

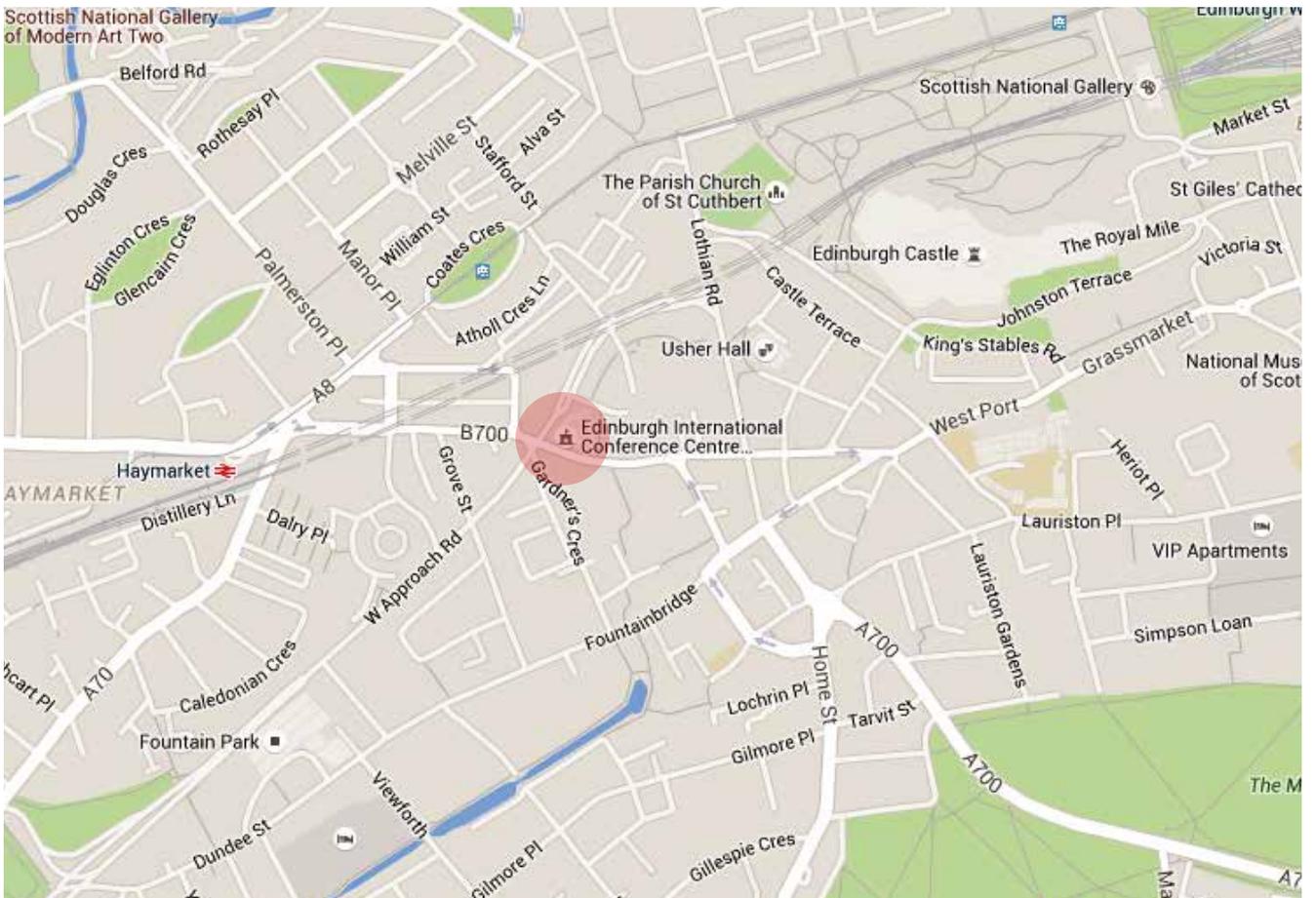
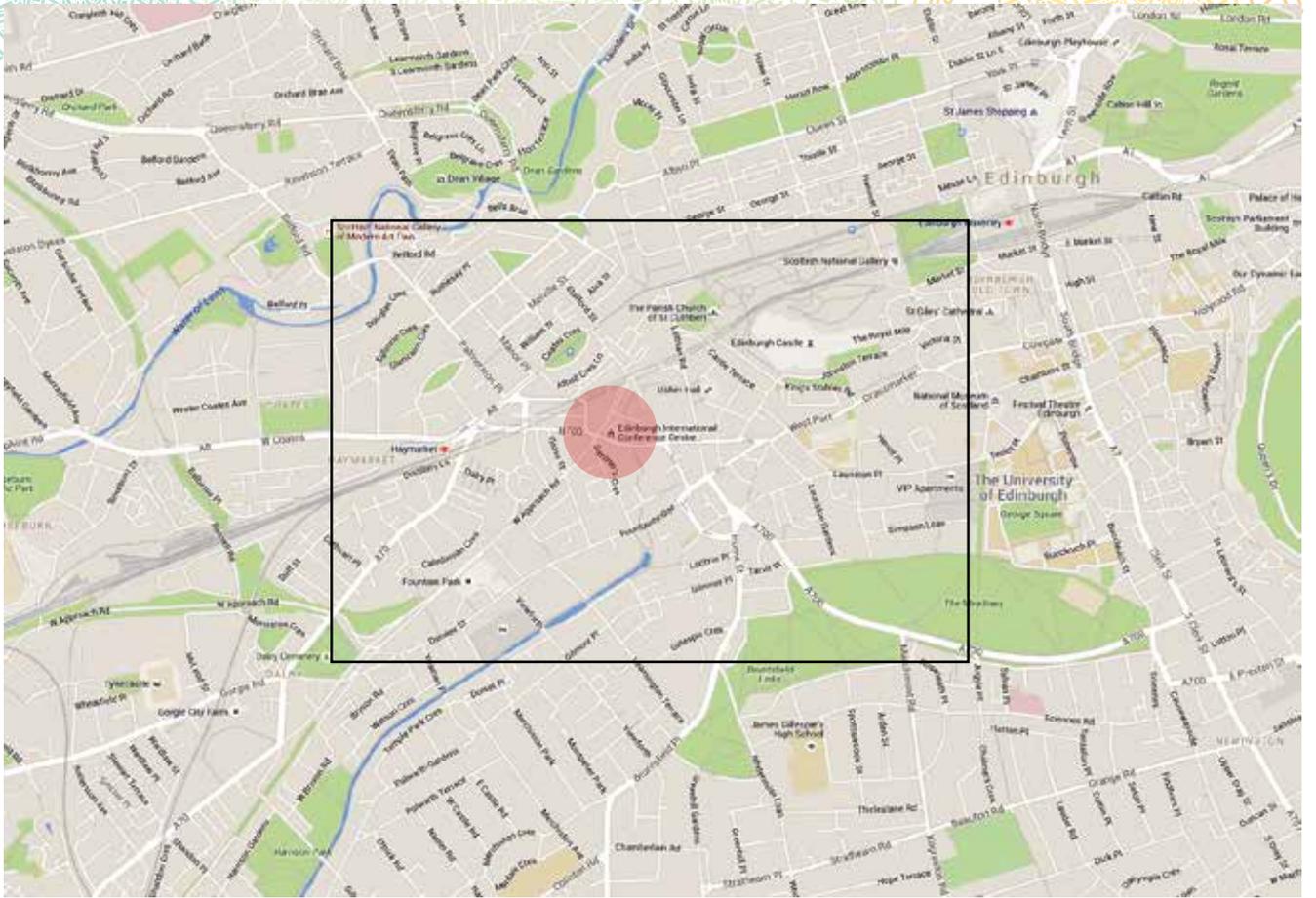
13–16
December
2015



British Ecological Society

BES Annual Meeting
EICC, Edinburgh, Scotland





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It is with great pleasure that I welcome you to the 2015 BES Annual Meeting. After the success of the joint meeting in Lille last year, we now return to the UK and the beautiful city of Edinburgh.

It promises to be another exciting meeting with two leading researchers as plenary speakers (Luigi Boitani and Josephine Pemberton), Pat Monaghan giving a personal perspective on 'The Year in Ecology', while I am looking forward to giving the Presidential Address. Most importantly, there has been a remarkable deluge of talks and posters: this is the real pulsating heart of the meeting. It promises to be another lively meeting.

Over numerous years attending BES Annual Meetings, I have learnt a lot of exciting science, started many collaborations and gained many friends. I hope that you also find it a great opportunity to learn about the work of colleagues and forge relationships. The programme is packed with events to help you meet new people, whether at the Welcome Mixer, lunchtime workshops or during the two Poster Sessions.

Our Special Interest Groups (SIGs) are a great way to connect with ecologists working in a similar field. Not only do they run events bringing together world leading scientists or visiting important field sites, they also provide an excellent social hub. They are welcoming and friendly, supporting early career ecologists to establish themselves within their community as well as helping more established ecologists get to grips with new areas of ecological science. Many of our 14 SIGs are running events over the next three days, so make the most of the chance to get involved in their work.

We are trialling a new approach. After Luigi Boitani's talk, we will have a session with coffee to which only students will be allowed in to talk to him. After Josephine Pemberton's talk we will repeat the process, except in this case only postdocs will be allowed in. Feel free to have an informal discussion about science, careers or whatever interests you.

Twitter has become a major way of networking at our meetings. Please do follow us @BritishEcolSoc and use the conference hashtag #BES2015. It is a great way to find out instantly what other delegates think is exciting as well as to take part in discussions and debates about issues. Staff on the BES stand in the exhibition area are very happy to help out novice Twitter users or those who need a helping hand. In fact, please do drop by our stand and talk to the staff about all the great work we do to support the ecological community.

As proof of our diverse approaches, we even have a Christmas Jumper day – tweet your jumper on the Wednesday. There is a prize for the best one!

Our meetings are one of the most important functions of the Society. As he steps down from the role of Meeting Committee chair, I wish to recognise the great debt we have to Andrew Beckerman, who has done such a great job in making the numerous sensible decisions that have made recent meetings such a resounding success. If you meet Andrew in the bar, buy him a beer!

I wish you a productive and enjoyable conference. I hope that you enjoy this so much you will want to attend the next Annual Meeting – held in the vibrant city of Liverpool, 11 – 14 December 2016. More information is available at our stand, where you can even pre-register.

I look forward to meeting many old friends and new people at the conference. If you see me, please feel free to say 'hello' or offer any comments or suggestions for improving any aspect of our Society.

William Sutherland, BES President
@Bill_Sutherland



On behalf of the Edinburgh Ecology Network (EdEN) I'd like to welcome you to our wonderful city and to the capital of Scotland. EdEN is a coalition of over 100 ecologists working in major institutions including two schools of the University of Edinburgh, Scotland's Rural College, the Centre for Ecology and Hydrology, Forest Research, the Royal Botanic

Garden Edinburgh, Heriot-Watt and Stirling Universities. The ecological community in Edinburgh also includes scientists at the national offices of RSPB, the Scottish Wildlife Trust, Scottish Natural Heritage, the Scottish Environment Protection Agency and the Royal Zoological Society of Scotland. There is probably no corner of the scientific programme of this meeting that lies unexplored by ecologists in Scotland, but we are particularly proud that Prof. Josephine Pemberton of the University of Edinburgh will be giving the Tansley Lecture and that Prof. Pat Monaghan from the University of Glasgow will also be a plenary speaker. Prime your taste buds for the Scottish flavour that our collective contributions will lend to the scientific programme of the meeting, particularly in areas of policy where Scotland leads, such as re-wilding, species re-introduction, ecosystem services and natural capital.

The record attendance at this meeting of the British Ecological Society surely reflects the high expectations that members have of the hospitality on offer as well as the customary high standard of the scientific programme. "Faculty of 1000" is all very fine, but the "Ceilidh of 1000" (some of them faculty) scheduled for Tuesday night will surely earn a place in the informal annals of our subject.

Edinburgh has much to divert the festively-inclined, as Prof. John Grace, former President of the BES and Emeritus Professor at the University of Edinburgh has demonstrated through 45 years of field research in the restaurants of the city. Look out for his personal guide to the trophic ecology of Edinburgh in your delegate pack.

Edinburgh wouldn't be Edinburgh without a Fringe, so we are delighted that for the first time the BES has agreed to sponsor three free events for the general public around the Winter Meeting. All three have local connotations. In the tradition of the Edinburgh Fringe, the Science Slam on Monday night will combine stand-up comedy with science. Edinburgh City of Literature inspired the Book Event that we have organised on Wednesday evening at Blackwell's Bookshop on the topic of Ecology in Towns and Gardens. Finally, the Scottish Government's recently announced ban on the growing of genetically-modified crops lends special topicality and relevance to the GM Debate that is sponsored by the BES at the Royal Society of Edinburgh on Wednesday night. Further details of all these events are in the programme.

When you have imbibed to the full all that this meeting and the city have to offer the intellect and the senses, find refuge in Edinburgh's urban green spaces such as the Meadows that lie just to the south of the city centre or the Royal Edinburgh Botanical Gardens to the north. And if those spots do not restore you, then climb Arthur's Seat and Salisbury Crags, for which you will require no directions when daylight and clear weather reveal the perpetual presence of our very own urban volcano.

Finally, I would like to thank, on behalf of all at the meeting, the staff and officers of the British Ecological Society whose hard work and genius brought us together in Edinburgh. Those of us lucky enough to live and work here bid you Fáilte, Welcome!

Jonathan Silvertown, University of Edinburgh

Kyle Dexter, University of Edinburgh

Programme for Opening Ceremony and BES Lecture

Monday 14 December, Pentland Suite

- 09:00 Welcome, Bill Sutherland, BES President
- 09:10 Welcome by Jonathan Silvertown, Edinburgh University
- 09:15 Welcome and short talk by Louise Heathwaite, Chief Scientific Adviser for Rural Affairs and Environment for the Scottish Government
- 09:30 Thanks by Bill Sutherland and introduction to the BES Lecture
- 09:35 BES Lecture, Luigi Boitani, University of Rome
- 10:15 Vote of thanks by Zoe Davies, DICE, University of Canterbury followed by Q&A session
- 10:30 End and coffee break

FIRST TIME AT OUR ANNUAL MEETING?

Or is it the first time you are joining us without friends or colleagues? If so, welcome! We know it can be daunting going to a meeting on your own, but ours is friendly and we've factored in plenty of opportunities to meet people.

We pride ourselves on being welcoming and informal and actively encourage our delegates to be the same. Our Welcome Mixer on Sunday evening is a perfect time to chat to people over a drink. 'What area do you work in?' is an easy conversation starter, to which everyone will have an answer!

Twitter has broken down walls of communication and helped broadcast the importance of science – which is why we are keen tweeters. Follow our meeting hashtag #BES2015 to see what people are talking about and then start your own conversations with them. Twitter is a great leveller – if you do not feel comfortable starting a face to face conversation with a luminary, tweet them; you can then take the conversation offline. Because it enables us to take more questions and widen participation to those offsite, we now only take questions for our plenary speakers via Twitter. If you are not yet on Twitter, come to the BES stand to find out how to set up your own account.

If you have heard a talk that has interested you, ask the speaker a question and follow it up with a chat after the session; do not forget to talk to the person sitting next to you – they are in the same session, so you already know you have something in common. We have two poster sessions during the meeting, so there are ample opportunities for you to chat with poster presenters. Actually, ask a question of any presenter, even if they are not in your area of research – great collaborations have come from random conversations.

All of our Special Interest Groups have arranged informal social events on Monday or Tuesday evenings, which are open to anyone. They are incredibly friendly events and you already know you share something with other attendees. We also have our first LGBT+ mixer on Tuesday evening (18.00 – 19.30, Atrium Foyer, Level -1), so feel free to come along and say 'hello' in a friendly, safe environment.

We run workshops during Monday and Tuesday lunchtimes, which are another opportunity to both learn and meet people in a non-confrontational setting. There will be about 1,200 people coming to this meeting – which means there are 1,199 potential new collaborations.

Do you have business cards or some way of giving people your contact details? Make sure that you continue the conversation after the meeting.

When you are not at a workshop or attending a session, why not visit the Exhibition Hall and play one of the many games – what better way to forge new collaborations than over table football or air hockey?! Lunch and tea and coffee will be served there too, which is another chance to mingle – chat with the person next to you in the queue. We understand that talking with someone you do not know can sometimes be intimidating, but people at our meeting are friendly – be brave: invariably, your friendliness will be reciprocated.

Wednesday is our 'Christmas Day' – it is the final day of the meeting when we get into the festive spirit by wearing our Christmas jumpers and decorating the Exhibition Hall with Christmas decorations. By joining in with your tasteful or tasteless(!) jumper, you will automatically have something to talk to fellow attendees about.

Our team will always be at the BES stand in the Exhibition Hall, so drop by and say 'hello' – we are a friendly bunch and always happy to chat!

We pride ourselves in how open, welcoming and supportive our meetings are; we gather together to share new theories, build new collaborations and share the wealth of our experience. It is testament to the rich diversity of those who attend our Annual Meetings and it is one the BES celebrates. We hope you enjoy this meeting – the more you put in, the more you will gain.

Happy meeting!

www.BritishEcologicalSociety.org/2016

Liverpool 2016



British Ecological Society



save the date • 11 – 14 December • ACC, Liverpool



British Ecological Society

Ghent 2017

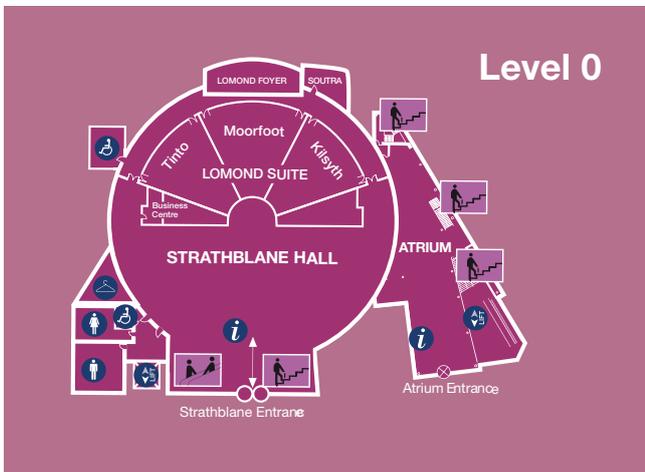
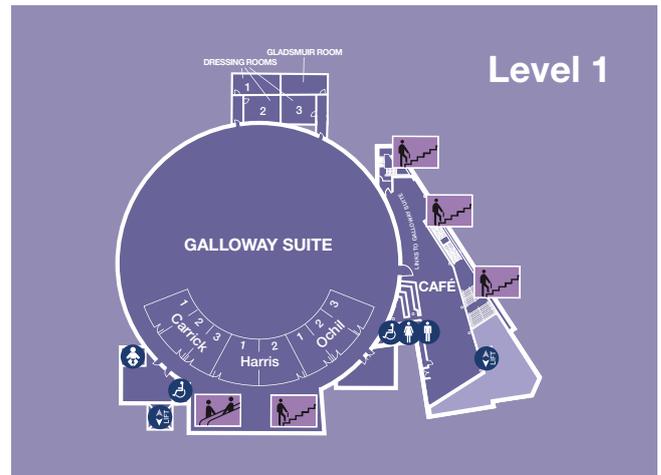
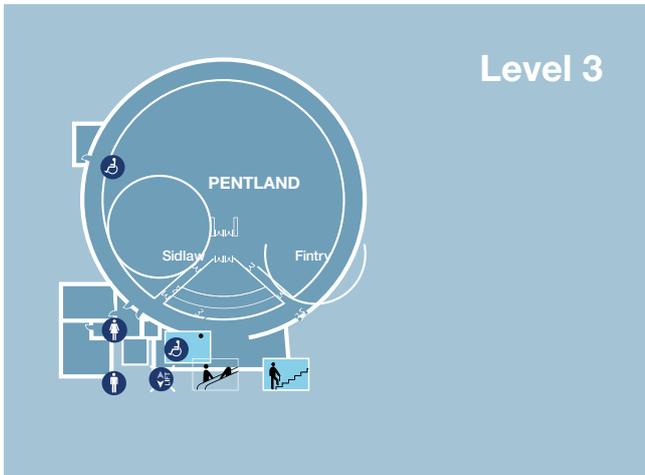
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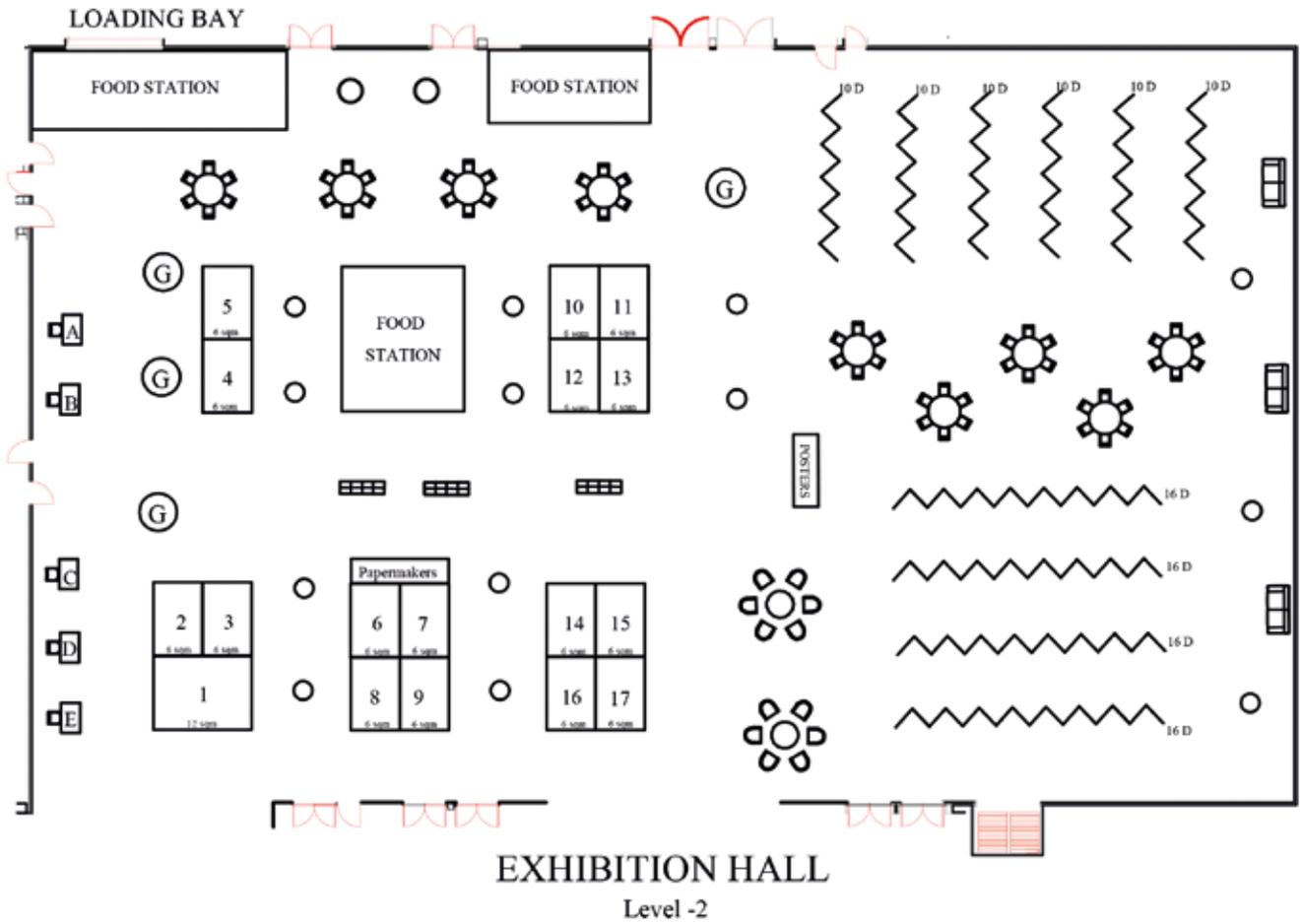
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IECC LAYOUT



FLOORPLAN



EXHIBITION HALL
Level -2

- | | |
|--------------------------------|-----------------------------------|
| 1 - British Ecological Society | 10 + 12 - Wiley |
| 2 - BES Annual Meeting 2016 | 11 + 13 - Oxford University Press |
| 3 - Taylor & Francis | 14 - Pelagic Publishing |
| 4 - AoB PLANTS | 15 - LI-COR |
| 5 - Annals of Botany | 16 - Cambridge University Press |
| 6 - OIKOS | 17 - COBWEB |
| 7 - ECT | TABLE A - Royal Society |
| 8 - Conservation Evidence | TABLE B - New Phytologist |
| 9 - EDINA | TABLE C - Newcastle University |
| | TABLE D - CABI |
| | TABLE E - NBC Bird Solutions |
| | Ⓞ GAMES |

MEETING OVERVIEW

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Sunday 13 December

Monday 14 December

08.00 – 19.00 Registrati

06:00 Fun Run, EICC

09:00 – 10:30
**Opening Ceremony
 & Welcome, BES**
**Lecture: Luigi
 Boitani**

10:30 –
 11:15
Coffee

11:15 – 13:15
Parallel Sessions

13:00
Lunch

13:00
W

Tuesday 15 December

08:00 – 19:00 Registrati

09:00 – 10:00
Tansley
Lecture:
Josephine
Pemberton

10:00
 –
 10:30
BES
AGM

10:30 – 11:00
Coffee

11:00 – 13:00
Parallel Sessions

13:00 –
Lunch/Te

13.15 –
Works

Wednesday 16 December

08:30 – 13:30 Registration Desk

09:00 – 09:30
12 Months in Ecology
Lecture: Pat Monaghan

09:30 – 10:00
Coffee

10:00 – 12:00
Parallel Sessions

12:00 – 13:00
Lunch

13:00 –
Parallel

Thursday 17 December: Tours

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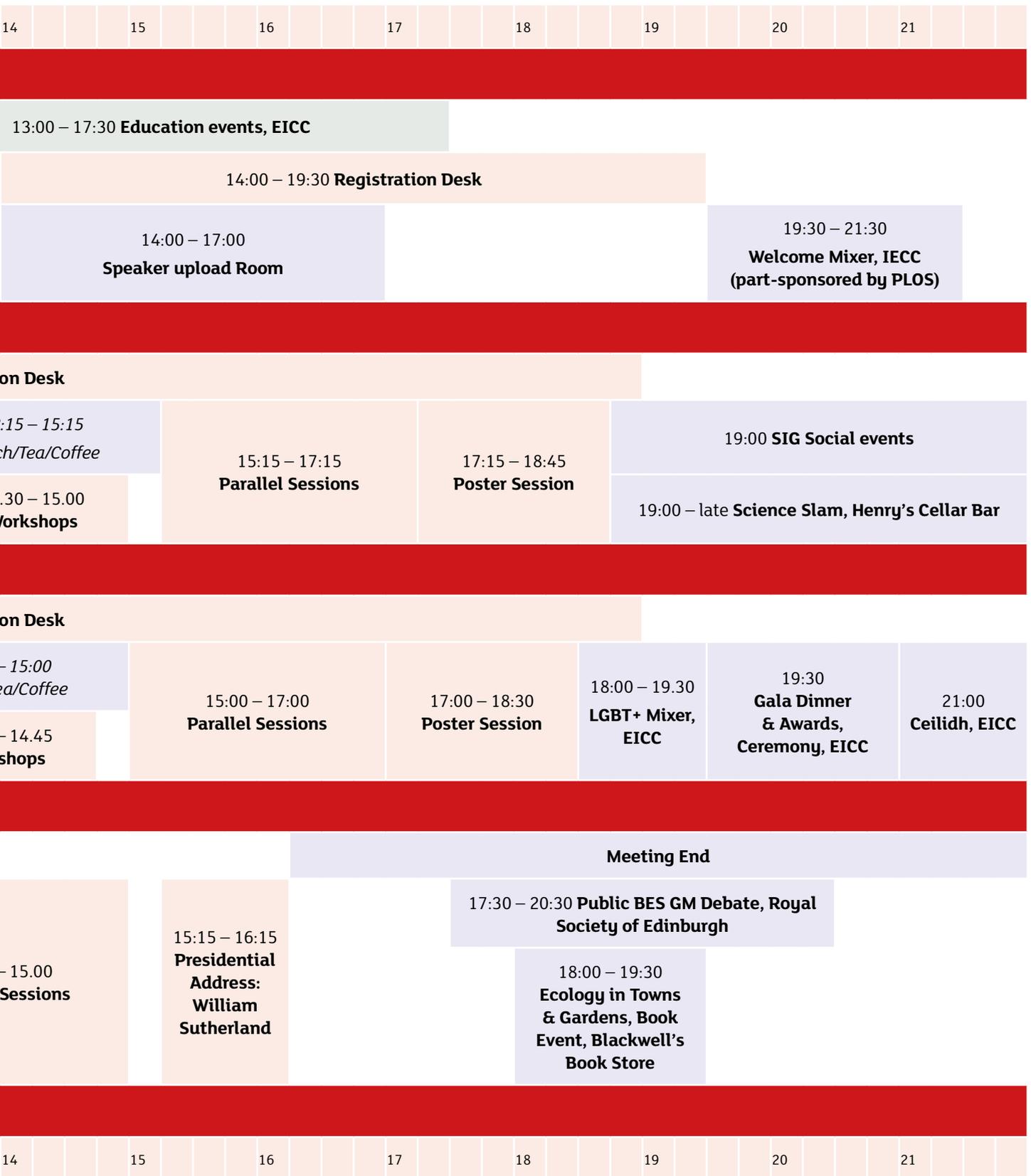
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MEETING OVERVIEW



ORAL SESSION OVERVIEW

Monday 14

Tuesday 15

11:15 – 13:15

15:15 – 17:15

11:00 – 13:00

<p>TT1: Turning the Rewilding of Great Britain into Reality Location: Pentland Auditorium Page: 27</p>	<p>TT4: Using Ecology to Guide Public Health Policy Location: Pentland Auditorium Page: 30</p>	<p>TT6: 30 Years of the St Kilda Soay Sheep Project: Looking Ahead Location: Pentland Auditorium Page: 35</p>
<p>TT2: Making the most of Microbes in Ecosystem Science: Soil Microbial Ecology in Global Change Models Location: Sidlaw Auditorium Page: 27</p>	<p>TT5: Climate Change in the Arctic; Linking Ecological and Biogeochemical Responses Location: Sidlaw Auditorium Page: 30</p>	<p>TT7: Integrating Ecosystem Services Into Spatial Planning Decision Making Location: Sidlaw Auditorium Page: 35</p>
<p>TT3: Ecological and Evolutionary Risks to Agriculture and Food Production Location: Fintry Auditorium Page: 27</p>	<p>S10: Agricultural Ecology (Diversity & Change) Location: Fintry Auditorium Page: 30</p>	<p>TT8: Digging Deeper- Advancing our Understanding of how Soil Biota Drive and Respond to Plant Invasions Location: Fintry Auditorium Page: 35</p>
<p>S1: Global Change Ecology (Pollution & Land-use Change) Location: Lammermuir Suite Page: 27</p>	<p>S11: Conservation Biology (PES & Protected Areas) Location: Lammermuir Suite Page: 31</p>	<p>S20: Conservation Biology (Methods & Models) Location: Lammermuir Suite Page: 35</p>
<p>S2: Ecosystem Ecology & Function (Species Interactions) Location: Tinto Hall Page: 28</p>	<p>S12: Macroecology & Biogeography (Methods & Models) Location: Tinto Hall Page: 31</p>	<p>S21: Agricultural Ecology (Land Management & Land-use) Location: Tinto Hall Page: 36</p>
<p>S3: Forest Ecology (Management & Conservation) Location: Moorfoot Hall Page: 28</p>	<p>S13: Forest Ecology (Carbon & Nutrient Dynamics) Location: Moorfoot Hall Page: 31</p>	<p>S22: Forest Ecology (Modeling) Location: Moorfoot Hall Page: 36</p>
<p>S4: Behavioural Ecology (Individuals to Communities) Location: Kilsyth Hall Page: 28</p>	<p>S14: Behavioural Ecology (Adaptation & Sexual Selection) Location: Kilsyth Hall Page: 32</p>	<p>S23: Behavioural Ecology (Methods, Models & Theory) Location: Kilsyth Hall Page: 36</p>
<p>S5: Evolutionary Ecology (Adaptation) Location: Lowther Page: 28</p>	<p>S15: Evolutionary Ecology (Demography & Life History) Location: Lowther Page: 32</p>	<p>S24: Global Change Ecology (Warming & Thermal Adaptation) Location: Lowther Page: 36</p>
<p>S6: Species interactions (Management & Applications) Location: Monteith Page: 29</p>	<p>S16: Species Interactions (Interactions) Location: Monteith Page: 32</p>	<p>S25: Ecosystem Ecology & Function (Novel Approaches) Location: Monteith Page: 37</p>
<p>S7: Parasites, Pathogens & Wildlife Disease (Methods & Models) Location: Harris Suite Page: 29</p>	<p>S17: Molecular Ecology & Genetics (Individuals & Populations) Location: Harris Suite Page: 32</p>	<p>S26: Foodwebs & Networks (Stability, Structure & Complexity) Location: Harris Suite Page: 37</p>
<p>S8: Ecosystem Services Location: Ochil Suite Page: 29</p>	<p>S18: Community Ecology (Global Change) Location: Ochil Suite Page: 33</p>	<p>S27: Community Ecology (Dynamics, Distribution & Interactions) Location: Ochil Suite Page: 37</p>
<p>S9: Ecology & Society Location: Carrick Suite Page: 30</p>	<p>S19: Tropical Ecology Location: Carrick Suite Page: 33</p>	<p>S28: Citizen Science Location: Carrick Suite Page: 38</p>

Tuesday 15

15:00 – 17:00

TT9: Dispersal Processes Driving Plant Movement: Challenges for Range Shifts in a Changing World
Location: Pentland Auditorium
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TT10: Making Best Use of Ecological Evidence
Location: Sidlaw Auditorium
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S29: Invasive Species
Location: Fintry Auditorium
Page: 38

S30: Conservation Biology (Environmental Change)
Location: Lammermuir Suite
Page: 39

S31: Agricultural Ecology (Pests, Pesticides & Biological Control)
Location: Tinto Hall
Page: 39

S32: Forest Ecology (Diversity, Succession & Disturbance)
Location: Moorfoot Hall
Page: 39

S33: Population Ecology (Demography & Life History)
Location: Kilsyth Hall
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S34: Global Change Ecology (Long-term & Large-scale Studies)
Location: Lowther
Page: 40

S35: Ecosystem Ecology & Function (Diversity & Function)
Location: Monteith
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S36: Parasites, Pathogens & Wildlife Disease (Applications)
Location: Harris Suite
Page: 40

S37: Community Ecology (Methods, Models & Theory)
Location: Ochil Suite
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S38: Soil Ecology & Biogeochemistry
Location: Carrick Suite
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Wednesday 16

10:00 – 12:00

TT11: Integrating Ecology and Evolution to Understand Infectious Disease
Location: Pentland Auditorium
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TT12: The Role of Large-Scale Experimentation in Applied Ecology and Conservation
Location: Sidlaw Auditorium
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TT13: Hidden Herbivory: Ecosystem Consequences of Soil-Plant-Herbivore Interactions
Location: Fintry Auditorium
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S39: Ecosystem Services (Pollination)
Location: Lammermuir Suite
Page: 43

S40: Global Change Ecology (Species Distributions)
Location: Tinto Hall
Page: 44

S41: Conservation Policy & Management (Policy & Evidence)
Location: Moorfoot Hall
Page: 44

S42: Plant-Soil Interactions (Global Change)
Location: Kilsyth Hall
Page: 44

S43: Macroecology & Biogeography (Distributions, Interactions & Evolution)
Location: Lowther
Page: 44

S44: Population Ecology (Methods & Models)
Location: Monteith
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S45: Evolutionary Ecology (Physiology & Function)
Location: Harris Suite
Page: 45

S46: Community Ecology (Diversity & Functional Traits)
Location: Ochil Suite
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S47: Urban Ecology
Location: Carrick Suite
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13:00 – 15:00

TT14: Predicting the Future: Ecological Forecasting in a Changing World
Location: Pentland Auditorium
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TT15: The Ecology of Disturbance in a Conservation Context
Location: Sidlaw Auditorium
Page: 46

TT16: Pollination Services: From Individuals to Landscapes
Location: Fintry Auditorium
Page: 46

S48: Parasites, Pathogens & Wildlife Disease (Adaptation & Evolution)
Location: Lammermuir Suite
Page: 47

S49: Plant Physiological Ecology
Location: Tinto Hall
Page: 47

S50: Conservation Policy & Management (Monitoring & Management)
Location: Moorfoot Hall
Page: 47

S51: Plant-Soil Interactions (Feedbacks & Mutualisms)
Location: Kilsyth Hall
Page: 47

S52: Macroecology & Biogeography (Functional Traits & Diversity)
Location: Lowther
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S53: Population Ecology (Distribution & Dynamics)
Location: Monteith
Page: 48

S54: Evolutionary Ecology (Feedbacks & Interactions)
Location: Harris Suite
Page: 48

S55: Molecular Ecology & Genetics (Communities)
Location: Ochil Suite
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S56: Foodwebs & Networks (Methods, Models & Theory)
Location: Carrick Suite
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PLENARY LECTURES

BES Lecture, Monday 09.30 – 10.30

Luigi Boitani

Luigi Boitani is Professor of Animal Ecology and Conservation Biology at the University of Rome, Dept of Biology and Biotechnologies. He has been President of the Society for Conservation Biology (2009-11).



His main scientific interests are on a) the social ecology of carnivores, particularly wolves and bears on which he has been working since 1972; b) patterns and models of species distributions based on GIS tools; and c) planning and conservation of protected areas, with emphasis on Africa and Europe where he has contributed to the management plans of more than 25 national parks. He has lectured widely in North America and Europe.

He has been member of the IUCN's SSC and WCPA since 1973 and has served as member of the SSC Steering Committee since 1994. He is the Chair of the Large Carnivore Initiative for Europe, a SSC Specialist Group that is a regular advisor to the European Union on carnivore conservation issues. He is President of the Fondation Segré in Geneva. He is author of more than 320 scientific papers, 10 books and 80 technical reports.

Large carnivores in Europe: science, ethics and politics, and the challenge of maintaining viable populations in human-dominated landscapes

During the last 3 decades, many European large carnivore populations (especially wolves) have generally been increasing in number and range size. Several causes have concurred to determine these positive trends, including increasing prey populations and changing human attitudes. However, large carnivores in Europe live in a very fragmented range, often in close vicinity to human activities, and a stable pattern of coexistence is yet to be reached. The number and size of protected areas are insufficient to provide space and habitat for viable populations and almost all areas have high human densities. It is obvious that conservation of large carnivores in Europe depends on habitat suitability and people's tolerance in vast portions of the matrix. But what coexistence really means? Large carnivores are often deeply hated or loved, rarely indifferent to human societies. The reasons for the high conflicts with human interests are well known as well as the motivations of those who want carnivores to be fully protected or eradicated. The recent fascination for trophic cascades and rewilding practices have pushed the confrontation on large carnivores' management to new dimensions of scientific and emotional debates. The outcome of confrontation is always dependent on the mutual strengths of biological, ethical and socio-economic factors. All these factors have wide ranges of variations that allow a great variety of solutions for management; however, these factors often interact in complex and confused patterns and keeping them clearly distinct is necessary to improve the speed and efficiency of finding solutions to the many facets of the carnivore-human interface.

Tansley Lecture, Tuesday 09.00 – 10.00

Josephine Pemberton

Josephine Pemberton is Professor of Molecular Ecology at the University of Edinburgh. She is known for her involvement in two long-term, individual-based studies of wild vertebrates: red deer on the Isle of Rum and Soay sheep on St Kilda, and for pioneering methods for estimating genetic relationships in natural populations, including genetic parentage analysis to recover pedigrees and more recently, genomic approaches. Genetic relationships between individuals have allowed for a variety of important issues in ecology and evolution to be addressed in her study populations, including understanding and quantifying the determinants of individual fitness, estimating selection on and the heritability of traits and predicting their microevolution, understanding the maintenance of genetic variation and quantifying the impact of inbreeding depression. In other studies her group have documented the gradual introgression of Scottish red deer by introduced Japanese sika genes. She is interested in wildlife management issues, having sat on the Deer Commission for Scotland Board for five years and having recently published, with Scottish Natural Heritage, a booklet for deer managers on deer management messages arising from the Rum deer project. She is a very strong proponent of long-term studies and much exercised by the challenges of maintaining raw field data collection.



Long-term studies of individuals – past, present and future

Long-term studies of individuals have made important contributions to our understanding of how individual-level life history events build up into population dynamics. The measurement of individual traits and fates allows us to study natural selection. Where individuals can be measured repeatedly through their lives, we can study phenotypic plasticity and ageing. By recovering pedigrees, or using genome-wide marker data, such studies have also made major contributions in evolutionary ecology; for example we can estimate trait heritabilities, genetic correlations between traits, inbreeding depression and even dissect the underlying genetics of traits. In the first part of my talk I will illustrate these points with examples from the studies of red deer on the Isle of Rum and Soay sheep on St Kilda.

In the second part of my talk I will describe progress against a new challenge. A number of individual-based studies have now detected long-term trends in population size and/or trait values which are generally thought to be associated with climate change. What mechanisms underlie these trends? There are at least four that could be involved: a change in demography, a plastic response within individuals, an in situ genetic response to selection (i.e. microevolution) or immigration / emigration of individuals of different phenotype (and possibly genotype). These mechanisms have different ramifications for population persistence in a changing environment. Untangling what is happening is complex, but long-term, individual-based studies offer perhaps the best opportunity to do so. Due to their demonstrated versatility in addressing such a wide variety of issues across ecology and evolution, I suggest that long-term, individual-based field studies are an important national resource for the future.

PLENARY LECTURES

12 Months in Ecology, Wednesday 09.30 – 10.00

Pat Monaghan

Pat Monaghan has spent most of her scientific career at the University of Glasgow, where she is now the Regius Professor of Zoology (the first woman to hold this position since the chair was established in 1807). She did her PhD at Durham University on the problems associated with urban gulls, which included studies at nesting colonies and of the transmission of disease. Following further studies on gull demography and behaviour, Pat then worked on the effects of food shortages on seabird populations, and the conflicts between seabird conservation and fisheries management, involving projects on several seabird species at colonies in northern Britain and Norway. She then began studies on the effect of early life conditions in shaping individual life histories, which involves studies at many different biological levels including physiology and molecular biology. Her work is mainly on birds and currently focuses on trade-offs between growth and longevity, and the mechanisms driving effects that can span whole lifetimes. In addition, Pat has long term interests in environmental and species conservation, and in this context has been involved in a long term study of choughs in Scotland with several other colleagues, and in committee work with several government agencies and charities. Pat is also a keen proponent of women in science, and is involved in a number of initiatives in this sphere, aimed at both established and younger researchers.



Abstract

In this talk, I will review (some of) what has been happening in the world of ecology over the past twelve months. This world is far reaching, and twelve months is a short time. Nonetheless, lots of exciting things have been discovered, important things have happened, and more challenges are on the horizon. The political and the geographic landscapes and climates have been changing, for better or worse depending on where you stand. Some habitats have been destroyed, some saved, and even a unique new ecosystem discovered in Scotland's remotest outpost. Massive human migrations are underway, the societal and environmental consequences of which are yet to unfold. Scientific advice has been given, sometimes heeded, often ignored. 'Big conversations' in our 'Big society' have been promised in place of action. So there is good news and bad, grounds for pessimism but also for optimism. One thing is clear. The science of ecology and of conservation has never been more important, but we will need to work hard ensure that it is given the priority it deserves.

Presidential Address, Wednesday 15.15 – 16.15

William Sutherland

William Sutherland, Conservation Science Group, Department of Zoology, University of Cambridge.



Bill Sutherland first attended the BES conference as an undergraduate and well remembers the excitement and inspiration of that meeting. Since then he has gained enormously, both academically and socially, from the society. He was thus delighted to reciprocate when asked to be president.

He holds the Miriam Rothschild Chair in Conservation Biology, University of Cambridge, is a Professorial Fellow at St Catharine's College, an Associate Fellow of the Cambridge Centre for Science and Policy and is on the Management Committee for the Centre for the Study of Existential Risk. He has written six books, edited five others and published over 400 scientific papers.

He was awarded the Marsh Award for Ecology, Scientific Medal of the Zoological Society London, Marsh Award for Conservation Biology, Ecological Engagement Award of the British Ecological Society and the Distinguished Service Award of the Society for Conservation Biology. He is on the Advisory Committee Synchronicity Earth, Natural England Science Strategy Committee and Natural Environment Research Council Science and Innovation Strategy Board.

He is particularly interested in developing new means of linking science and practice. While much of this relates to conservation biology some of these methods have been used for a wide range of other topics including international development, global food security and the future of Antarctic research.

Decisions, experts, science and policy

Society continually makes decisions of relevance to ecologists. These range from deciding which projects to fund to deciding policy or practice using research. A growing body of evidence shows a range of ways in which such decision making can be improved. The commonest approaches of consulting an expert or bringing together experts to agree a consensus are two of the poorest methods. In this lecture I will describe how we can rethink the manner in which decisions are made, improve the links between research and practice and move ecology up the political agenda.

You can submit your questions for Luigi Boitani, Josephine Pemberton or Bill Sutherland via Twitter during their lectures. Using Twitter gives us the opportunity to accept more questions, allows shyer people to participate and enables people offsite to join in. If you are not yet on Twitter, ask a friend to tweet your question or chat to us on the BES stand about setting up your own account.

THEMATIC TOPIC SESSIONS

We are pleased to announce a diverse series of 16 Thematic Topic Sessions. These are focused around stimulating, diverse, and topical issues in ecology and 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 other invited speakers.

Below is the complete list of confirmed Thematic Topic sessions.
Please refer to the main oral programme for the full list of speakers.

Monday 14 December 11.15 – 13.15

TT1: Turning the Rewilding of Great Britain into Reality

Organiser: Nathalie Pettorelli, (Zoological Society of London, UK)

Keynote: Henrique Pereira (IDiv, University Halle-Wittenberg, Germany)

Sponsor: BES Conservation Ecology Specialist Interest Group

Location: Pentland Auditorium

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British Ecological Society
Conservation Ecology Group

Monday 14 December 15.15 – 17.15

TT4: Using Ecology to Guide Public Health Policy

Organisers: Nick Golding (University of Oxford, UK), Jessica C. Metcalf (Princeton University, USA)

Keynote: Sue Welburn (University of Edinburgh, UK)

Location: Pentland Auditorium

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TT2: Making the most of Microbes in Ecosystem Science: Soil Microbial Ecology in Global Change Models

Organisers: Nick Ostle (Lancaster University, UK), Emma Sayer (Lancaster University, UK), Jeanette Whitaker (Centre for Ecology & Hydrology, Lancaster, UK)

Keynotes: Steven D Allison (University of California, Irvine, USA) & Katherine E O Todd-Brown (University of Oklahoma, USA)

Sponsor: British Society of Soil Science

Location: Sidlaw Auditorium

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TT5: Climate Change in the Arctic; Linking Ecological and Biogeochemical Responses

Organiser: Lorna Street (Heriot-Watt University, UK), Marc Macias-Fauria (University of Oxford, UK), Isla-Myers Smith (University of Edinburgh, UK), Mathew Williams (University of Edinburgh, UK)

Keynote: Torben Christensen (Lund University, Sweden)

Location: Sidlaw Auditorium

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TT3: Ecological and Evolutionary Risks to Agriculture and Food Production

Organisers: Helen Hicks (University of Sheffield, UK), Rob Freckleton (University of Sheffield, UK)

Keynote: Lynn Dicks (University of Cambridge, UK)

Location: Fintry Auditorium

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Tuesday 15 December 11.00 – 13.00

TT6: 30 Years of the St Kilda Soay Sheep Project: Looking Ahead

Organisers: Dan Nussey (University of Edinburgh, UK), Josephine Pemberton (University of Edinburgh, UK), Loeske Kruuk (University of Edinburgh, UK)

Keynote: Ben Sheldon (Oxford University, UK)

Location: Pentland Auditorium

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THEMATIC TOPIC SESSIONS

TT7: Integrating Ecosystem Services into Spatial Planning Decision Making

Organisers: Alina Congreve (University of Hertfordshire, UK), Iain Cross (St Mary's University Twickenham, UK)

Keynote: Georgina Mace (Centre for Biodiversity and Environment Research, University College London, UK)

Location: Sidlaw Auditorium

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TT8: Digging Deeper- Advancing our Understanding of how Soil Biota Drive and Respond to Plant Invasions

Organisers: Wayne Dawson (University of Konstanz, Germany), Maarten Schrama (University of Manchester, UK)

Keynote: Wim van der Putten (Netherlands Institute of Ecology, Netherlands)

Location: Fintry Auditorium

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Tuesday 15 December
15.00 – 17.00

TT9: Dispersal Processes Driving Plant Movement: Challenges for Range Shifts in a Changing World

Organisers: Cristina García (CIBIO/InBIO, Portugal), Etienne Klein (INRA, France), Pedro Jordano (CSIC, Spain)

Keynote: Rémy Petit, (French National Institute for Agronomic Research, INRA, France)

Location: Pentland Auditorium

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TT10: Making Best Use of Ecological Evidence

Organiser: Neal Haddaway (Royal Swedish Academy of Sciences, Sweden)

Keynote: Des Thompson (Scottish Natural Heritage, UK)

Location: Sidlaw Auditorium

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Wednesday 16 December
10.00 – 12.00

TT11: Integrating Ecology and Evolution to Understand Infectious Disease

Organisers: Amy Pedersen (University of Edinburgh, UK), Tom Little (University of Edinburgh, UK), Sarah Reece (University of Edinburgh, UK), Emma Cunningham (University of Edinburgh, UK), Richard Ennos (University of Edinburgh, UK), Andy Fenton (University of Liverpool, UK)

Keynotes: Jaap de Roode (Emory University, USA)

& Marie Laure Desprez-Loustau (University of Bordeaux-INRA, France)

Sponsors: The Centre for Immunity, Infection and Evolution; The Institute of Evolutionary Biology, and the School of Biological Sciences of the University of Edinburgh

Location:

Pentland Auditorium

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THE UNIVERSITY of EDINBURGH
School of Biological Sciences

TT12: The Role of Large-Scale Experimentation in Applied Ecology and Conservation

Organisers: Kirsty Park (University of Stirling, UK), Kevin Watts (Forest Research, UK)

Keynotes: Nick Haddad (North Carolina State University, USA) & Rob Ewers (Imperial University, UK)

Location: Sidlaw Auditorium

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THEMATIC TOPIC SESSIONS

TT13: Hidden Herbivory: Ecosystem Consequences of Soil-Plant-Herbivore Interactions

Organisers: Sue Hartley (YESI, University of York, UK), Alison Karley (The James Hutton Institute, UK), Adam Frew (Western Sydney University, Australia)
Keynote: Scott Johnson, (Hawkesbury Institute for the Environment, Western Sydney University, Australia)

Sponsor: James Hutton Limited (Dundee) & The Hawkesbury Institute

Location: Fintry Auditorium

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TT15: The Ecology of Disturbance in a Conservation Context

Organiser: Jeroen Minderman, (University of St Andrews, UK)

Keynotes: Will Cresswell (University of St Andrews, UK) & Esteban Fernandez-Juricic (Purdue University, USA)

Sponsor: Journal of Applied Ecology

Journal of Applied Ecology

Location: Sidlaw Auditorium

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Wednesday 16 December
13.00 – 15.00

TT14: Predicting the Future: Ecological Forecasting in a Changing World

Organiser: Christopher Clements (The University of Zurich, Switzerland)

Keynote: Owen Petchey (Department of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland)

in association with the British Ecological Society Quantitative Ecology Specialist Interest Group

Location: Pentland Auditorium

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British Ecological Society
Quantitative Ecology Group

TT16: Pollination Services: From Individuals to Landscapes

Organisers: Graham Stone (Institute of Evolutionary Biology, UK), Pat Willmer (University of St Andrews, UK)

Keynote: Simon Potts, (Centre for Agri-Environmental Research, University of Reading, UK)

Location: Fintry Auditorium

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WORKSHOPS OVERVIEW: MONDAY 13:30-15:00

Monday

Communicating Ecology	Lammermuir Suite
Choosing Ecologically Sound Food	Tinto Hall
Game Theory in Research and Policy	Moorfoot Hall
Bring Your Own App	Lowther
GRAMP Virtual Laboratory for Biogeochemical Ecosystem Modelling	Monteith
Maximising the Exposure of Your Research	Harris Suite
Do You Speak Python? Alternative Languages for Data Analysis	Ochil Suite

Communicating ecology: Improving the traditional journal model.

Location: Lammermuir Suite

Organisers: Dr Parthiba Basu, University of Calcutta, India and Dr Barbara Smith, Coventry University and Agricultural Special Interest Group

A wide-range of knowledge dissemination tools are available yet science remains heavily reliant on academic journals. For the applied sciences in particular, it is critical that knowledge generated is transferred into action. There may be alternatives to the journal model that would support the delivery of action more effectively. This workshop focuses on developing a framework for knowledge dissemination for agro-ecology. After evaluating and ranking models of dissemination, participants will consider the Indian context. The output of this workshop will be made available on the Agricultural Ecology SIG website for societies and groups wishing to consider their KE strategy.

The outcome of the workshop will be a:

- framework for delivering agro-ecological knowledge into practice
- contribution to the KT strategy for the Society for Agro-ecology in India

The participants will engage in four sessions, in groups of 6 – 8 people and guided by facilitators.

1. *Brainstorm the range of existing knowledge exchange tools (10 mins). Collated by facilitator, made available on a flipchart for reference*
2. *Develop a vision for agro-ecological KT (10). Facilitator supports crafting a consensus on the vision (10)*
3. *With this vision in mind, participants will select and evaluate knowledge exchange tools to develop a framework for delivering knowledge exchange in the agro-ecological context. (20). Frameworks presented in a short plenary (10).*
4. *Groups will use the output from the previous stages to suggest a KT strategy for the Society for Agro-ecology in India (20).*

Bring your own app: Digital technology to enhance research (an interdisciplinary perspective)

Location: Lowther

Organiser: Karen Devine, British Ecological Society, External Affairs Manager

Speakers: Derek France, University of Chester; Brian Whalley, University of Sheffield and Addy Pope, ESRI

The workshop will demonstrate some customisable mobile apps for data collection in the field (both iOS and Android equivalents) such as FieldTripGB, EpiCollect and Open Data Kit. Participants will be asked to consider which of these apps would best fit with their current teaching/research activities and customise an app on their own device for their specific needs. Mobile devices will be available, but participants will be encouraged to use their own mobile device for the activities. Participants will be provided with an on-line suite of resources to support the integration of mobile devices for field data capture into their teaching and research activities. Participants will leave the workshop with a customised data collection form within one of the mobile apps on their own device for use in their own teaching or research activities.

Choosing ecologically sound food: an opportunity to shape the BES catering policy

Location: Tinto Hall

Organiser: Steve Peel, on behalf of the Agricultural Ecology Group and the Climate Change Ecology Group

How can we ensure that our food choices promote agricultural systems with well-functioning soils with a low impact on air and water, and which contribute to reversing the decline in biodiversity? And how can the BES, which is openly committed to building sustainable agriculture, support this through its catering policy?

The workshop will include input from Natural England opening up the issues and setting them in the context of British farming systems, biodiversity objectives and climate change mitigation.

WORKSHOPS OVERVIEW: MONDAY 13:30-15:00

This will be followed by breakout groups discussing:

- Should we avoid or reduce all meat and dairy products or just meat from ruminant animals?
- Should we specify the provenance or production system of some or all the food? Eg is local always best? Should we only source organic food?
- To what extent should the policy be constrained by price?
- What data do we need to develop a coherent policy?

Participants will then reconvene and in a plenary will summarize the output. Each group will be facilitated and recorded. This will be drawn together by the workshop organisers and presented for discussion to the BES.

Maximising the Exposure of Your Research: Search Engine Optimisation and why it matters

Location: Harris Suite

Organisers: Chris Grieves, BES Publications, Methods in Ecology and Evolution; Jenny Meyer, BES Publications, Journal of Functional Ecology; Lauren Sandhu, BES Publications, Journal of Ecology

In recent years there has been a significant increase in the number of academic articles published. At the same time, readers are changing how they find content, tending towards a point of entry at article level as opposed to journal level. These two factors mean that it is increasingly necessary for authors to make their articles easy for relevant readers to find. One of the best ways to do this is Search Engine Optimisation (SEO).

In this interactive session, attendees will acquire the practical skills necessary to make their articles stand out from the crowd. Using real world examples taken from the five BES journals, participants will learn how to:

- Choose the best keywords
- Write an optimised abstract
- Create a discoverable title

Applying these skills to your research will help to make your articles visible and discoverable online and maximise the exposure of your work. With an introduction to SEO from Kudos co-founder Charlie Rapple and a Q&A session with a panel of experts, this workshop will be helpful for researchers at every career stage.

Playing games to resolve conservation conflicts: game theory in research and policy

Location: Moorfoot Hall

Organisers: Chris Pollard and Nils Bunnefeld, University of Stirling

Conflicts between the use and conservation of biodiversity are widely recognised as both damaging to human livelihoods and biodiversity and increasing in scope and scale. The goals of those focused on improving livelihoods and those focused on biodiversity conservation can result in conflict when both sides typically seek to achieve their objectives regardless of the cost to the other side. Game theory and the playing of behavioural games can be used to investigate the strategic decisions made by those involved in conservation conflict. How an individual player defines success and what they are prepared to put at risk in order to achieve it will determine the actions they choose to take. An understanding of why, how and when people act and react in competitive situations can help identify policy levers for achieving both livelihoods and biodiversity goals. In this workshop we will briefly introduce how conservation conflicts can be described using game theory and then play behavioural games to explore how people make decisions and what factors can hinder or promote cooperation. Participants will leave this workshop with an understanding of how game theory can be applied for framing conservation conflict and with experience of playing the type of behavioural game used for data collection. If this isn't enough, those having played a winning strategy will be in line for a tasty prize of traditional Scottish fare.

The Global Research Alliance Modeling Platform (GRAMP) – a virtual laboratory for biogeochemical ecosystem modeling

Location: Monteith

Organiser: Benjamin Jackson, University of Aberdeen

This workshop brings together 'data generators' and 'data modellers' to address the challenges of linking lab- and field-based research with ecosystem modelling frameworks. The Global Research Alliance Modelling Platform (GRAMP) is a web-based ecosystem modelling platform designed to link researchers with appropriate datasets, models and training materials. It is intended to improve the availability and accessibility of biogeochemical ecosystem models, and to create an interactive collaborative platform for researchers. Attendees will be introduced to GRAMP and the tools and services developed by the GRAMP project to address: various frameworks for matching

WORKSHOPS OVERVIEW: MONDAY 13:30-15:00

data with models; model applications for greenhouse gas emission quantification; and assessment of climate change impacts on ecosystems. Participants will then be split into groups pairing “data generators” (field ecologists) with “data processors” (modellers). Groups will explore the GRAMP platform, familiarising themselves with: the different ecosystem models showcased in GRAMP, their capabilities, limitations and data requirements; and the use of the GRAMP platform for research collaboration and data sharing. Groups will be asked to report back to all participants with how they might make use of the platform and/or how they might contribute to it via webinars, uploading of data to the repository or the contribution of new model iterations etc. Finally, the discussion will be broadened out to a more general dialogue on how the GRAMP platform might fit into wider efforts to advance particular ecosystem models and the need to incorporate microbial ecology into these models. Workshop participants are asked to bring their own laptops.

Do you speak Python? A short introduction to alternative languages for data analysis

Location: Ochil Suite

*Organiser: Susan Jarvis, Centre for Ecology and Hydrology
Duncan Procter, York Centre for Complex Systems Analysis,
University of York*

Programming in one form or another is becoming ubiquitous in ecology, but most of us have not come from a computer science background. As a result the array of options of languages available can be bewildering and there is never enough time to investigate everything. To help this situation our workshop will provide an overview of some of the most well used alternatives to R, such as Python, C++, Java and Matlab. There will be introductions to the languages, strengths and weaknesses that each offers and when they may be the best option. Following the introduction there will be worked ecological examples in each language. Participants will gain a better overview of their options beyond R, and practical hands on experience of ecological examples they can go through with people experienced in using them. Hopefully as a result of this workshop attendees will know if it would be worth the time investment to learn another programming language and go away with a better understanding of why different languages are used in different situations.

How can Kudos work for me?

10.30 – 11.15, Monday 14 December, Wiley Stand

Kudos is a new service that helps researchers and their institutions/funders to measure, monitor and maximize the visibility and impact of their published articles.

Visit the Wiley stand 11&13, where Wiley representatives and Editors from the BES journals will be holding a Q&A session to answer your Kudos-related questions. We look forward to seeing you then.

New Investigator Funding Roundtable Discussion

13:30 – 15:00, Monday 14 December, Moffat

NERC are considering ways to improve funding routes for new investigators and are keen to hear the views from the ecological community. BES and NERC have thus come together to provide an opportunity for a two-way dialogue at the BES Annual Meeting. The event is a roundtable discussion for 20 participants and hosted by Dr Zoe Davies and Professor Rob Freckleton on behalf of the BES, and Professor Iain Gillespie, Director of Science and Innovation, NERC, and Professor Angela Hatton, Chair, NERC Science Board. Following an open call for participants, this is an invitation-only event.

Monday

WORKSHOPS OVERVIEW: TUESDAY 13:15-14:45

Ecosystem Service Approaches and Conservation	Lammermuir Suite
Speeding Up Ecological and Evolutionary Computations in R	Tinto Hall
Beyond the GPS – Novel Biologging Methods	Moorfoot Hall
Conservation: The Next Generation	Kilsyth
Knowledge discovery in ecological data	Lowther
How to be a Better Citizen's Scientist	Monteith
The Future of Data Archiving	Harris Suite
Using the COMPADRE and COMADRE Plant and Animal Matrix Databases for Comparative Demography	Ochil Suite
Building an Ecological Time Machine	Carrick Suite

Tuesday

How to be a better citizen's scientist

Location: Monteith

Organisers: Alan Jones and Martha Crockatt, Earthwatch

Public engagement is now an essential skill needed for research – and citizen science can be effective to connect people with your research and collect more data. Few scientists have experience of developing citizen science research programmes. How do you ensure activities are engaging for the public? How can you collect your data effectively? How do you train citizen scientists in a lively way? Lead by two citizen science practitioners from Earthwatch, this workshop will give you insight into how to undertake this form of research. Through practical, hands-on experience and a group work training exercise, we will learn what it is like to be a 'scientist' or a 'volunteer'. 'Scientists' will teach from a crib sheet and train a pool of 'volunteers' in data collection (via mini indoor ecological experiments on dead wood invertebrate activity and leaf litter). For those acting as 'volunteers' you will be able to see what it is like to receive citizen science training. We will swap roles and learn more about the challenges and pitfalls of being involved with this work. Following a group discussion session, you will leave with a better understanding of the processes involved. The workshop is open to anyone who has an interest in citizen science engagement, whether experienced or not – we would love to share ideas. You will leave the workshop better equipped to get members of the public actively involved in your research.

Knowledge discovery in ecological data

Location: Lowther

Organiser: Dr. Marko Debeljak, Jozef Stefan and Dr. Aneta Trajanov, Jozef Stefan Institute

Since the amount of ecological data is increasing tremendously, methods such as data-mining are used to explore large datasets to get better knowledge about the structures and functions of ecosystems. The participants of this workshop will be introduced to the basics of data-mining of ecological data and will get familiar with the most commonly applied algorithms for classification and regression research tasks.

The lecturers will provide two datasets: one on the abundance of soil fauna (earthworms and collembolans) and the second about their habitat conditions affected by soil tillage. With the help of the lecturers, the participants will make their own data-mining analyses on the provided soil data using the data-mining suite WEKA. The participants are required to bring their own computers and install WEKA on their computers prior to the workshop. The WEKA data-mining package is open-source, easy to install and can be downloaded here: www.cs.waikato.ac.nz/ml/weka/downloading.html.

The attendees of the workshop will get hands-on experience on each step of the data-mining process: identification and formulation of research problems that could be addressed by data-mining; data pre-processing, selection and settings of algorithms for classification and regression tasks; applying them on the provided data to produce classification and regression data-mining models; and interpretation and visualization of the results.

The participants will leave this workshop equipped with elementary knowledge in data-mining of ecological data and with practical experiences from using the data-mining suite WEKA. They will be able to perform some basic data-mining on their own data of interest.

WORKSHOPS OVERVIEW: TUESDAY 13:15-14:45

Building an Ecological Time Machine: Learning how to engage the public with experimental ecology

Location: Carrick Suite

Organiser: Jonathan Silvertown, University of Edinburgh; Rob Marris CEcol, University of Liverpool; Jerry Tallwin, Rothamsted Research

The Ecological Continuity Trust (ECT) is establishing a new long-term climate change experiment and would like this to become an international platform for climate change and ecosystem research. We are developing a concept to help communicate the purpose of its new experiment: that climate change experiments are ecological time machines, allowing scientists to travel forward in time to see what effect future climate will have upon habitats and ecosystems. During the workshop participants will be asked to consider how they may utilise the experiment for their own research and then formulate key questions to pose to the scientists (Emeritus Prof. Phil Grime, Prof. Jonathan Silvertown, Prof. Andy Hector and Dr. Emma Sayer). We will then stage a mock press conference to interrogate the design of the experiment and the concept we hope to use to communicate the science. Attendees will role-play journalists from publications such as the Sun, Guardian and New Scientist. By participating in the workshop, you will think critically about how you can utilise long-term experiments for your own research and help the ECT identify potential pitfalls and develop its concept. It should also be fun! Student prizes of £200 in cash and £100 in books will be awarded for the two best blog/vlogs or media reports posted after the workshop. All competition entries will feature as links on the new ECT website. Feedback provided by all participants in the workshop will be used in the ECT media strategy for the new experiment. More information can be found at www.EcologicalContinuityTrust.org/BES2015.

Do ecosystem approaches deliver for biodiversity conservation?

Location: Lammemuir Suite

Organiser: A joint workshop with the Scottish Policy Group, and the Scottish Biodiversity Strategy's Science & Technical Group.

Chair: Rob Brooker (James Hutton Institute)

Speakers: Paul Walton (RSPB), Matt Gubbins (Marine Scotland)

December 2015 is half-way to delivery of the Scottish Biodiversity Strategy (SBS) 2020 Challenge. The 2020 Challenge adopted ecosystem approach thinking, with emphasis on the services and benefits that we derive from

nature. However – at this mid-point to 2020 – this focus is ringing alarm bells. As expressed in the State of Nature Scotland conference in February 2015, there are concerns that a strong focus on ecosystem services and natural capital may distract from effective biodiversity conservation.

Are these concerns based on evidence, an inherent dislike of services and biodiversity “valuation”, or uncertainty about biodiversity’s position within ecosystem service frameworks? And is there an alternative? Join us at the BES annual meeting to explore these questions.

Short presentations by invigorating speakers will be followed by break out groups. Each group will consider: the basis for current concern, the evidence base, and importantly, what we should do now. Reports from individual groups to the workshop will be followed by a final open discussion.

This workshop will provide an important touchstone for current thinking on this topic. More specifically, highlighted knowledge exchange and evidence needs will be used by the Scottish Biodiversity Strategy’s Science and Technical Group (STG), and the BES Scottish Policy Group, for focussing research activities (e.g. through the SBS Evidence Plan) and events during 2016.

Speeding up ecological and evolutionary computations in R; essentials of high performance computing for biologists

Location: Tinto Hall

Organisers: Marco D. Visser, Radboud University

Computing has become fundamental to the practice of science. Learning how to program and efficiently use computational resources is a key skill. Failing to address programming challenges may limit research scope, depth, and quality of research. In this workshop we review common challenges to computational efficiency for typical ecological problems, offer solutions on a sliding scale of time and coding investment and demonstrate how to determine whether to invest in speeding up code. We start with a general introduction, demonstrating approaches as code profiling to find inefficiency, parallel computing and calling C from R. Lectures will be accompanied by exercises that have been tailored for different levels of computing experience and interests. We will work through examples in two separate break-out groups. The first is a beginner to intermediate level problem, where we conduct bootstrapping in moderately large datasets. This problem gives participants hands-on experience in profiling code and showcases common inefficiencies in data protocols (indexing, grouping, calculating means, formatting and saving output) and is highly suited for

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parallel computing. The second is advanced. Here we optimize a simple stochastic population model, unsuited for parallel computation. Participants get hands on experience in efficient R code, profiling and extending R with code written in C. All speakers are experienced R programmers, and have contributed to a recent published educational piece on high performance computing (Visser et al. 2015, PLOS Comp. Bio. DOI: 10.1371/journal.pcbi.1004140). The workshop is suitable for people with at least an introductory knowledge of R.

The future of Data Archiving – Any Questions?

Location: Harris Suite

Organisers: Simon Hoggart, BES Publications Team, Journal of Animal Ecology; Kate Harrison, BES Publications Team, Ecological Reviews; Alice Plane, BES Publications team, Journal of Applied Ecology

Do you have questions about data archiving? Do you routinely share your data or do you fear that sharing will lead to being scooped or that you won't receive credit for your work? Do you have concerns about confidentiality issues? Do you want to use someone's data but unsure about the ethics or etiquette? If so, this workshop is for you!

This "BBC Question Time" style debate will provide you with the opportunity to debate the issues surrounding data archiving with our panel of experts in an open format. As ecology journals are increasingly encouraging or mandating the archiving of data associated with published papers this topic is growing in importance. Join our panel debate to share your thoughts on the impact of data archiving and how this is likely to shape the future of research.

Panel Members: Chuck Fox (Chair) (Functional Ecology Executive Editor, Dryad Board of Directors); Liz Ferguson (Publishing Solutions Director, Wiley, Dryad Board of Directors); Natalie Cooper (Researcher, Natural History Museum, London); Kathryn Harrison (Data Manager, Environmental Information Data Centre); James Pearce-Higgins (Science Director, British Trust for Ornithology)

Questions can be submitted in advance or on the day through Twitter using the hashtag #BESDataQA or by email to Simon@BritishEcologicalSociety.org.

Beyond the GPS – Novel biologging methods to track animal behaviour and energy expenditure

Location: Moorfoot Hall

Organisers: Luca Borger, Swansea University and Emily Shepherd, Swansea University

Movement is one of the most fundamental behaviours affecting the ecology and spatial distribution of animal populations. Radio-tracking and GPS technology have revolutionized our understanding of animal ecology in the last decades. Modern biotelemetry techniques can now provide unprecedented insight into the behaviour, energy expenditure and movement trajectories of wild animals, by logging acceleration and compass heading (each in 3 axes and at 10-800Hz), along with environmental variables. One of the challenges associated with recording at high frequencies and using multi-channel loggers is the size and complexity of the data. In fact visualising and analysing such datasets often exceeds the capacity of most conventional software platforms.

In this workshop we will provide an interactive demonstration of current technological advances, including novel hardware and software developed by the Swansea Laboratory of Animal Movement. We will start from first principles to outline what accelerometry can be used to measure, how to interpret acceleration data and the ecological applications of the resulting metrics. This will include a 'glossary' of the all-important, but sometimes confusing, acceleration terminology. We will then go on to show how compass data can be used to reconstruct high-resolution 3-d movement trajectories, irrespective of whether the animal is in the open, underground or underwater (i.e. in the absence of GPS data). The workshop will include real-time recording of human subjects – come prepared to be tagged!

WORKSHOPS OVERVIEW: TUESDAY 13:15-14:45

Conservation: The next generation

Location: Kilsyth Hall

Organisers: Catherine Stokowska, University of Sheffield, BES Conservation Special Interest Group Student representative and Stuart Patterson, Royal Veterinary College, University of London, BES Conservation Special Interest Group Student representative

This is the first collaborative event between the BES Conservation Ecology SIG, youth movement 'A Focus on Nature' (AFoN) and the embryonic network 'UK Student Conservation Volunteers'. Whether you are a die-hard conservationist or someone who is curious, but sceptical of where you fit into the agenda, we need YOU to take a chance, spare an hour or two, and be a part of it. The workshop comprises four themes:

'My potential' - we kick off with an insider's insight from AFoN. What roles can young people play in moving conservation forward? Can we really have influence either academically or beyond the 'ivory tower'?

'My vision' - next we take a moment's breathing space to give our imaginations free rein and construct the natural world that WE want to be a part of in 50 years. This is your time to contribute to the ambitious 'Vision for Nature' that is being presented to Parliament.

'My contribution' - where do you fit into 'conservation'? Perhaps it's the practical application of your research, the value of your non-ecological expertise or the benefits of another 'unrelated' skill. A post-it note fest will allow us to build up a network showing the links between, and value of, different fields.

'What I need from you' - in this last period you will find out about existing support available from each of the facilitating groups - and in turn tell us what you feel you need us to do to help you reach your potential.

Using the COMPADRE and COMADRE Plant and Animal Matrix Databases for Comparative Demography

Location: Ochil Suite

Organisers: Owen Jones, University of Southern Denmark

Demography is a central aspect of ecology and evolution, and matrix population models (MPMs) are the most widely-used form of structured population model due to their simple formulation, tractability and solid mathematical foundations. The applications of MPMs are broad, including studying the responses of populations to disturbance, the evolution of demographic traits, the demographic characteristics of invasive or threatened species etc. These uses will be familiar to many attendees of the BES meetings.

The proposed workshop will introduce attendees to using the new open access COMPADRE Plant Matrix Database and COMADRE Animal Matrix Database. These sister databases contain thousands of MPMs from hundreds of species and open up new research possibilities in comparative life history and population biology. Until recently these data were dispersed through the literature and therefore inaccessible for synthetic analysis. The sister databases also contain relevant ancillary information (e.g. ecoregion, growth form, taxonomy, etc.) that facilitates interpretation of the numerous demographic metrics that can be derived from the MPMs.

The workshop organiser/speakers are the developers of the databases and users of MPMs. They will guide attendees on how to access and query them to run powerful comparative analyses in R using code developed by the organizers. Attendees should have basic R skills.

PRESENTER INFORMATION



Social Media Policy

We at the BES love social media – it's a great way to connect with people across the world, to share ideas and create collaborations.

We heartily encourage people to tweet, post and share their experiences – our Annual Meeting is all about building relationships. We will also only be taking questions for our plenary speakers via Twitter.



However, we understand that some people will not want their research broadcast. We respect that, so have created a 'do not share' image for people add to their poster or talk presentation. We hope that fellow attendees will respect that request and refrain from sharing that particular talk or poster. If people do not include this image on their presentation, we will assume they are happy for their research to be shared.

Oral Presenters

Each speaker is allotted 15 minutes, unless you are a Thematic Topic Session keynote speaker (contact your organiser). 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.

The meeting supports Microsoft PowerPoint, Keynote and PDF presentations. All lecture theatres will be 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 Speaker's Room (**Soutra**). Please report to the Speakers' Room 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 14 December, please try to report to the Speaker's Room on **Sunday 13 December from 14.00 – 17.00.**

The Speakers' Room is located in **Soutra** and will be open during the following hours:

Sunday 13 December	14.00 – 17.00
Monday 14 December	08.00 – 17.00
Tuesday 15 December	08.00 – 17.00
Wednesday 16 December	08.30 – 13.00

In the Speakers' Room, 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

Your poster will be displayed in the poster viewing area of the **Lennox Suite**, the main Exhibition Hall of the conference centre. 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 08.00 on Monday 14 December. All posters **MUST** be in place by 10.30 on Monday 14 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 will be part of Poster Session 1 (A1 - G1), which takes place on **Monday 14 December, 17.15 – 18.45**

All poster numbers with a letter followed by the number 2 will be part of Poster Sessions 2 (A2 - F2), which takes place on **Tuesday 15 December, 17.00 – 18.30**

Posters must be removed between **13.00 and 17.00 on Wednesday 16 December**. Posters remaining after this time may be disposed of.

BES Student Prize

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.

Abstract Publication and access

All abstracts can be accessed via our Annual Meeting mobile app. To download the app, visit: <http://eventmobi.com/bes2015> on your laptop, mobile device, or tablet. Alternatively you can scan the QR code above.

ORAL PRESENTATIONS: MONDAY 14 DECEMBER

Lunch, coffee breaks and other events are not included in the following printed scientific programme. Please ensure you check the start time and refer back to the main meeting overview (Page 10) when planning your schedule for the day. BES prize winners 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 <http://eventmobi.com/bes2015>.



Monday

TT1: Turning the Rewilding of Great Britain into Reality

Location: Pentland Auditorium

Chair: Nathalie Pettorelli

- 11:15** **Henrique Pereira:** Ecological Rewilding - Opportunities and challenges to make Europe wilder
- 11:45** **Sarah Durant:** The economic and socio-political reality of bringing back large carnivores in the UK
- 12:00** **Christopher Sandom:** Putting rewilding into practice
- 12:15** **Sophie Wynne-Jones:** Rewilding in Wales
- 12:30** **Calum Brown:** The context, opportunities and challenges for rewilding in Scotland
- 12:45** **Martin Gaywood:** Beavers in Scotland
- 13:00** **Discussion**

TT2: Making the most of Microbes in Ecosystem Science: Soil Microbial Ecology in Global Change Models

Location: Sidlaw Auditorium

Chairs: Nick Ostle & Jeanette Whitaker

- 11:15** **Steven Allison:** Using traits to predict soil microbial responses to environmental change
- 11:45** **Mathew Williams:** Understanding the sensitivity of microbial versus chemical models of soil decomposition dynamics
- 12:00** **Lingli Liu:** Nitrogen deposition could increase the efficiency of labile carbon to form stable soil organic matter
- 12:15** **Liz Baggs:** Soil Microbial Nitrogen Cycling and Ecosystem Biogeochemistry
- 12:30** **Chris Jones:** Soil Carbon Modelling in Earth System Models
- 12:45** **Katherine Todd-Brown:** Causes of variation in soil carbon simulations from Earth system models

TT3: Ecological & Evolutionary Risks to Agriculture & Food Production

Location: Fintry Auditorium

Chairs: Helen Hicks & Rob Freckleton

- 11:15** **Lynn Dicks:** How can ecological research enhance the environmental sustainability of agricultural production?
- 11:45** **Ragab Ragab:** Water security and agricultural production: The challenges and the way ahead
- 12:00** **Pete Smith:** Global change impacts on soils and agriculture, and options for food sustainability
- 12:15** **Franciska De Vries:** Harnessing soil communities for sustainable agriculture
- 12:30** **Adam Vanbergen:** Risks to the delivery of pollination services to biodiversity and agriculture
- 12:45** **Paul Neve:** Evolution at large in global agroecosystems: the rise and rise of herbicide resistance in weeds.
- 13:00** **Jonathan Leake:** Restoring paradise lost: sustainable soil management for sustainable crop production.

S1: Global Change Ecology (Pollution & Land-use Change)

Location: Lammermuir Suite

Chair: Dannielle Green

- 11:15** **Dannielle Green:** Effects of microplastic pollution on a marine ecosystem engineer (*Arenicola marina*) and sediment nutrient cycling
- 11:30** **Soha Alsolmy:** The effects of agricultural land use on freshwater communities
- 11:45** **Joanna Clark:** Ecosystem properties regulate temporal changes in soil water dissolved organic carbon concentrations and fluxes
- 12:00** **William Stiles:** The role of phosphorus availability: has nitrogen deposition pushed upland ecosystems to the limit?
- 12:15** **Isabel Rogers:** Carbon storage in grasslands: the impact of atmospheric nitrogen pollution

ORAL PRESENTATIONS: MONDAY 14 DECEMBER

12:30 Andrea Britton: Cascading impacts of nitrogen deposition on nutrient cycling and biodiversity in alpine moss-sedge heath.

12:45 Katharina Gerstner: Effects of land use on plant diversity – A global meta-analysis

13:00 Tim Newbold: The global effect of land use on the trophic structure of ecological communities

S2: Ecosystem Ecology & Function (Species Interactions)

Location: Tinto Hall

Chair: Zarah Pattison

11:15 Hannah Griffiths: The influence of dung beetle communities on the emergence and survival of tropical forest seedlings

11:30 Maarten Schrama: Influence of large herbivores on biogeochemical cycling in upland grasslands

11:45 Tage Vowles: Reindeer grazing affects ectomycorrhizal biomass and community dynamics in alpine ecosystems

12:00 Dagmar Egelkraut: A Sami-cultural mountain landscape: Describing and understanding the ecological legacies of intensive reindeer husbandry in the Swedish mountains

12:15 Chelsea Little: Differing effects of competition and species turnover on decomposition and ecosystem functioning

12:30 Rosemary Haskell: Belowground bodyguards: Investigating the role of symbiotic root fungi on silicon and associated plant defences

12:45 Stephen Ives: Linking organism trophic level and life history traits with early warning of regime shifts

13:00 Rick Stafford: Predators reduce carbon production in multi-trophic level marine ecosystems

S3: Forest Ecology (Management & Conservation)

Location: Moorfoot Hall

Chair: Martha Crockatt

11:15 Bill Mason: Results from Long-Term Experiments can Guide the Use of Species Mixtures in Planted Forests

11:30 Tasneem Elzein: Twentieth century logging history and its impact on southern boreal forest structure

11:45 Philip Martin: Dieback of temperate forest may be causing a shift to non-forest state

12:00 Keith Kirby: Changes in the vegetation of Salcey Forest, 1982-2014

12:15 Kelly Swallow: Biodiversity value of ancient woodland flora: not quite as it seems

12:30 Somidh Saha: Trade-offs between climate change adaptation and mitigation objectives for forests in Germany

12:45 Scott Wilson: Scotland's native woodlands - are they fit for work?

13:00 Daniel Bebbler: The effectiveness of different protected areas designations in reducing tropical deforestation

S4: Behavioural Ecology (Individuals to Communities)

Location: Kilsyth Hall

Chair: Jessica Stephenson

11:15 Olivia Hicks: Linking parasitism and life-history: novel questions with a novel energetic approach

11:30 Jenifer Morley: Diet selection by the brush tailed possum: developing insights from individuals to applications at the community level

11:45 James Gilbert: 'Birds do it, bees do it...' Cooperation, competition and skew in a tiny outback insect

12:00 Inês Órfão: Can male mating decisions be explained by the Marginal Value Theorem?

12:15 Jens Joschinski: Climate change and phenology shifts: does a changing time budget constrain aphids?

12:30 Richard Pearce: Associative learning and foraging in bumblebees

12:45 Kirsty McLaughlin: Noise influences nest-site selection in a biparental fish *Amatitlania nigrofasciata*

13:00 Arne Schröder: Individual variation in functional response parameters is explained by body size but not by behavioural types in the poeciliid fish *Heterandria Formosa*

S5: Evolutionary Ecology (Adaptation)

Location: Lowther

Chair: Maria Kaye

11:15 Mike Singer: An anthropogenic paradox: butterflies reduce fitness by biased dispersal into habitats to which they are best-adapted.

ORAL PRESENTATIONS: MONDAY 14 DECEMBER

Monday

- 11:30 Daniel Balaz:** Controlling an infection in one host species drives the pathogen to adapt to another host
- 11:45 Alejandra Troncoso:** Influence of wind and spatial processes on population genetic differentiation in high-Andean wetlands of Chile's Norte Chico
- 12:00 Vincent Hin:** Evolution of competitive asymmetry in size-structured populations
- 12:15 Vanessa Weber de Melo:** The role of epigenetics in adaptive processes in *Tetrahymena thermophila*
- 12:30 Kimberley Prior:** Watching the clock: the story of circadian rhythms in malaria parasites
- 12:45 James Nicholls:** Sweet tetra-trophic interactions: the evolutionary dynamics of nectar secretion in oak gallwasps
- 13:00 Judith Bachmann:** Adaptation to an elevational gradient in *Rana temporaria*

S6: Species Interactions (Management & Applications)

Location: Monteith

Chair: Jacqueline Stroud

- 11:15 Graham Stone:** Impacts of local adaptation of forest trees on associations with herbivorous insects: implications for adaptive forest management
- 11:30 Maria Cardoso:** Size-specific predation increases the body size and the commercial value of Nile tilapia populations in small lakes
- 11:45 Chunchao Zhu:** Host specificity of caterpillars in a subtropical forest of China and the determining factors
- 12:00 Barbora Lepková:** Seed dispersal by free-ranging herbivores and its impact on vegetation
- 12:15 Valérie Coudrain:** Differentiation of multi-trophic soil communities in response to arable crop management strategies
- 12:30 Sebastiana Rocuzzo:** The role of *Daphnia* infochemicals on morphological and biochemical traits of *Scenedesmus* and *Chlorella* spp and their potential applications on large scale cultivation systems.
- 12:45 Iñaki Odriozola:** Grazing exclusion unleashes competitive plant responses in Atlantic mountain grasslands
- 13:00 Brian Boag:** The demise of the Scottish rabbit: economic and environmental implication

S7: Parasites, Pathogens & Wildlife Disease (Methods & Models)

Location: Harris Suite

Chair: Sarah Kada

- 11:15 Lasse Ruokolainen:** Ecological processes drive the epidemiology of environmental pathogens
- 11:30 Rebecca Brown:** Investigation of the resting behaviour and habitat preferences of mosquito disease vectors with a focus on monkey malaria transmission in Malaysian Borneo.
- 11:45 Paul Johnson:** Why you need power analysis even if you think you don't
- 12:00 David Ewing:** Modelling the effect of temperature on the seasonal population dynamics of temperate mosquitoes
- 12:15 Sarah Kada:** Transmission heterogeneity and the role of susceptibility in vector-host networks
- 12:30 Kevin Bakker:** Ecological Underpinnings of Disease Co-Seasonality
- 12:45 Jessica Ward:** Impacts of disease transmission mode on rabies eradication through the use of canine vaccination and fertility control
- 13:00 Steven White:** Modelling the spread and containment of *Xylella fastidiosa* in Apulia, Italy

S8: Ecosystem Services

Location: Ochil Suite

Chair: Jens Subke

- 11:15 Eleanor Slade:** Reduction of greenhouse gas emissions from milk and beef production– what role do dung beetles play?
- 11:30 Ugo Arbieu:** Charismatic and rare mammal species matter for cultural ecosystem services
- 11:45 Peter Long:** Naturetrade: creating a marketplace for ecosystem services
- 12:00 Yuan Pan:** Prioritising ecosystem services in a developing country: a study on Lake Tai, China
- 12:15 Sue Ward:** Management of grasslands for multiple ecosystem services
- 12:30 Maria Potouroglou:** The role of intertidal seagrasses in carbon sequestration and coastal protection: A case study from Scotland
- 12:45 Prince Ndimele:** Assessing Niger-Delta Wetland Resources: A Case-Study of Mangrove Ecosystem

ORAL PRESENTATIONS: MONDAY 14 DECEMBER

Monday

13:00 Jonathan Silvertown: Questioning the ecosystem services paradigm

S9: Ecology & Society

Location: Carrick Suite

Chair: Pen-Yuan Hsing

11:15 Caroline Howe: Biodiversity - Well-being Webs: optimising ecosystem services for human well-being

11:30 Herizo Andrianandrasana: Have community-based conservation projects in Madagascar reduced threats to biodiversity and improved human wellbeing?

11:45 Helen Bayliss: Evidence for changing impacts of invasive species on human health

12:00 Isabel Marques da Silva: Co-management and market forces drive size of fisheries landings

12:15 Beth Robinson: Perceived versus actual risks of the natural world; Japanese knotweed in domestic gardens

12:30 Gitte Kragh: Understanding volunteers in ecology: relationships between motivation, well-being and project outcomes

12:45 Kelly Gunnell: The role of upstream "green" and "brown" infrastructure in providing flood protection benefits to different cities across the world.

13:00 Ali Birkett: Bringing the beetles to Glastonbury: a volunteer's perspective on the BES' Sex & Bugs & Rock 'n Roll public engagement programme

TT4: Using Ecology to Guide Public Health Policy

Location: Pentland Auditorium

Chairs: Nick Golding & Jessica C. Metcalf

15:15 Sue Welburn: Sleeping Sickness and Animal Trypanosomiasis – a complex ecology for sustainable control

15:45 Simon Cauchemez: Unravelling the drivers of MERS-CoV transmission

16:00 Kate Jones: Impact of global change on the emergence and spread of zoonotic infectious diseases

16:15 Katie Hampson: From disease ecology to disease control: science, policy and practice of rabies elimination

16:30 Steve Lindsay: Integrated Vector Management: an ecological approach to the control of vector-borne diseases.

16:45 Catherine Moyes: Characterising the geospatial distributions of species that host and transmit pathogens in order to understand disease risk

17:00 Daniel Haydon: Using ecology to guide public health interventions

TT5: Climate Change in the Arctic; Linking Ecological & Biogeochemical Responses

Location: Sidlaw Auditorium

Chairs: Lorna Street & Mathew Williams

15:15 Torben Christensen: Reducing uncertainty in methane emission estimates from permafrost environments

15:45 Suzanne McGowan: Lakes and the Arctic carbon cycle: using the past to understand terrestrial-aquatic linkages.

16:00 Gareth Phoenix: Winter climatic events: major drivers of ecosystem damage and reduced productivity in the Arctic

16:15 Johan Olofsson: Effects of herbivores on carbon and nutrient fluxes in a changing climate.

16:30 Sarah Woodin: Nitrogen, phosphorus and moss: Drivers of tundra ecosystem structure and carbon stocks

16:45 Jens-Arne Subke: Biological environment and litter quality drive fast decomposition in sub-arctic birch forests in contrast to adjacent heaths

17:00 Discussion

S10: Agricultural Ecology (Diversity & Change)

Location: Fintry Auditorium

Chair: Mark Ramsden

15:15 Barbara Smith: Developing novel crops with wildlife in mind: intraspecific variation in sainfoin (*Onobrychis viciifolia*)

15:30 Ritam Bhattacharya: Effect of seasonality on pollen transport network in an Eastern Indian intensive agricultural landscape

15:45 Amy-Marie Gilpin: The effect of magnet plants in agro-ecosystems on the visitation of European honeybees to co-flowering native Australian and European plants.

16:00 Jennifer Wickens: Effects of local and landscape floral resources on pollinators at sown flower strips

ORAL PRESENTATIONS: MONDAY 14 DECEMBER

Monday

- 16:15 Alison Karley:** Nitrogen dynamics in arable plants: N as a metric for assessing biodiversity value in agroecosystems?
- 16:30 Elizabeth Sullivan:** It all counts: results from two methods of monitoring long-term change in grassland vegetation
- 16:45 Rochelle Fritch:** Multispecies grassland swards can deliver increased invertebrate populations while maintaining agricultural yields
- 17:00 Jacqueline Stroud:** *Lumbricus terrestris* population collapse and loss of ecosystem functions in conventional arable cultivations

S11: Conservation Biology (PES & Protected Areas)

Location: Lammermuir Suite

Chair: Keith Kirby

- 15:15 Lucy Bastin:** eHabitat+: An open source tool for modelling functional habitat types in and around protected areas
- 15:30 Jamie Alison:** Where should we target habitat creation on farmland? Moths and agri-environment schemes in central-southern England
- 15:45 David Douglas:** Mapping the extent of vegetation burning for game management in the UK uplands and the spatial overlap with soil carbon and protected areas
- 16:00 Jo Staley:** Little and late: how reduced hedgerow cutting can benefit Lepidoptera
- 16:15 Tara Pirie:** Can small commercial reserves contribute to Leopard conservation in South Africa?
- 16:30 Kathryn Ross:** Assessing the gaps and “added protection value” of the UK Special Protection Area network for wintering waterbirds
- 16:45 Leila Walker:** Higher-tier agri-environment scheme enhances breeding densities of most priority farmland birds
- 17:00 Rob Marrs:** Winners and losers in a long-term study of vegetation change at Moor House NNR

S12: Macroecology & Biogeography (Methods & Models)

Location: Tinto Hall

Chair: Nick Isaac

- 15:15 Charles Marsh:** SDM profiling: a spatially-explicit sensitivity analysis for species distribution models
- 15:30 Naiara O’Mahony:** How to select absence data for species distribution models

- 15:45 Tom August:** The Zoön Project: Reproducible, Remixable and Shareable Species Distribution Modelling with R
- 16:00 Yoni Gavish:** Alpha-adjusted SDMs: Accounting for community processes and species richness in stacked species distribution models
- 16:15 Michael Harfoot:** A mechanistic understanding of Bergmann’s rule in a general ecosystem model
- 16:30 Siobhán Porter:** Using Nest Record Scheme (NRS) data to evaluate farmland conservation policy: An assessment of the hedgerow closed-cutting period
- 16:45 Helena Bestová:** Everything is NOT everywhere: network and trait-based approaches to microbial communities
- 17:00 Samantha Hill:** The database of the PREDICTS (Projecting Responses of Ecological Diversity in Changing Terrestrial Systems) Project

S13: Forest Ecology (Carbon & Nutrient Dynamics)

Location: Moorfoot Hall

Chair: Rob Mills

- 15:15 Robert Mills:** Does understory plant community explain soil organic matter and function in nemoboreal pine woodland?
- 15:30 Andreas Huth:** Carbon Losses due to Tropical Forest Fragmentation: A Forgotten Process in the Global Carbon Cycle?
- 15:45 Chadtip Rodtassana:** Fine root dynamics in long-term litter manipulation in lowland tropical forest, Panama
- 16:00 Laëtitia Bréchet:** Towards a better mechanistic understanding of soil carbon sequestration in tropical and temperate forests
- 16:15 Bruno Hérault:** What is the Carbon balance of tropical managed forests?
- 16:30 Kelly Mason:** A burning question: How do boreal forest floor greenhouse gas fluxes change with post-wildfire succession?
- 16:45 Varun Varma:** Nutrient deposition alters post-fire survival in N fixing and non-N fixing tropical dry forest tree seedlings
- 17:00 Sean McMahon:** A ring of cycles: intra-annual patterns of forest demography and biogeochemistry

ORAL PRESENTATIONS: MONDAY 14 DECEMBER

Monday

S14: Behavioural Ecology (Adaptation & Sexual Selection)

Location: Kilsyth Hall

Chair: Ben Sheldon

- 15:15 Elspeth Kenny:** Relationships on the cliff edge: The social structure of a Common Guillemot (*Uria aalge*) colony
- 15:30 Katharina Kreppel:** Investigation into long-term shifts of feeding and resting behaviour of malaria vectors in areas of high bed-net coverage in Tanzania.
- 15:45 Wolfgang Reschka:** Time is not of the essence – A parasitoid wasp monitors host locations
- 16:00 Eline Susset:** Formation of the overwintering aggregations in ladybirds: survival or mating strategy?
- 16:15 Kirsty Yule:** Winning a co-evolutionary arms-race: a shift in sensory mechanisms compensates for cryptic prey.
- 16:30 Nana Li:** Sexually selected male traits of barn swallow *Hirundo rustica gutturalis* in China
- 16:45 Yu Liu:** The redder, the better: plumage colour predicts reproductive success in northeastern Chinese barn swallows
- 17:00 Julien Martin:** Genetic basis of between- and within-individual variance of docility

S15: Evolutionary Ecology (Demography & Life History)

Location: Lowther

Chair: Yvonne Buckley

- 15:15 Craig Walling:** Genetic benefits and female mate choice in the stickleback (*Gasterosteus aculeatus*)
- 15:30 David Costantini:** Oxidative stress as a cost and constraint of reproductive strategies
- 15:45 Svenja Kroeger:** Sex and environmental differences in age-dependent and age-independent variation in body mass
- 16:00 Joshua Moatt:** Protein, Sex and Death in Sticklebacks
- 16:15 Ron Bassar:** The effects of contest and scramble competition on the life history of Trinidadian guppies
- 16:30 Danielle Sherman:** Age, sex and the cost of reproduction in an extremely long-lived herb

16:45 Rebecca Watson: Immune variation in the wild: age, sex & survival

17:00 Tom Cameron: Evolution of increased plasticity in more variable environments - selection by bottlenecks

S16: Species Interactions (Interactions)

Location: Monteith

Chair: Arne Schröder

- 15:15 André De Roos:** Collapses of large piscivorous fish populations due to overfishing can be prevented and reversed by harvesting their prey fish
- 15:30 Yohay Carmel:** Recasting the Competitive Exclusion Principle: the combined effects of niche overlap and competitive similarity on exclusion rate
- 15:45 Nichola Plowman:** Network simplification and the breakdown of an ant-plant protective mutualism with elevation
- 16:00 Floor Soudijn:** Predator persistence through seasonal resource fluctuations.
- 16:15 Emma Sheehy:** Mesopredator recovery: implications for native and non-native prey?
- 16:30 Andrew Davis:** Identity of coexisting species alters interaction strength and direction in a saprotrophic community
- 16:45 David Boukal:** Disentangling the effects of species diversity and environmental change on trophic and non-trophic interaction strengths
- 17:00 Robert O'Hara:** What, exactly, is a Biotic Interaction?

S17: Molecular Ecology & Genetics (Individuals & Populations)

Location: Harris Suite

Chair: Alejandra J. Troncoso

- 15:15 Honor Prentice:** A horizontally transferred, expressed, nuclear gene in *Festuca ovina* is associated with grassland microhabitat variation
- 15:30 Annika Perry:** Can native Scots pine survive *Dothistroma* needle blight?
- 15:45 Natalia Przelomska:** Out of China: the genetics of flowering time adaptation in an ancient crop species
- 16:00 Nathaniel Legall:** Nature read in tooth and fur: Non-invasive sampling of the Lundy pygmy shrew (*Sorex minutus* Linnaeus, 1766) for population genetics

ORAL PRESENTATIONS: MONDAY 14 DECEMBER

Monday

16:15 Kevin Donnelly: Prolonged Flooding Reveals Local Adaptation and Cryptic Genetic Variation Among Caledonian Pine Forest Remnants

16:30 Patricia González-Díaz: Restoring native pinewoods – how forest management affects the spatial distribution of genotypes in Scots pine

16:45 Simon Dures: Transfrontier lion conservation: applying genetics across time and space

17:00 Charlotte Regan: Accounting for phenotypic similarity between relatives due to space use when conducting quantitative genetic analyses on St. Kilda Soay sheep

S18: Community Ecology (Global Change)

Location: Ochil Suite

Chair: Ali Birkett

15:15 Rebecca Kordas: Environmental warming mediates the effect of herbivory on community succession

15:30 Francis Burdon: What can ranked abundance distributions tell us about anthropogenic change in stream ecosystems?

15:45 Sarah Facey: Atmospheric change causes declines in woodland arthropods and impacts particular trophic groups hardest

16:00 Robert Fitt: How does climate change mediated range shifts affect community assembly processes?

16:15 Anne Robertson: Groundwater flooding: Responses of groundwater ecosystems to an extreme recharge event.

16:30 Pieter Olivier: Can structural diversity predict biodiversity change in a sub-tropical human-modified landscape?

16:45 Louise Ashton: Moths and mountains: Disentangling the drivers of diversity and creating base-line data for climate change monitoring

17:00 Romana Limberger: Interactive effects of environmental change and habitat connectivity on experimental aquatic communities

15:30 Maria Kaye: Phylogeny, functional traits and community assembly on a long term forest plot in Malaysian Borneo

15:45 Jake Bicknell: Reconciling timber extraction with biodiversity conservation in tropical forests using Reduced-Impact Logging

16:00 Daniel Richards: Rates and drivers of mangrove deforestation in Southeast Asia

16:15 Kate Parr: Do the 'little' things run the world? Exploring the functional importance of ants in contrasting biomes

16:30 Claire Wordley: Bats in the Ghats – functional diversity, trait filtering and the importance of landscape heterogeneity.

16:45 Sofia Gripenberg: Do pre-dispersal insect seed predators contribute to maintaining tropical forest diversity?

17:00 Owen Lewis: Janzen-Connell effects increase with rainfall and are caused by plant pathogens: results of exclusion experiments across the Isthmus of Panama

S19: Tropical Ecology

Location: Carrick Suite

Chair: Isabel Jones

15:15 Andy Hector: Insurance effects of tree diversity in tropical forest restoration: The first decade of the Sabah Biodiversity Experiment

ORAL PRESENTATIONS: TUESDAY 15 DECEMBER

TT6: 30 Years of the St Kilda Soay Sheep Project: Looking Ahead

Location: Pentland Auditorium

Chairs: Dan Nussey, Josephine Pemberton & Loeske Kruuk

- 11:00 Ben Sheldon:** Challenges and Opportunities from Long-term Studies of Wild Populations
- 11:30 Mick Crawley:** Plant-herbivore dynamics and the Soay Sheep
- 11:45 Andrea Graham:** Host-parasite evolutionary ecology: investigating defence heterogeneity in This Wormy World
- 12:00 Dylan Childs:** Metabolic correlates of ageing and fitness in the Soay sheep of St Kilda
- 12:15 Michael Morrissey:** Selection and evolutionary trajectory of twinning rate in Soay sheep
- 12:30 Jon Slate:** Predicting phenotype from genomic data
- 12:45 Discussion**

TT7: Integrating Ecosystem Services into Spatial Planning Decision Making

Location: Sidlaw Auditorium

Chairs: Alina Congreve & Iain Cross

- 11:00 Georgina Mace:** The ecology of ecosystem service planning: putting the pieces together
- 11:30 Jim Harris:** Ecosystem services – how do we integrate them into the planning regime?
- 11:45 Linda Gateley:** Land Use Strategy – the ecosystem approach in practice
- 12:00 Lucy Shuker:** Ecosystem services and catchment planning – meeting the challenges of integrated project planning and delivery for regulators and practitioners
- 12:15 Juliette Young:** Thinking carefully about the ‘use’ of Ecosystem Services: experiences from science-policy interfaces
- 12:30 Martin Hollands:** Mainstreaming consideration of changes to ecosystem services in spatial planning in developing countries
- 12:45 Discussion**

TT8: Digging Deeper - Advancing our Understanding of How Soil Biota Drive & Respond to Plant Invasions

Location: Fintry Auditorium

Chair: Wayne Dawson

- 11:00 Wim Van der Putten:** Eco-evolutionary dynamics of plant-soil feedback interactions in new ranges
- 11:30 Michael Gundale:** Interactions with soil biota in native and introduced environments of the tree species *Pinus contorta*
- 11:45 Madalin Parepa:** Soil biota of diverse plant communities increase biotic resistance
- 12:00 Susanne Wurst:** Interactions between newcomer plants and soil biota in ruderal plant communities
- 12:15 Petr Dostal:** The fall of giant (hogweed): an increasingly negative plant soil-feedback promotes post-invasion recovery of native communities
- 12:30 Elly Morriën:** Climate change induced range-expanding plants and the relation between above- and belowground interactions
- 12:45 Alison Bennett:** Invasive species in above-belowground systems: Can we make general conclusions?

S20: Conservation Biology (Methods & Models)

Location: Lammermuir Suite

Chair: Colin Beale

- 11:00 Georgina Palmer:** Using distribution data to determine species' habitat specialism and availability
- 11:15 Christina Cobbold:** Measuring biodiversity: The importance of species similarity
- 11:30 Colin Beale:** Modelling elephant poaching in the Ruaha-Rungwa ecosystem
- 11:45 Martina Di Fonzo:** Evaluating trade-offs between target persistence levels and numbers of species conserved
- 12:00 Christopher Wheatley:** Climate change vulnerability frameworks – assessing the assessments
- 12:15 Andrew Stringer:** A geospatial analysis of ecosystem engineer activity: Implications for the decision on reintroduction
- 12:30 Wolfgang Weisser:** Animal-aided design-bridging the gap between landscape architecture and conservation

ORAL PRESENTATIONS: TUESDAY 15 DECEMBER

12:45 Jeffrey Hutchings: Thresholds for Impaired Species Recovery

S21: Agricultural Ecology (Land Management & Land-use)

Location: Tinto Hall

Chair: Nicola Randall

11:00 Barbra Harvie: Soil, seaweed and systems for security, sustainability and services: Studies from North Uist, Scotland

11:15 Alfred Gathorne-Hardy: Socio-environmental trade-offs of Indian rice - a multidisciplinary analysis

11:30 Gary Egan: Grassland management causes changes in soil microbial community composition: evidence from a long-term experiment

11:45 Joanna Cloy: Short-term effects of sheep urine and dung on greenhouse gas emissions from semi-improved grassland soils

12:00 Caroline Sullivan: Putting policy into practice: identifying High Nature Value (HNV) farmland at a national scale and a farm-scale

12:15 Órla McLaughlin: Space and time management interactions support carabid abundance and weed seed predation in arable fields

12:30 Leonie Gough: Projecting future arable land-use to highlight spatial patterns of risk to biodiversity

12:45 Guy Rotem: Combined effects of climatic gradient and domestic livestock grazing on reptile community structure in a heterogeneous agroecosystem

S22: Forest Ecology (Modeling)

Location: Moorfoot Hall

Chair: Gillian Petrokofsky

11:00 Thomas Crowther: Seeing the forest and the trees: mapping tree density at a global scale

11:15 Edna Roedig: Biomass in the Amazon rainforest: regionalization of an individual-based forest gap model

11:30 Rico Fischer: Simulating tropical forest carbon stocks and fluxes in a changing world using a process-based forest model

11:45 Sebastian Lehmann: A size-structured, spatially explicit symmetric model of tropical rain forest predicts multiple community patterns at once

12:00 Pia Backmann: Monodominance in tropical forests: Modelling reveals emerging clusters & phase transitions

12:15 Bojana Ivosevic: Modern Photogrammetry in Identifying Conifers: Utility and Constraints of Using UAV, 2D and 3D Mapping Techniques

12:30 Nikolai Knapp: Joining dynamic forest modelling and Lidar remote sensing for biomass estimations

12:45 Markus Eichhorn: Forests in 3D --- applications of terrestrial LiDAR to habitat management

S23: Behavioural Ecology (Methods, Models & Theory)

Location: Kilsyth Hall

Chair: Ross MacLeod

11:00 Mark Hassall: Partial feeding preferences in herbivory: Application of the Geometric Framework Theory to understanding mixed diets

11:15 Jana Jeglinski: Roaming the seas: immature Northern gannets reveal the connectivity of the gannet metapopulation with mobile phone GPS tags

11:30 Lucy Lush: Use of tri-axial accelerometers to assess terrestrial mammal behaviour in the wild

11:45 Yi-Hsiu Chen: The implications of incorporating information-gathering into models of optimal foraging

12:00 Victoria Warwick-Evans: Inter-annual variation in the use of proposed windfarm sites by northern gannets: Individual based modelling using NetLogo

12:15 Alla Mashanova: GPS tracking suggests that nocturnal activity in cattle varies across breeds and seasons

12:30 Brooke Allan: Gadoid scavenging behaviour using stereo baited underwater videos

12:45 Luca Borger: No privacy at home: Daily Diary loggers allow to unravel the internal structure, spatial location of behaviours and energy expenditure inside home ranges

S24: Global Change Ecology (Warming & Thermal Adaptation)

Location: Lowther

Chair: Elvire Bestion

11:00 Constant Signarbieux: The effect of warmer or cooler winters on European beech phenology carries over the phenophases of next growing season

ORAL PRESENTATIONS: TUESDAY 15 DECEMBER

- 11:15 Evelyne Elst:** Effects of species richness and species characteristics on grassland communities during experimental drought and heat extremes.
- 11:30 Charlotte Seal:** Sensitivity of germination to global temperature change
- 11:45 Daniel Padfield:** Rapid evolution of metabolic traits explains thermal adaptation in phytoplankton.
- 12:00 Eoin O’Gorman:** Temperature effects on fish production across a natural thermal gradient
- 12:15 Tom Mason:** Trade-offs between thermoregulation and access to resources: implications for understanding species’ responses to climate change
- 12:30 Paul CaraDonna:** Experimental warming in the field alters phenology, body size, and survival of an early-season pollinator.
- 12:45 Ally Phillimore:** Plasticity may be sufficient to track temperature-mediated shifts in passerine optimum lay date

S25: Ecosystem Ecology & Function (Novel Approaches)

Location: Monteith

Chair: Barbara Tigar

- 11:00 James Maino:** Reconciling theories for metabolic scaling
- 11:15 Barbara Tigar:** Track me if you can – intrinsic markers of dispersal
- 11:30 M. Jane Bunting:** To pollen count or not to pollen count: using a simulation approach to decide whether pollen analysis is, or is not, a useful component of a particular research strategy.
- 11:45 Stephen Prentice:** Tracking eutrophication in UK lakes: the potential of testate amoebae (Arcellacea)
- 12:00 Jill Kowal:** Liverworts to the rescue: an investigation of their efficacy as mycorrhizal inoculum for vascular plants
- 12:15 Althea Davies:** Understanding moorland regime shift using inter-disciplinary time series
- 12:30 Luis Lopez-Sangil:** Artificial Root Exudate System (ARES): a field-based approach to simulate increased tree root exudation in forest soils.
- 12:45 Caroline Meharg:** Next-Generation Sequencing as a novel approach to study response and adaptation of the plant root holobiome to edaphic stress

S26: Foodwebs & Networks (Stability, Structure & Complexity)

Location: Harris Suite

Chair: Owen Lewis

- 11:00 Anna Kuparinen:** Fishing-induced life-history changes degrade and destabilize fishery ecosystems
- 11:15 Qiang Yang:** Stronger perturbations decouple the relationship between ecological stability components
- 11:30 Damiano Weitowitz:** The effect of the stygobite *N. kochianus* on different trophic elements in groundwater food webs
- 11:45 Jonathan Myers:** Species sorting trumps the importance of local species interactions in the assembly of hyperdiverse communities
- 12:00 Núria Galiana:** On the spatial scaling of food web structure
- 12:15 Annieke Borst:** Foundation species enhance food web complexity through random non-trophic facilitation
- 12:30 Clare Gray:** Food web topological plasticity and the provisioning of ecosystem services
- 12:45 Paul Kardol:** Effects of global change drivers on food web interactions and nitrogen cycling in the bryosphere

S27: Community Ecology (Dynamics, Distribution & Interactions)

Location: Ochil Suite

Chair: Regan Early

- 11:00 Michiel Veldhuis:** A novel mechanism for grazing lawn formation: large herbivore-induced modification of the plant-soil water balance
- 11:15 Evangelia Smeti:** Resilience of phytoplankton assemblages to dispersal along a salinity gradient
- 11:30 Amy Deacon:** From species to communities: the signature of recreational use on a tropical river ecosystem
- 11:45 Jeltje Stam:** Legacy effects of community dynamics on perennial plants
- 12:00 Chih-Wei Tsai:** Testing the strength of trophic cascades in a detritus-based food web in a subtropical upstream system in Taiwan

ORAL PRESENTATIONS: TUESDAY 15 DECEMBER

- 12:15 Gonzalo García-Baquero:** Species sorting with limited dispersal governs plant metacommunity dynamics in alpine grasslands of the Iberian Mountain System
- 12:30 David Alonso:** Evidence for a colonization-persistence tradeoff in microbial communities.
- 12:45 Isabelle Gounand:** Spatial cascade in meta-ecosystems triggered by detritus flows: neighbors matter for local dynamics

S28: Citizen Science

Location: Carrick Suite

Chair: Gitte Kragh

- 11:00 Philip Wheeler:** Using mobile technology to improve forest carbon data collection with citizen scientists.
- 11:15 Pen-Yuan Hsing:** Developing a web platform for citizen scientist-led camera trap monitoring of wild mammals
- 11:30 Julie Hart:** Changes in abundance of high-elevation songbirds: A ten-year study using citizen science data in the Northeastern US
- 11:45 Sam Cruickshank:** False positives and false negatives in citizen science monitoring data: should we be worried?
- 12:00 Nathan Brown:** Making use of "citizen science" to maximise the effectiveness of tree pest and disease surveys: defining the distribution of Acute Oak Decline.
- 12:15 Alan Jones:** Engaging diverse citizen science audiences through woodland carbon ecology
- 12:30 Moya Burns:** Primate-plant quantitative food webs in the Peruvian Amazon show increasing specialisation in response to climate change: a five year study using citizen scientists
- 12:45 Mark Huxham:** The last shall be first: putting people at the centre of community-based, volunteer supported mangrove conservation

TT9: Dispersal Processes Driving Plant Movement: Challenges for Range Shifts in a Changing World

Location: Pentland Auditorium

Chair: Etienne Klein

- 15:00 Rémy Petit:** Genetic effects of Range Expansions
- 15:30 Pedro Jordano:** Frugivores, pollinators, seeds, and genes: tracking long-distance dispersal and its consequences

- 16:00 Justin Travis:** How (un)predictable are range shifts?
- 16:15 James Bullock:** General rules for plant dispersal kernels: a synthesis of empirical data
- 16:30 Frank Schurr:** The niche is not the range: how dispersal, reproduction and mortality shape species' distributions
- 16:45 Cristina Garcia:** Dispersal and colonisation patterns in fragmented forests

TT10: Making Best Use of Ecological Evidence

Location: Sidlaw Auditorium

Chair: Juliet Vickery

- 15:00 Des Thompson:** Evidence based conservation – two centuries of endeavour, and a decade for hope
- 15:30 Andrew Pullin:** Systematic reviews and maps as building blocks of an evidence-based structure to inform decision-making
- 15:45 Nicola Randall:** A researcher's perspective of policy driven research: Providing the evidence that is needed
- 16:00 Gillian Petrokofsky:** Experiences with the Evidence-Based Forestry Initiative
- 16:15 Anna Berthinussen:** Putting ecological evidence into decision support tools – an example from bat conservation
- 16:30 Neal Haddaway:** Maximising legacy of primary research through standardised reporting of results
- 16:45 Discussion**

S29: Invasive Species

Location: Fintry Auditorium

Chair: Lori Lawson Handley

- 15:00 Martin Sullivan:** Underexploited resources in anthropogenic habitats assist the establishment of non-native birds
- 15:15 Zarah Pattison:** Relative contribution of invasive non-native species to changes in native riparian vegetation
- 15:30 Daniel Chapman:** Rapid evolution of phenology during invasion causes a niche shift in common ragweed
- 15:45 Katriona Shea:** Disturbance aspects interact to affect diversity and invasion

ORAL PRESENTATIONS: TUESDAY 15 DECEMBER

- 16:00 Janet Maclean:** Does the native plant community of Atlantic oak woods recover after removal of invasive *Rhododendron ponticum*?
- 16:15 Sarah Crowley:** Assessing the social feasibility of invasive species management
- 16:30 Wayne Dawson:** Suppression of soil fungi increases biotic resistance of grassland communities to alien plant establishment, but disturbance is of overriding importance
- 16:45 Helen Roy:** Invasive Alien Species: Prioritising prevention through horizon scanning

S30: Conservation Biology (Environmental Change)

Location: Lammermuir Suite

Chair: Althea Davies

- 15:00 Martin Dallimer:** Impacts of rapid land redistribution in Zimbabwe on the bird community
- 15:15 Brigitte Braschler:** Diverse effects of a seven-year experimental fragmentation on major invertebrate groups
- 15:30 Tatsuya Amano:** Global hotspots and drivers of waterbird population losses
- 15:45 Tim Kasoar:** Rewilding and the Future of HNV Species
- 16:00 Ruth Kelly:** Changes in vegetation and arthropod communities after wildfires on upland sites.
- 16:15 Daniel Tregidgo:** Large scale rural effects of urban wildlife consumption
- 16:30 Lynda Donaldson:** Impacts of disturbance in tropical habitats: evidence from papyrus avifauna in Uganda
- 16:45 Matthew Struebig:** Targeted conservation to safeguard a biodiversity hotspot from climate and land-cover change

S31: Agricultural Ecology (Pests, Pesticides & Biological Control)

Location: Tinto Hall

Chair: Órla McLaughlin

- 15:00 Matthew Heard:** Toxicity of exposure to multiple chemicals in bees: quantifying differential effects on species
- 15:15 Timothy Doheny-Adams:** Biofumigation as an alternative to conventional pesticides

- 15:30 Carolyn Mitchell:** The raspberry leaf and bud mite, *Phyllocoptes gracilis*: a historical review to understand the biology and ecology of an elusive pest.
- 15:45 Nina Alpey:** Modelling genetics-based methods of insect crop pest control
- 16:00 Sean Hackett:** Type of fitness cost influences the rate of evolution of resistance to transgenic Bt crops
- 16:15 James Redfern:** Effects on *Sitobion avenae* populations of winter wheat genotypes with different nitrogen use efficiencies.
- 16:30 Victoria Wickens:** Impacts of Landscape Composition on Aphids, Their Natural Enemies and Pest Regulation
- 16:45 Mark Ramsden:** The future of Conservation Biological Control in agro-ecosystems; why should we plant flowers for wasps?

S32: Forest Ecology (Diversity, Succession & Disturbance)

Location: Moorfoot Hall

Chair: Bill Mason

- 15:00 Sarah Greenwood:** Global scale meta-analysis of drought induced forest mortality
- 15:15 Elena Cantarello:** Temperate forest resilience in an era of novel multiple disturbances
- 15:30 Gabriel Gerzabek:** Drivers of oak tree selection by acorn-harvesting jays
- 15:45 Martha Crockatt:** Location, location, location: how important is provenance to ash performance?
- 16:00 Isabel Jones:** Community drift in tropical forest tree and sapling communities on islands isolated within a hydroelectric mega-dam
- 16:15 Sophie Fauset:** Light environments in intact and degraded Atlantic forests
- 16:30 Géraldine Derroire:** Sapling leaf trait variation within and across species reveals community assembly processes during tropical dry forest succession
- 16:45 David Murrell:** The contribution of a novel competition trade-off to the maintenance of diversity in a Panamanian lowland tropical forest

ORAL PRESENTATIONS: TUESDAY 15 DECEMBER

S33: Population Ecology (Demography & Life History)

Location: Kilsyth Hall

Chair: Jason Matthiopoulos

- 15:00 Naomi Zweerus:** Life-history responses to past environmental change: experimental analysis of rotifer populations resurrected from sediments of a historically polluted lake
- 15:15 Jason Griffiths:** Quantifying the impacts of climate on the demography of wild populations: obtaining reliable inferences from mark-recapture datasets
- 15:30 Jenni McDonald:** Rescaling the support for demographic buffering
- 15:45 Sarah Burthe:** Overwinter migration strategy influences individual level survival of seabirds during severe winter weather
- 16:00 Maria Dornelas:** Predicting coral growth
- 16:15 Hannah Froy:** Demographic consequences of shifting phenology in a wild mammal population
- 16:30 Paul Raven:** In tatters - what wear and tear can reveal about the life of Silver-washed Fritillary butterflies (*Argynnis paphia*)
- 16:45 Dave Hodgson:** A Disturbing Look at the Evolution of Structured Life Histories

S34: Global Change Ecology (Long-term & Large-scale Studies)

Location: Lowther

Chair: Gareth Phoenix

- 15:00 Robin Pakeman:** Climate and eutrophication driven changes in Scottish coastal vegetation
- 15:15 Emma Sayer:** Long-term climate change affects soil microbial communities via plant functional traits
- 15:30 Wu Kuang Soh:** Trends in plant ecological functioning under elevated atmospheric carbon dioxide
- 15:45 William Gosling:** Ecological baselines for the high Andes
- 16:00 Emma Cross:** Acclimation to environmental change: a long term record of a New Zealand brachiopod
- 16:15 Christopher Hassall:** Phenological change in hoverflies (Diptera: Syrphidae): a synthetic approach using physiology, phylogenetics, ecology, and citizen science

- 16:30 Kevin Wood:** Long-term effects of environmental change on offspring quality in a migratory herbivore
- 16:45 Nathalie Pettorelli:** Energy availability, spatio-temporal variability and implications for animal ecology

S35: Ecosystem Ecology & Function (Diversity & Function)

Location: Monteith

Chair: Kimberley Simpson

- 15:00 Peter Manning:** What is ecosystem multifunctionality?
- 15:15 Fons Van der Plas:** Maximizing landscape-scale ecosystem multifunctionality: land-sparing or land-sharing?
- 15:30 Franziska Taubert:** Modelling the Structure and Dynamics of Grasslands: The Role of Diversity for Productivity
- 15:45 Oksana Buzhdygan:** Plant biodiversity affects whole-ecosystem functioning in grassland trophic networks
- 16:00 Ellen Fry:** Grouping plant species by root traits informs ecosystem function measurements in a calcareous grassland.
- 16:15 Andros Gianuca:** Trait composition, but not phylogenetic composition, determines a key ecosystem function delivered by freshwater zooplankton: top-down control of algae
- 16:30 Jake Snaddon:** Towards more wildlife-friendly oil palm plantations: the Biodiversity and Ecosystem Function in Tropical Agriculture (BEFTA) project.
- 16:45 Raquel Benavides:** Species diversity favours the intraspecific trait variability of tree species in three European forests

S36: Parasites, Pathogens & Wildlife Disease (Applications)

Location: Harris Suite

Chair: Lena Wilfert

- 15:00 Peter Hudson:** Disease invasion of a reintroduced wolf population in Yellowstone
- 15:15 Bethany Levick:** Epilepsy and nodding syndrome in onchocerciasis hyperendemic regions of the Democratic Republic of Congo.
- 15:30 Amanda Minter:** Understanding the mechanisms of a zoonotic reservoir: leptospire infection in *Rattus norvegicus* in urban slums Brazil.

ORAL PRESENTATIONS: TUESDAY 15 DECEMBER

- 15:45 Paddy Brock:** Multiple spatial scales, and interactions across them, influence the transmission of zoonotic malaria (*Plasmodium knowlesi*)
- 16:00 Evelyn Rynkiewicz:** Proinflammatory cytokines as a structuring mechanism of parasite communities within and between within-host infection sites
- 16:15 Joanne Littlefair:** Multiple infections result in a complex response to transgenerational immune priming
- 16:30 Olivier Restif:** Boom and Bust: Can birth pulses drive pathogens extinct?
- 16:45 Rosie Woodroffe:** Badgers and Cattle: do they ever meet?

S37: Community Ecology (Methods, Models & Theory)

Location: Ochil Suite

Chair: Markus Eichhorn

- 15:00 Ulrich Brose:** Unifying metabolic theory and ecological stoichiometry
- 15:15 Sofie Spatharis:** Do molecular and microscopy approaches provide the same insights on phytoplankton assemblage structure?
- 15:30 Jean-François Arnoldi:** Resilience, reactivity and variability: a mathematical comparison of ecological stability measures
- 15:45 Cristina Banks-Leite:** Beyond niche or neutral models: understanding processes shaping communities in fragmented landscapes.
- 16:00 Deirdre McClean:** One small step for genes: Single gene locus changes perturb complex microbial communities as much as apex predator loss
- 16:15 Toshinori Okuyama:** Individual variation in foraging success and egg limitation among parasitoids: implications for host-parasitoid dynamics
- 16:30 Miriam Grace:** Roles of individual variability in predator-prey models
- 16:45 Volker Grimm:** Diversity begets diversity? Intraspecific trait variation promotes persistence of small populations in a grassland community model

S38: Soil Ecology & Biogeochemistry

Location: Carrick Suite

Chair: Joanna Clark

- 15:00 Aurore Kaisermann:** Soil abiotic properties and plant traits explain landscape scale variation on soil bacterial and fungal community composition

- 15:15 Kate Buckeridge:** Soil bacterial and fungal community recovery after permafrost thaw
- 15:30 James Keane:** Greenhouse gas emissions from a clear-felled upland forest: high frequency measurements reveal importance of topographical features to landscape fluxes
- 15:45 Michael Bell:** Using an altitudinal gradient to investigate the climatic controls on blanket bog litter decomposition
- 16:00 Renée Hermans:** Greenhouse gas balance of blanket peat bog restoration from forestry in the Flow Country, Scotland
- 16:15 Sam Bonnett:** Peatland hydrological legacy affects enzyme inhibition and potential DOC release
- 16:30 Casper Quist:** Mesoscale distribution patterns of terrestrial nematodes
- 16:45 Iain Green:** The potential of the Maya nut (*Brosimum alicastrum*) to facilitate carbon sequestration in calcareous soils via the oxalate-carbonate pathway.

Tuesday

ORAL PRESENTATIONS: WEDNESDAY 16 DECEMBER

TT11: Integrating Ecology & Evolution to Understand Infectious Disease

Location: Pentland Auditorium

Chairs: Amy Pedersen & Tom Little

- 10:00 Jaap De Roode:** Host-parasite coevolution within ecological communities: evolution of parasite virulence and behavioral medication in monarch butterflies
- 10:30 Marie-Laure Desprez-Loustau:** Integrating epidemiology, ecology and evolution to understand a forest disease, oak powdery mildew
- 11:00 Daniel Streicker:** Ecological and evolutionary dynamics of advancing wavefronts of rabies in vampire bats
- 11:15 Pedro Vale:** Individual variation in host health and its consequences for pathogen spread and evolution
- 11:30 Nicole Mideo:** Within-host ecology and the evolution of drug resistance in malaria
- 11:45 Paul Sharp:** Chimpanzee and gorilla malaria parasites and the emergence of human malaria

TT12: The Role of Large-Scale Experimentation in Applied Ecology and Conservation

Location: Sidlaw Auditorium

Chairs: Kevin Watts & Kirsty Park

- 10:00 Nick Haddad:** Habitat fragmentation's enduring, and growing, impact on ecological communities
- 10:30 Robert Ewers:** The role of experiments in ecology: early lessons from the SAFE Project
- 11:00 Elisa Fuentes-Montemayor:** The WrEN project: Using historical woodland creation sites as test landscapes to inform future conservation actions
- 11:15 Tom Oliver:** Understanding habitat-climate interactions: from field experiments to national monitoring schemes
- 11:30 Elvire Bestion:** Live fast, die young: experimental evidence of population extinction risk due to climate change
- 11:45 Delphine Legrand:** Ranking the ecological causes of dispersal in a butterfly

TT13: Hidden Herbivory: Ecosystem Consequences of Soil-Plant-Herbivore Interactions

Location: Fintry Auditorium

Chairs: Sue Hartley, Alison Karley & Adam Frew

- 10:00 Scott Johnson:** Rootivory - opening the black box on plants' clandestine enemies
- 10:30 Carly Benerfer:** Molecular approaches for studying root herbivores
- 10:45 Sergio Rasmann:** Ups and downs of belowground tritrophic interactions
- 11:00 Bryan Griffiths:** Grazing by soil fauna in the rhizosphere affects life upstairs.
- 11:15 Christelle Robert:** Induced tolerance to root herbivory involves carbon reallocation and delayed over-compensatory regrowth
- 11:30 Mario Schumann:** Behavioural based management options against soil pests
- 11:45 Ilja Sonnemann:** Generalist insect root feeders, *Agriotes* spp. larvae (Coleoptera, Elateridae): feeding preferences, history effects and impact on plant interactions with other organisms

S39: Ecosystem Services (Pollination)

Location: Lammermuir Suite

Chair: Adam Vanbergen

- 10:00 Philip Donkersley:** Nutritional composition of honey bee food stores varies with its floral composition
- 10:15 Callum Macgregor:** Artificial light affects abundance and diversity of moths, with implications for nocturnal pollen transport
- 10:30 Juliane Horn:** Multiple stressors: using the honeybee model BEEHAVE to explore how spatial and temporal forage stress affects colony resilience
- 10:45 Ellen Moss:** The impacts of simulated climate-warming on the structure and functioning of plant-pollinator networks
- 11:00 Philippa Holder:** A new hypothesis regarding the cause of mass honeybee deaths in France in the 1990s
- 11:15 Louis Sutter:** Synergistic interactions of ecosystem services: pest control boosts crop yield increase through insect pollination
- 11:30 Jacob Bishop:** Crop yield resilience and climate change: the role of insect pollinators.

ORAL PRESENTATIONS: WEDNESDAY 16 DECEMBER

11:45 Rory O'Connor: Optimising Methods for Pollinator Monitoring

S40: Global Change Ecology (Species Distributions)

Location: Tinto Hall

Chair: William Gosling

10:00 Camille Parmesan: Dangerous Climate Change - What does that Mean for Biodiversity?

10:15 Damien Fordham: Improving confidence in forecasts of climate-driven range shifts and extinction risk

10:30 Andrew Gonzalez: Overcoming the challenges of estimating local biodiversity change

10:45 Regan Early: Enemy release suggests that fungal pathogens, not climate, play a major role in limiting many species geographic ranges.

11:00 Nina Hautekeete: Caution is needed when attributing immigration of warmth-adapted species

11:15 Andrew Suggitt: Microclimatic buffering reduces extinction risk from climate change

11:30 Signe Lett: Subarctic tundra bryophyte species differentially modify climate-warming effects on seedling establishment of tree line tree species

11:45 Jeremy Kerr: Climate change impacts on bumblebee species converge across continents

S41: Conservation Policy & Management (Policy & Evidence)

Location: Moorfoot Hall

Chair: Clare Hawkins

10:00 Marko Debeljak: Effectiveness of the implementation of Natura 2000 (Fitness Check) assessed by the qualitative multi criteria modelling

10:15 Alison Beresford: Contributions of the EU Nature Directives to International Conservation Agreements and Species Protection

10:30 Natalie Swan: Policing the Amazon: The efficiency of law enforcement against illegal harvest and consumption of wildlife in the Brazilian Amazon

10:45 Paul Lintott: Providing reference ranges for bat activity to improve planning decisions; a tool for ecological consultants, planners, and local authorities

11:00 Nibedita Mukherjee: The Delphi technique in ecology and biological conservation: applications and guidelines

11:15 Bethan O'Leary: How much confidence should decision-makers place in environmental evidence reviews?

11:30 Paul Woodcock: Assessing resilience – the importance of combining approaches

11:45 Adrian Newton: Resilience in policy: an emerging threat to biodiversity

S42: Plant-Soil Interactions (Global Change)

Location: Kilsyth Hall

Chair: Jasper Wubs

10:00 Catherine Preece: How does drought intensity affect a Mediterranean tree and its soil community?

10:15 Kelly Ramirez: The re-organization of belowground microbial communities under range shifting plant species

10:30 Andrew Cole: Climatic and nutrient availability controls on carbon use efficiency in UK grasslands

10:45 Gesche Blume-Werry: Short-term climate change manipulation effects do not scale up to long-term legacies: Effects of an absent snow cover on boreal forest plants

11:00 Arthur Broadbent: Disentangling the impacts of an invasive N-fixing shrub on nutrient cycling in a native New Zealand grassland

11:15 Eva Van den Elzen: Hunger in the Land of Plenty: Sphagnum vs. its microbiome. Environmental controls on N₂ fixation in peatlands

11:30 Carly Phillips: Biogeochemical consequences of arctic shrub expansion

11:45 Martine Van de Weg: Litter mixing alters predicted decomposition: *Betula nana* effects on above- and below-ground litter decomposition in Arctic tundra

S43: Macroecology & Biogeography (Distributions, Interactions & Evolution)

Location: Lowther

Chair: Kyle Dexter

10:00 Kyle Dexter: Community phylogenetic analyses across lowland tropical South America show just how few lineages can occupy seasonally dry environments compared to rain forests

10:15 David Clark: Microbial Biogeography: How Strongly Coupled are Microbial Populations and Local Climate?

ORAL PRESENTATIONS: WEDNESDAY 16 DECEMBER

- 10:30 Michelle Gibson:** Australian arid-zone birds: assessing species movements in response to an extreme rain event
- 10:45 Suzanna Mason:** Geographical range margins of a wide range of taxonomic groups continue to shift polewards
- 11:00 Lesley Lancaster:** Geographic range shifts shape global variation in insect thermal tolerances
- 11:15 Daniel Schlaepfer:** Complex SDMs lead to undetected data-model mismatches and degenerated global change predictions
- 11:30 David Wilkinson:** Exploring invisible biodiversity; Large scale biogeographical patterns in aquatic microorganisms from lakes across China.
- 11:45 Sally Keith:** Can competition maintain biogeographic borders?

S44: Population Ecology (Methods & Models)

Location: Monteith

Chair: Nina Alphey

- 10:00 Alden Griffith:** Extending the framework of Life Table Response Experiment (LTRE) to quantify the influence of environmental drivers on population dynamics
- 10:15 Bethan Hindle:** A latent factor approach to stochastic demographic modelling
- 10:30 Mark Miller:** Using multi-state, multi-stage models to estimate effects of weather and land use on nest success
- 10:45 Aline Magdalena Lee:** Should the presence of nonbreeders affect management decisions?
- 11:00 Perla Catalina Chaparro Pedraza:** Evolutionary coexistence of migration strategies
- 11:15 Simon Croft:** A systematic approach to update the distribution and abundance of terrestrial mammals in Great Britain
- 11:30 Yevhen Suprunenko:** Derivation of niche from competitive exclusion
- 11:45 Aly Pavitt:** Testing population density estimates in red deer

S45: Evolutionary Ecology (Physiology & Function)

Location: Harris Suite

Chair: Jonathan Silvertown

- 10:00 Daniel Nussey:** Life-long leukocyte telomere dynamics and survival in a free-living mammal
- 10:15 Christiana Evans-Fitz.Gerald:** The relationship between stomatal density and vein density in a range of basal plants under low O₂/high CO₂ conditions.
- 10:30 Louise Christensen:** How do Soay sheep cope with early-life oxidative stress?
- 10:45 Sarah MacAllister:** The metabolism of drought mortality in *Pinus sylvestris* (Scots pine)
- 11:00 Charilaos Yiotis:** Low resistance to CO₂ diffusion and the fine control of stomatal aperture facilitated the explosive radiation of early angiosperms.
- 11:15 Miguel Barbosa:** Maternal Response to Environmental Unpredictability
- 11:30 Fernanda C. Souza:** Structural and demographic traits of Amazonian trees show significant phylogenetic signal
- 11:45 Jonathan Green:** Leaf colour as a signal of chemical defence to insect herbivores in wild cabbage (*Brassica oleracea*)

S46: Community Ecology (Diversity & Functional Traits)

Location: Ochil Suite

Chair: Barbra Harvie

- 10:00 Etienne Low-Decarie:** Communities that thrive in extreme conditions captured from a freshwater lake
- 10:15 Laura Antao:** Scale and ecological heterogeneity drive multimodality in large species abundance distributions
- 10:30 Rob Brooker:** Differential effects of species and genotype diversity on community structure and function – evidence from synthetic crop-weed systems.
- 10:45 Victor Saito:** Phylogenies and traits provide distinct insights about the historical and contemporary assembly of aquatic insect communities
- 11:00 Eric Allan:** Effects of phylogenetic relatedness and rarity on soil feedback strength
- 11:15 Bianca Santini:** Plant functional trait variation and genome size

ORAL PRESENTATIONS: WEDNESDAY 16 DECEMBER

11:30 Hideyasu Shimadzu: Measuring temporal turnover in ecological communities

11:45 Fabio Da Silva: Using in silico experiments and plant functional traits to determine the relative importance of neutral- and niche-based processes for plant community assembly in lowland fen communities.

S47: Urban Ecology

Location: Carrick Suite

Chair: Jane Stout

10:00 Gavin Siriwardena: Does experience reflect presence? Potential cultural service provision by urban birds

10:15 Hugh Hanmer: Supplementary feeding may increase rates of local nest predation

10:30 Katherine Baldock: Conservation opportunities for pollinators in urban areas

10:45 Davide Dominoni: Growing in the city: is food a limiting factor?

11:00 Jonathan Bennie: Top-down and bottom-up effects of artificial light at night on a grassland ecosystem

11:15 Iain Stott: Land sparing is crucial for urban ecosystem services

11:30 Yann DUSZA: Towards more sustainable green roofs: plant/soil interactions and trade-offs between ecosystem services.

11:45 Ian Rotherham: Recombinant Ecology: How eco-fusion of alien & native species produces new conceptual frameworks for urban ecology and beyond

TT14: Predicting the Future: Ecological Forecasting in a Changing World

Location: Pentland Auditorium

Chair: Christopher Clements

13:00 Owen Petchey: Advancing ecological predictability research with experiments and models

13:30 Drew Purves: Understanding and predicting forests, oceans, carbon, the biosphere...

13:45 Yvonne Buckley: The use of biogeographic origin to guide ecosystem management in a changing world

14:00 Eelke Jongejans: Bird trend analyses with stochastic population models

14:15 Christopher Clements: Including trait-based early warning signals helps predict population collapse

14:30 Jessica C. Metcalf: Childhood infections and our changing demography: declining births, increasing mobility and measles and rubella.

14:45 Discussion

TT15: The Ecology of Disturbance in a Conservation Context

Location: Sidlaw Auditorium

Chair: Jeroen Minderman

13:00 Will Cresswell: How disturbance affects population dynamics

13:30 Elizabeth Masden: Methods to assess the impacts of renewable energy development on birds

13:45 Kirsty Park: Effects of Small Wind Turbines on bats

14:00 Ross Macleod: Using risk trade-off theory and current behaviour to predict future impacts of environmental disturbance and change on populations

14:15 Alex Sansom: The effects of wind farms on golden plovers

14:30 Esteban Fernandez-Juricic: The role of animal sensory perception in behavior-based management and conservation

TT16: Pollination Services: From Individuals to Landscapes

Location: Fintry Auditorium

Chairs: Graham Stone & Pat Willmer

13:00 Simon Potts: Hanging in the balance? Supply and demand of Pollination Services

13:30 William Kunin: Assessing landscape-scale drivers of pollinator abundance and diversity

13:45 Jane Memmott: Plant-pollinator interactions: stigma scale to landscape scale

14:00 Gavin Ballantyne: Floral visit quality: pollinator effectiveness networks in complex flowering communities

14:15 Jane Stout: Impacts of invasive species on pollinators and pollination services

14:30 Francis Gilbert: Orchard agriculture and pollination in South Sinai

14:45 Lena Wilfert: Pollinator pathogens - the dark side of the daisy chain?

ORAL PRESENTATIONS: WEDNESDAY 16 DECEMBER

S48: Parasites, Pathogens & Wildlife Disease (Adaptation & Evolution)

Location: Lammermuir Suite

Chair: Tom Little

- 13:00 Tom Little:** Maternal effects on parasite resistance and other fitness-related traits
- 13:15 Philip Birget:** Effects of the resource environment on the transmission strategies of malaria parasites
- 13:30 Heather Ferguson:** The ecology and behaviour of mosquito vectors of zoonotic malaria *Plasmodium knowlesi* within an expanding focus of human infection in South East Asia.
- 13:45 Katie Murray:** Host life history shifts in response to a sexually transmitted infection in an alien invasive ladybird.
- 14:00 Melanie Clerc:** Co-infection and immunity determine parasite burden in wild wood mice
- 14:15 Josephine Walker:** Seasonally targeted management of nematode transmission in a dryland multi-host system
- 14:30 Mark Moseley:** Mixed infections in a diverse reservoir community: *Leptospira* in Madagascar
- 14:45 Jessica Stephenson:** Risk of transmission predicts avoidance of visual and chemical cues of infected conspecifics

S49: Plant Physiological Ecology

Location: Tinto Hall

Chair: Signarbieux Constant

- 13:00 Fabrizio Carteni:** An innovative approach to model plant phenology based on carbon allocation
- 13:15 Christine Tansey:** Is plasticity sufficient to track the phenological optima in plants?
- 13:30 Paula Sangines De Carcer:** European beech shows higher phenotypic plasticity than Norway spruce under simulated climate change.
- 13:45 Kimberley Simpson:** Determinants of flammability in savanna grass species
- 14:00 Julia Cooke:** Plant traits and stomatal sensitivity to water deficit contribute to optimising carbon-water economics in plants
- 14:15 Sven Batke:** Physiological and morphological plant responses to an elevated [CO₂] gradient in plant growth chambers

14:30 Michelle Murray: Vegetation response to global change – the dynamic behaviour of stomatal conductance across seven biomes

14:45 Caroline Elliott-Kingston: Speed of stomatal closure is determined by atmospheric [CO₂] at time of taxa diversification and not by stomatal size or density

S50: Conservation Policy & Management (Monitoring & Management)

Location: Moorfoot Hall

Chair: Robin Pakeman

- 13:00 Ruth Mitchell:** Are Expectations for Biodiversity Monitoring Realistic?
- 13:15 Louise Hill:** Predicting ecosystem vulnerability to tree pests and diseases: the case study of ash dieback in Great Britain
- 13:30 Nick Isaac:** Biodiversity Indicators from Occurrence Records
- 13:45 Clare Hawkins:** View from an island: saving the threatened species concept from extinction
- 14:00 Nicholas Wilkinson:** Peatland restoration benefits breeding waders in northern England
- 14:15 Andrianariveloosa Solohery Rasamison:** Monitoring suitable habitats for forest birds in Madagascar using time-explicit species distribution models and time-series of satellite data
- 14:30 Chris Pollard:** Geese & games: conservation conflict in the Orkney Islands
- 14:45 Glenn Iason:** The impacts of Eurasian Beavers on woodlands: lessons from the Scottish Beaver Trial

S51: Plant-Soil Interactions (Feedbacks & Mutualisms)

Location: Kilsyth Hall

Chair: Paul Kardol

- 13:00 Gerlinde De Deyn:** Predicting plant-soil feedback across plant functional groups and its role in overyielding
- 13:15 Jan-Hendrik Dudenhöffer:** Plant-soil feedback effects on the life history and trophic interactions of plants
- 13:30 Marina Semchenko:** Consequences of plant kin recognition for soil feedback and root decomposition
- 13:45 Sandra Varga:** Arbuscular mycorrhizal effects on early plant establishment

ORAL PRESENTATIONS: WEDNESDAY 16 DECEMBER

14:00 Jasper Wubs: Spatial heterogeneity and competition alter patch level plant-soil feedbacks

14:15 Adam Frew: Siliceous saviour of sugarcane: silicon alleviates negative impacts of belowground herbivory under elevated atmospheric CO₂

14:30 Vincent Jassey: Bryophyte secondary metabolites control microbiota in peatlands

14:45 Stefano Mazzoleni: Inhibitory effect of extracellular self-DNA: new perspectives in plant-soil negative feedback and general implications for biology

S52: Macroecology & Biogeography (Functional Traits & Diversity)

Location: Lowther

Chair: Ruth Kelly

13:00 Anne Bjorkman: Patterns in plant functional traits across the tundra biome over space and time

13:15 Karina Banda: High Beta-Diversity in the Seasonally Dry Tropical Forests of the Neotropics and its Implications for Conservation

13:30 Alke Voskamp: Correlates of avian phylogenetic diversity: global patterns and their drivers

13:45 Hannah White: Using local spatial structure and climate to predict the biotic homogenisation of UK birds

14:00 Tom Bishop: Global variation in ant colour is controlled by temperature and body size

14:15 Emma Jardine: The global distribution of functional traits within grassy biomes

14:30 Riin Tamme: Climatic determinants of woodiness differ in tropical and temperate regions

14:45 Adriana De Palma: The intactness of bee communities across Europe

S53: Population Ecology (Distribution & Dynamics)

Location: Monteith

Chair: Jason Griffiths

13:00 Jason Matthiopoulos: Establishing the link between habitat selection and animal population dynamics

13:15 Kate Layton-Matthews: Environmental drivers of metapopulation dynamics in the spatially and socially structured Siberian jay

13:30 Catriona Morrison: Demographic drivers of population decline and recovery in Afro-Palaeartic migratory birds.

13:45 Frédéric Saltré: Climate change is not to blame for Late Quaternary megafauna extinctions in Australia

14:00 Amy Iler: Population decline in response to climate change-induced earlier flowering phenology in a subalpine plant species

14:15 Caspar Hallmann: Variation in residency and relationship to population dynamics in passerine birds

14:30 Emiel Van Loon: Reconstructing the Muskrat population in the Netherlands based on 25 years of trapping data351361

14:45 Rob Briers: Catchment-scale variation in stable isotope ratios of migratory and resident *Salmo trutta*.

S54: Evolutionary Ecology (Feedbacks & Interactions)

Location: Harris Suite

Chair: Justin Travis

13:00 Blake Matthews: Eco-evolutionary feedbacks and adaptive population divergence

13:15 Roslyn Henry: The accumulation of mutation load and range dynamics.

13:30 Jonathan Rolland: Combining niche modelling and landscape genetics to study local adaptation: A novel approach illustrated using alpine plants

13:45 Davide Foffa: The ecology and evolution of extinct Jurassic marine reptiles from the UK

14:00 Lynn Govaert: A tasty bite in the eco-evo sandwich: partitioning ecological and evolutionary components in community trait variation.

14:15 Hanna Ten Brink: Evolution of metamorphosis in species with an ontogenetic diet shift.

14:30 Kevin Healy: The evolution of venom in snakes; Body size, habitat dimensionality and a diet of eggs.

14:45 Robert Freckleton: Modelling comparative data in adaptive radiations

S55: Molecular Ecology & Genetics (Communities)

Location: Ochil Suite

Chair: Joe Taylor

13:00 Alex Dumbrell: Impacts of Environmental Change on Microbial Communities: A Food Web Perspective

ORAL PRESENTATIONS: WEDNESDAY 16 DECEMBER

- 13:15 Md. Mondol:** Genetic structure of a widespread rainbowfish in a tropical dendritic river network
- 13:30 Catharine Bruce:** Metabarcoding reveals biodiversity trends in managed plantation forests
- 13:45 Katherine Booth Jones:** Widespread gene flow between oceans in a pelagic seabird species complex.
- 14:00 Joe Taylor:** The Alteromonadales, Rhodobacterales and Flavobacterales; master recyclers in coastal waters
- 14:15 Iliana Bista:** Lake ecosystem monitoring using metabarcoding of environmental DNA (eDNA): ecological relevance and temporal persistence.
- 14:30 Ahmad Alzahrani:** The Diversity of Communities of Arbuscular Mycorrhizal Fungi in Salt Marsh Habitats
- 14:45 Lori Lawson Handley:** Environmental DNA-based metabarcoding of fish communities in large lakes and its potential for biomonitoring.

S56: Foodwebs & Networks (Methods, Models & Theory)

Location: Carrick Suite

Chair: Miguel Lurgi

- 13:00 Serguei Saavedra:** Quantifying the effects of network changes on the likelihood of community persistence
- 13:15 Katharina Brinck:** The evolution of ecosystem organisation - a complexity science approach
- 13:30 Devdutt Kulkarni:** The combined effects of biotic and abiotic stress on biodiversity and connectance
- 13:45 Miguel Lurgi:** On the interplay between dispersal and intraguild competition in an Australian food web
- 14:00 James Kitson:** Assessing the wider ecological impacts of an invasive insect control programme in UK woodlands: a combined DNA metabarcoding and network analysis approach.
- 14:15 Milton Barbosa:** Investigating multitrophic indirect interactions structuring a quantitative herbivore-parasitoid food web
- 14:30 Bernat Bramon Mora:** Exploring the evolutionary history behind food-web structure
- 14:45 Alison Iles:** Complexity increases predictability in allometrically-constrained food webs

POSTER SESSION 1: MONDAY 14 DECEMBER

Posters will be displayed throughout the meeting in one of the viewing areas in the Lennox Suite, the main Exhibition Hall of the conference centre.

Posters will be on display for the duration of the meeting. Presenters will be required to stand at their poster in one of the two formal poster sessions, according to the poster number below.

All poster numbers with a letter followed by the number 1 will be part of Poster Session 1 (A1 - G1), which takes place on Monday 14 December, 17.15 – 18.45.

All poster numbers with a letter followed by the number 2 will be part of Poster Sessions 2 (A2 - F2), which takes place on Tuesday 15 December, 17.00 – 18.30.

Ecosystem Function & Physiological Ecology

- A1.0 Elizabeth Downes:** Do ovule position and pollen source pre-determine seed fate? Investigating the effects of pollen and resource limitation on seed development in the English bluebell, *Hyacinthoides non-scripta*.
- A1.1 Kiyosada Kawai:** The association among leaf teeth, leaf habit and secondary venation: functional significance and biogeographical implication
- A1.2 Anne Ebeling:** Plant diversity strongly affects predation rates in experimental grasslands
- A1.3 Leda Cai:** Can realigned salt marshes ever match natural conditions? –Sediment analysis
- A1.4 Katherine Raines:** The Impact of Ionising Radiation on Bumblebees Living Within the Chernobyl Exclusion Zone
- A1.5 Iveta Husakova:** Importance of species traits for biomass allocation by dry-grassland species
- A1.6 Martin Kay:** Photosynthetic responses of Sphagnum to short-term flooding events
- A1.7 Victoria Sloan:** Controls on fine-scale spatial and temporal variability of plant available inorganic nitrogen in a polygonal tundra landscape
- A1.8 James Hicks:** Oil palm induces ecological niche shifts in an arboreal lizard
- A1.9 Heather Stott:** Interactive effects of solar radiation and temperature on carbon dioxide fluxes in high and low diversity grasslands
- A1.10 Alexis Synodinos:** Rainfall Variability Stabilises Dryland Ecosystems

- A1.11 Abbie Chapman:** Hydrothermal vents: low species richness, low functional redundancy, and a step too far for functional trait metrics?
- A1.12 Ioannis Vogiatzakis:** Ecological integrity assessment at the landscape scale: are qualitative indicators as good as quantitative ones
- A1.13 Rory O'Connor:** MOVED TO AN ORAL PRESENTATION IN S39: ECOSYSTEM SERVICES

Agricultural Ecology

- B1.0 Musibau Olosunde:** Growth and flowering response of scorpion orchid (*Arachnis maingayi*) Hook.f.Schltr to growing medium and light quality
- B1.1 Ban El-Haboby:** Biomonitoring diversity in living organisms of Iraqi Marshlands
- B1.2 Verena Hammes:** Grassland farming and nature conservation in the North German Plain – a social challenge
- B1.3 Peter Bentley:** Earthworms as ecosystem service providers in sustainable agro-ecosystems: the effect of waste organic matter.
- B1.4 Maxime Jacquot:** Contrasting effects of predator and omnivore species richness on predation service in an invasion context
- B1.5 Chloe MacLaren:** Agroecosystem resilience to weeds and invasive plants
- B1.6 Sarah Scriven:** Barriers to dispersal of rainforest species in tropical agricultural landscapes
- B1.7 Ruth Wade:** The effect of simulated precipitation change on multi-trophic interactions in a barley ecosystem

POSTER SESSION 1: MONDAY 14 DECEMBER

Monday

- B1.8 Rosie Drinkwater:** Investigating the effects of human-modification on rainforest mammal communities using non-invasive leech-based biodiversity surveys
- B1.9 Clare Wilkinson:** The effects of logging and conversion of land to palm oil plantation on richness and abundance of freshwater fish.
- B1.10 Gavin Legg:** Testing the practices of the past for the benefit of the future: Testing seaweed preparation for peatland lazy-bed agriculture systems.
- B1.11 Pierre-Alain Van Griethuysen:** An irresistible fragrance? The effect of Tobacco Rattle Virus on root volatile emissions
- B1.12 Edward Baxter:** Conservation at the crop edge
- B1.13 Melanie Edgar:** Optimizing grazing management for climate mitigation at the landscape scale: the influence of livestock grazing on carbon storage and greenhouse gas emission in upland grassland.
- B1.14 Robert Goodsell:** Investigating the effects of agricultural management practice on black-grass (*Alopecurus myosuroides*) populations using density-structured models.

Ecosystem Services, Urban Ecology & Society

- C1.0 Atsushi Shimazaki:** Urban permeability for birds: An approach combining mobbing-call experiments and circuit theory
- C1.1 Noboru Kuramoto:** Conservation and Restoration of *Aster kantoensis* in Japan
- C1.2 Ainoa Pravia:** Evaluating Peatland Management for Multiple Ecosystem Services
- C1.3 Henry Anwan:** Urban development and wastes management systems in Lagos State, Nigeria
- C1.4 John Woods:** Quantifying the impact of anthropogenic seabed damage on ecosystem quality within Life Cycle Assessment (LCA)
- C1.5 Giovanna Villalobos-Jimenez:** Does the Urban Heat Island impact the phenology of dragonflies and damselflies?
- C1.6 Alfán Rija:** Illegal activities contribute to significant biodiversity decline in protected areas across the globe: a review

- C1.7 Mark Goddard:** Brownfield ecosystem multifunctionality: Engineering carbon capture and other ecosystem services in the urban environment
- C1.8 Alan Jones:** MOVED TO AN ORAL PRESENTATION IN S28: CITIZEN SCIENCE
- C1.9 Joy Jarvie:** PhD title: Valuing the Ecosystem Services from engineered and non-engineered ponds
- C1.10 Larissa Schaub:** How to assess ecosystem services at a landscape scale?
- C1.11 Rebecca Sherlock:** The Marine Environment, Human Well-Being and Environmental Valuation
- C1.12 Claire Blowers:** Collating evidence on plant traits and ecosystem services to inform multifunctional field margin design
- C1.13 Yoseph Araya:** Enlarging the ecosystem services framework with place values
- C1.14 Robyn Stewart:** Urban grasslands provide valuable habitat for the conservation management of the water vole (*Arvicola amphibius*)
- C1.15 Ian Thornhill:** The artificial links provided by elevated wires are important connecting features for urban possum populations
- C1.16 Clare Duncan:** Biodiversity influences on mangrove forest ecosystem services provision

Parasites, Pathogens & Invasive Species

- D1.0 Svenja Block:** Will precipitation reduction and increased precipitation variability promote the spread of exotic ornamental plants in Central Europe?
- D1.1 Sally Street:** The role of global trade in vertebrate invasions
- D1.2 James Pickup:** Feminizing parasites of sand hoppers.
- D1.3 Christopher Nichols:** Do grey squirrels damage trees in British woodlands to ameliorate a calcium deficiency?
- D1.4 William Fincham:** Quantifying the predatory impact of native and invasive Coccinellid beetles using comparative functional response experiments.
- D1.5 Alessandra Kortz:** Environmental heterogeneity, invasive species and its role in biodiversity

POSTER SESSION 1: MONDAY 14 DECEMBER

Monday

- D1.6 Jamie O'Connor:** The expansion and rate of population change of the Egyptian Goose (*Alopochen aegyptiaca*) across England 1993-2014
- D1.7 Katharina Dehnen-Schmutz:** Alien Futures: Horizon scanning for future issues affecting invasive species management
- D1.8 Stuart Young:** The ecological and evolutionary consequences of immune variation in wild rodents
- D1.9 Susan Withenshaw:** Developing generic model frameworks for the arrival of invasive alien species and pathogens into Europe via international trade networks.
- D1.10 Ewan McHenry:** Doing more with less: optimising the control of invasive American mink for the conservation of vulnerable endemic prey populations.
- D1.11 Paula Zucolillo:** Turning back time: Comparing different stages of the same biological invasion of American Mink (*Neovison vison*) in Patagonian Chilean forest.
- D1.12 Karen Fairlie-Clarke:** Salivary IgA: a biomarker for *Teladorsagia circumcincta* infection in sheep
- D1.13 Francesco Baldini:** The microbiome of malaria mosquito reproductive tracts
- D1.14 Mahasweta Saha:** The drivers of algal invasion success: Adaptation of resistance towards microfoulers promotes algal invasiveness?
- D1.15 Peter Baxter:** Species detection and population estimation errors from unmanned aerial surveillance.
- E1.4 Amaranta Arellano Rivas:** Effects of spatial configuration on plant phylogenetic diversity metrics in a naturally fragmented forest on Yucatan Peninsula
- E1.5 Kwang Pum Lee:** Macronutrient balance modulates the fundamental relationship between temperature and body size in an ectotherm: a case study of caterpillars
- E1.6 Taehwan Jang:** Unveiling the nutritional basis of starvation resistance in *Drosophila melanogaster*
- E1.7 Duncan Procter:** Does cooperation mean kinship between spatially discrete nests within an ant colony?
- E1.8 Pedro Silva de Miranda:** Using a massive floristic database to determine the main biomes of lowland tropical South America
- E1.9 Melanie Smees:** Choose your partner carefully: variation in aphid phenotypes when multiple bacterial symbionts coexist.
- E1.10 Laurens Kilsdonk:** The persistence of founder effects in evolving populations
- E1.11 Amanda Porter:** The impact of past O₂:CO₂ atmospheric concentration of leaf carbon and nitrogen content in leaves.
- E1.12 Hanna Granroth-Wilding:** Genetic structure of a re-establishing wolf population
- E1.13 Tracie Evans:** Does the floral composition of a habitat affect the movement of pollen between isolated plant populations?
- E1.14 Vincent Keenan:** The effect of polymorphism on invasion speed.
- E1.15 Caroline Thomson:** Maternal investment in eggs appears to be insensitive to experimental or natural environmental variation
- E1.16 Petr Blažek:** Metapopulation ecology of *Rhinanthus* – reconstructing population connectivity
- E1.17 Kara Dicks:** Major histocompatibility complex genotypes in the Soay sheep
- E1.18 Rosetta Blackman:** How much can environmental DNA (eDNA) reflect a local macro-invertebrate community in a freshwater flowing habitat?
- E1.19 Tomas Koubek:** Simulated herbivory in 19 meadow species – comparative analysis
- E1.20 Alexandra Sparks:** Fitness consequences of variation in maternally transferred antibody levels in neonatal Soay sheep

Evolution, Molecular Ecology & Genetics

- E1.0 Toshifumi Minamoto:** Spatial and temporal distribution surveys for marine jellyfish using environmental DNA
- E1.1 Kristine Bogomazova:** An ecological view of a taxonomic problem: is the high conservation-priority species *Pseudocypbellaria lacerata* really in Britain?
- E1.2 Satsuki Tsuji:** eDNA based non-invasive method to analyze mitochondrial haplotype of fish
- E1.3 Liane Hobson:** Dispersal behaviour and sperm competition: are brothers more likely to cooperate?

POSTER SESSION 1: MONDAY 14 DECEMBER

Monday

- E1.21 Eva Tarazona:** Rotifer populations adaptively respond to unpredictable environments
- E1.22 Eduardo García-Roger:** Modes of bet hedging in rotifer diapause traits
- E1.23 Raquel Ortells:** Infochemical sensing during dormancy

Forest Ecology

- F1.0 Mateus Dantas de Paula:** The state of forests edges: Insights from satellite measurements of tree cover
- F1.1 Thomas Muller:** Do ancient maps show ancient woodlands?
- F1.2 Gabriela Santibañez:** Presence of functional groups of plants in relation to their vulnerability index associated with the edge effect in peri-urban forest in Mexico City
- F1.3 Benita Laird-Hopkins:** Tree and invertebrate functional diversity influence decomposition processes in tropical forests
- F1.4 Mike Jeger:** Epidemiology of Acute Oak Decline in Great Britain
- F1.5 Bettina Ohse:** Different facets of diversity are driving browsing intensity of tree saplings on plot and individual level
- F1.6 Gail Stride:** Forest fragments in an oil palm landscape: exploring variation in plant species richness, carbon stocks and plant functional type.
- F1.7 Adam Sharp:** Beetles and beta-diversity: quantifying the impact of tropical forest degradation at the Stability of Altered Forest Ecosystems Project
- F1.8 Clara-Sophie Van Waveren:** Coexistence mechanisms of temperate forest trees revealed by spatial analysis of abiotic and biotic interactions
- F1.9 Lucinda Kirkpatrick:** Native needs or exotic exploiters: Can non native coniferous plantation woodlands be as suitable as native broadleaved woodlands for bats?
- F1.10 Andy Griffiths:** Climatic adaptation in trees along an elevational gradient in the Andes
- F1.11 Martin Svatek:** Mapping fine-scale forest structure in Malaysian Borneo using the laser Field-Map technology

- F1.12 Laszlo Nagy:** Soil bacterial communities in an Amazonian lowland evergreen tropical forest: spatial and seasonal changes
- F1.13 Paul Evans:** Dynamics of ecosystem services in forest ecosystems
- F1.14 Richard Whittet:** Do different populations of Scots pine release pollen at the same time?
- F1.15 Cristina Rosique:** Genetic variation in phenology of British ash (*Fraxinus excelsior*) populations
- F1.16 David Fidler:** Increased atmospheric carbon dioxide concentrations impact the aerial arthropod community of a Eucalyptus woodland

Global Change Ecology

- G1.0 Richard Howells:** Diet of European shags signals coastal marine environmental change
- G1.1 Mariela Wolf:** Even small temporal mismatches in wild bee-plant interactions cause severe fitness losses in wild bees.
- G1.2 Alice Hudson:** The impact of climate change on the reproduction of *Acacia suaveolens*: Is the temperature needed to break seed dormancy altered by maternal experience?
- G1.3 Rachael Treharne:** Arctic Browning; vegetation damage and implications for carbon balance.
- G1.4 Scott Davidson:** Vegetation type dominates the spatial variability in CH₄ emissions across multiple Arctic tundra landscapes
- G1.5 Enrico Rezende:** Plasticity and evolution of heat tolerance in *Drosophila subobscura* along a latitudinal gradient
- G1.6 Jonathan Lanzen:** Differing responses of wild bees and flowering plants to temperature might lead to temporal mismatches
- G1.7 Sigi Berwaers:** Effects of drought-resistant ecotype presence and of ecotype richness on *Dactylis glomerata* L. monocultures subjected to long-term drought.
- G1.8 Mohammed Abu Sayed Arfin Khan:** Effects of climate change on plants and ecosystem functioning - implications for temperate grassland management
- G1.9 Sarah Trinder:** Adaptive responses to climate change through evolution of life-history strategy in the long-lived perennial grass *Festuca ovina*

POSTER SESSION 1: MONDAY 14 DECEMBER

Monday

- G1.10 Zuzana Münzbergová:** The importance of genetic changes and trait variation in adaptation of a clonal plant to changing climate
- G1.11 Aurélie Garnier:** Predicting effects of multiple environmental changes on dissolved oxygen in a microcosm experiment.
- G1.12 Daniella Rabaiotti:** The Impact of Temperature, Rainfall and Moonlight on the Activity and Ranging Behaviour of the African Wild Dog, *Lycaon pictus*.
- G1.13 Deepa Senapathi:** Impact of historical seasonal climate on bee flight timings
- G1.14 Christine Howard:** The future for European birds: changes in abundance and communities
- G1.15 Tamalika Chakraborty:** High variability in vitality and growth was observed in European beech trees under the changing soil available water as drought become more frequent and severe
- G1.16 Nikola Petkovic:** Can sex prevent extinction?
- G1.17 Ifan Jäms:** Trout growth responses to drought

POSTER SESSION 2: TUESDAY 15 DECEMBER

Plant-Soil Ecology & Interactions

- A2.0 Sabrina Träger:** Fine root heterogeneity along a productivity gradient: the influence of resolution on magnitude and scale
- A2.1 Andrew Innes:** The sustainable remediation of abandoned lead mines
- A2.2 Kristiina Visakorpi:** Indirect effects of insect herbivory on the photosynthetic rate of oak leaves
- A2.3 John Crawford:** Can microcosm experiments with sieved, air-dried soil represent field measurements?
- A2.4 Emma McLarnon:** Prickly Poaceae: A closer look at the surface of a forage grass
- A2.5 Yongjie Liu:** A simple method to vary soil heterogeneity in three dimensions in experimental mesocosms
- A2.6 Jemma Heyburn:** Long-term effects of grassland management on plant stoichiometry and on key soil processes.
- A2.7 Kirsty High:** Whispers in the Dark: Investigating Earthworm - Plant - Soil interactions
- A2.8 Deirdre Kerdraon-Byrne:** The effects of tropical forest degradation on soil carbon dynamics in Sabah, Borneo.
- A2.9 Oyindamola Jackson:** How important are ectomycorrhizal fungi in the decomposition of soil organic matter in forest soils?
- A2.10 Casper Quist:** MOVED TO AN ORAL PRESENTATION IN S38: SOIL ECOLOGY & BIOGEOCHEMISTRY
- A2.11 Dina In 't Zandt:** The role of belowground biotic interactions in species co-existence in biodiverse grasslands
- A2.12 Eliska Kutakova:** Soil arthropods change plant response to plant-soil feedbacks
- A2.13 Eduardo Medina Barcenas:** Tree species effects on soil C dynamics.
- A2.14 Catherine Baxendale:** Root respiration and recolonization in soil mesocosms in tropical and temperate forests of different ages.
- A2.15 James Edgerley:** Soil carbon release after drought is altered by plant inputs
- A2.16 Danielle Satterthwaite:** Do changes in plant functional diversity and imposed warming change the peat composition in a peatland?
- A2.17 Philip Stack:** Use of a natural abundance ^{13}C tracer to investigate dung incorporation in intact soil cores

- A2.18 Noelle Beckman:** Predictions of coexistence from short-term plant-soil feedback experiments fail to predict long-term observations from a controlled competition experiment
- A2.19 Laura Rose:** Patterns matter - How root diameter distributions influence the outcome of morphological analyses
- A2.20 Thomas Wilkinson:** The impact of aphid genotype on arbuscular mycorrhizal fungi - aphid interactions
- A2.21 Jean-Pascal Miranda:** Sieving Soil, Destroying Diversity? The Impact of Soil Processing on Fungal Communities in Crop Protection Product Degradation Studies
- A2.22 Mike Ogden:** Fine scale modification of soil physical properties by fungi: reinforcement and repellency in the hyphosphere

Conservation Biology

- B2.0 Andrew Tongue:** Offshore wind: The importance of bird density and breeding season definitions
- B2.1 Daniel Denderen:** Similar effects of bottom trawling and natural disturbance on composition and function of benthic communities across habitats
- B2.2 Simone Mordue:** Conservation and foraging site fidelity in Natterer's bats *Myotis nattereri*
- B2.3 Graeme Buchanan:** Using stable isotopes analysis to identify the potential breeding range of the slender-billed curlew *Numenius tenuirostris*
- B2.4 Hiroki Yamanaka:** On site filtration of water samples for environmental DNA analysis to avoid DNA degradation during transportation
- B2.5 Susan Jarvis:** Distribution of crop wild relatives of conservation priority in the UK landscape
- B2.6 Rebecca Senior:** Impacts of selective logging on thermal heterogeneity in tropical rainforest
- B2.7 Elia Pirtle:** A temperature and water budget based approach to predicting species' responses to changing climate
- B2.8 WITHDRAWN**
- B2.9 Natalie Allum:** Factors affecting seed production in *Hyacinthoides non-scripta* (English Bluebell)
- B2.10 Anita Diaz:** Immediate and long term impacts of heather beetle *Lochmaea suturalis* on lowland heath as a food resource for bumblebees, honey bees, and hoverflies.

POSTER SESSION 2: TUESDAY 15 DECEMBER

Tuesday

- B2.11 Erica Dello Jacovo:** Conserving rare and endangered mountain legumes of Astragalus and Oxytropis
- B2.12 Marie Athorn:** Conservation value of constructed reedbeds.
- B2.13 Alexandra Zieritz:** The distribution and ecology of freshwater mussels (Bivalvia, Unionida) in Peninsular Malaysia
- B2.14 Yong-Gu Han:** Monitoring Butterflies With Phantom 2 Vision+: Current Possibilities and Future Potentials
- B2.15 Alice Ball:** Can agent-based simulation models determine the effectiveness of density estimates from different camera-trap study designs?
- B2.16 Antonio Manzaneda:** Variation in fruit and seed removal and post-dispersal seed predation of Ziziphus lotus (L.) across populations with different degree of human habitat alteration and fragmentation in Southern Spain
- B2.17 Elizabeth Finch:** The effect of land use changes on ant communities in Madagascar's Eastern Rainforest Biome.
- B2.18 WITHDRAWN**
- B2.19 William Morgan:** Dispersal decisions in a reintroduced metapopulation: optimizing the use of translocations for species recovery
- B2.20 Adam Kane:** Modelling the impacts of fossil and renewable energy industries on internationally protected seabird populations around Ireland
- B2.21 Ariel Farias:** Assessing the potential distribution of Darwin's fox (Lycalopex fulvipes) and its co-occurrence with native and introduced carnivores
- B2.22 Gabriella Svensson:** Carnivore conservation in an agricultural landscape of central Chile
- C2.3 Maria Marin:** Seed quality improvement for grassland restoration
- C2.4 Friederike Bolam:** The Use of the Value of Information to Prioritise Conservation Research
- C2.5 Sophie Elliott:** Predictive substratum modelling for juvenile gadoid distribution and abundance
- C2.6 WITHDRAWN**
- C2.7 Catherine Stokowska:** The Million Ponds Project: assessing the conservation value of new ponds
- C2.8 Jennifer Mark:** Applying IUCN Red List Categories and Criteria to timber trees
- C2.9 Aoife Delaney:** Do principals of cross congruence apply in a naturally disturbed habitat?
- C2.10 Gabriela Montejó-Kovacevich:** Managing Amazonian logging to minimize biodiversity loss through the study of butterflies
- C2.11 Marie Longnecker:** Exploring nature improvement area stakeholder motivations and priorities to understand potential impacts on biodiversity conservation and ecosystem service
- C2.12 Alexandra Sutton:** Innovations in Conservation Finance: Promises and Perils for Researchers & Practitioners
- C2.13 Deborah Brady:** The effect of controlled grey squirrel culling on red squirrel populations at the red-grey interface in Northern England.

Behaviour, Populations & Species Interactions

Conservation Management & Policy

- C2.0 Joe Huddart:** If You Build it, Will They Come? Testing the Efficacy of the Field of Dreams Hypothesis in River Restoration
- C2.1 Emma Jane Sheard:** Investigating conservation management interventions for upland breeding wader populations on marginal agricultural grassland – the novel application of lime
- C2.2 Lyndsey Graham:** Optimising Hedgerow Structure for Wildlife Habitat: Developing and Testing LiDAR based Structural Condition Models.
- D2.0 Lucy Ford:** Sexual conflict over hatching patterns in the burying beetle *Nicrophorus vespilloides*
- D2.1 Gesine Pufal:** They are not that hungry, they just want to play – a closer look at seed predators
- D2.2 Anne Kwak:** Does population sampling methodology affect model projections when there is significant individual life history variation?
- D2.3 Ricardo Campos:** The effect of symbiotic ant colonies on plant growth: a test using an Azteca-Cecropia system
- D2.4 Verónica Méndez:** Understanding the drivers of migratory behaviour
- D2.5 Tamara Ayoub:** Switching the roles in hide and seek – Detection of scorpion fish “eyes” by its prey, the black-faced blenny (*Tripterygion delaisi*)

POSTER SESSION 2: TUESDAY 15 DECEMBER

- D2.6 Marie Konecna:** Tasty reward for diaspore dispersal by ants – differences in chemical composition on more hierarchical levels (family, genus and population)
- D2.7 Myriam Hirt:** Integrating allometric scaling in animal movement models: How species traits and landscape characteristics affect movement patterns
- D2.8 Michael Raatz:** How food quality affects prey coexistence under shared predation
- D2.9 Andres Arce:** Pesticide effects on wild bees: novel experiment combining realism with control
- D2.10 Robert Holdbrook:** Pathogen growth rate is constrained by host diet
- D2.11 Cristian Navarro:** The role of climate change and nitrogen deposition in the widespread dampening of the microtine cycle in Europe.
- D2.12 Maarit Maenpaa:** Social effects of aging: male parents adjust their contribution towards care based on both their own and their partner's age
- D2.13 Norhayati Ngah:** Influence of hidden plant pathogens on ecological interactions at higher trophic levels
- D2.14 Marianna Chimienti:** The use of an unsupervised learning approach for characterising latent behaviours in accelerometer data
- D2.15 Esperanza Córdova:** Stem tilting and orientation of reproductive structures are related to flower characteristics, and reproductive success in *Ferocactus recurvus* (Cactaceae) in a Mexican semiarid region
- D2.16 Alex Latchford:** Endurance-driven dispersal in a flightless grasshopper species
- D2.17 Fayet Maylis:** Does patch-leaving propensity scale up to dispersal timing and distance?
- D2.18 Caspar Hallmann:** MOVED TO AN ORAL PRESENTATION IN S53: POPULATION ECOLOGY
- D2.19 Rachel Kehoe:** Parasitoid identity mediates the impact of non-host diversity and density on the strength of parasitoid-host interactions
- E2.3 Arpan Parui:** Habitat variables shaping ant community structure in a mixed deciduous forest in India
- E2.4 Nei Leite:** Temporal variability in body size distributions and species turnover in a sub-tropical lake.
- E2.5 Kayoko Fukumori:** Disturbance-mediated colonization–extinction dynamics in protist metacommunities
- E2.6 Eric Harvey:** Experimental meta-ecosystems: better hope the grass is greener on the other side of the fence
- E2.7 Marie Šmilauerová:** Seedlings survival in a temperate grassland: roles of negative feedback and surrounding vegetation
- E2.8 Akira Mori:** Concordance and discordance between taxonomic and functional homogenization: responses of soil mite assemblages to forest conversion
- E2.9 Lelis Carlos-Junior:** Evaluating the environmental and spatial drivers of a marine algal community indicates that a well-used canonical ordination method fails in variable selection
- E2.10 Maria Kaye:** MOVED TO AN ORAL PRESENTATION IN S19: TROPICAL ECOLOGY
- E2.11 Diane Bouchet:** Disturbance and multi-faceted plant diversity along a Mediterranean successional gradient: contrasted responses between alpha and beta scales.
- E2.12 Dominique Strasberg:** Lack of recovery of native plant community following large-scale disturbances on Reunion Island
- E2.13 Vicente Jiménez Ontiveros:** The interplay between environmental drivers and colonization-extinction dynamics underlies abrupt changes in phytoplankton community composition.
- E2.14 Radim Matula:** The effect of fire exclusion on tree mortality and woodland structure in Central Argentina
- E2.15 Eva Svamberkova:** Evaluation of the role of biotic interactions in determination of the community species pool using seed addition experiment
- E2.16 Victoria Kemp:** Exploration of how habitat fragmentation alters resource use of apex predators, with a focus on the decoupling of the green and brown food channels.

Communities - Dynamics & Diversity

- E2.0 Emily Dowdeswell:** Molecular microcosms: using qPCR to enhance a classical experimental tool in ecology
- E2.1 Minkyu Kim:** Changes in Macro-benthic community with Sediment Facies in Ganghwa Tidal Flat
- E2.2 Harriet Downey:** Indirect interactions in tropical forest tree communities.

POSTER SESSION 2: TUESDAY 15 DECEMBER

Tuesday

E2.17 Markus Sydenham: Using species, phylogenetic and functional diversity metrics to test the outcome of an experimental management of wild bee habitats

E2.18 Kyle Zawada: Towards trait-based community assembly rules in Scleractinian corals

E2.19 Dirk Sanders: Community complexity and secondary extinction risks

E2.20 Olalekan Faniran: Effects of elevated temperatures on dung-associated insects and ecosystem function

E2.21 Katharine Preedy: Canonical Analysis of Principal Coordinates: Relating Communities to Communities

Biogeography, Macroecology & Foodwebs

F2.0 Tatiana Docile: Is there complexity loss in food webs in urban streams from tropical forests?

F2.1 Lindsay Maskell: Exploring associations between habitat and species diversity at the landscape scale

F2.2 Lisa Malm: Impacts of Habitat Modification on Avian Food-Web Structure and Resilience

F2.3 Charlie Outhwaite: Monitoring the UK's less well-studied species using biological records

F2.4 Minhua Zhang: Plant sexual systems affect plant-pollinator networks in a subtropical forest

F2.5 Sophie Calme: Indirect effects of landscape structure on the foraging behavior of an avian scavenger

F2.6 Aurea Lemes da Silva: Diversity patterns and food web architecture in a sub-tropical coastal lake

F2.7 Tetsuro Yoshikawa: Effects of landscape structure, local fruit availability, and local stand properties on richness and abundance of frugivorous birds in broad-leaved forests fragmented by coniferous plantation

F2.8 Adriano Mazziotto: Disentangling the patterns of a commensalistic network: ecological interactions in a broadleaved temperate forest

F2.9 Harry Owen: Testing the water: detecting artificial water points using freely available satellite data and open source software

F2.10 Vanessa Rezende: Phylogenetic diversity patterns across southern South America

F2.11 Katherine Maltby: Joining the dots to see the big picture: Developing methods for standardising between fisheries surveys

F2.12 Alun Jones: Global Trends in Marine Biodiversity from Unstructured Data

F2.13 David Ott: The impact of disturbance on biodiversity and ecosystem functioning in multi-trophic communities

F2.14 Joseph Bailey: Incorporating geodiversity information into cross-scale biodiversity models for common alien and native British flora

F2.15 Fiona Spooner: Do changes in climate and land use explain long term population trends of European vertebrates?

F2.16 Pierre Quévreux: Interactions between green and brown food webs in fresh water ecosystems

F2.17 Ignacio Peralta-Maraver: Structure, dynamics and stability of a Mediterranean river food web

F2.18 Kejun Zou: Interacting effects of nutrient cycling and structural asymmetry on stability of diverse food webs

F2.19 Nick Golding: Simple, Shareable and Reproducible Species Distribution Modelling with the zoon R package

F2.20 Rachel McDonald: The European earwig in apple orchards: Landscape complexity, farm management and pest control.

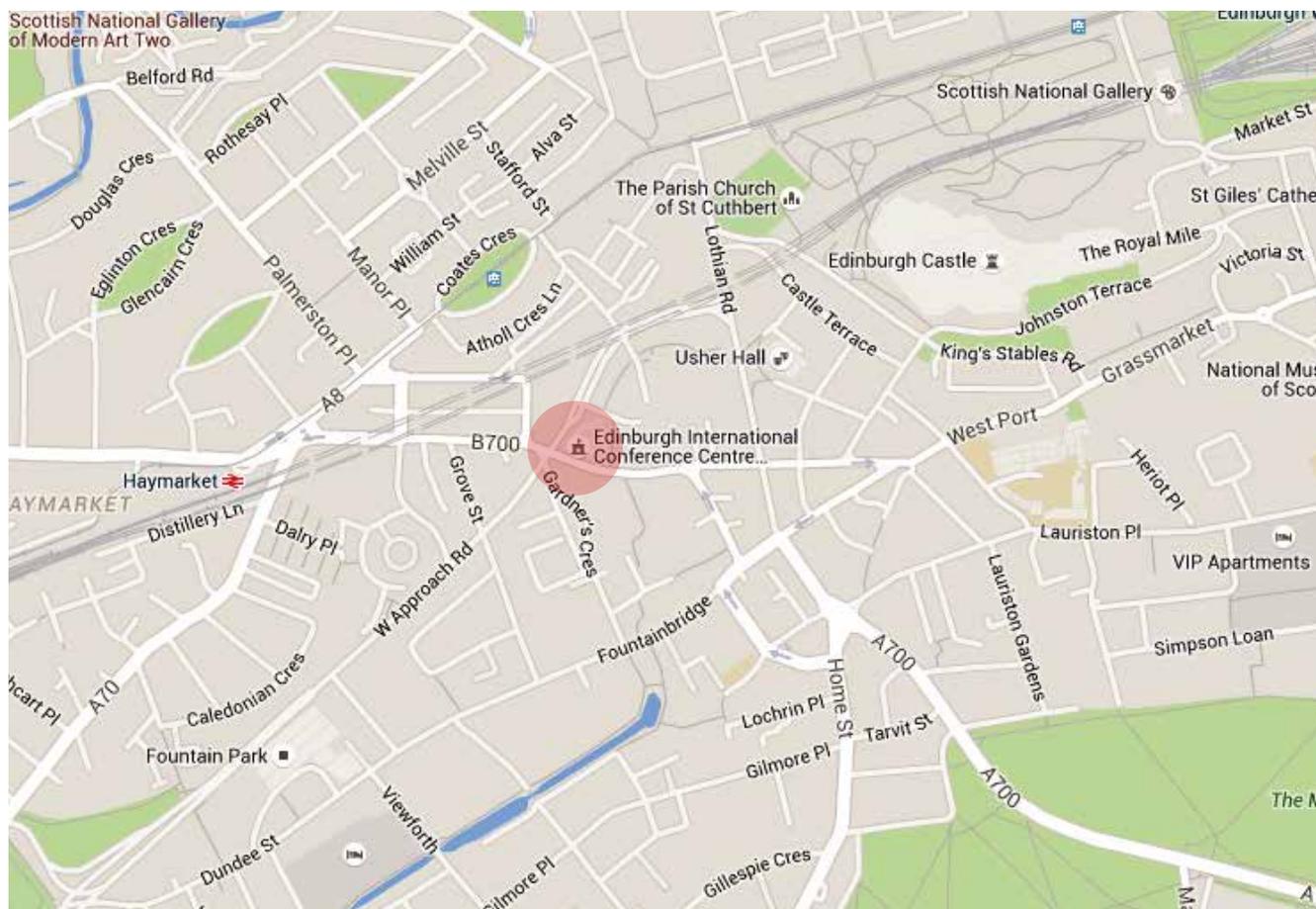
F2.21 Robbie Whytock: Ecological network theory: identifying the relative importance of local vs landscape structure for avian diversity and abundance in fragmented secondary woodlands

F2.22 Mark Johnson: Biogeography of coastlines: patterns in the NBN data

ATTENDEE INFORMATION

VENUE:

Edinburgh International Conference Centre
The Exchange, 150 Morrison St, Edinburgh EH3 8EE
0131 300 3000
www.eicc.co.uk



EDINBURGH

Edinburgh & the Lothians is a region of iconic landmarks, world-famous festivals and exciting possibilities. Find excellent attractions, activities and entertainment in Scotland's capital and beautiful, peaceful countryside in The Lothians.

From the atmospheric cobbled streets of the Old Town to the beautiful Georgian avenues of the New Town, Edinburgh is a city of contrasts blending shopping, historic attractions, gardens and plenty of restaurants and cafes where you can relax.

From historic properties and wonderful wildlife to world-class golf and exciting outdoor activities, there is so much to discover in the Lothians. Explore evocative ruins, spot distinctive species and play a round on an Open Championship course.

For more information please visit: www.VisitScotland.com

ATTENDEE INFORMATION

GETTING AROUND IN EDINBURGH

By Air

Edinburgh Airport lies 8km to the west of Edinburgh and is the third biggest city in the UK in terms of airport passenger numbers, following London and Manchester. Visitors can get to and from the airport by bus, car and taxi. Subject to the time of day, the average journey time can take approximately 25 minutes.

A regular airport bus is operated by Airlink 100 and runs every 10 minutes, 24 hours a day departing from Waverley Bridge. Tickets can be bought at the airport information desk for approximately £8 return, at the bus stop, from the driver or online. Full airport bus details are available to view at: www.EdinburghAirport.com/transport-links/buses-and-coaches

Convention Edinburgh have negotiated a special discount for bus travel with Edinburgh & Lothian buses. Not only can you get reduced fares on the Airlink bus ticket but also on exciting city sightseeing bus tours.

Full details of the discount are available to view at: bit.ly/21ehRCT

There is also a Visit Scotland desk in the airport if you need any other travel assistance upon arrival.

By Rail

Edinburgh's two major railway stations, Waverley and Haymarket, operate regular services to other parts of Scotland and the UK on a frequent basis.

Virgin Trains East Coast provide links from Edinburgh to London, Newcastle, York, Leeds and Aberdeen. Rail travellers can travel to London in approximately five hours. www.VirginTrainsEastCoast.com

Virgin Rail operates a service on the west coast to London via Lockerbie, Preston, Birmingham and Coventry.

www.VirginTrains.co.uk/routes-stations/edinburgh%20waverley/#routesFinder

ScotRail's Caledonian Sleeper is a popular overnight service operating between Edinburgh and London (Euston) every night. Scotrail operates a full schedule of trains throughout Scotland and the UK. Visit Scotrail's website for full details: www.ScotRail.co.uk

Other useful links:
www.NationalRail.co.uk
www.TravelineScotland.com

By Road

An extensive road network links Edinburgh to the rest of Scotland and UK making access to the capital easy by car.

Travelling West, Edinburgh to Glasgow can take just over an hour along the M8 and travelling northwards, it will take approximately 2.5 hours to reach Aberdeen and 3.5 hours to arrive in Inverness. Newcastle is approximately a 2.5 hour drive and Manchester and Birmingham, 4 and 6 hours respectively.

Useful tools to plan your journey by road:
www.TheAA.com
www.RAC.co.uk/route-planner

Public Transport

An excellent bus service transports residents and visitors across the city throughout the day and night including a regular 24 hour service to Edinburgh Airport operated by www.EdinburghAirport.com/transport-links/buses-and-coaches. Visitors can plan their journey within Edinburgh with www.LothianBuses.com or with www.FirstGroup.com/ukbus/scotland_east for those coming from further afield.

Trams

Wifi-friendly trams run 14kms from York Place in the city centre to Edinburgh Airport in a journey time of approximately 35 minutes. Wheelchair accessible, ramps and lifts are provided at the stops along the route.

For ticket prices and to plan your journey visit: www.EdinburghTrams.com

Taxis

For the sake of personal security, please only use licensed taxis.

There are over 1,000 black cabs which can be hailed in the street or picked up from one of the taxi ranks within the city centre. The majority of taxis can carry up to 5 passengers and are accessible for wheelchair – although it is worth noting that, for medical reasons, some taxi drivers are exempt from carrying wheelchair users. Such drivers will have a wheelchair exemption certificate clearly displayed within the taxi.

City Cabs

These are one of Edinburgh's major taxi companies and can be hailed in the street or pre booked on: 0131 228 1211. Visit their www.CityCabs.co.uk for a list of services.

Private Hire Taxis

There are many private hire car companies operating within Edinburgh. These cannot be hailed in the street but must be booked in advance. Private hire cars must be approved by The City of Edinburgh Council and display a PHC plate on the dashboard. For more information, please visit: www.ThisIsEdinburgh.com.

ATTENDEE INFORMATION

BADGES

For security purposes, please wear your badge at all times within the Annual Meeting venue. If your badge is lost, a new badge may be issued for a cost of £10.

CATERING

Tea and coffee will be available in the exhibition area (Lennox Suite) during the designated refreshment breaks.

Lunches will be served at the back of the Lennox Suite exhibition hall and in the atrium between the designated times. Pre-paid lunches on the Wednesday will require exchange of tickets (found on your badge).

CLOAKROOM

The cloakroom can be located in the Strathblaine Hall, near Registration. These will be open for the duration of the meeting, but close 30 minutes after the last event of the day finishes.

CURRENCY

Edinburgh uses the British Pound.

DISCLAIMER

All the best endeavours will be made to present the programme as advertised. However, the BES and its agents reserve the right to alter or cancel, without prior notice, arrangements, timetables, plans or other items relating directly or indirectly to the Annual Meeting 2015, for any cause beyond its reasonable control. The BES and its agents are not liable for any loss or inconvenience caused as a result of such cancellation. Delegates are advised to take out their own travel insurance and extend their policy to cover personal possessions as the BES does not cover individuals against cancellation of bookings or theft or damage to belongings. Tours run by third parties may be subject to cancellation should minimum numbers not be achieved.

ELECTRICITY VOLTAGE

220 – 240V, three pin plug.

FIRST AID

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

INSURANCE AND LIABILITY

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

INTERNET

Complementary wifi is provided throughout the EICC.

Our Free Delegates WI-FI connection is:

Networking: delegate

Password: exchange

LOST PROPERTY

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

MOBILE APP

All abstracts can be accessed via our Annual Meeting mobile app. To download the app, visit: <http://eventmobi.com/bes2015/> on your laptop, mobile device, or tablet. Alternatively you can scan the QR code.



MOBILE PHONES

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



ATTENDEE INFORMATION

POSTERS

Poster sessions will take place in the exhibition area, located in the Lennox Suite:

Monday 14 December: 17:15 – 18:45

Tuesday 15 December: 17:00 – 18:30

SMOKING POLICY

Smoking is not permitted inside the EICC.

SOCIAL MEDIA

You are encouraged to share your experiences, thoughts and questions through social media, using #BES2015.

We understand that some people will not want their research broadcast. We respect that, so have created a 'do not share' image for people to download on our website and add to their poster or talk presentation. We hope that fellow attendees will also respect that request and refrain from sharing that particular talk or poster. If people do not include this image on their presentation, we will assume they are happy for their research to be shared. You may find the image here: <http://bit.ly/1kRJdOL>

SPEAKER ROOM

The Speaker Room is located in 'Soutra Room' and will be open:

Sunday 13 December: 14:00 – 17:00

Monday 14 December: 08:00 – 17:00

Tuesday 15 December: 08:00 – 17:00

Wednesday 16 December: 08:30 – 13:00

The Speaker Room is fully equipped in order for speakers to hand in and review their presentations. To ensure that the presentations are well prepared speakers should bring their presentations to the room at least 2 hours before their presentations. Technical staff will be on hand to help with any issues. See also Presenter Guidelines (Page 26).

TIME ZONE

Edinburgh is GMT

VENUE SECURITY AND DRILLS

In the event of an emergency, EICC staff will guide you to safety. There will not be any fire alarm tests during our Annual Meeting 2015, therefore, any alarm should be considered the real thing.

If at any point in the meeting you have any questions or require assistance, please contact a BES staff either in the 'Information' stand in the Registration Area, at the BES exhibition stand in the Exhibition Hall (Lennox Suite), or any of our student helpers – who can be identified by their 'crew' t-shirts.

PAPER MAKERS

PAPER MAKERS

Lydia Bach, Queen's University Belfast

The Paper Makers Project is an artist-scientist collaboration funded by the British Ecological Society through an Outreach Grant, and supported by NERC. This interdisciplinary project brings together fourteen early career artists and scientists working in pairs to create seven new artworks inspired by ecological issues made evident from key scientific studies regarding human impacts on the marine environment.

Through a programme of workshops, discussions and exchange visits, the seven artist-scientist pairs are currently developing a shared understanding of key ecological issues and creative processes as evidenced in the unique marine ecosystems of Scotland. Their experiences are documented and shared through traditional and social media as an ongoing piece of work throughout the project.

We are pleased to display one of the art pieces, Growing Culture, in the Exhibition Hall.

More information can be found here:
<http://the-paper-makers.blogspot.co.uk>



GROWING CULTURE

Fiona Harrington

The title of this piece references the scientific use of the petri dish as an instrument to grow and study cell culture. It is also a comment on the need within society to grow and develop a culture of awareness regarding how we as humans impact our environment and the natural world.

This piece is constructed using 200 year old Irish Lace techniques. The lace is made using a tiny needle and a thread as fine as a human hair. The three petri dish samples took approximately 130 hours of intricate hand stitching, creating a network of minute pattern systems.

The design is inspired by the natural microcosms which exist along the Irish coastline. Upon close inspection, they reveal a self-contained world, a world of miniature. Each of these however plays a vital role in maintaining balance and stability within a shared environment.

Through this work Fiona's aim is to highlight the delicacy and fragility of our ecosystem and the importance in preserving and protecting our inherited world.



BES PHOTOGRAPHIC COMPETITION WINNERS

Our judges had their hands full this year, with over 250 entries to our annual photographic competition. You will be able to see the stunning winning images displayed throughout the conference centre on artist's easels – see if you can find all 11!

The images will be displayed with a description and you can also head to the BES Stand (Stand 1) for a handout with information of all the winners.

If you're inspired to enter, there's a category for everyone, so whether you're out on exotic field work or in the comforts of your back garden you better get those camera's at the ready!

- Ecosystems and Communities
- Whole Organisms and Populations
- Ecology and Society
- Ecology in action

The competition is open to all BES members and is a great way to promote your photography and the research you're involved in, with winning images appearing in our Bulletin, displayed at our Annual Meeting, and both BBC News and Discover Wildlife frequently featuring competition winners online.

The overall winner receives £750, the overall runner-up receives £250, and the student award winner receives £100. In addition, other winning submissions will receive £40 worth of either Cambridge University Press or Oxford University Press vouchers.

The next round will open for entries in Spring 2016.

Overall Winner: Roberto García Roa



Overall Runner-up: Ute Bradter



Overall Student Winner: Kiyoko Gotanda

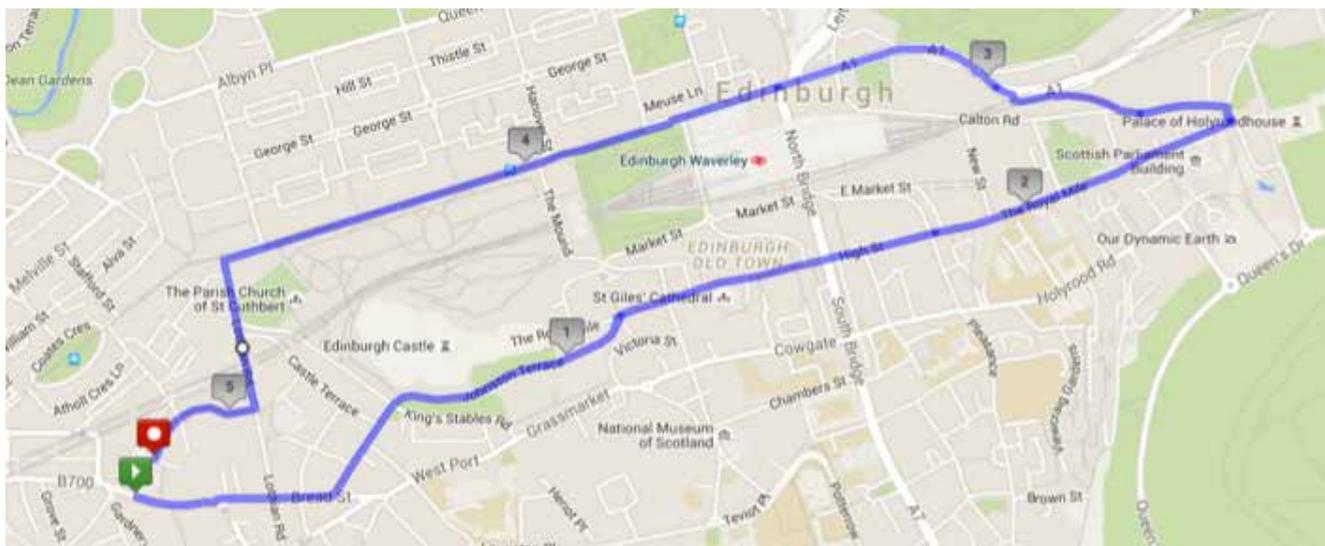


SOCIAL EVENTS: MONDAY 14 DECEMBER

Wednesday 16 December is our Christmas day, so we're looking for you to get into the festive spirit! Bring along your Christmas Jumper – be them taste-full or taste-less – and we'll be giving prizes to the best (and worst!) seasonal attire selfie! So, make sure you tweet your picture to @BritishEcolSoc with #BES2015 by 12:00 on Wednesday 16 December and we'll announce the winners during the lunch!

THE BES ANNUAL MEETING 2015 FUN RUN!

Join us at 6am on Monday 14 December outside the EICC for our group Fun Run!



Join Amelia as we take a scenic 5k run along the Royal Mile, past the Scottish Parliament, by the Christmas markets and near Edinburgh Castle. All abilities welcome – from super sprinters to just-a-jogger!

If you have any questions, please see Amelia at the Registration Desk.

Along with our Welcome Mixer, Poster Sessions, Fun Run and Gala Dinner, there are always plenty of networking opportunities at our meetings.

MONDAY 14 DECEMBER

Agricultural Special Interest Group: Quiz night!

19:00, Lowther, EICC

Come along to our themed quiz to test your knowledge on Agricultural Ecology!

Refreshments will be provided during the quiz and we have booked Wagamama (just a seven minute walk from the EICC) for an evening meal at 21.30. So we can ensure we have a big enough table please email Claire Blowers cblowers@harperadams.ac.uk to let us know whether you would like to come!

Aquatic Special Interest Group

19:00, Kilsyth Hall, EICC

We will hold a drinks reception to present and promote fresh-water and marine ecology within the British Ecological Society.

We will present the new BESAG committee and discuss the current and future plans of the Aquatic Group, including our 2016 events: an Early Career Researcher Workshop, the BESAG Annual Meeting, a Macroecology-Aquatic Ecology Joint Meeting, Urban Ecology: Making our Cities Nature Smart.

The reception will bring together aquatic-minded individuals from all sectors, both marine and freshwater, to exchange knowledge and ideas; and to promote and facilitate interdisciplinary working. Please come along!

SOCIAL EVENTS: MONDAY 14 DECEMBER

Monday

Citizen Science Special Interest Group

19:00, Moorfoot Hall, EICC

Citizen Science Unsprung: the antidote to contributed sessions? A unique opportunity to pitch your citizen science projects without hesitation, deviation or repetition. Come along for a glass of wine and to discover more about the exciting diversity of citizen science. Whether you are a grand master of citizen science or a new kid on the block, bring your best pitch (for existing projects and those in development) to attempt to amaze the audience and persuade them of your 'genius' in 'just a minute'. Together we'll create a 'museum of curiosity' and catch up on both established and the very newest activities.

Climate Change Special Interest Group

19:00, Monteith, EICC

We will be having a social event and review of the year at the Edinburgh meeting. 2015 has been an important year for efforts to tackle climate change: what do we make of the Paris conference, changing approaches in the US and China, the Pope's interventions, the changing policy landscape in the UK for renewables? And what does it all mean for ecology, ecosystems and biodiversity? This will be an opportunity to learn more and discuss these issues in a relaxed atmosphere, with refreshments. We will also be looking ahead to plan future events for the group, with an open invitation for participants to suggest events they would like the group's support and perhaps funding for.

Conservation Special Interest Group

18.30, Carrick Suite

The BES Conservation Special Interest Group is pleased to invite anyone interested in conservation to join its social event. This networking event is meant to promote dialogue among SIG members while enjoying some free drinks and providing an opportunity to ask questions about SIG activities and organisation. Please contact Nathalie Pettorelli with any questions: Nathalie.Pettorelli@ioz.ac.uk

Ecological Genetics Special Interest Group

19:30, Frankenstein Pub, 26 George IV Bridge, EH1 1EN

Join us for the Eggheads Pub Quiz 2015 part 2! Meet in the registration area at 18:30 as we head down to the pub. Our quizzes are renowned for not only testing your scientific knowledge, but your general, not-so-general and obscure! Come along, bring a team and meet like-minded ecological geneticists - there's a prize for the winners!

Forest and Tropical Special Interest Groups

18.00, Jolly Botanist, 260 Morrison Street, EH3 8DT

Because Tropical and Forest go together like Gin and Tonic, the Tropical and Forest Ecology Special Interest Groups will be holding a joint social event at the Jolly Botanist (where else?!) just up the road from the conference venue - 260 Morrison Street. We've booked the Drawing Room from 18.30 onwards and there will be a buffet to enjoy with your drinks. Looking forward to seeing you all there! Non-tropical forest ecologists and non-forest tropical ecologists are also, of course, most welcome!

Macroecology Special Interest Group

19.00, The Dragonfly Cocktail Bar, 52 West Port, Old Town, Edinburgh EH1 2LD

Few things go better with each other than ecology at large spatio-temporal scales, and 1920s cocktails. If your research interests touch on macroecology, biogeography, systematics, conservation planning or palaeo-anything, come along and meet other likeminded people at Edinburgh's finest speakeasy. Refreshments provided.

Parasite and Pathogen Ecology and Evolution Special Interest Group

19:00, Registration Area

With two thematic sessions based on the effects of pathogens and parasites, "Integrating ecology and evolution to understand infectious disease" and "Using ecology to guide public health policy", the great and good of the disease ecology world will be well represented at the meeting. The P&P Special Interest Group social event will therefore serve as an ideal opportunity to meet like-minded folk over drinks and nibbles at a nearby watering-hole, so please come along and get involved

SOCIAL EVENTS: MONDAY 14 DECEMBER

Monday

Peatlands Special Interest Group

18:30, Ochil Suite, EICC

The intention for the evening is to head to a suitable restaurant – guided by Kieran Sheehan who has local knowledge (!) and to continue the discussion and debates in an informal and convivial atmosphere. All are welcome to join the ‘bog trotters’ and to find out more about peatland ecology, history and restoration. There will be chance to find out more about the New Forest peat bog restoration, the Moors for the Future project, and the massive, Humberhead Levels restoration.

A theme of the social evening will be ‘Re-constructing Nature’ as the focus of a major international conference to be held at Sheffield Hallam University in 2018 and with feeder events and activities during 2017. Major conference partners are already in place and the event and activities will appeal to all those interested in restoration ecology, in ecological economics, in species and community dynamics, aquatic ecology, citizen science, and of course.....PEAT

Plant Environment Physiology Special Interest Group

18:30, Tinto Hall, EICC

We would like to invite you to our “plants, pizza, pints and prizes” PEPG social event after the poster session. We encourage and welcome all new and old PEPG members to attend. We have booked a room at the EICC close to the poster session, we will introduce the PEPG and the help, training and support we provide. If you would like to know about a specific PEPG topic or technique, then do let us know in advance. Drinks and pizza will be provided!

This year we will be awarding a prize to the best PEPG related student (under- or postgraduate) poster. After the PEPG social we encourage people to attend the BES Science Slam event, that starts around 20.00.

Looking forward to seeing you there!

Plant, Soils, Ecosystems Special Interest Group

18.30 Registration Area

We are hosting the event in conjunction with the Thematic Topic: Digging deeper- Advancing our understanding of how soil biota drive and respond to plant invasions. The event will consist of a whisky tasting at Barony Bar on Broughton Street, EH1 3RJ, followed by an invasive species and terrestrial ecosystem themed quiz. There will be a small prize for the winners! We will leave the EICC (meeting the Registration Area) at about 18:30pm and walk over together.

Quantitative Special Interest Group

18.30, Registration Area

We want to use our social event to discuss plans for the SIG and to meet people who are interested in quantitative ecology, even if they specialise in a different area. As there are a range of other activities happening in the evening, we will meet at 18.30 in the Registration Area and head off to a nearby location for some informal discussions over a few drinks. If you can't meet us at the venue, then keep an eye on our Twitter feed @BES_QE_SIG to find out where we will be!

Science Slam

19.00 - 22.30, Henry's Cellar Bar

We will be hosting our first ever Science Slam: a fantastic evening of science and comedy, with the comedian Rob Newman booked to compère the evening and six BES members confirmed to take the stage.

A Science Slam is a competition combining entertainment with science; performers take to the stage to communicate their research in an entertaining and accessible way, with the winner decided by the audience!

Confirmed participants are Rosie Woodroffe (Zoological Society of London), Bob O'Hara (Senckenberg Biodiversity and Climate Research Institute), Sal Keith (University of Copenhagen), Tom Oliver (Reading University), Christopher Nichols (Royal Veterinary College) and Christian Körner (University of Basel).

Scottish Policy Group

19.15, Registration Area, or

19.45 Royal Dick Bar, Summerhall, Summerhall Place, Edinburgh EH9 1PL

Interested in science and environment policy in Scotland? Want to find out how you can get involved? The Scottish Policy Group is a group of BES members working to promote the use of ecological knowledge in Scottish policy making through events and activities bringing ecologists and policy makers together, from Pie and a Pint evenings to visits to the Scottish Parliament.

Join the BES Scottish Policy Group for informal drinks and networking and find out how you can get involved in the group, meet other SPG members, and suggest ideas for the year ahead.

To find out more about the SPG, contact Rob Brooker: rob.brooker@hutton.ac.uk

SOCIAL EVENTS: TUESDAY 15 DECEMBER

TUESDAY 15 DECEMBER

Agricultural Special Interest Group: UK-India Initiative Breakfast

08:00 - 09:00, Moffat

The BES Agricultural Ecology SIG and the Indian Society of Agroecology, India have put together an informal forum: a UK-India Agroecology Initiative, to encourage research and collaboration between our countries. We will be hosting an Indian breakfast. All are welcome to come and meet potential collaborators with a taste of India!

LGBT+ Mixer

18.00 – 19.30, Atrium Foyer, Level -1

We are excited to be holding our first Annual Meeting LGBT+ mixer! It will be a very informal event, where we can network over a drink and chat about how the BES might collaborate with the community. We look forward to seeing you there!

Irish Ecological Association Mixer

18.30 – 19.30, Harris Suite

The new Irish Ecological Association invites you to a mixer to meet ecologists working in Ireland, ecologists from Ireland working abroad and anyone interested in ecology on the island of Ireland. The Irish Ecological Association is a new organisation with strong links to BES which seeks to provide a forum for ecological research across the island of Ireland (Northern Ireland and the Republic of Ireland). The Irish Ecological Association will be up and running for 2016 and we would like to tell you about our plans and hear what you want in terms of events, networking and support.

Yvonne Buckley, Trinity College Dublin (interim Chair of the Irish Ecological Association)

Microbial Ecology Special Interest Group Launch Event

18.30 – 19.30, Lammermuir Suite

The British Ecological Society is delighted to announce the launch of our newest Special Interest Group in Microbial Ecology. Microorganisms are increasingly being recognized as key mediators of ecological processes at all levels of organization, influencing the health and fitness of individuals as well as driving the stability of ecosystems, and as such is one the fastest growing fields of ecology. The Microbial Ecology Special Interest Group will act as a central forum to unite researchers studying various aspects of microbial ecology, and guide the synthesis of novel research investigating the role of microbes in organismal and ecosystem function, achieved through regular meetings, workshops and events, as per the BES Strategic Plan.

Initial planned activities and outreach will include regular communications through email lists, a Twitter feed and Facebook page with news, job and training opportunities, and group activities. Additionally, we will launch a monthly blog with guest contributors working in the field of microbial ecology. We will also be advertising for individuals to fill roles within the SIG including student rep, early career rep and communications rep, among others.

If you are interested in hearing more or joining the SIG, please join us for an informal mixer, drinks and nibbles will be provided. See you then!

Rachael Antwis, University of Salford and Xavier Harrison, Institute of Zoology, Zoological Society of London.

Behavioural Ecology Special Interest Group Launch Event

18:30, Tinto Hall

The 2015 Annual Meeting will see the launch of the new Behavioural Ecology SIG. We are pleased to invite anyone who is interested to join us for a casual, social introduction to the group on Monday 14th December in Tinto Hall. Come along for a glass of wine to hear more about what the group has planned and to give your ideas about how you'd benefit from this new SIG. We're particularly keen to meet people who would like to be involved with the new committee! If you are interested in hearing more about the SIG before this event, please contact Jenna Green. We look forward to meeting you in Edinburgh!

SOCIAL EVENTS: WEDNESDAY 16 DECEMBER

WEDNESDAY 16 DECEMBER

The BES GM Debate

17:30, Royal Society of Edinburgh

A free public debate bringing together a panel of diverse voices to consider the science, politics and environmental implications of GM technologies. Chaired by Professor Alan Gray. Tickets are sold out, but please check for returns on besgmdebate.eventbrite.com.

Ecology in Towns and Gardens

18:00 – 19:30, Blackwell's Book Store

Towns and gardens are important habitats for wildlife and are the places where it is easiest for most of us to encounter nature in our day-to-day lives. Come along to this free event to hear three distinguished authors of books on urban nature talk and answer your questions!

Visit Edinburgh's oldest bookshop for a great selection of books and gifts on 53-62 South Bridge, EH1 1YS
0131 622 822

Eating Out General Tips:

1. According to TripAdvisor, Edinburgh has 1,935 restaurants, which equates to one restaurant for every 252 people in the city. The best way to navigate to our recommendations is via the Trip Advisor app or Google. Alternatively, just wander. Where there is one restaurant, there will be a dozen more.
2. Most Edinburgh restaurants are small, some are tiny. So, if you really want to be sure of a table for you and friends, call ahead and book. Don't forget that Christmas parties are also filling restaurants at this time of year.
3. Edinburgh's not a very big city despite being the capital, so most of these restaurants are walking-distance from the conference centre. If you don't want to walk, the bus and taxi services are good. A taxi can be economical if you are in a group not exceeding six.
4. As a proportion of the total, vegetarian restaurants are few, but those that are wholly vegetarian or have some good veggie options are: Kalpna, The Grain Store, David Bann and Earthy (details below). Most others will have veggie options - including veggie haggis of course!

Restaurant tips for BES delegates from Prof. John Grace



I've been eating out in Edinburgh for 45 years. In the early days 'eating out' consisted of going to a pub for a cheese toastie or, where funds permitted, a scotch pie (double-crust greasy pie filled with minced mutton or other, undefined, meat). Later, tastes and budget expanded and over the last decade Edinburgh restaurants have leapt ahead in

both number and quality. Which ones can I recommend to BES delegates? It depends on how far you want to venture out in the dreich weather. The Edinburgh International Conference Centre is a stone's throw from Lothian Road where you can find **Bar Italia**, and if you like mixing with arty folk you can get a decent meal at the **Traverse Theatre** or the **Filmhouse**. Walk south towards the Kings Theatre, spend a while in **Bennet's Bar** and then go next door to one of my favourites, **Le Petit Mort** (32 Valleyfield Street). Ask your French friends what this colloquial

SOCIAL EVENTS: WEDNESDAY 16 DECEMBER

expression really means. Nearby is **The Apartment** (Barclay Place), highly rated by my Morningside pals, and **The Three Birds** at Viewforth, further up the hill.

Or go East to Lady Lawson Street and you will find **The Timberyard**, only one of three Scottish restaurants in the Guardian's list of the 50 best in Britain. Or north, across Princes Street to Castle Street, and you will be delighted by the Thai restaurant **Chaophraya** and the oh-so-Edinburgh **The Honours**. If you are anywhere near the castle itself, and especially if it's a special occasion, definitely go to **The Witchery** and downstairs to its **Secret Garden** restaurant. It has a posh sister restaurant in Chambers Street, atop the National Museum of Scotland, called **The Tower**. Both are famed for their wine lists.

If you find yourself near the university and Blackwells (a must-visit bookshop on South Bridge) a good lunchtime place is **Spoon**, where the young JK Rowling began work on Harry Potter. Ask whether they have squirrel casserole and homemade lemonade. Another good lunch venue is the **Edinburgh Larder**, Blackfriars Street. You like Indian? Nearby is the wonderful **Mother India**, and not far away is **Kalpna**, an excellent Indian vegetarian restaurant and a few doors along is the excellent **Tanjore** South Indian restaurant. Nearby is the **Beirut** Restaurant, which our postgrads love. Just down the road is the cheerful **Ciao Roma**; but for a really satisfying Italian experience catch an 11 or 16 bus and go to Bruntsfield Place for **Osterio del Tempo Perso**. There are other good Italian restaurants too: I like **Vittoria** on the Bridge (the bridge is George IV Bridge, the original **Vittoria** is more 'homely' and halfway down Leith Walk), and **Nona's Kitchen** on Morningside Road (especially for fish); also Jamie Oliver's **Jamie's** on George Street, at the Assembly Rooms.

Healthy eaters will enjoy **The Grain Store** (Victoria Street), and the vegetarian restaurant **David Bann** (St Mary's Street).

Lovers of oriental food might want to try **Harajuku Kitchen** (Japanese) on Gillespie Place. **Kim's Mini-meals** (Korean) on Buccleuch Street is renowned but tiny and if you don't want to wait outside for a table (people do), then **Café Andamiro** is just as good, does sushi as well as Korean food and is only another 100m down the street. Both are inexpensive. Chinese restaurants are plentiful but Edinburgh doesn't have a Chinatown. I like **Panda Inn** (Leven Street) because it's so homely and wonderful value-for-money, the **Imperial Palace** because of its grand scale (Inglis Green Rd, you'll need a taxi) and the **Loon Fung** (where we botanists go, on Warriston Place, near the Royal Botanic Garden, 23 or 27 bus, ask for Cannonmills). A few doors away from Loon Fung at Cannonmills is **Earthy** which has lots of imaginative vegetarian options.

The best Spanish restaurant is the tiny family-run **Lasal** on Howden St, next door to a flamenco club. I discovered it during this year's Festival.

We've often taken university visitors to **Blonde** (St Leonard's Street) and never been disappointed. If you want to get away from the BES crowd and go further afield, try the excellent but hard-to-find **Stockbridge Restaurant** (it's definitely there, at 54 St Stephen Street). Or be dazzled at **The Rhubarb**, Prestonfield House, Priestfield Road (you'll need a taxi, and make a reservation on-line). Or travel by bus (route 11) or taxi to the harbour at Leith, where there are several highly rated restaurants. Our long-time favourite is **Fishers** (notable address: 1, The Shore. Don't get drunk and fall into the water).

I hope your Edinburgh adventures will be memorable. Expect the unexpected. It's a great city.

35TH AGM GENERAL MEETING

Agenda

The AGM will be held at 10:00 on Tuesday 15 December 2015 in the Pentland Suite, Edinburgh International Convention Centre, The Exchange, Edinburgh, EH3 8EE.

The agenda for the 35th Annual General Meeting of the British Ecological Society is as follows:

Review of the past year

1. Acceptance of the minutes of the 34th AGM held on 11 December 2014 in the Lille Grand Palais Convention Centre, 1 Boulevard des Cites-Unies, 59777 Lille, France
2. The Accounts for the year ended 31 December 2014 (as published in the August 2015 Bulletin and summarized in the Annual Report)
3. The reports of the Treasurer and the Auditors
4. The reports of the Council Secretary and the Hon. Chairpersons of the Committees
5. The reports of the Editors

Forthcoming year

6. To elect Officers of Council of the Society

Present Officers		Retiring Date	Council Nominees
President:	W. Sutherland	2015	S. Hartley
Past President:		2016	W. Sutherland
Vice President:	R. Hails	2017	
Vice President:	A. Pullin	2017	
Council Secretary:	D. Hodgson	2015	A. Vanbergen
Honorary Treasurer:	D. Purves	2016	
Honorary Chairpersons of Committees		Retiring Date	Council Nominees
Meetings:	A. Beckerman	2015	Z. Davies
Publications:	A. Gray	2016	
Public and Policy:	J. Vickery	2016	
Education, Training and Careers:	W. Gosling	2017	

8. To elect Ordinary Members of Council

Present Members	Retiring Date	Nominees for election
G. Hurst	2015	P. Brotherton
P. Raven	2015	Y. Buckley
Z. Davies	2015	E. Evesham
Vacant	2015	L. Firth
	2015	N. Hautekèete
	2015	D. Scott
O. Lewis	2016	
M. O'Callaghan	2016	
E. Sayer	2016	
D. Gilbert	2017	
J. Hill	2017	
I. Stott (Early Career Rep.)	2017	
M. Eichhorn	2018	
L. Turnbull	2018	

8. The appointment of the Auditors for 2015
9. Auditor's remuneration.
10. Any other business
To be tabled in writing to the Council Secretary at least three weeks before the AGM.

Tuesday

NOMINATIONS FOR COUNCIL

PRESIDENT

Sue Hartley

University of York, UK



Sue Hartley is a community ecologist recognised internationally for her work on the interactions between organisms, particularly plants and their herbivores. Currently, her research is focussed on using natural plant defences as a sustainable way to protect crops against pests. She did her first degree in biochemistry at the University of Oxford before applying her chemical knowledge to the study of plant defences against insect herbivores in a PhD at the University of York. She then moved to the Centre for Ecology and Hydrology before joining the University of Sussex in 2001, where her long-standing interest in the role of silicon as a plant defence began. She has studied plant-herbivore interactions from the sub-arctic to the tropical rainforest and has trained over 30 PhD students.

Sue has a long association with the BES, having served as a Council Member (1995-1998), the Vice-President (2004-2007) and Chair of Publications Committee (2006-2011) – she received the President's Medal in 2009 and the BES Award for exceptional service to the Society in 2012. In 2009 she delivered the Royal Institution Christmas Lectures, becoming only the 4th woman to do since they were started by Sir Michael Faraday in 1825. In 2010 she moved back to the University of York to become Director of the York Environmental Sustainability Institute, a new interdisciplinary research centre bringing together leading environmental researchers from a broad range of disciplines to tackle key global challenges, such as climate change, biodiversity loss and food security.

COUNCIL SECRETARY

Adam Vanbergen

Centre for Ecology and Hydrology, UK



Adam Vanbergen studies invertebrate ecology at the NERC Centre for Ecology & Hydrology (CEH) in Edinburgh <http://www.ceh.ac.uk/staff/ajv>. He is particularly interested in understanding the role of multi-trophic interactions and diversity in ecosystem functions and services, such as pollination and soil function, and how these are shaped by anthropogenic environmental changes. Adam has worked for CEH since 1998 and he did his PhD part-time through Cardiff University (2002-6). He has worked on a variety of NERC, EU, Defra and BES projects and supervised PhD students tackling biodiversity and interspecific interactions with respect to climate and

land-use change, landscape structure and invasive species. From 2010-15, Adam was the Science Co-ordinator of the UK Insect Pollinators Initiative (IPI) <https://wiki.ceh.ac.uk/display/ukipi/Home>. He is now working as part of the UN Intergovernmental Platform for Biodiversity & Ecosystem Services (IPBES) <http://www.ipbes.net/> as a lead author on the i) Thematic assessment of pollinators, pollination and food production (2014/15) and ii) the Regional assessment on biodiversity and ecosystem services for Europe and Central Asia (2015-18). Adam is an associate editor for journals of the Royal Entomological Society and from 2008-2012 was a member of BES Council and its publications and grants sub-committees.

CHAIR, MEETINGS COMMITTEE

Zoe Davies

DICE, University of Kent, UK



Zoe Davies has been an active member of BES for the past 15 years, after joining as a first year PhD student. Since then she has participated in, and benefitted from, many BES initiatives such as the parliamentary shadowing and women in science mentoring schemes, as well as attending annual meetings, symposia and smaller specialist workshops/events. Zoe decided to get more actively involved with the work of the society in 2012, when she joined the BES Policy Committee. After running the joint BES-DICE symposium entitled 'Considering the Future of Conservation' in 2014, she also became a member of the Meetings Committee and Council. Zoe is really excited by the prospect of becoming the new BES Meetings Committee Chair and hopes she can do the role justice, following on in the wake of Andrew Beckerman's stellar leadership.

Zoe is currently a Reader in Biodiversity Conservation at the Durrell Institute of Conservation and Ecology (DICE), School of Anthropology and Conservation, University of Kent. Her research interests are diverse and interdisciplinary, comprising: species/assemblage responses to environmental change; the planning and implementation of protected areas; conservation investments made by the NGO and corporate sectors; urban biodiversity and ecosystem service provision; the human health and wellbeing benefits derived from interactions with nature.

NOMINATIONS FOR COUNCIL

ORDINARY MEMBER OF COUNCIL

Peter Brotherton

Natural England, UK

Pete Brotherton has worked in the statutory conservation sector for 15 years, and has a particular interest in the interface between conservation science, policy and practice. As a Director at Natural England, he has responsibility for over 60 national specialists, whose expertise underpins the organisation's decisions and advice, and his team also manages a broad science programme. In recent years Pete was lead advisor to the government on the England Biodiversity Strategy, 'Biodiversity 2020'; supported the development of the Natural Environment White Paper; and led the secretariat for the influential 'Making Space for Nature' review of England's ecological network, chaired by Sir John Lawton. Before joining the public sector, Pete studied zoology at Cambridge University, where he also took his PhD in behavioural ecology and carried out post-doctoral research on cooperative behaviour in meerkats.



ORDINARY MEMBER OF COUNCIL

Elizabeth Evesham

Bournemouth, UK

I have been in academia and education for over 30 years, combining full-time teaching with my research interests in social insects. Since completing my Ph.D, in 1982, I have enjoyed using behavioural ecology to inspire generations of pupils through the study of insects, both inside and outside the classroom. I regularly present papers at national and international conferences, run workshops and fieldtrips. I have also written a guide to investigating ants for GCSE and A-level teachers. Having just presented and chaired at the joint BES and FES meeting, I feel inspired to continue to educate and research into other aspects of Ecology. During my teaching career, I have been Head of Biology, Head of PSHRE (Personal, Social, Health and Religious Education), Examinations Officer, Head of the Army Section of the CCF and a Senior Tutor.



ORDINARY MEMBER OF COUNCIL

Yvonne Buckley

Trinity College Dublin, Ireland

I first became a member of the BES in 1999, during my PhD at Imperial College London and have kept a close relationship with the BES through my professional career in the UK, Australia and now the Republic of Ireland. I have been involved as an associate editor of the Journal of Applied Ecology (2005 - 2014) and currently Journal of Ecology (since 2014). Having worked as a researcher and academic in three countries I believe that I would bring a strong international perspective to the BES Council. Over one third of the membership of BES is based outside of the UK and on Council I would take a particular interest in internationalization of the Society's activities, through events, support and meetings. I have strong research interests in applied ecology, environmental decision processes and interdisciplinary research with the aim of providing solutions for living well on the planet. Through working with BES I would seek to find and create opportunities for ecologists to engage with other disciplines in order to increase our contributions to society. I am excited by new opportunities in publishing and engagement globally and would like to work with BES to determine how publication and engagement models can benefit science and society.



I currently teach GCSE, A-level and University Foundation courses, in Biology, at an International College in Bournemouth. I was recently made Biology co-ordinator of the Advanced Level Foundation Course (ALF) where I am in charge of a team in the other Kings Colleges in London and Oxford. I am also a qualified Personal Trainer, specialising in GP Exercise Referral. I am currently involved in the launch of a new gym where my role will be in marketing, gym inductions, leading walks in and around the local area as well as running fitness classes ("Reach and Grab"), for the over 50s.

ORDINARY MEMBER OF COUNCIL

Louise Firth

Plymouth University, UK

I am very interested in being involved in the BES council. I am an Irish marine ecologist with a background in Zoology and I am currently working in Environmental Science. Since completing my PhD in 2007, I have completed postdocs in Hong Kong, Florida, Bangor and Galway. I have just been appointed to a permanent lectureship at Plymouth University and for the first time, I know that I will be based in the same place for more than three years!



My research interests in global environmental change span three core areas: (1) community ecology; (2) biodiversity and climate change and; (3) urban ecology/ecological engineering and conservation. I am 100% invested in engaging with the British ecological community and establishing myself as an

NOMINATIONS FOR COUNCIL

active and dynamic researcher with a wide-ranging network beyond the area of marine.

I have exceptional organisational skills and enjoy working as part of a team. I have extensive experience of leading and serving on organising committees for international conferences. I feel that this experience would be invaluable for the role of serving on BES Council. I have a “can do” attitude - an essential attribute of an active council member.

ORDINARY MEMBER OF COUNCIL

Nina Hautekèete

Université de Lille 1, France



My research aims to contribute to a better understanding of the consequences of global change on species and communities. I have been especially interested in documenting the evolution of life histories in plant species (life span, flowering phenology...) in a global change context, mainly using experimental approaches. Now, I spend most of my research time investigating changes in communities and metacommunities of plants and wild bees, using long-term data sets and field surveys.

As a member of the SFE council (Société Française d'Ecologie), I have participated actively to the organisation of the BES-SFE Ecology meeting held in Lille in December 2014. I had a great time working closely with the BES team and members. The meeting has certainly been a significant milestone for the SFE and French ecologists, and a great opportunity for building new links between our societies. Today, I apply to join the BES Council to help maintain and strengthen these links, and to build upon last year positive momentum.

2001 – PhD, University of Lille

2002 – Lecturer, EEP lab, University of Lille, France

2010 – Vice president (University of Lille(Sustainable development)

2013 – SFE council

2014 – BES SFE meeting

2015 – SFE annual meeting, side event COP21 “Climate & biodiversity”

ORDINARY MEMBER OF COUNCIL

Dawn Scott

University of Brighton, UK



I am a Principal Lecturer in Ecology at the University of Brighton where I also hold the positions of Head of Division for Biology, Assistant Head of School (Research), lead of Ecology and Conservation Research Group, Equality and Diversity Committee and Aurora Champion. My research interests are in mammalian ecology and conservation, specifically the impact of human modified landscapes on mammal population genetics, diversity, abundance, communities and behaviour. I completed my PhD (Durham University) on desert mammals in Jordan and have undertaken research in several countries (Estonia, Zambia, Indonesia and South Africa) including the UK. My research regularly involves public engagement and citizen science approaches. I have worked extensively with volunteer based charities (e.g. Earthwatch Institute) and contributed to multiple scientific based media broadcasts (e.g. Foxes Live, Springwatch). I have previously been a Trustee for the Sussex Wildlife Trust, Council member of The Mammal Society, meetings organiser for RSG-IBG Biogeography Group and organised several conferences. I am currently chair of the Sussex Mammal Group, on the Training Committee for The Mammal Society and on the IUCN hyaena and rodent specialist groups. I am hoping to bring a wide range of relevant skills and experience to the council if elected.



AWARDS AND PRIZES

Honorary Membership	Georgina Mace
Presidents Medal	Rob Freckleton
BES Award	Peter Thomas
Ecological Engagement Award	Bob Watson
Marsh Award for Ecology	Jane Memmott
Marsh Award for Climate Change Research	Camille Parmesan
Marsh Book Award	Paul Raven and Nigel Holmes

Journal of Applied Ecology	Southwood Prize	Katharina Gerstner
Journal of Ecology	Harper Prize	Michiel Veldhuis
Journal of Animal Ecology	Elton Prize	James Maino
Functional Ecology	Haldane Prize	Scott Ferrenberg
Methods in Ecology and Evolution	Robert M. May Prize	Laure Gallien

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As the independent voice of the UK's ecological community, we have a unique role in:

Informing policy

- We communicate the value of ecological knowledge to policy makers and promote evidence-informed solutions.

Synthesising science

- We bring together our members' expertise to make the best scientific evidence accessible to decision makers.

Supporting members

- We support members to build their skills, develop their careers and enhance the policy impact of their work.

Contact the External Affairs Team at Policy@BritishEcologicalSociety.org or drop in to the BES stand during the Annual Meeting to find out how you can get involved.

At the Annual Meeting

Do ecosystem approaches deliver for biodiversity conservation?

Tuesday 15 December,
13:15

A joint workshop with the Scottish Policy Group, and the Scottish Biodiversity Strategy's Science & Technical Group. Speakers include Paul Walton (RSPB) and Philip Boulcott (Marine Scotland)

The BES GM Debate

Wednesday 16 December,
17:30, Royal Society
of Edinburgh

A free public debate bringing together a panel of diverse voices to consider the science, politics and environmental implications of GM technologies. Chaired by Professor Alan Gray.

Tickets are sold out, but please check besgmdebate.eventbrite.com for returns

Emerging Issues

What should be the policy focus for the BES in 2016? Tell us your emerging issues at Policy@BritishEcologicalSociety.org or on Twitter @BESPolicy

Policy Networks

Scottish Policy Group

The Scottish Policy Group is a network of BES members promoting the use of ecological knowledge in Scottish policymaking and supporting members to develop their skills. They run a programme of events bringing scientists and policymakers together, training workshops and a unique forum for exchanging ideas and knowledge.

To join the group, contact Ruth Mitchell at Ruth.Mitchell@Hutton.ac.uk

Wales Policy Group

Newly established for 2016, the Wales Policy Group aims to bring scientists and policymakers together to discuss environmental policy in Wales. With an exciting programme under development for the first year, now is the time to contribute your ideas.

To join the group, contact Eleanor Kean at KeanEF@Cardiff.ac.uk

Have fun and communicate your research!

Looking to develop your public engagement (PE) and science communication skills in 2016?

Once more in 2016 we will be supporting our members in developing public engagement activities at national and regional events. If you have great ideas and want to develop your skills we can offer training and support through planned events and in planning your own more regional events. Come and see us in the "Sex and Bugs and Rock and Roll" Marquee where you can talk to staff, experienced PE members and play with the activities developed in 2015.

What members say about the activities they undertook in collaboration with the BES...

I feel like I have the confidence now to try and engage people of all interest levels.

The experience has had a really positive effect on my ability to engage the public with my science.

I would encourage anyone who has the opportunity to, to take part

I had a fantastic discussion with a farmer about soil carbon and management, this is my area of research and it gave me a really valuable new perspective on my research!



Nominate your brightest and best students for the 2nd BES Summer School 18-22 July 2016, Malham Tarn

In 2015 we took 48 talented 1st year Undergraduates from 31 Universities to Malham for a week long residential focus on ecology, ecological careers and fieldwork. The programme for 2016 is filling up and we

have confirmed workshops with Natural England on cave ecology, CIEEM sponsoring a session from AMEY and ARUP on consultancy, The National Trust on practical conservation and survey techniques which this year spotted some rare species previously unrecorded on the site, the Society for Microbiology developing a session on soil ecology and by popular demand Prof Simon Leather sponsored by the Linnean Society returns for his inspiring entomological workshop with fluorescent beetle chasing.



Applications are open now! <http://bit.ly/20M1AEX>

Eloise Wells, Sheffield

The BES Summer School has been highly informative and enormously influential on how we plan to spend our remaining years at university, especially how we will get involved with this and similar societies, in order to prepare ourselves for our lives beyond our undergraduate degrees.

Chris Woodham, Oxford

The great depth and array of careers advice and information available during the summer school can be invaluable for students trying to make decisions about their future. The focus for my choices in the second and third years of my course is a direct result of attending the summer school and is another reason why I believe universities should nominate their students for the 2016 BES summer school.

Lara Bates Prior, Oxford Brookes

It has given me a clearer path to follow so that I may reach my goals, and in my opinion the BES summer school has been one of the most thought provoking and useful things I could have ever done to prepare me for my career.

Ron Rothbarth, Stirling

The first summer school has been a huge success and represents a valuable instrument for universities in their aim for highly educated and experienced graduates. With that in mind, institutions of higher education in the UK should be encouraged to invest in these schools in order to enable more students to take part in what I can only describe as the most influential event in my student life.

2016 JOINT BES AND CCI ANNUAL SYMPOSIUM

Making a Difference in Conservation: Improving the Links Between Ecological Research, Policy and Practice

11 – 13 April 2016, Cambridge, UK

www.BritishEcologicalSociety.org/AS2016

This meeting will be held jointly with the Cambridge Conservation Initiative, along with support from DICE and the RSPB Centre for Conservation Science. The meeting will be held at the David Attenborough Building in Cambridge, as part of its launch in April 2016. The building provides a hub for the University of Cambridge Conservation Research Institute, and houses nine leading international conservation organisations and networks currently based in the Cambridge area.

This meeting aims to bring together the ecological research community and those involved in policy and government, to assess the value and applicability of a range of techniques for improving the decision making process. By working together, we aim to enable delegates to get greater impact from their research, and to improve policies and practice.

Registration and poster submission are now open!



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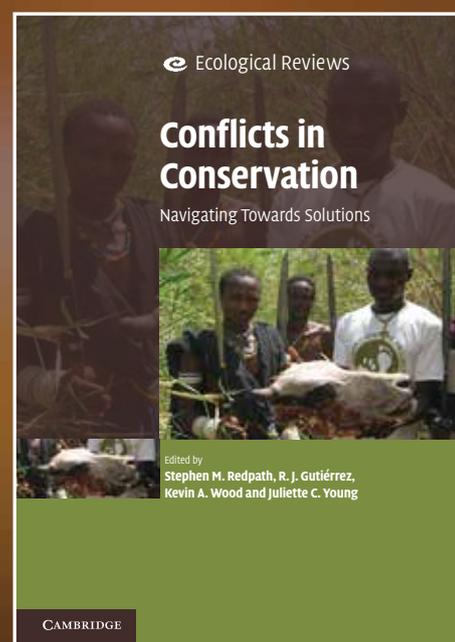
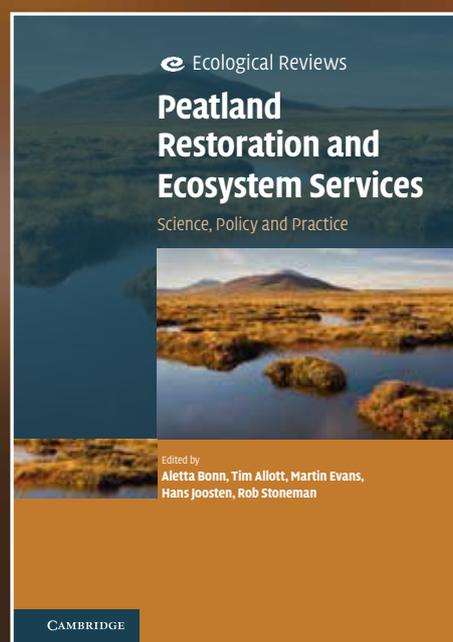
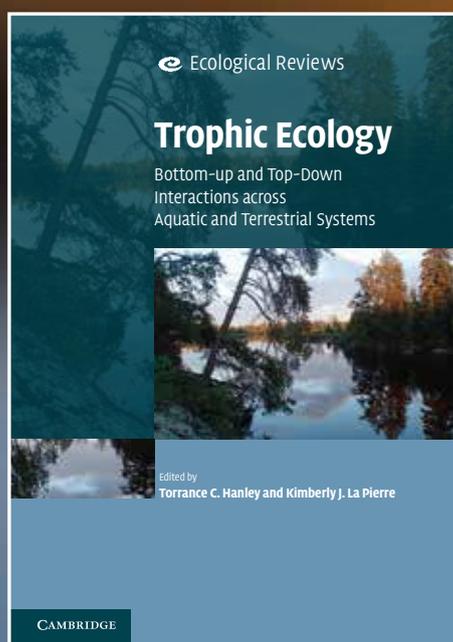
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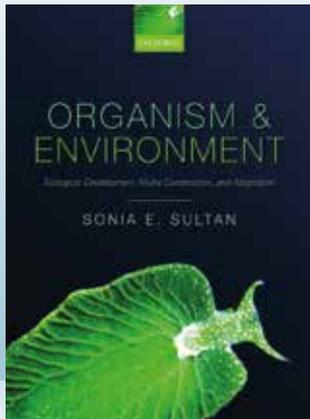
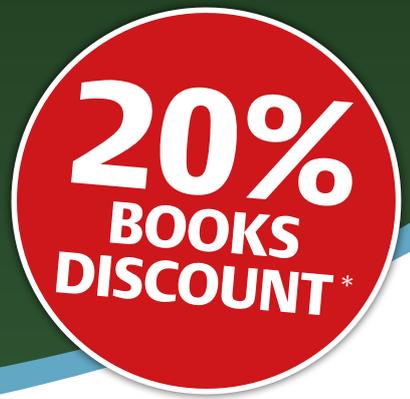
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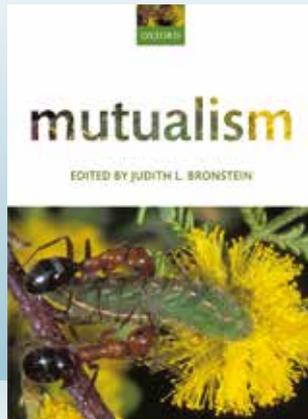
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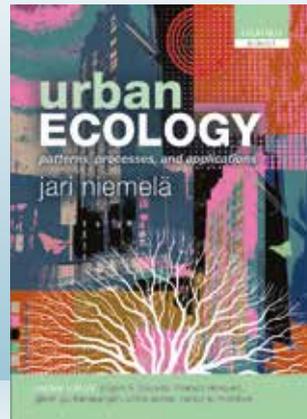
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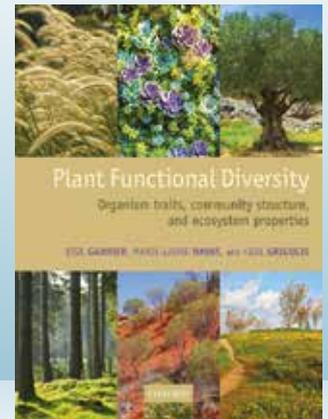
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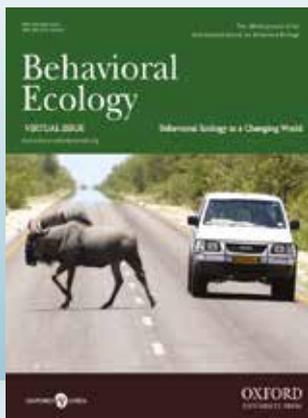
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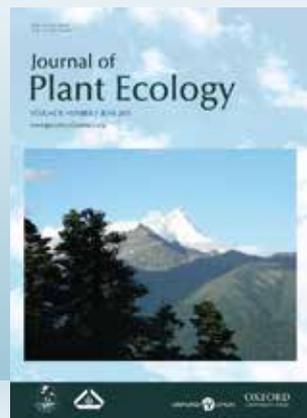
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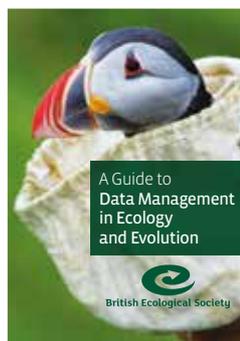
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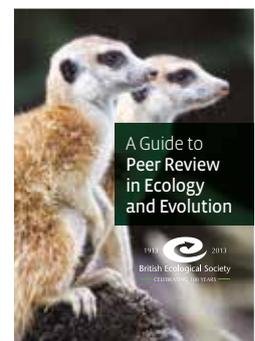
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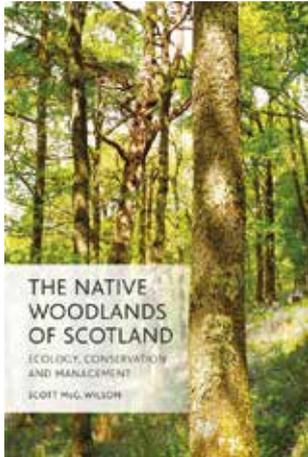
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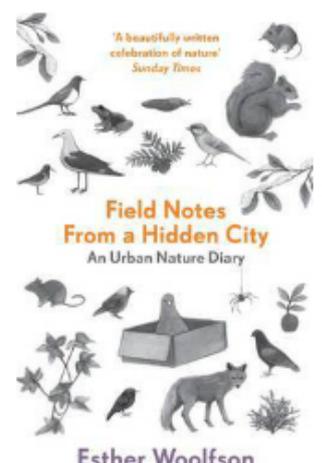
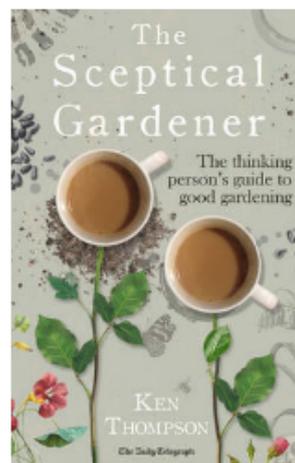
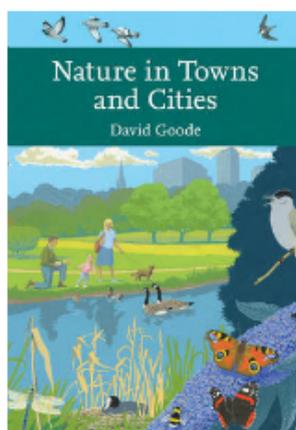
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