroves of Balikpapan Bay, Borneo

## Theoretical or Computational Ecology

- K1.0 Laura Merritt:** Dispersal kernels for predicting animal movement patterns
  - K1.1 Benjamin Burgess:** Stressing Communities: Determining the prevalence and strength of interactions resulting from multiple stressors
  - K1.2 Samuel Thompson:** Forecasting extinction debt on fragmented landscapes
  - K1.3 Laura Lee:** Are differences in maternal production rates related to apparent curvilinear scaling of mammalian basal metabolic rate with body size?
  - K1.4 Vincent Pellissier:** An Introduction to a Novel Climate Downscaling Procedure: Macro2MicroClim
  - K1.5 Kengo Nagata:** When does a pathogen facilitate the invasion of an alien species?
  - K1.6 Thomas Johnson:** Warnings and recommendations for analysing trait datasets with missing values
  - K1.7 Georg Albert:** Integrated modelling of tree individuals and animal population dynamics
  - K1.8 Fay Frost:** Modeling the Collective Movement of Reindeer in Northern Sweden
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# POSTER SESSION 2

Tuesday 18 December

## e-Posters II

- EP2.0** **Lewis Bartlett:** Understanding when the evolution of host resistance to pathogens makes or breaks theory
- EP2.1** **Yoseph Araya:** iSpot: a citizen science platform for inclusive learning and teaching
- EP2.2** **Henry McGhie:** How can natural history collections in UK museums support biodiversity and nature conservation research effectively?
- EP2.3** **Margaret Gold:** The EU Landscape of Citizen Observatories
- EP2.4** **Lucinda Kirkpatrick:** ProxLogs: Miniaturised proximity loggers for monitoring interaction behaviour in small mammals
- EP2.5** **Joanna Clark:** Citizen Science for sustainability: What we can learn about nature and people by studying how land management affects the ecosystem services delivered by urban trees
- EP2.6** **Kathryn Whittey:** The role of habitat complexity in sharknose goby (*Elacatinus evelynae*) cleaner-client interactions
- EP2.7** **Nilanjan Chatterjee:** Density and habitat use of two sympatric small cats in a Tiger Reserve in Maharashtra, India

## Behavioural Ecology

- A2.0** **Chisato Tanaka:** Why Japanese honeybee gnaws leaves of lettuce with eagerness?
- A2.1** **Aditya Ghoshal:** Temporal Patterns and Sex Differences in Dyadic Interactions of Wild Zebrafish
- A2.2** **Robert Semmler:** Plasticity of foraging behaviour under reduced food availability, across taxa
- A2.3** **Tomoyuki Yokoi:** Sleeping beauty, *Amegilla* bee, choose the optimal positions in the aggregation
- A2.4** **Snigdha Mukhopadhyay:** Path optimization in a non-trail laying Indian ant *Diacamma indicum*
- A2.5** **Jen Muir:** The Vocal Behaviour of Golden faced Sakis, *Pithecia chrysocephala*, in Manaus, Brazil
- A2.6** **Sarah Banet-Eugene:** Evaluation of a pre-released protocol for a Western Hoolock gibbon (Hoolock hoolock) at HURO Programme, Meghalaya, Northeast India
- A2.7** **Holly English:** Biologging data from captive and domesticated animals aids behavioural interpretation of data from related wild species
- A2.8** **Kate Davies:** Should rehabilitated hedgehogs be released in winter: a comparison of survival, nest use and weight change in wild and rescued animals
- A2.9** **Cédric Tentelier:** Accelerometers monitor continuously in the field the activity rhythm, spawning schedule and thinning of Allis shad
- A2.10** **James Redcliffe:** Title: Map of Rage: Using accelerometry and spatial data to identify and map aggressive interactions in domestic goats (*Capra aegagrus hircus*)
- A2.11** **Natasha Ellison:** Mechanistic Modelling of the Home Range Patterns of Long-Tailed Tits

- A2.12** **Karendeeep Sidhu:** The effect of personality and density on adaptive behavioural plasticity in *Poecilia reticulata*
- A2.13** **Yu-Ting Chang:** Maternal effects: the importance of parents' winning/losing experiences on offspring's behavioral, physiological and life-history traits
- A2.14** **Yu-ju Chen:** The relationships between contest-related behaviors, physiological mechanisms and life-history traits
- A2.15** **Chia-Ping Chen:** The influences of fighting ability and growth rate on winner and loser effects

## Conservation Science and Policy

- B2.0** **Susanna Quer:** Early implications of the fishery discard ban on great skua diet
- B2.1** **Constance Tremlett:** Bigger and batter: Pollination by bats increases quality and market value of pitaya fruits, Mexico
- B2.2** **Matthew Hethcoat:** A machine learning approach for detecting tropical forest degradation from selective logging
- B2.3** **Lynsey Harper:** Environmental DNA (eDNA) metabarcoding of pond water as a tool to survey conservation and management priority mammals in the UK
- B2.4** **Alice Haughan:** The impact of climate and land use change interactions on the future of endemic avifauna in the Western Ghats
- B2.5** **Alec Christie:** Design matters: quantifying the relative reliability of experimental designs and patterns in their global usage
- B2.6** **Manuel Schneider:** MOVED TO ORAL PRESENTATION IN S16
- B2.7** **Simon Goodman:** Environmental determinants of habitat use by Caspian seals (*Pusa caspica*) and implications for spatial marine conservation planning
- B2.8** **Caroline Coogan:** Assessing the effectiveness of novel aging techniques in *Lobatus gigas* and implications for local fishery management in the Turks and Caicos Islands
- B2.9** **Marios Andreou:** Troodos National Forest Park: Promoting natural values and Ecosystem Services
- B2.10** **Rachel Gardner:** Optimisation of reintroduction protocol for cryptic species: reintroducing the sand lizard *Lacerta agilis* to a lowland heath site
- B2.11** **Jacqueline Tweddle:** Enhancing knowledge exchange and encouraging collaboration between researchers and marine management institutions
- B2.12** **Moya Burns:** The Leicester Bee Road Project: A conservation research partnership between Leicester City Council, Buglife, the University of Leicester and the local community
- B2.13** **Sarah Fenn:** Quantitative assessment of supplementary feeding for red-billed chough conservation
- B2.14** **Charles Cunningham:** Evaluating Protected Area Network Performance

# POSTER SESSION 2

Tuesday 18 December

- B2.15 Jennifer Rhymes:** Can biochar amendments alleviate carbon limitation associated with artificial soils?
- B2.16 Susan Jarvis:** Can weather patterns explain the fruiting of stipitate hydroid fungi?
- B2.17 James Littlemore:** Wildlife on the Verge: Evaluating the East Midlands Strategic Road Network along Highways for Biodiversity

## Ecosystem and Functional Ecology II

- C2.0 Osaimianmionmwan Adeniyi:** Water quality status of lower River Niger at Agenebode, Edo State, Nigeria
- C2.1 Catherine Bayliss:** Freshwater UK microalgae responses to dissolved organic nutrients – Initial isolate responses
- C2.2 Aradhana Roberts:** Effects of different forest disturbances on insect herbivory and ecosystem nutrient fluxes: fire, logging and drought
- C2.3 Harry Watkins:** Tender, thirsty and shallow rooted? Challenging species stereotypes by exploring trait variation and the biogeography of temperate *Magnolia* species
- C2.4 Melanie Stone:** Interaction of environmental factors on a model calcareous grassland community
- C2.5 Amy Sing Wong:** Functional role of herbivorous fish communities in driving benthic structure in coral reef systems
- C2.6 Laura Bentley:** A global meta-analysis of catchment responses to afforestation: significant, enduring and precipitation dependent through space and time.
- C2.7 Tristan Allerton:** Short-term physiological responses of Puerto Rican dry forest after Hurricane Maria

## Nature and Humans

- D2.0 Xiao Ping Song:** Understanding preferences for nature-based recreation: A scalable approach using social media photographs
- D2.1 Jay Mackinnon:** Visitor perceptions of captive, endangered Barbary macaques (*Macaca sylvanus*) used as photo props in Jemaa El Fna Square, Marrakech, Morocco
- D2.2 Rasna Mishima:** The effect of the activity of observing familiar creatures on a small group's visualization of biodiversity
- D2.3 Emma Garnett:** Less meat, less heat: serving more vegetarian options increases vegetarian sales in self-service cafeterias
- D2.4 Graziella Iossa:** Improving the dialogue between public health and ecosystem science in antimicrobial resistance
- D2.5 Christopher Hassall:** MOVED TO ORAL PRESENTATION IN S1
- D2.6 Charlie Patel:** The influence of drying, substrate and head size on the use of the hyporheic zone by native and non-native amphipods

- D2.7 Tze Kwan Fung:** Influence of vegetation and urban form on bird diversity in a dense tropical city, Singapore
- D2.8 Steve Dudley:** #TheTweetingBird: its rise, relevance and impact in ornithology
- D2.9 Luke Hecht:** Welfare Biology: The Study of Wild Animal Wellbeing
- D2.10 William Westwood:** The Impact of Buddhism on the Perception of primates at Mihintale Sri Lanka
- D2.11 Caroline Mckean:** COMPADRE-PREDICTS: Demographic traits mediate plant population responses to local land use change
- D2.12 Kathryn Nelson:** Ecological knowledge dissemination: the role of cultural intermediaries
- D2.13 Barbara Tigar:** Using Cultural Significance to Inform Conservation Strategies, a case study using Mexican mammals

## Macroecology and Biogeography

- E2.0 Melissa Minter:** Genetic signatures of post-glacial range shifts in a montane butterfly
- E2.1 Toshiaki Jo:** High water temperature and fish biomass can accelerate the shedding and degradation of the Japanese jack mackerel (*Trachurus japonicus*) environmental DNA
- E2.2 Katie Marshall:** Towards a macroecology of "the little things that run the world"
- E2.3 Luis Verde Arregoitia:** Aggregating phylogenetic and trait data to study the ecomorphology of caviomorph rodents
- E2.4 Otis Brunner:** Testing Models of Island Diversity and Connectivity at Hydrothermal Vents
- E2.5 Carlos Carmona:** DarkDivNet: a network to explore dark diversity of vegetation on the global scale
- E2.6 Maria Dance:** The influence of Holocene sea ice variability on Arctic biota: using the past to predict the future
- E2.7 Rebecca Whitla:** Phylogeography of the Marsh Fritillary in Britain and Ireland
- E2.8 Matthew Kerr:** Biogeographic controls on Australian marine diversity
- E2.9 Vanessa Cutts:** Are island endemic species more specialised?
- E2.10 Stefan Vriend:** Spatiotemporal variation in hole-nesting passerine life history across Europe
- E2.11 Aimara Planillo:** Wildlife in the city: predicting species response to urbanization based on abiotic variables and interspecies interactions
- E2.12 Harry Owen:** Tree structure and crown gap filling efficiency across biotic and abiotic gradients quantified using novel terrestrial laser scanning
- E2.13 Nick Isaac:** Data Integration for Large Scale Ecological Models

# POSTER SESSION 2

Tuesday 18 December

## Microbial Ecology

- F2.0** **Katie Journeaux:** The effects of temperature on wood-decomposing basidiomycete fungi
- F2.1** **Carrie Alderley:** Biofumigation as an environmentally sustainable crop protection mechanism in potatoes
- F2.2** **Safirun Pervin:** Screening of Crop Plants for Sustainable Agriculture: Use of Stable Isotope to Estimate N-Cycle Flux
- F2.3** **Simon Okiobe:** MOVED TO AN ORAL PRESENTATION IN S39
- F2.4** **Inusa Ajene:** Habitat Suitability and Potential distribution of *Liberibacter* Species Associated with Citrus Huanglongbing in Africa: Evidence from Three Species Distribution Models

## Palaeoecology

- G2.0** **Mizanur Rahman:** *Chukrasia tabularis* is more drought tolerant than *Toona ciliata* in a moist tropical forest in Bangladesh
- G2.1** **Mahmuda Islam:** Long-term response of theoretical hydraulic conductivity of South Asian moist forest trees to changing climate
- G2.2** **Tessa Driessen:** Anthropogenic versus climatic impacts on crater lake ecosystems in western Uganda
- G2.3** **Althea Davies:** Grazing bioindicators: coprophilous fungal spores as a proxy for herbivory
- G2.4** **Heather Pardoe:** The relationship between floristic and palynological biodiversity on glacier forelands in Jotunheimen, southern Norway

## Parasites, Pathogens or Wildlife Disease

- H2.0** **Isabella Cattadori:** When do co-infections matter? Linking immuno-epidemiology to the environmental risk of helminth infections
- H2.1** **Brian Boag:** The Demise of the Wild Rabbit: a Case History
- H2.2** **Beate Proske:** Spatial and temporal dynamics of a rare wild smut fungus (*Urocystis primulicola*)
- H2.3** **David Daversa:** Infection dynamics during transient phases of host movement
- H2.4** **Sam Hillman:** Effects of anthelmintic treatment on target and non-target parasites in wild rodents
- H2.5** **Saudamini Venkatesan:** Is sex-biased parasitism in wild mice consistent across space and time?
- H2.6** **Lisa Gecchele:** Seasonal variation in gastrointestinal parasite infection dynamics in urban red foxes
- H2.7** **Bryony Allen:** Multi-host pathogens and multi-parasitised hosts: an individual-level approach to understanding transmission of two pathogens (*Batrachochytrium dendrobatidis* and *Ranavirus*) across three amphibian host species.
- H2.8** **Amy Sweeny:** Resource supplementation alters helminth infection dynamics and life history in a wild wood mouse population

- H2.9** **Klara Koupirova:** Anther smut fungus: pollinator-transmitted disease under different spatial aggregations of plants

## Population Ecology

- K2.0** **Victor Chano:** DNA-methylation polymorphism as a mechanism of epigenetic regulation under different climate conditions in *Hordeum murinum*
- K2.1** **Theresa Robinson:** Consequences of multiple mating strategies in a population of the endangered Mauritius Fody
- K2.2** **Jessica Marsh:** Take cover! Does higher *Ranunculus* cover promote higher juvenile Atlantic salmon (*Salmo salar*) densities and growth rates?
- K2.3** **James Bull:** Long-term monitoring (1996-2018) of the seagrass *Zostera marina* around the Isles of Scilly Special Area of Conservation, combining population trajectories, emergent spatial vegetation patterns, and population genetics
- K2.4** **Lea Dambly:** Substituting reality: A virtual approach to assess bias in a citizen science programme
- K2.5** **Naveed Bhatti:** Do Occupancy Models Work for Monitoring Populations of Sessile Species?
- K2.6** **Tamora James:** Bridging gaps in demographic data using phylogenetic imputation
- K2.7** **Megan Holgate:** How does land use change impact the population expansion of the hairy wood ant, *Formica lugubris*?
- K2.8** **Katie Willis:** MOVED TO AN ORAL PRESENTATION IN S53
- K2.9** **Cristian Torres-Diaz:** Molecular data indicate long-term in situ persistence in the Antarctic pearlwort *Colobanthus quitensis* (*Caryophyllaceae*)
- K2.10** **Lily Bentley:** Escaping the competition? Spatiotemporal segregation of foraging habitat of grey and white-chinned petrels in the Southern Ocean.
- K2.11** **Nahaa Alotaibi:** Assessment Population genetic structure and gene flow of eelgrass *Zostera marina* meadows and implications for the conservation of seagrasses in South of England
- K2.12** **Ella Browning:** Investigating drivers of recent population trends in British bat populations
- K2.13** **Fraser Combe:** Restoring forest connectivity: landscape barriers impact fine-scale genetic structure in a small mammal the hazel dormouse, *Muscardinus avellanarius*
- K2.14** **Gesa Römer:** Biases in global demographic data in plants limit usefulness for climate change research
- K2.15** **Deborah Dawson:** The distribution and diet of Sheffield's otters

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# OUR CODE OF CONDUCT

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The British Ecological Society is an open, welcoming and inclusive organisation that believes no one should experience discrimination or harassment of any kind. We want to ensure that everyone who attends our events feels welcome, safe and comfortable.

The BES has a full safeguarding policy that covers all our activities and you are welcome to ask the main office for a copy or access it online at [britishecologicalsociety.org/about/safeguarding](https://britishecologicalsociety.org/about/safeguarding). Part of our policy is to share our code of conduct with you.

We believe all participants and attendees at the BES annual meeting have

- the right to be safe from harassment or discrimination in all its forms
- the right to fully engage in all the activities on offer
- the right to have any complaints or concerns investigated, regardless of career position

We ask everyone to help us maintain an inclusive, safe meeting for all attendees by agreeing to the common principles of our code of conduct:

- being courteous, respectful and professional towards others
- valuing the diversity of participants, their views and opinions

If you feel you have experienced any harassment or discrimination or would like to report any concerns, please speak to a member of BES staff or send a confidential email to [conduct@britishecologicalsociety.org](mailto:conduct@britishecologicalsociety.org) to report a concern or ask to speak to our safeguarding staff.

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## PRESENTER BRIEF

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This guidance is aimed at all speakers, chairs of sessions, presenters whether oral or posters, workshop organisers and any other contributors at BES events.

We know and are grateful that in whatever capacity you are contributing to the meeting you will put a huge amount of effort into delivering an interesting and engaging experience.

Our meetings are large, international and professional events with a diverse audience. We ask everyone to consider the diversity of their audience when developing and presenting talks and posters, including the chairing of sessions and workshops.

Our code of conduct states all delegates attending our meeting have

- the right to be safe from harassment or discrimination in all its forms
- the right to fully engage in all the activities on offer

We all know that humour and relatability are an important part of a great presentation and would encourage you to be creative in how you approach your content but please ensure it

- is inclusive and treats all researchers regardless of gender, race, sexuality, religion and disability equally
- respects the rights of all delegates

We would advise that if you are worried your content could be interpreted as discriminatory despite your best efforts please send a confidential email to [conduct@britishecologicalsociety.org](mailto:conduct@britishecologicalsociety.org).