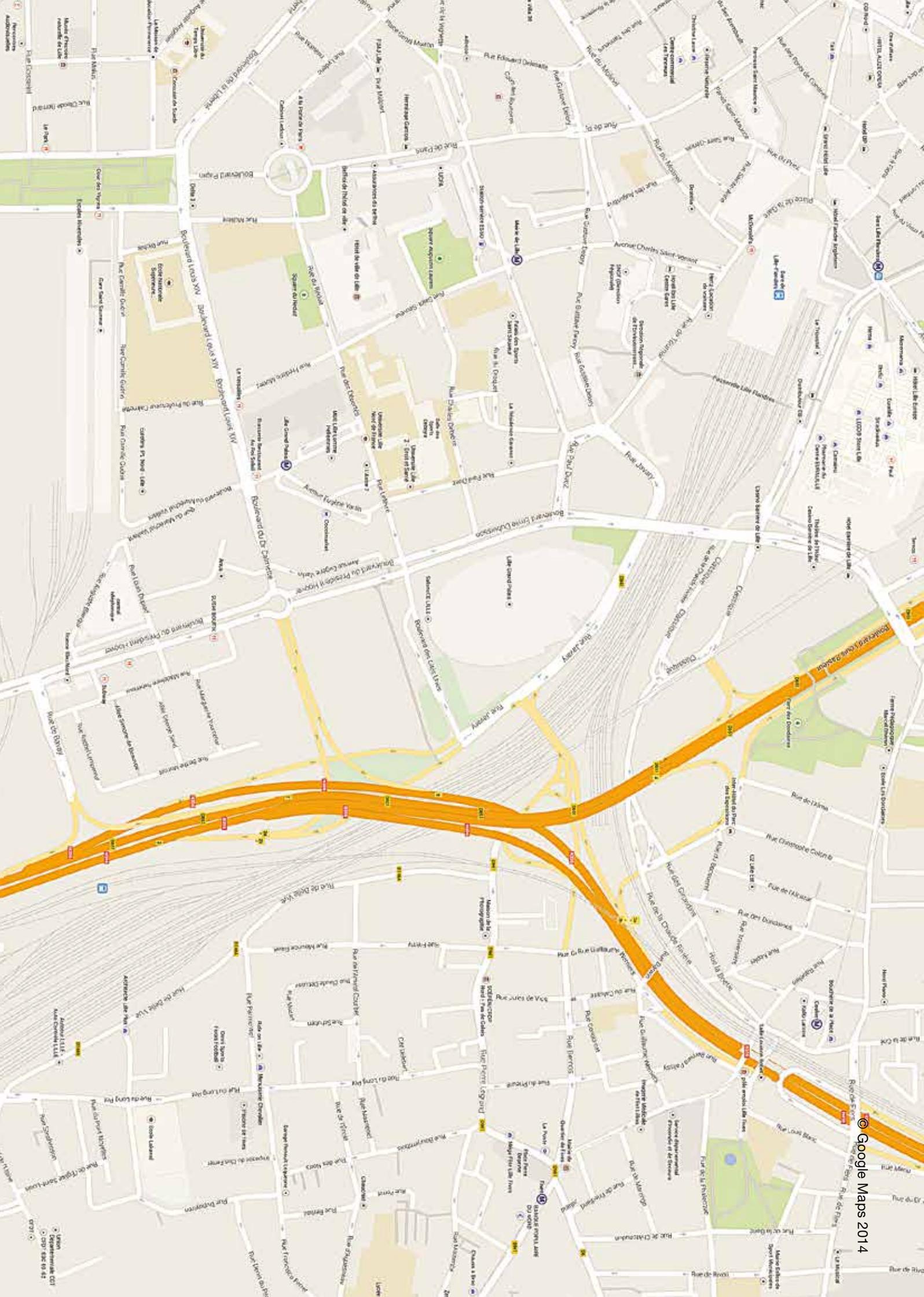


# BES and SFÉ

## Joint Annual Meeting



9–12 December, Lille, France



It is with great pleasure that I welcome you to the 2014 Joint BES/SFE Annual Meeting. This is the first time that the BES and SFE have brought together their communities of ecologists and I am delighted that we have been able to put together such an exciting programme with speakers and poster presenters from across Europe and beyond. The BES has always had a significant number of members from outside the UK and an integral part of the BES 's new strategic plan is to do more in the future to support them and work more with other national ecological societies. It has been a real pleasure to work in partnership with the SFE to deliver such a great conference and I hope this is just the start of a closer relationship between our two Societies.



Providing forums like this conference for ecologists to learn about the work of colleagues and forge relationships across national boundaries is at the core of the work of the BES. Please do make the most of the networking opportunities and make new connections as well as reinforcing existing ones. The programme is packed with events to help you meet new people, whether at the lunchtime workshops, Special Interest Group meetings or during the Poster Sessions. Meeting new people and learning about new areas of ecology can be the most rewarding experiences that meetings offer, especially when the audience is so international.

The BES Special Interest Groups are a great way to connect with ecologists working in a similar field. Not only do they run events bringing together world leading scientists in their area 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 the BES's 15 Special Interest Groups are running events over the next three days so make the most of the chance to get involved in their work.

Twitter has become a major way of networking at meetings like this. Please do follow us @BritishEcolSoc and use the conference hashtag #BESSfe. It is a great way to find out instantly what other delegates think is exciting as well as take part in discussions and debates about issues. At the INTECOL 2013 Congress hosted by the BES last year the conference hashtag trended on Twitter due to the volume of messages generated by delegates; we hope to achieve the same for this meeting. BES Staff on the Society 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 the BES stand and talk to the staff about all the great work that the BES does supporting the ecological community.

I wish you a productive and enjoyable conference and don't forget that the BES will be holding its next Annual Meeting in the historic city of Edinburgh, 13 – 16 December 2015. I hope to see many of you there.

**Bill Sutherland, BES President**

## BES 2015 Annual Meeting

**We are thrilled to announce that our 2015 Annual Meeting will be held in Edinburgh, Scotland.**

**It is the political capital of the country and one of the most popular British centres for culture and architecture – both New and Old Towns are listed as UNESCO World Heritage Sites. It is also a hub for international travel. Expect the same high calibre science, workshops, networking and social programmes – but with a distinctive Scottish flavour.**

**Keep the date: 13–16 December 2015**

**[www.BritishEcologicalSociety.org/AM2015](http://www.BritishEcologicalSociety.org/AM2015)**

**BIENVENUE!**

**sfe**



It is a great pleasure for me and the Society's board to welcome you on the behalf of the French Ecological Society to this first joined congress with the British Ecological Society.



Although the Société d'Ecologie, founded in 1968, is now well into its fifth decade, it has been through a major rejuvenating in recent year, and this joined congress is part of this momentum.

The Society's mission is to promote the science of ecology in France by encouraging

- the development, the integration and the sharing of scientific knowledge in all aspects of ecology
- the use of ecological knowledge to help society face the increasingly difficult challenges posed by the current environmental crisis
- its members to reach out to the public to help increase ecological literacy in all segments of society

To serve this vision the Society has developed a web site that informs its members and readers of the highlights in the Society's life and reaches out to all ecologists through the very successful Ecodiff tool. Ecodiff provides a day to day update on internship and job offers with a special focus on students and young researchers in the field. It has received over ½ a million visits involving close to 200,000 visitors.

The "Regards sur la biodiversité" are another key component in the Society's efforts to reach out to its members and beyond. Sixty one "Regards" consisting of short essays on a broad range of topics presented in a form accessible to a wide readership have been posted so far.

Prices and grants to young and senior actors in ecology are other key benchmarks in the society's life. Prices allow identifying key contributions or promising future developments in ecology through the work of individual ecologists. Grants are a way to encourage the exploration of new areas and new ideas. Reports and conferences associated to prices and grants are an additional medium to bring information to members and the public at large. The congress in Lille will be the opportunity to award the 2014 prices and grants during a joined ceremony with the BES.

The recent and significant development the "Société d'Ecologie" has witnessed and our contribution to the organization of the Lille congress were made possible because a large group of enthusiastic people have put their strength and skills together to move ahead.

The current joint meeting with the British Ecological Society will be a key moment in the "Société d'Ecologie" 's development. It marks the will of the society, following a successful ecology meeting in 2010, to launch a periodic major congress that will provide ecologists from France and beyond to meet every 2 years to discuss all aspects of their field. The next meeting will take place in Marseille in 2016.

The exciting program put together for the Lille congress will be a fantastic opportunity for the members of both societies to spend stimulating days together. We hope that it will create a momentum encouraging many ecologists of both countries to join their respective societies and to get actively involved in their daily development. There are many challenges to be met and new ideas to be explored.

**Jean-Louis, SFE President**

## LOCAL ORGANISING COMMITTEE

We in Lille are very happy to welcome you to this exciting meeting, which we consider as an exceptional event. We should mention that the Region Nord-Pas de Calais has recently invested significant budgets to support research projects on biodiversity, especially supporting projects that integrate a scientific team with one or several conservation and land managers. We hope that you will enjoy not only the exciting communications and posters, but also the mixing between the two national scientific communities, and, last but not least, will take the opportunity to taste local beers and flemish food specialties here in Lille. Finally, we would like to thank the Region Nord-Pas de Calais, the INEE Institute from CNRS, and Université de Lille for their financial support.

The local team from UMR 8198 Evo-Eco-Paléo (formerly GEPV), CNRS-Université de Lille



Anne Duputié



Joël Cuguen



Nina Hautekeete



Pascal Touzet



Sylvian Billiard



Xavier Vekemans



Yves Piquot

# SFE BOARD



**Jean-Louis Martin**

**President**

Impact of human activities on landscape and community dynamics



**Christophe Thébaud**

**Vice-president**

Evolution and ecology, in particular the study of ecological and evolutionary consequences of colonization



**Sébatsien Barot**

**Vice-president**

Ecosystem and soil ecology, nutrient cycling in natural and agricultural ecosystems



**Cécile Bacles**

**Treasurer**

Population genetics of trees, effect of habitat fragmentation



**Yves Piquot**

**Treasurer**

Genetics and evolution of plants



**Clélia Sirami**

**Press contact**

New feeds on the website  
Landscape ecology, effects of farming systems on biodiversity



**Julie Deter**

**Secretary**

Marine ecology, community ecology and seawater quality



**Anne-Violette Lavoit**

**Secretary**

Plant ecophysiology and chemical ecology in agrosystems

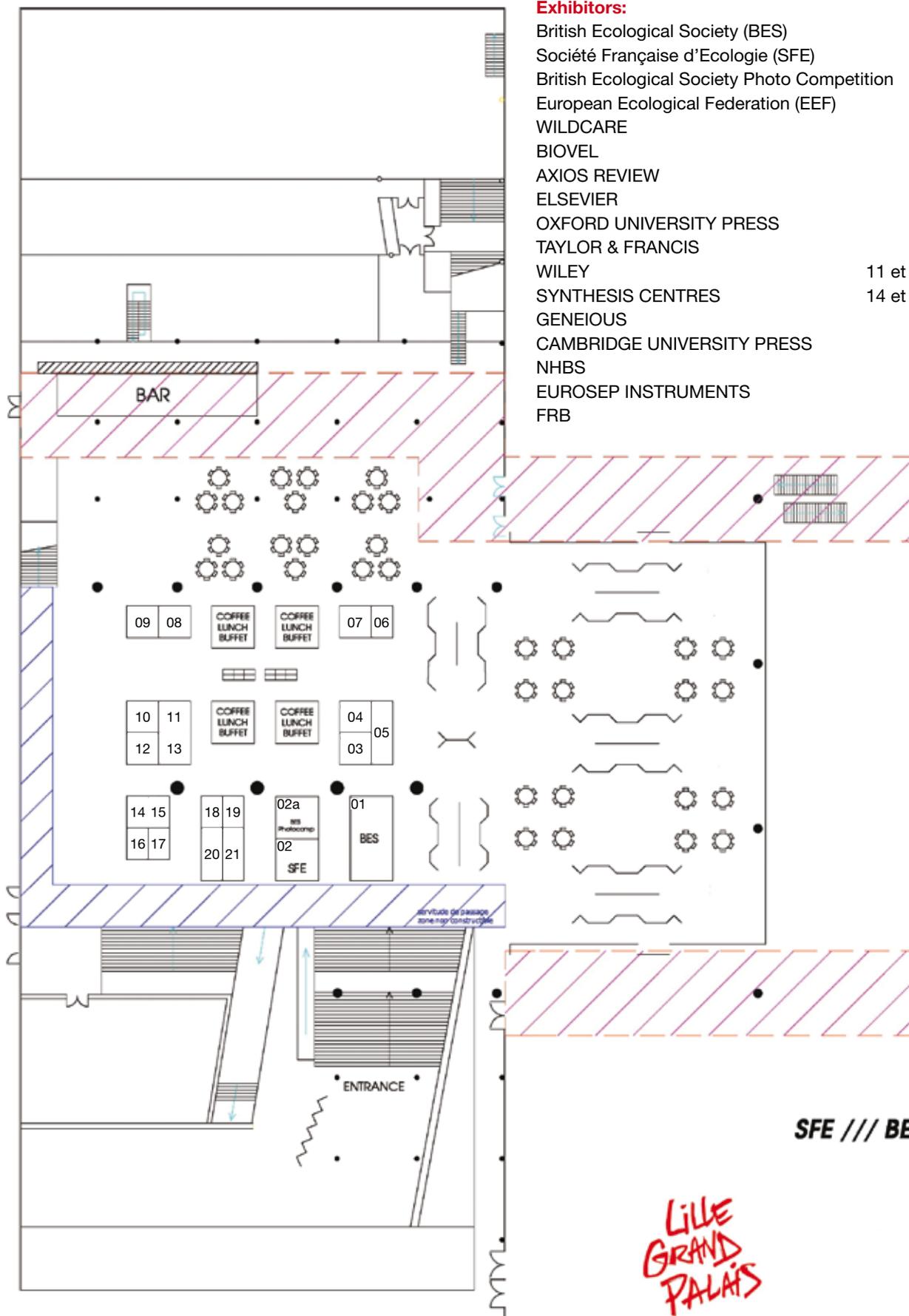


**Vincent Bonhomme**

**Web maintenance**

Plant evolution, morphometry

# FLOORPLAN



**Exhibitors:**

- British Ecological Society (BES) 1
- Société Française d'Ecologie (SFE) 2
- British Ecological Society Photo Competition 2a
- European Ecological Federation (EEF) 3
- WILDCARE 4
- BIOVEL 5
- AXIOS REVIEW 6
- ELSEVIER 7
- OXFORD UNIVERSITY PRESS 8
- TAYLOR & FRANCIS 10
- WILEY 11 et 13
- SYNTHESIS CENTRES 14 et 15
- GENEIOUS 16
- CAMBRIDGE UNIVERSITY PRESS 17
- NHBS 18
- EUROSEP INSTRUMENTS 19
- FRB 21

**SFE /// BES**

**LILLE  
GRAND  
PALAIS**

# MEETING OVERVIEW

8		9		10		11		12		13		14
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## Tuesday 9 December

## Wednesday 10 December

08.15 – 17.20 <b>Registration Desk</b>											
09:00 – 10:30 <b>Opening Ceremony and Welcome</b> <b>Plenary Lecture:</b> <b>Anne Larigauderie</b>			10:30 – 11:15 <i>Coffee</i>		11:15 – 13:15 <b>10 Parallel Sessions</b>				13:15 – 15:15 <i>Lunch/Tea/coffee available</i>		
13.30 – 15.00 <b>Workshops</b>											

## Thursday 11 December

08:00 – 19.00 <b>Registration Desk</b>												
08:00 – 08:45 <b>BES and SFE AGM</b>	09:00 – 10:00 <b>Plenary Lecture:</b> <b>Pedro Jordano</b>			10:00 – 10:45 <i>Coffee</i>		10:45 – 12:45 <b>10 Parallel Sessions</b>				12:45 – 14:45 <i>Lunch/Tea/coffee available</i>		
13.00 – 14.30 <b>Workshops</b>												

## Friday 12 December

08:00 – 13.30 <b>Registration Desk</b>													
	09:00 – 09:30 <b>12 Months In Ecology Lecture:</b> <b>Grrl Scientist</b>		09:30 – 10:00 <i>Coffee</i>		10:00 – 12:00 <b>10 Parallel Sessions</b>				12:00 – 13:00 <i>Lunch</i>		13:00 – 15:00 <b>10 Parallel Sessions</b>		
8		9		10		11		12		13		14	

# MEETING OVERVIEW



# ORAL SESSION OVERVIEW

## Wednesday 10

11:15 – 13:15

15:15 – 17:15

## Thursday 11

10:45 – 12:45

<p><b>SYMP 1: Pan-European Parasite Ecology: Linking Early-Career Researchers</b>            Keynote: Nathalie Charbonnel            Location: Vauban            Page: 25</p>	<p><b>SYMP 3: Accelerating ecology and biodiversity research via ecometagenomics: species communities and environmental DNA</b>            Keynote: Pierre Taberlet            Location: Van Gogh            Page: 29</p>	<p><b>SYMP 4: Biological impacts of climate change: Reconciling macro-scale patterns with local-scale processes</b>            Keynote: Jose M Montoya &amp; Jane Hill            Location: Vauban            Page: 33</p>
<p><b>SYMP 2: Extending freshwater management beyond shorelines by linking aquatic and terrestrial ecosystems</b>            Keynote: Michael Pace            Location: Van Gogh            Page: 25</p>	<p><b>S11: Long-term Monitoring in Agro-Ecosystems</b>            Location: Vauban            Page: 29</p>	<p><b>SYMP 5: Genomics in marine monitoring: New opportunities for assessing marine health status</b>            Keynote: Herman Hummel            Location: Van Gogh            Page: 33</p>
<p><b>S1: Welcome to the dark side – Opportunities challenges and solutions for synthesizing global soil biodiversity</b>            Location: Reubens            Page: 25</p>	<p><b>S12: Generation and maintenance of genetic diversity in tropical forests</b>            Location: Reubens            Page: 29</p>	<p><b>S22: Infectious disease ecology and evolution</b>            Location: Reubens            Page: 33</p>
<p><b>S2: Agricultural Ecology (Pests &amp; Pesticides)</b>            Location: Faidherbe            Page: 26</p>	<p><b>S13: Freshwater Ecology &amp; Biology</b>            Location: Goya            Page: 30</p>	<p><b>S23: Ecology and Society</b>            Location: Artois 2            Page: 33</p>
<p><b>S3: Ecological Genetics &amp; Molecular Ecology</b>            Location: Goya            Page: 26</p>	<p><b>S14: Urban Ecology</b>            Location: Charles de Gaulle            Page: 30</p>	<p><b>S24: Evolutionary Ecology &amp; Life Histories (Species Traits &amp; Life Histories)</b>            Location: Charles de Gaulle            Page: 34</p>
<p><b>S4: Tropical Ecology</b>            Location: Charles de Gaulle            Page: 26</p>	<p><b>S15: Plant-Soil Interactions &amp; Biogeochemistry (Carbon &amp; Nutrient Dynamics)</b>            Location: Matisse 1            Page: 30</p>	<p><b>S25: Plant-Soil Interactions &amp; Biogeochemistry (Roots &amp; Decomposition)</b>            Location: Matisse 2            Page: 34</p>
<p><b>S5: Competition (Ecology &amp; Evolution)</b>            Location: Rembrant            Page: 27</p>	<p><b>S16: Competition (Communities &amp; Diversity)</b>            Location: Rembrant            Page: 31</p>	<p><b>S26: Community Ecology (Facilitation &amp; Symbiosis)</b>            Location: Rembrant            Page: 35</p>
<p><b>S6: Global Change Ecology (Vegetation &amp; Growth)</b>            Location: Matisse 1            Page: 27</p>	<p><b>S17: Global Change Ecology (Species Responses &amp; Interactions)</b>            Location: Faidherbe            Page: 31</p>	<p><b>S27: Plant-Pollinator Interactions (Agricultural Systems)</b>            Location: Faidherbe            Page: 35</p>
<p><b>S7: Macroecology, Biogeography and Landscapes (Biogeography &amp; Species Distributions)</b>            Location: Matisse 2            Page: 27</p>	<p><b>S18: Macroecology, Biogeography and Landscapes (Biogeography &amp; Species Distributions)</b>            Location: Matisse 2            Page: 31</p>	<p><b>S28: Computational Ecology &amp; Ecological Methods (Data &amp; Modelling)</b>            Location: Matisse 1            Page: 35</p>
<p><b>S8: Food Webs, Networks &amp; Complexity (Food Webs)</b>            Location: Artois 1            Page: 28</p>	<p><b>S19: Food Webs, Networks &amp; Complexity (Networks)</b>            Location: Artois 1            Page: 32</p>	<p><b>S29: Conservation Management &amp; Policy</b>            Location: Artois 1            Page: 36</p>
<p><b>S9: Population Ecology &amp; Dynamics (Populations &amp; Environmental Change)</b>            Location: Artois 2            Page: 28</p>	<p><b>S20: Population Ecology &amp; Dynamics (Fitness &amp; Survival)</b>            Location: Artois 2            Page: 32</p>	<p><b>S30: Population Ecology &amp; Dynamics (Demography &amp; Dispersal)</b>            Location: Goya            Page: 36</p>
<p><b>S10: Biodiversity &amp; Ecosystem Function (Functional Traits &amp; Diversity)</b>            Location: Matisse 3            Page: 28</p>	<p><b>S21: Biodiversity &amp; Ecosystem Function (Ecosystem Processes &amp; Function)</b>            Location: Matisse 3            Page: 32</p>	<p><b>S31: Forest Ecology (Carbon Dynamics)</b>            Location: Matisse 3            Page: 36</p>

**Thursday 11****15:00 – 17.00**

SYMP 6: Ménage à trois: ecological consequences of intricate interactions between plants microbes and insects  
Keynote: Marcel Dicke  
Location: Vauban  
Page: 37

SYMP 7: Ecological networks: from descriptions to predictions  
Keynote: Sonia Kefi  
Location: Van Gogh  
Page: 37

S32: Parasites, Pathogens & Wildlife Disease (Evolution & Genetics)  
Location: Charles de Gaulle  
Page: 37

S33: Marine Ecology & Ecosystems (Ecosystem Function & Change)  
Location: Faidherbe  
Page: 37

S34: Evolutionary Ecology & Life Histories (Mating & Parenting)  
Location: Artois 2  
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S35: Plant-Soil Interactions & Biogeochemistry (Plant-Soil Feedbacks)  
Location: Matisse 2  
Page: 38

S36: Community Ecology (Community Assembly & Species Traits)  
Location: Artois 1  
Page: 38

S37: Plant-Pollinator Interactions (Behaviour & Interactions)  
Location: Reubens  
Page: 39

S38: Computational Ecology & Ecological Methods (Ecological Methods)  
Location: Rembrant  
Page: 39

S39: Conservation Ecology (Diversity & Species of Concern)  
Location: Matisse 1  
Page: 39

S40: Ecosystem Services  
Location: Goya  
Page: 40

S41: Forest Ecology (Forests & Environmental Change)  
Location: Matisse 3  
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**Friday 12****10:00 – 12.00**

SYMP 8: Reforming and implementing the Common Agricultural Policy the role of science and the need to understand policy-making  
Keynote: Tim G Benton  
Location: Vauban  
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SYMP 9: Ecological Implications of Tree Diseases  
Keynote: Steve Woodward  
Location: Van Gogh  
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S42: Global Change Ecology (Biogeochemical Cycles)  
Location: Faidherbe  
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S43: Marine Ecology & Ecosystems (Patterns & Populations)  
Location: Reubens  
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S44: Evolutionary Ecology & Life Histories (Survival & Fitness)  
Location: Charles de Gaulle  
Page: 42

S45: Consumer-Resource Interactions (Herbivory)  
Location: Goya  
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S46: Community Ecology (Models & Model Systems)  
Location: Rembrant  
Page: 43

S47: Plant-Pollinator Interactions (Diversity & Functional Traits)  
Location: Matisse 2  
Page: 43

S48: Macroecology, Biogeography and Landscapes (Macroecology & Scaling)  
Location: Matisse 1  
Page: 43

S49: Conservation Ecology (Protection & Restoration)  
Location: Artois 2  
Page: 44

S50: Invasive Species (Species Interactions & Functional Traits)  
Location: Artois 1  
Page: 44

S51: Forest Ecology (Patterns & Processes)  
Location: Matisse 3  
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**13:00 – 15.00**

SYMP 10: Eco-evolutionary feedbacks: theoretical and empirical perspectives  
Keynote: Richard Gomulkiewicz  
Location: Vauban  
Page: 45

S52: Celebrating citizen science  
Location: Faidherbe  
Page: 45

S53: Climate Change Ecology  
Location: Van Gogh  
Page: 45

S54: Agricultural Ecology (Management & Diversity)  
Location: Reubens  
Page: 46

S55: Parasites, Pathogens & Wildlife Disease (Dynamics & Consequences)  
Location: Charles de Gaulle  
Page: 46

S56: Consumer-Resource Interactions (Predation)  
Location: Goya  
Page: 46

S57: Community Ecology (Aquatic Communities)  
Location: Rembrant  
Page: 47

S58: Plant-Pollinator Interactions (Adaptation & Selection)  
Location: Matisse 2  
Page: 47

S59: Physiological Ecology  
Location: Matisse 1  
Page: 47

S60: Conservation Ecology (Methods & Models)  
Location: Artois 2  
Page: 48

S61: Invasive Species (Invasion Risk & Spread)  
Location: Artois 1  
Page: 48

S62: Biodiversity & Ecosystem Function (Patterns & Productivity)  
Location: Matisse 3  
Page: 48

# PLENARY LECTURES

## Dr. Anne Larigauderie

Dr. Anne Larigauderie received her Master's Degree in molecular biology from the University of Toulouse, France, and her PhD in plant ecology, from the CNRS in Montpellier. In February 2014 she became the first Executive Secretary of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). She previously was the Executive Director of DIVERSITAS, the international scientific programme dedicated to biodiversity science, under the auspices of ICSU, and UNESCO. In 2010, she was made "Chevalier de l'Ordre national de la Légion d'Honneur" by the French Government.



### **Delivering policy relevant knowledge to inform decision making: introducing the new Intergovernmental Platform on Biodiversity and Ecosystem Services, IPBES**

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) was established in 2012 as a mechanism to provide policy relevant knowledge on biodiversity and ecosystem services in response to requests from policy makers. It currently has 121 governments who are Members of IPBES and also engages with many non-governmental stakeholders.

During the course of 2013, governments and observers were invited to send requests for information to IPBES. The requests received were used as a basis to build the first work programme of IPBES (2014-2018) adopted at the second Plenary meeting of IPBES in December 2013.

The talk will highlight the major features of IPBES, present its first work programme and the first two on-going assessments on pollinators, pollination and food production, and on scenarios and modelling of biodiversity and ecosystem services. It will present other assessments scheduled to begin in 2015 including a set of regional and sub-regional assessments of biodiversity and ecosystem services, and an assessment of land degradation and restoration.

The talk will underline the fact that the success of IPBES relies on the involvement of the scientific community worldwide, and explain ways for scientists to get involved in this new science-policy mechanism for biodiversity and ecosystem services.

## Professor Pedro Jordano

*Estación Biológica de Doñana, CSIC, Sevilla, Spain*



His research focuses on the study of biological diversity (biodiversity) from both ecological and evolutionary perspectives, and how ecological interactions, e.g. mutualisms, shape complex ecological systems. Specifically, he focuses on three aspects: 1) dispersal processes, gene flow and demographic effects of interactions with pollinators and frugivores in plant populations; 2) coevolution in complex networks of mutualistic interactions; and 3) basic natural history and evolutionary ecology of plant-animal interactions.

Prof. Jordano research on plant dispersal covers a broad conceptual range in the study of seed dispersal and pollination. He pioneered the analysis of plant-animal interactions webs, incorporating complex network analysis in the study of plant-animal mutualisms, with a pathbreaking approach to the study of coevolution in mega-diversity systems.

Prof. Jordano is author of more than 160 scientific papers and three books. He is invited professor within the Ciência sem Fronteiras Program (Brazil), Honorary Professor, Univ. Sevilla (since 2009), and member of the editorial board for Annual Reviews of Ecology, Evolution, and Systematics. He chaired the Spanish panel for the National Research Plan, program of Biodiversity, Ecology and Global Change, (2006-2013). He also chairs the Starting Grants panel (Ecology-Evolutionary Biology) at the European Research Council (ERC).

### **Biodiversity's interactome: functional patterns in multi-specific assemblages of plant-animal mutualisms**

No single species on Earth persists without interacting with other species. Interspecific interactions take a tremendous variety of forms in nature and have pervasive consequences for the dynamics and evolution of species. This is biodiversity's interactome: the complex web of biotic interactions among species, yet we know very little of how these highly diversified webs coevolve and what are the consequences of their diversity. Pairwise interactions build up into mega-diverse networks involving dozens and even hundreds of interacting species (e.g., mutualisms). These coevolutionary networks are highly heterogeneous, with a core of super-generalists, nested, asymmetric, and contain multiple modules that act as the basic blocks of the complex web. Because mutualisms are serviced by

# PLENARY LECTURES

multiple species, studies focusing on pairwise interactions in isolation will underestimate levels of biodiversity required to maintain multifunctional networks. Loss of biodiversity in these assemblages entails losses of key functional services. Zooming in the interaction pattern itself and its natural history details, I focus on seed dispersal and pollination to explore several examples of the consequences of human-disturbed ecological interactomes: the extinction of interactions.

## GrrlScientist

We are excited that GrrlScientist will present this year's '**12 Months in Ecology**' – a personal take on what has happened in the ecological community during the past year.

GrrlScientist is the pseudonym of an evolutionary biologist and ornithologist who writes about evolution, ethology and ecology, especially in birds. After earning a degree in microbiology and working at the Fred Hutchinson Cancer Research Centre in Seattle, she earned her PhD in zoology from the University of Washington in Seattle, where she studied the molecular correlates of testosterone and behaviour in white-crowned sparrows. She then was a Chapman Postdoctoral Fellow at the American Museum of Natural History in New York City, where she studied the speciation and distribution of lorries and other parrots throughout the South Pacific Islands. A discarded scientist, she returned to her roots: writing. She writes the popular eponymous science blog hosted by The Guardian (UK), writes programs for BirdNote Radio (Seattle), and is writing a popular science book about plumage colour. An avid lifelong birder and aviculturist, she lives with a flock of songbirds and parrots -- and a slightly deaf spouse -- in Frankfurt, Germany.



## Professor Camille Parmesan

*Marine Institute, Plymouth University, UK and Department of Geology, University of Texas at Austin*

Professor Camille Parmesan's research focuses on the current impacts of climate change on wildlife, from field-based work on American and European butterflies to synthetic analyses of global impacts on a broad range of species across terrestrial and marine biomes. Her analyses documenting the global extent and pervasiveness of the effects of anthropogenic



climate change on biodiversity have helped support arguments in policy sectors for reduction of greenhouse gas emissions. She works actively with governmental agencies and NGOs to help develop conservation assessment and planning tools aimed at preserving biodiversity in the face of climate change. Parmesan has received numerous scientific awards, including being ranked the second most highly cited author in the field of Climate Change from 1999-2009 by Thomson Reuters Web of Science, being named the "2013 Distinguished Scientist" by the Texas Academy of Sciences, and named a Fellow of the Ecological Society of America. She was awarded the Conservation Achievement Award in Science by the National Wildlife Federation, named "Outstanding Woman Working on Climate Change," by IUCN, and named as a "Who's Who of Women and the Environment" by the United Nations Environment Program (UNEP). Parmesan has worked with the Intergovernmental Panel on Climate Change for more than 15 years, and is a co-recipient of the Nobel Peace Prize awarded to IPCC in 2007. Dr. Parmesan holds the National Aquarium Chair in the Public Understanding of Oceans and Human Health in the Marine Institute, Plymouth University (UK) and is a Professor in Geology at the University of Texas at Austin (USA).

## Ecology as a dynamic science: Challenges and solutions in a time of rapid global change

Ecology is a dynamic field, reinventing itself as the very systems of study undergo dramatic changes from natural and human drivers. I will review how the science of ecology has evolved in recent decades to reflect a changing world, new tools, and emerging societal needs. Even as ecology has become more interdisciplinary to address more complex questions, large gaps remain in understanding key linkages between natural and human ecology. Climate change is but the latest in a series of ever-increasing anthropogenic pressures on natural systems, yet there are fundamental differences between this relatively new threat and traditional anthropogenic stressors that have challenged ecological research over the past century. Thus, preservation of biodiversity in the face of anthropogenic climate change will require novel forms of management and unconventional measures of 'success'. Some conservation options bring up ethical issues that question the philosophical foundation of traditional conservation. Successful conservation will increasingly depend on trans-national cooperation, both in terms of research and policy applications. Creative conservation solutions are not without risk, but successful conservation in a time of rapid environmental change will be that which recognizes that doing nothing carries risk as well.

# SYMPOSIA SESSIONS

We are pleased to announce a diverse series of 10 symposia sessions. Symposia 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.

Please refer to the main oral programme for the full list of speakers.

**Wednesday 10 August**  
**11.15 – 13.00**

**SYMPOSIUM 1:**  
**Pan-European Parasite Ecology:  
Linking Early-Career Researchers**

*Location: Vauban*

**Keynote: Nathalie Charbonnel, INRA Montpellier**

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**Thursday 11 August**  
**10.45 – 12.45**

**SYMPOSIUM 4:**  
**Biological Impacts of Climate  
Change: Reconciling Macro-scale  
Patterns with Local-scale Processes**

*Location: Vauban*

**Keynote: Jose M. Montoya, CSIC Barcelona and  
Jane Hill, The University of York**

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**SYMPOSIUM 2:**  
**Extending Freshwater Management  
beyond Shorelines by Linking Aquatic  
and Terrestrial Ecosystems**

*Location: Van Gogh*

**Sponsor: NERC**



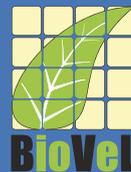
**Keynote: Michael Pace, University of Virginia**

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**SYMPOSIUM 5:**  
**Genomics in Marine Monitoring:  
New Opportunities for Assessing  
Marine Health Status**

*Location: Van Gogh*

**Sponsors: BioVeL & Genomic Observatories**



**Keynote: Herman Hummel, Royal Netherlands  
Institute for Sea Research**

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**15.15 – 17.15**

**SYMPOSIUM 3:**  
**Accelerating Ecology and Biodiversity  
Research via Ecometagenomics:  
Species Communities and  
Environmental DNA**

*Location: Van Gogh*

**Keynote: Pierre Taberlet, Université Joseph Fourier/  
CNRS**

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# SYMPOSIA SESSIONS

**15.00 – 17.00**

SYMPOSIUM 6:

## **Ménage à Trois: Ecological Consequences of Intricate Interactions between Plants Microbes and Insects**

*Location: Vauban*

**Sponsor: Royal Entomological Society**



**Keynote: Marcel Dicke, Wageningen University**

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SYMPOSIUM 7:

## **Ecological Networks: From Descriptions to Predictions**

*Location: Van Gogh*

**Sponsor: Functional Ecology**

# Functional Ecology

**Keynote: Sonia Kefi, Université Montpellier 2**

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**Friday 13 August**

**10.00 – 12.00**

SYMPOSIUM 8:

## **Reforming and Implementing the Common Agricultural Policy the Role of Science and the need to Understand Policy-making**

*Location: Vauban*

**Keynote: Tim G. Benton, UK Global Food Security Programme and University of Leeds**

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SYMPOSIUM 9:

## **Ecological Implications of Tree Diseases**

*Location: Van Gogh*

**Keynote: Steve Woodward, The University of Aberdeen**

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**13.00 – 15.00**

SYMPOSIUM 10:

## **Eco-evolutionary Feedbacks: Theoretical and Empirical Perspectives**

*Location: Vauban*

**Sponsors: Axios Review and University of Lille 1**



**Keynote: Richard Gomulkiewicz, Washington State University**

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# WORKSHOPS OVERVIEW: WEDNESDAY 13:30-15:00

Wednesday

Doing and Funding Effective Public Engagement	<i>Helen Featherstone BES Education Team</i>	Artois 1
Fit For Purpose: Are EU Policies Delivering for Nature	<i>Alistair Taylor BES Policy Team</i>	Reubens 1 & 2
Practical Issues in Peatland Restoration - Case Study 1: Thorne Moors and the Humberhead	<i>Ian Rotherham, Kieran Sheehan, Simon Caporn Sheffield Hallam, JBA Consulting, Manchester Met</i>	Matisse 2
Predictive Biogeography - Forecasting Invasive Corridors and Risk Zones for Conservation and Management of Natural Resources	<i>Hannu Saarenmaa and Yuliya Fetyukova University of Eastern Finland</i>	Charles de Gaulle 1 & 2
The Calibration and Evaluation of Individual Based Models Using Approximate Bayesian Computation	<i>Richard Silby University of Reading</i>	Matisse 1
The Field Guide to Computational Methods in Ecology	<i>Rick Stafford Bournemouth University, Computational Special Interest Group</i>	Faidherbe 1 & 2
Treating Your Data Right: Managing Research Data in Ecology and Evolution	<i>Bob O'Hara BES Publications Team</i>	Matisse 3
Using Digital Technologies in the Field, or Best Field App	<i>Sarah Taylor BES Education Team</i>	Artois 2

## Doing and funding effective public engagement

*Organisers: Helen Featherstone, Karin Ulbrich, Will Gosling and Emma Sayer*

This workshop focusses on how researchers can communicate their science to a range of public groups and will provide support in identifying mechanisms to communicate with different public groups. The workshop will also provide support in planning evaluative strategies for public engagement that might provide evidence for impact.

How researchers engage the public with their research is increasingly important, more PhD's are beginning to actively recruit those interested in public engagement. This workshop asks participants to bring their own ideas with them and throughout the workshop we will consider how to best maximise impact for engagement activity. We will do this through looking at how we identify different public groups and tailor the messages we wish to present, access funding and collaborative support. We will also look at how evaluation can be built into the development of public engagement activity. We aim to ensure you leave the workshop with an action plan specific to your own research.

All speakers are actively involved in developing public engagement and in developing the Society's own public engagement activity, this workshop also provides you with a great chance to get to know and get involved in the BES 2015 programme of activity.

## Fit for Purpose? Are EU policies delivering for nature?

*Organiser: Alistair Taylor, RSPB, and BES Policy Team*

Do you want to have a real impact on the future of nature conservation policy in the European Union?

The Birds and Habitats directives, the European Union's flagship biodiversity conservation policies, will be subject to a "fitness check" review during the next twelve months, which seeks to evaluate whether they are "fit for purpose". This fitness check has been lent extra weight by the mandate given to the new Commissioner for Environment, Maritime and Fisheries to assess the potential for combining the directives into a "more modern piece of legislation".

Are the Birds and Habitats directives delivering for nature? Are the key problems and concerns facing species and habitats of EU conservation concern still addressed by the EU nature legislation? And have the directives adapted to the latest progress in ecological science?

This interactive workshop will address these questions and give delegates the opportunity to inform the British Ecological Society's response to the forthcoming consultation on the directives, helping to ensure that decisions about the future of biodiversity conservation across the EU are informed by the sound ecological science. We are particularly keen to hear contributions from delegates from across the EU.

Following an overview of the directives, the current policy context and the key issues by Alistair Taylor (Senior Policy Officer, RSPB), the workshop will breakout into active discussion groups focusing on the key ecological questions underpinning the directives.

## Practical Issues in Peatland Restoration

*Ian Rotherham, Keiran Sheehan, Simon Caporn*

Case Study 1: Thorne Moors and the Humberhead Levels  
Past Peatland Special Interest group events have raised critical issues of understanding peat bogs – ecology, ecosystem services, history, and archaeology – and in the context of bog restoration and issues such as carbon sequestration and water (flood) management. Issues have been further demonstrated by a series of field-based workshops

This interactive workshop will address key issues of methods used to restore degraded and damaged peat bogs – what to do and what not to do, how long will it take, and how much will it cost. How successful can we expect restoration to be and can we improve or speed the process? Who are the stakeholders and decision-makers?

## Predictive biogeography – forecasting invasive corridors and risk zones for conservation and management of natural resources

*Hannu Saarenmaa, Yuliya Fetyukova*

This workshop will train the attendees to carry out their own predictive invasion study for a given ecological group in a region of interest under various climate scenarios, and analyze the results in the context conservation and management programs. The program includes a short introduction with examples from marine Ballastwater and terrestrial forest pest invasions. This will be followed by a number of practical exercises that guide the participants through the assembly of taxonomic, ecological, and environmental data, and perform a species distribution analysis. The practical exercises will be carried out using BioVeL Taverna workflows for data cleaning and ecological niche modeling, and will be supported by extensive tutorials and example input data. The workshop will be wrapped-up with a discussion of possible research projects in the field of invasive biogeography, where the participants can reflect about the suitability of the various methods for addressing the challenges. The outcome of the training is expected to enable participants to design their own predictive biogeographic study based on the latest methods.

## The calibration and evaluation of Individual Based Models using Approximate Bayesian Computation, ABC

*Contributors: Richard Sibly, Elske van der Vaart and Sam Cartwright*

ABC is a fairly new approach to statistics which can do for computer models what classical statistics does for general linear models. It is a technique for optimising a model's parameter values given the data, and for selecting between structurally different model representations. It can be applied to any computer model of a process where data are available to calibrate and evaluate the performance of the model. It involves running the model some 105 times while varying the model's parameter values. Parameter values are identified which result in model outputs which best match all relevant data. Posterior distributions of parameter values are found from which credible intervals can be calculated. Comparisons of models are put on a firm statistical basis allowing informed decisions as to which model best fits the data. The use of Bayes factors quantifies how much better one model is than another. In the workshop we show how ABC can be applied to Individual-Based Models (IBMs), which are widely used in ecology to make practical predictions in real landscapes. It has previously been difficult to systematically compare and calibrate IBMs, but ABC offers a way forward. Participants should be familiar with computer models and ideally with R, but no prior knowledge of Bayesian statistics is necessary.

*Participants should bring their own laptops with R installed in order to follow this course.*

## The Field Guide to Computational Methods in Ecology

*Organisers: Rick Stafford and Nick Golding*

As the list of new computational methods in ecology continue to grow it becomes harder to keep up with the latest advances in the field, and difficult to understand the benefits and limitations of one method over another. The 'Field Guide' to computational methods is designed to do the following:

- 1) Provide an overview of different methods to allow an understanding of what is involved in the technique
- 2) Give an honest appraisal of the strengths and weaknesses of the method compared to similar techniques
- 3) Provide an indication of the accuracy of the techniques (i.e. do they predict general trends, or are they spatially explicit?)

# WORKSHOPS OVERVIEW: WEDNESDAY 13:30-15:00

Wednesday

- 4) Provide links to further research which has used these methods in a range of sub-disciplines of ecology
- 5) Cross reference to similar techniques, also included in the guide The development of the guide is ambitious, but will be useful to those taking their first steps into computational methods, as well as those who need to evaluate the output of the models (such as policy makers, or general ecologists reading these studies).

The purpose of the workshop is to evaluate the work done so far in the guide, and to consider a list of topics (along with potential collaborators) to include as the guide grows. As such, the workshop is suitable for those who use computational methods, those who would like to, and those who try to understand the science coming out of computational studies.

*Computers would be useful to bring, but not essential.*

## Treating your data right: managing research data in ecology and evolution

*Contributors: Bob O'Hara and Kyle Demes*

Managing experimental data effectively is an important skill for researchers to have. Only well-organized datasets remain useful to the collector over time or to others who may wish to reuse them. As part of a trend towards increased openness and reproducibility in science, many universities issue data management policies for their employees and grant applications now often have to include data management plans.

Bob O'Hara (statistician and Senior Editor of *Methods in Ecology and Evolution*) and Kyle Demes (marine ecologist and winner of *Functional Ecology's* Haldane Prize for best paper by a young author) will introduce principles of data management planning, provide guidance on day-to-day data management practices and highlight the importance of relevant metadata for sharing or archiving data. Attendees will have the opportunity to put their newly acquired knowledge to the test in a series of small exercises before addressing the speakers in an open Q&A session.



## Using digital technologies in the field, the ups and downs

*Organisers: Sarah Taylor, Keele University, Alice Mauchline, University of Reading and Derek France, Chester University*

The workshop will demonstrate a range of digital devices, apps and softwares that can be used in the lab and field to support fieldwork teaching and share effective practice in resourcing the hardware required to enhance student experience and learning.

Ever wanted to use iPads or android devices in fieldwork and field teaching? We will be comparing iOS and android platforms and looking at a range of apps for use in the field, lab and home, including EpiCollect, KiteSite, Evernote and Skitch. We will also provide a list of apps that we have used in the past that encompass species ID apps, digital field notes, geology and more

There will be 15 iPad mini's available for participants to use along with a smaller number of Google Nexus devices to compare platforms.

For those looking to develop class practicals we will also consider how to source funding, how to manage class sets in order to share information.

# WORKSHOPS OVERVIEW: THURSDAY 13:00-14:30

An Introduction to Range Shifter: A Platform for Modelling Spatial Eco-Evolutionary Dynamics and Species Responses to Environmental Changes	Justin Travis University of Aberdeen	Charles de Gaulle 1 & 2
Macroecology Meets macroevolution: Evolutionary Dynamics and Niches over phylogenies	Saverio Vario, Yde de Jong, Rutger Vos, Niels Raes CNR ITB - Italy, University of Eastern Finland, Naturalis Biodiversity Center, Netherlands - Vos and Raes	Goya
Modelling Ecosystems Online - Data-Model Fusion and Predicting/Quantifying Ecosystem Service Consequences of Various Land Use and Climate Change Scenarios	Ferenc Horvath Centre for Ecological Research of the Hungarian Academy of Sciences	Faidherbe 1 & 2
Practical Issues in Peatland Restoration - Case Study 2: The New Forest Peatlands	Ian Rotherham, Kieran Sheehan, Simon Caporn Sheffield Hallam, JBA Consulting, Manchester Met	Matisse 2
Maximising the reach of your research paper	GrrlScientist, Ken Thompson and BES Publications Team	Matisse 3
Planning projects for impact and change in the real world	Barbara Smith Game and Wildlife Conservation Trust, Agricultural Ecology Special Interest Group	Matisse 1
Ecosystem assessments – concepts, tools and governance	Aletta Bonn German Centre for Integrative Biodiversity Research	Reubens 1 & 2

Thursday

## An Introduction to RangeShifter: A platform for modelling spatial eco-evolutionary dynamics and species' responses to environmental changes

*Contributors: Steve Palmer, Kevin Watts, Justin Travis*

Rapid environmental changes are threatening biodiversity and exposing species to novel ecological and evolutionary pressures. The scientific community increasingly recognizes the need for dynamic models integrating sufficient complexity both to improve our understanding of species' responses to environmental changes and to inform effective management strategies. In this workshop, we will introduce RangeShifter, a recently published modelling platform, which provides an important tool for advancing ecological theory on species' spatial dynamics in response to environmental changes, and links demographic and dispersal theory directly to applications in biodiversity conservation.

The workshop will start with a short introduction and brief software demonstration, after which participants will be able to try RangeShifter on their own laptops (which must either run Windows or a Windows emulator) using three tutorial examples which will be provided. Experienced users will be available throughout to help the participants familiarise themselves with the software. Our experience with similar RangeShifter workshops is that hands-on experience of using RangeShifter helps participants to envisage their potential applications for it, generate questions about what is currently possible and promote discussion of how future developments could be implemented.

*Participants should bring a computer, if possible.*

## Macroecology meets macroevolution: evolutionary dynamics of niches over phylogenies

*Saverio Vario, Yde de Jong, Rutger Vos, Niels Raes*

Molecular phylogenetic inference is a powerful approach for reconstructing evolutionary history. The combination with statistical correlation methods such as ecological niche modelling (ENM) and a rapidly growing corpus of open data allows larger studies of eco-evolutionary responses to climatic changes in the environment. However, such approaches are computationally demanding and require an integrated access to data and methods from many disciplines, including taxonomy, phylogenetics, ecology, and climatology. This creates obstacles for wider applications of such 'phyloclimatic modelling' in conservation and ecosystem research.

The workshop addresses this challenge and introduces concepts, techniques, and resources for scalable taxonomic, phylogenetic and niche modelling analysis in ecological research. The program starts with a short introduction as well as an example case, followed by a number of practical exercises that guide participants through all principal steps of a phyloclimatic analysis.

## Modelling ecosystems on-line – data-model fusion and predicting/ quantifying ecosystem service consequences of various land use and climate change scenarios

*Organisers: Zoltán Barcza, Ferenc Horvath*

i) Biome-BGC MuSo is an improved process-based biogeochemical model to simulate functioning of natural and managed ecosystems. It is representing the key ecological processes under various environmental conditions and land use options. Multi-parametric models like Biome-BGC must be constrained with data to quantify and address their sound performance and uncertainties. According to the model-data fusion approach model characterization and parameter estimation are key aspects to reach better model performance. New on-line ecosystem modelling tools can enable a wider array of scientists to perform simulations for carbon sequestration or ecosystem service quantification not previously possible due to high complexity and computational demand.

ii) Introductory presentations will expose the theoretical bases, the improved features of the Biome-BGC model, and overview of the on-line tools. Two sessions are devoted to train attendees in an interactive and participatory manner. One for individually run Sensitivity Analysis (SA) of the model parameters, and a Generalized Likelihood Uncertainty Estimation (GLUE) to fine tune these parameters. The second for applying different land use change options (e.g. afforestation of abandoned fields) and perform simulations to get carbon sequestration and ecosystem service indicators. Groups will be formed to make collective decisions on land use change within a framework of an on-line regional case study.

iii) Improve ecosystem modelling to support carbon sequestration and ecosystem studies affected by human interventions is a leading-edge topic. Professor Zoltán Barcza is a topical researcher in developments of Biome-BGC ecosystem modelling. Ferenc Horváth is the leader of development of on-line ecosystem modelling tools.

## Practical Issues in Peatland Restoration

*Ian Rotherham, Keiran Sheehan, Simon Caporn*

Case Study 2: The New Forest peatlands

Past Peatland Special Interest group events have raised critical issues of understanding peat bogs – ecology, ecosystem services, history, and archaeology – and in the context of bog restoration and issues such as carbon sequestration and water (flood) management. Issues have been further demonstrated by a series of field-based workshops

This is the second part of the Peatlands Restoration interactive workshop. It will address key issues of methods used to restore degraded and damaged peat bogs – what to do and what not to do, how long will it take, and how much will it cost. How successful can we expect restoration to be and can we improve or speed the process? Who are the stakeholders and decision-makers?

## Maximising the reach of your research paper

*Organisers: GrrlScientist and Ken Thompson*

It is increasingly important for scientists to be able to communicate their work clearly and effectively. As well as communicating to the general public and media, scientists may also need to communicate their research to scientists who are unfamiliar with their speciality—or even ecology in general. As most research papers are aimed at a very specific group of readers, researchers need to be able to unpick what will appeal to different audiences, whether it's the outcome, the approach or the wider ecological context, and how best to communicate the key messages.

Grrlscientist (evolutionary biologist, ornithologist, blogger and this year's Twelve Months in Ecology speaker) and Ken Thompson (Senior Editor for Functional Ecology, columnist and writer) will talk about identifying the most relevant and interesting aspects of your work, how to pitch these for different audiences, and how to identify the best approach for different forums, including online for fellow scientists and in the traditional press for the general public. Attendees will be given the chance to look at a range of papers and encouraged to work out what, how and for whom they should be targeting their communication.

# WORKSHOPS OVERVIEW: THURSDAY 13:00-14:30

## Planning for change in the real world

Facilitator: Nicola Randall, Harper Adams University

Contributors: Barbara Smith, Tim Graham



How many times have you known people design great projects with a set of planned practical outcomes that they are not able to implement? The projects may have been designed to help people with environmental problems but the people for whom they were designed were unable or unwilling use the outputs from the project.

This lively workshop is aimed at people involved in or considering commencing environmental projects and will encourage creative thinking through the use of case studies from experienced project planners. There will be interactive activities in small groups to encourage participants to consider ways to improve the chances of a successful project. The topics covered will include planning for participatory question setting, anticipating stakeholder needs and expectations, implementing outputs and outcomes to effect change.

Bring a laptop if you have one, each group will need at least one to share. Materials will be distributed electronically.

## Ecosystem assessments – concepts, tools and governance

Aletta Bonn

Following the Millennium Assessment and the Aichi target to 'enhance the benefits to all from biodiversity and ecosystem services', a wide range of national and regional ecosystem assessments have been initiated. The EU Biodiversity Strategy 2020 now stipulates for member states to 'map and assess the state of ecosystems and their services in their national territory by 2014'. This is to support the assessment of 'the economic value of such services, and promote the integration of these values into accounting and reporting systems at EU and national level by 2020'.

This workshop will provide an opportunity to learn about and debate current developments of different ecosystem assessments from across the globe. The aim is to compare and discuss conceptual, technical and participatory approaches with special emphasis on

- a) Concepts of ecosystem service mapping, valuation and accounting
- b) Technical advances to harmonising existing data, monitoring and modeling approaches to assess the spatio-temporal distribution of ecosystem services supply and demand at a regional, national or international scale
- c) Analyses of drivers of change and future scenarios of land management options, assessments of synergies and trade-offs between targets for ecosystem services, biodiversity and benefits to human well-being
- d) Governance approaches to participatory engagement of experts from science, policy and practice in the assessment process
- e) Strategic outcomes of the assessments for integration into policy, practice and science.

Thursday

# PRESENTER INFORMATION



**If you would prefer fellow delegates not to share information from your presentation on social media, please make it known at the beginning of your talk or during your poster session. We encourage all delegates to respect the requests of presenters.**

## Oral Presenters

Each speaker is allotted 15 minutes, unless you are a Symposium 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. A full list of authors and abstracts are available on our app: [eventmobi.com/bessfe](http://eventmobi.com/bessfe).

The meeting supports Microsoft PowerPoint 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. 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 (Hainault). 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 Wednesday 10 December, please try to report to the Speaker's Room during registration on Tuesday from 17:00 – 20:00.

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

Tuesday 9 December	17.00 – 20.00
Wednesday 10 December	08.00 – 18.00
Thursday 11 December	08.00 – 18.00
Friday 12 December	08.00 – 13.00

In the Speakers' Room, facilities will be available to view your PDF or PowerPoint 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.

Our prize winners are highlighted throughout the programme in red.

## Poster Presenters

Your poster will be displayed in one of the poster viewing areas in Lille Metropole, the main Exhibition Hall of the Grand Palais.

All posters should be PORTRAIT 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 08.30 on Wednesday 10 December. All posters MUST be in place by 10.30 on Wednesday 10 December.

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

Posters will be on display all day Wednesday and Thursday during 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 - J1), which takes place on Wednesday 10 December from 17.45 - 19.15.

All poster numbers with a letter followed by the number 2 will be part of Poster Session 2 (A2 - K2), which takes place on Thursday 11 December from 17.00 - 18.30.

Posters must be removed immediately after the poster session on Thursday evening, between 18.30 and 19.00. Posters remaining after this time may be disposed of.

## BES-SFE Poster Award

If you have entered your poster for a student award, there will be a coloured sticker on your poster board. Judging will take place throughout the poster sessions based on categories including: visual style, scientific content, originality of research, and effectiveness of communication. The winner will be announced after the meeting.

## Abstract Publication and access

All abstracts can be accessed with the BES-SFE Joint Annual Meeting mobile app. To download the app, visit: [xxxxx](http://xxxxx) on your laptop, mobile device, or tablet. Alternatively you can scan the QR code above.

# SPECIAL INTEREST GROUP SPONSORED SESSIONS

The following sessions are sponsored by BES and SFE Special Interest Groups.

## Wednesday 10 August 11.15 – 13.00

**S1: Welcome to the Dark Side  
- Opportunities Challenges  
and Solutions for Synthesizing  
Global Soil Biodiversity**

Location: Reubens  
Page: 25



## 15.15 – 17.15

**S11: Long-term Monitoring  
in Agro-ecosystems**

Location: Vauban  
Page: 29



**S12: Generation and Maintenance of  
Genetic Diversity in Tropical Forests**

Location: Reubens  
Page: 13



## Thursday 11 August 10.45 – 12.45

**S22: Infectious Disease Ecology  
and Evolution**

Location: Reubens  
Page: 33



**S31: Forest Ecology:  
Carbon Dynamics**

Location: Matisse 3  
Page: 36



## Friday 13 August 13.00 – 15.00

**S52: Celebrating  
Citizen Science**

Location: Faidherbe  
Page: 45



**S53: Climate  
Change Ecology**

Location: Van Gogh  
Page: 45



**S55: Parasites, Pathogens and Wildlife Disease:  
Dynamics & Consequences**

Location: Charles de Gaulle  
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# ORAL PRESENTATIONS: WEDNESDAY 10 DECEMBER

Wednesday

Please note that lunch, coffee breaks and other events are not included in the following printed scientific programme, so please ensure you check the start time and refer back to the main meeting overview (page 8) when planning your schedule for the day. Prize winners are highlighted in red.



Only presenter names are listed in the printed; a full list of authors and abstracts are available on [eventmobi.com/bessfe](http://eventmobi.com/bessfe).

## SYMPOSIUM 1:

### Pan-European Parasite Ecology: Linking Early-Career Researchers

Location: *Vauban*

Chair: **Serge Morand**

- 11:15 **Nathalie Charbonnel:** Contemporary evolution of immunity during biological invasions
- 11:45 **Ellie Sherrard-Smith:** Parasitism - the vital few and insignificant many
- 12:00 **Anna-Liisa Laine:** Ecological and evolutionary effects of fragmentation on infectious disease dynamics
- 12:15 **Andrew Turner:** Diversity and divergence of immune genes in four wild rodent species
- 12:30 **Justyna Wolinska:** Population structure of microparasites infecting *Daphnia*: spatio-temporal dynamics
- 12:45 **Anne Laudisoit:** The perfect burrow...for what?
- 13:00 **Discussion**

## SYMPOSIUM 2:

### Extending Freshwater Management beyond Shorelines by Linking Aquatic and Terrestrial Ecosystems

Location: *Van Gogh*

Chair: **Andrew J. Tanentzap**

- 11:15 **Michael Pace:** Watershed Inputs, Aquatic Food Webs, and Ecosystem Stability
- 11:45 **Christopher Solomon:** Subsidy or subtraction: How do terrestrial organic matter inputs affect productivity of lake food webs?
- 12:00 **Grace Wilkinson:** Importance of deep water autochthonous vs allochthonous resources to zooplankton

- 12:15 **Jonathan Grey:** Unravelling the role of ecosystem subsidies in delivering aquatic ecosystem services
- 12:30 **John Gunn:** It Starts With Clean Air: The Sudbury Case History of Ecosystem Recovery
- 12:45 **Andrew Farmer:** Addressing the Land-Water Interface in the EU Water Framework Directive
- 13:00 **Discussion**

## S1:

### Welcome to the Dark Side – Opportunities, Challenges and Solutions for Synthesizing Global Soil Biodiversity

Location: *Reubens*

Chair: **Franciska De Vries**

- 11:15 **Diana Wall:** The Global Soil Biodiversity Initiative and advances in soil biodiversity
- 11:30 **Kelly Ramirez:** A road map to a global soil biodiversity database
- 11:45 **David Russell:** Edaphobase—An online soil-zoological data warehouse
- 12:00 **Rob Griffiths:** Soil bacterial biogeography: using landscape scale surveys to predict and interpret local effects of land use change
- 12:15 **Ingrid Lubbers:** Earthworms and the soil greenhouse gas balance
- 12:30 **Ludovic Henneron:** Forest plant community as a driver of soil biodiversity – A large-scale assessment on collembolan assemblages through stand density experimental manipulation
- 12:45 **Christopher Jones:** Recently identified microbial guild mediates soil N<sub>2</sub> O sink capacity

# ORAL PRESENTATIONS: WEDNESDAY 10 DECEMBER

Wednesday

**13:00 Robert Mills:** Linking plant and microbial community composition to soil function in the context of short and long-term CNP storage and turnover in physically complex, species-rich sub-alpine grasslands.

S2:

## Agricultural Ecology Pests & Pesticides

*Location: Faidherbe*

**Chair: Lucy Alford**

- 11:15 Mickael Henry:** Context-dependency of pesticide risks to honey bees: toward a spatial approach to bee eco-toxicology
- 11:30 Sean Hackett:** Optimal Control of Dynamic Pest Populations
- 11:45 Victoria Wickens:** Local and Landscape Effects on Aphids and Their Natural Enemies
- 12:00 Cécile Gracianne:** What can be learned from wild populations of pests to better manage resistances in the fields?
- 12:15 Maxime Jacquot:** Influence of plant diversity, insecticide applications and landscape on arthropod species richness of two trophic levels in mango orchards.
- 12:30 Christina Sann:** Influence of habitat structure on the pest control efficiency of egg parasitoids in Philippine lowland rice
- 12:45 Quentin Chesnais:** Do mothers really know best? The case of host selection by parasitoids in intercrop.
- 13:00 Pierre Franck:** Spatio-temporal distribution of the parasitoid community affecting a major pest in orchards: a case study in apple orchards from South-eastern France.

S3:

## Ecological Genetics and Molecular Ecology

*Location: Goya*

**Chair: Marc Rius**

**11:15 Jennifer Rowntree:** The genetics of plant-pollinator interactions

- 11:30 Alexis Beaupaire:** Extensive population admixture on drone congregation areas of the giant honeybee, *Apis dorsata* (Fabricius, 1793)
- 11:45 Barbara Morrissey:** Biogeography of *Paenibacillus* larvae, the causative agent of American foulbrood, using a new MLST scheme
- 12:00 Axelle Marchant:** Comparative Transcriptomics in Chagas disease vectors: a focus to chemosensory genes
- 12:15 Marc Rius:** Marine invasion genetics: from spatio-temporal patterns to evolutionary outcomes
- 12:30 Claire-Lise Meyer:** Evolutionary origin of zinc and cadmium tolerance in *Arabidopsis halleri*: identification of major Quantitative Trait Loci in a non-metallicolous accession
- 12:45 Etienne Baron:** The genetics of intra- and interspecific competitive response and effect in a local population of an annual plant.
- 13:00 Christophe Thebaud:** Reduced dispersal and divergent selection drive phenotypic diversification at a very small scale in an island bird

S4:

## Tropical Ecology

*Location: Charles de Gaulle*

**Chair: Sharon Zytynska**

- 11:15 Sarah Arnold:** Invertebrate biodiversity and pollinators on Caribbean cocoa estates
- 11:30 Mateus Dantas de Paula:** Modelling degradation and recovery of tropical forests in a fragmented landscape
- 11:45 Bruno Héroult:** Thirty years of tropical forest dynamics after logging: the Paracou experiment
- 12:00 Elizabeth Wandrag:** The role of seed dispersal in forest dynamics: an accidental experiment provided by the loss of birds on Guam.
- 12:15 Andreas Huth:** Fragmentation of tropical forest: current state and global impacts
- 12:30 Helen Phillips:** The effect of land-use change on biodiversity: A comparison across four continents

# ORAL PRESENTATIONS: WEDNESDAY 10 DECEMBER

Wednesday

- 12:45 Encarni Montoya:** Evaluation of terrestrial versus aquatic communities' sensitivity to perturbations: palaeo-record of volcanic activity effects in central Ecuador.
- 13:00 William Gosling:** Long-term resilience of diverse tropical forests to disturbance events on the eastern Andean flank of Ecuador

S5:

## Competition Ecology & Evolution

*Location: Rembrant*

**Chair: Anaid Diaz**

- 11:15 Luv De Meester:** Eco-evolutionary dynamics in community assembly: an experimental test of the effect of local genetic adaptation on community composition in zooplankton
- 11:30 Nicolas Loeuille:** Eco-Evolutionary Dynamics of Agricultural Networks: Implications for Sustainable Management
- 11:45 Stephen Bonser:** Ecological and evolutionary benefits of sexual and clonal reproduction in stressful and competitive environments
- 12:00 Karen Bisschop:** Evolution of ecological specialisation under competition
- 12:15 Meredith Root-Bernstein:** There are plenty of things we still don't understand about small mammal community ecology: With some examples from *Octodon degus*.
- 12:30 Laroche Fabien:** Reconciling neutral theory and competition-dispersal trade-off generates new insights on species diversity patterns in patchy habitats.
- 12:45 Simon Ducatez:** Invasion and the evolution of intraspecific conflict in Australian cane toads
- 13:00 Joan Van Baaren:** Factors driving life-history traits in a community of aphid parasitoids: environmental filtering and niche partitioning

S6:

## Global Change Ecology Vegetation & Growth

*Location: Matisse 1*

**Chair: Constant Signarbieux**

- 11:15 Melinda Smith:** Resistance and resilience of a grassland ecosystem to multiple drought events
- 11:30 Lionel Bernard:** Functional mechanisms driving subalpine grasslands' resilience to global change
- 11:45 Mick Hanley:** Riders of the storm: Grassland plant response to seawater flooding
- 12:00 Safaa Wasof:** The climatic niche of terrestrial vascular plants is stable but regional shifts within the climatic niche are common
- 12:15 Jonathan De Long:** Plant growth response to direct and indirect temperature effects varies by vegetation type and elevation in a subarctic tundra
- 12:30 Andrey Malyshev:** Influence of photoperiod sensitivity among and within tree species on breaking bud dormancy.
- 12:45 Pieter De Frenne:** Light enhances forest plant responses to warming
- 13:00 Charles Nock:** Centennial scale tree-ring and stable isotope evidence for Thai and Australian *Toona ciliata* suggest converging responses to global changes

S7:

## Macroecology, Biogeography and Landscapes Biogeography & Species Distributions

*Location: Matisse 2*

**Chair: Phillipa Gillingham**

- 11:15 Nick Isaac:** Butterfly abundance is determined by food availability mediated by species traits
- 11:30 Cécile Albert:** Impact of land use and climate change on biodiversity in a fragmented landscape
- 11:45 Bertrand Gauffre:** Spatial heterogeneity in landscape structure influence dispersal and the genetic structure of populations: empirical evidence from a grasshopper in an agricultural landscape

# ORAL PRESENTATIONS: WEDNESDAY 10 DECEMBER

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- 12:00 Colette Bertrand:** Relative effects of spatial and temporal heterogeneity of agricultural landscapes on carabid beetles assemblages (Coleoptera:Carabidae)
- 12:15 Romain Bertrant:** Projecting species distribution models over the time: a risky business?
- 12:30 Noelle Beckman:** Dispersal disruption alters plant spatial patterns and decreases plant survivorship
- 12:45 Danilo Neves:** Continental patterns of tree composition across South America
- 13:00 Kyle Dexter:** Geographic structure in the phylogenies of Amazonian trees and implications for the history of the Neotropical rain forest biome

S8:

## Food Webs, Networks and Complexity Food Webs

Location: Artois 1

Chair: Jose Montoya

- 11:15 James Kitson:** Using molecular tools to examine the effects of invasive species on native food webs.
- 11:30 Christian Guill:** Coupling food webs by ontogenetic habitat shifts
- 11:45 Daniel Montoya:** Food web structure and the spatial distribution of functional groups in complex networks: Implications for ecosystem functioning
- 12:00 Órla McLaughlin:** Impact of warming on the food web structure of a terrestrial invertebrate community.
- 12:15 Leonie Clitherow:** Reciprocal subsidies between riverine and terrestrial riparian habitats across floodplains of different ages in Glacier Bay, Alaska
- 12:30 Lydie Blottière:** impacts of mixing on the structure of freshwater communities and trophic foodwebs
- 12:45 Dirk Sanders:** Interspecific competition between herbivores drives the strength of a horizontal extinction cascade at the carnivore level
- 13:00 Frank Van Veen:** Link flexibility and food web phenology

S9:

## Population Ecology and Dynamics Populations & Environmental Change

Location: Artois 2

Chair: Chris Clements

- 11:15 Rosie Woodroffe:** Temperature effects on African wild dogs: from individuals to species
- 11:30 Hannah Froy:** The role of phenotypic plasticity in response to climate change in a wild mammal population
- 11:45 Andrew Barnes:** The role of individual behaviour in mediating warming impacts across a fragmented landscape
- 12:00 Jose Alves:** Hot and warm: how rising temperatures can lead to population expansion
- 12:15 David Ewing:** Modelling the effect of environmental drivers on mosquito populations. How might changing temperature affect seasonal dynamics?
- 12:30 WITHDRAWN**
- 12:45 Jason Griffiths:** The impacts of combined environmental changes upon species invasion dynamics
- 13:00 Arpat Ozgul:** Coupled dynamics of traits and populations in response to environmental change

S10:

## Biodiversity and Ecosystem Function Functional Traits & Diversity

Location: Matisse 3

Chair: Jan Leps

- 11:15 Eleanor Van Veen:** Bioavailability of metals and metalloids to an edible plant growing in contaminated Cornish estuaries
- 11:30 Ellen Fry:** Plant functional traits add explanatory power to measures of carbon cycling at an experimental and landscape scale
- 11:45 Catherine Roumet:** Root structure - function relationships: evidence of a "root economics spectrum"?
- 12:00 Thomas Crowther:** Untangling the fungal niche: a trait-based approach

# ORAL PRESENTATIONS: WEDNESDAY 10 DECEMBER

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- 12:15 Juliane Trinogga:** Are community weighted means and functional diversity equally well explained by environmental gradients?
- 12:30 Jordan Guiz:** Long term effects of plant diversity and composition on plant stoichiometry
- 12:45 Santiago Soliveres:** High biodiversity at multiple trophic levels is needed to promote high multifunctionality
- 13:00 Laura Rose:** A global analysis of the biodiversity-stability relationship based on MODIS EVI data

## SYMPOSIUM 3: Accelerating Ecology and Biodiversity Research via Ecometagenomics: Species Communities and Environmental DNA

*Location: Van Gogh*

**Chair: Simon Creer**

- 15:15 Pierre Taberlet:** Introduction to DNA metabarcoding
- 15:45 Kristy Deiner:** Biomonitoring macroinvertebrates with environmental DNA
- 16:00 Serita Frey:** Fungal Biodiversity: Sustaining the Wood-Wide Web in Temperate Forests
- 16:15 Dorota Porazinska:** Highly endemic diversity patterns of soil microscopic taxa.
- 16:30 John Colbourne:** Genomes as Indicators of Environmental Health
- 16:45 Panel Discussion** and Q&A

## S11: Long-term Monitoring in Agro-ecosystems

*Location: Vauban*

**Chair: Barbara Smith**

- 15:15 Vincent Bretagnolle:** Landscape scale monitoring of biodiversity: the value of socio-ecological system long term research studies
- 15:30 Christopher Wheatley:** The Sussex Study 1970-2014: Long term cereal ecosystem monitoring
- 15:45 James Pearce-Higgins:** More than trends: What 20 years of the UK's Breeding Bird Survey has told us about environmental change

- 16:00 Marc Botham:** The UK Butterfly Monitoring Scheme: what can long-term monitoring tell us about the state of butterfly populations on farmland?
- 16:15 Fabrice Requier:** Floral resource scarcity in intensive agricultural landscapes affects bee colony dynamics
- 16:30 Elizabeth Sullivan:** Revisiting the Grassland Inventory: an assessment of the condition of species-rich grassland sites in the Forest of Bowland in North West England.
- 16:45 Nicolas Chemidlin Prévost-Bouré:** Processes and filters shaping soil microbial diversity assessed by high throughput sequencing
- 17:00 Sabrina Gaba:** The importance of long-term monitoring for interfering populations dynamics: the example of the Biovigilance French network on weeds

## S12: Generation and Maintenance of Genetic Diversity in Tropical Forests

*Location: Reubens*

**Chair: David Burslem & Stephen Cavers**

- 15:15 Stephen Cavers:** Understanding genetic diversity in tropical tree species.
- 15:30 Sanna Olsson:** Studying the evolution of tropical tree taxa: opportunities and limitations of genomic approaches
- 15:45 Anaïs-Pasiphaé Gorel:** Integrating phylogenetic and environmental niche models to explore speciation mechanisms in the *Erythrophleum* genus in tropical Africa
- 16:00 Jérôme Duminil:** African tropical tree species and the forest refuge hypothesis
- 16:15 Juliet Blum:** Correlations between species and adaptive genetic diversity in subtropical forest communities - A multi species experiment
- 16:30 Claire Tito de Moraes:** Understanding local patterns of genetic diversity in dipterocarps using a multi-site, multi-species approach: Implications for forest management and restoration.
- 16:45 David Burslem:** Inbreeding reduces seedling survival for a tropical forest tree

# ORAL PRESENTATIONS: WEDNESDAY 10 DECEMBER

Wednesday

**17:00** **Géraldine Derroire:** Isolated trees as nuclei of regeneration in tropical pastures: testing the importance of niche-based and landscape factors

S13:

## Freshwater Ecology and Ecosystems

*Location: Goya*

**Chair: Jonathan Tonkin**

**15:15** **Matt O'Callaghan:** Habitat loss and gain: using experimental mesocosms to predict stream responses to future drought scenarios

**15:30** **Michelle Jackson:** Interactive effects of multiple anthropogenic stressors in freshwater ecosystems

**15:45** **Abraham Addo-Bediako:** Metal bioaccumulation in the silver catfish from two impoundments in the Olifants River System, South Africa

**16:00** **John Murphy:** Managing the impact of fine sediment on river ecosystem

**16:15** **Hiroki Yamanaka:** Assessment of the effect of artificial obstructions on fish migration in a river using environmental DNA

**16:30** **Clémentine Renneville:** Predator body size and shape as a determinant of the strength of a trophic cascade

**16:45** **Andreas Kudom:** Impact of urbanization on the breeding pattern of *Anopheles coluzzii* in Cape Coast, Ghana

**17:00** **Alan Hildrew:** A tale of two rivers: long term persistence in the longitudinal distribution of hydropsychid caddis larvae in the Rivers Usk and Loire

S14:

## Urban Ecology

*Location: Charles de Gaulle*

**Chair: Charlotte Hall**

**15:15** **Katherine Baldock:** Plant-pollinator communities in UK urban habitats

**15:30** **Laura Fortel:** Ecology and conservation of the wild bee community along an urbanization gradient

**15:45** **Melanie Orros:** Indirect effects of supplementary feeding of wild birds in gardens

**16:00** **Alizée Meillère:** Behavioural and Physiological consequences of breeding under urban noise in the House sparrow (*Passer domesticus*)

**16:15** **Jill Edmondson:** Ecosystem service provision by urban allotments – food production and soil quality

**16:30** **Iain Stott:** How many trees are there? Understanding the state of our urban forests.

**16:45** **Laura Graham:** A metapopulation approach to urban landscape planning

**17:00** **Peter Beckett:** Status of the 'Regreening' of Sudbury, Ontario, Canada after 35 operational years

S15:

## Plant-Soil Interactions and Biogeochemistry Carbon & Nutrient Dynamics

*Location: Matisse 1*

**Chair: Pete Manning**

**15:15** **Sébastien Fontaine:** Contribution of exudates, mycorrhizal fungi and litter depositions to rhizosphere priming effect induced by grassland species

**15:30** **Frida Keuper:** Microbial community composition controls response of SOM respiration to carbon and nutrient availability in thawing Yedoma permafrost soil

**15:45** **Henri De Parseval:** Combining nutrient uptake and exudation leads to the emergence of inter-root facilitation at the rhizosphere scale: a mechanistic approach.

**16:00** **Peter Manning:** Disentangling the drivers of grassland soil carbon storage

**16:15** **Bjorn Robroek:** Peatland vascular plant functional types control CO<sub>2</sub> and CH<sub>4</sub> cycling through altering the microbial community composition

**16:30** **Kieran Stanley:** CO<sub>2</sub> exchange from two floodplain fens under conservation management of differing nutrient status.

**16:45** **Mike Whitfield:** From the ground up: modelling soil greenhouse emissions at the national level

**17:00** **Sébastien Barot:** Evolution of nutrient acquisition: when space matters

S16:

## Competition Communities & Diversity

*Location: Rembrant*

**Chair: Elizabeth Evesham**

- 15:15 Georges Kunstler:** Functional traits have globally consistent effects on plant competition
- 15:30 Christian Damgaard:** Measuring plant competition and its effect on community dynamics
- 15:45 Irène Till-Bottraud:** Density-dependent processes (competition and facilitation) influence the fine-scale genetic structure of a tree species population
- 16:00 Markus Eichhorn:** How do multimodal size distributions form within cohorts of plants?
- 16:15 Marina Semchenko:** The role of long-term co-existence in structuring calcareous grassland communities
- 16:30 Anne Bonis:** Competition importance and direct effect of stress on plant performances in wetlands: when water shortage appears even more important than flooding pattern
- 16:45 Elizabeth Evesham:** Queen sociability and cluster size in the ant *Myrmica rubra* L.
- 17:00 Frank Pennekamp:** Scaling of interaction strength across a temperature gradient in competitive microbial communities

S17:

## Global Change Ecology Species Responses & Interactions

*Location: Faidherbe*

**Chair: Jasmin Godbold**

- 15:15 Nigel Andrew:** Biodiversity resilience under climate, land cover & land use change
- 15:30 Christine Howard:** The drivers of avian abundance: patterns in the relative importance of climate and land use
- 15:45 Reto Schmucki:** Range shift of European butterfly: increasing colonization and extinction at range margins
- 16:00 Georgina Palmer:** Variable rates of response by species to climate change

**16:15 Sara Varela:** Pleistocene global changes and their impacts on the European Late Quaternary species

**16:30 Nina Hautekèete:** Habitat type drives long-term biodiversity budgets in two densely populated regions

**16:45 Barbara Anderson:** Biotic interactions along environmental gradients: The cut and thrust of battle or a helping hand upslope

**17:00 Jean-Louis Hemptinne:** The smell of change: warming affects ecological Interactions mediated by chemical information

S18:

## Macroecology, Biogeography and Landscapes Biogeography & Species Distributions

*Location: Matisse 2*

**Chair: Sally Keith**

- 15:15 Sally Keith:** Can Indo-Pacific coral distributions be explained by island biogeographic processes?
- 15:30 Marius Somveille:** Why do birds migrate? Macroecological and trade-off perspectives
- 15:45 Francis Burdon:** Influence of point-source pollution on species abundance distributions in temperate streams
- 16:00 Adriana De Palma:** Predicting bee community responses to land use changes: effects of geographic and taxonomic biases
- 16:15 Wilfried Thuiller:** Conserving the functional and phylogenetic trees of life of European tetrapods
- 16:30 Daniel Perkins:** Food web size-structure in running waters
- 16:45 Tatsuya Amano:** Assessing the global distribution of population declines in waterbird species
- 17:00 Daniel Bebber:** Biotic vs climatic determinants of pest species distributions

# ORAL PRESENTATIONS: WEDNESDAY 10 DECEMBER

Wednesday

S19:

## Food Webs, Networks and Complexity Networks

Location: Artois 1

Chair: Tim Poisot

- 15:15 Jonathan Silvertown:** When social and ecological networks meet
- 15:30 Hugo Saiz:** Nature in balance: frustration in ecological networks with positive and negative links
- 15:45 Shai Pilosof:** Host-parasite network structure is associated with community-level immunogenetic diversity
- 16:00 Matthias Dehling:** The relationship between morphology and functional roles of species in interaction networks
- 16:15 Timothee Poisot:** The ghost of coevolution past: present-day structure of ecological networks is explained by macro-evolutionary processes
- 16:30 Florian Schwarzmüller:** Trophic interactions in spatial networks: arrangement of habitat patches and its influence on local and global community dynamics
- 16:45 Derek Murphy:** Social mothers? A female baboon's place in her social network influences infant survival.
- 17:00 Rebecca Morris:** Antagonistic interaction networks are structured independently of latitude and host guild

S20:

## Population Ecology and Dynamics Fitness & Survival

Location: Artois 2

Chair: Freerk Molleman

- 15:15 Marlène Gamelon:** Assessing age-specific strength of density dependence from longitudinal data
- 15:30 Emmanuelle Richard:** Environmental and social factors affect the relative contribution of individual females to population growth in a polygynous mammal
- 15:45 Anieke Van Leeuwen:** Trophically transmitted parasites in a size-structured predator-prey system

- 16:00 Josefa Bleu:** Variations in senescence patterns of female chamois between different populations
- 16:15 Rocio Pozo:** Assessing harvesting effects on a male red deer population
- 16:30 Sarah Cubaynes:** Disease outbreak frequency determines optimal mate choice and coloration patterns in wolves
- 16:45 Bojana Stojanova:** Adaptive plasticity across seasons in the annual cleistogamous plant *Lamium amplexicaule*
- 17:00 Xavier Fauvergue:** Fitness consequence of small population size in academia

S21:

## Biodiversity and Ecosystem Function Ecosystem Processes & Function

Location: Matisse 3

Chair: Sofie Spatharis

- 15:15 Susan Ward:** Grassland management effects on biodiversity and ecosystem function
- 15:30 Dario Fornara:** Environmental change and the carbon sequestration ability of grassland soils: evidence from long-term experiments
- 15:45 Matthieu Mulot:** Response of Sphagnum peatland functioning to experimental water table manipulation: results from a 2 years mesocosms experiment
- 16:00 Anibal Cuchiatti:** Land use effects on organic matter cycling in central-west Argentina
- 16:15 Fons Van der Plas:** Effects of tree alpha- and beta-diversity on ecosystem multifunctionality are scale-dependent
- 16:30 Kejun Zou:** Interactions between the green and brown food web determine ecosystem functioning
- 16:45 Shaopeng Wang:** Ecosystem stability in space: Theoretical framework and dynamical models
- 17:00 Alexandru Milcu:** Partitioning ecosystem evapotranspiration in a biodiversity experiment: a controlled environment (Ecotron) and modeling approach

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

## SYMPOSIUM 4:

### Biological Impacts of Climate Change: Reconciling Macro-scale Patterns with Local-scale Processes

Location: *Vauban*

Chair: **Richard Pearson & Blake Suttle**

- 10:45 Jose Montoya:** Universalities and uncertainties on the impacts of climate change on ecological networks and ecosystem functioning.
- 11:15 Loic Pellissier:** Integrating large-scale forecasts and small scale experiments to understand species response to climate change
- 11:30 Guy Woodward:** Using models systems to understand and predict multispecies systems responses to climate change
- 11:45 Ulrich Brose:** A community ecology and conservation biology to address long-term consequences of climate change
- 12:00 David Nogues-Bravo:** From Molecules to Biomes: past and future genetic responses to climate change across large environmental gradients.
- 12:15 Jane Hill:** Idiosyncratic responses of species to climate change and the importance of spatial scale.

## SYMPOSIUM 5:

### Genomics in Marine Monitoring: New Opportunities for Assessing Marine Health Status

Location: *Van Gogh*

Chair: **Matthias Obst**

- 10:45 Herman Hummel:** Integration of genomics and ecology, a promising though inconvenient challenge
- 11:15 Naiara Rodríguez-Ezpeleta:** Molecular approaches for biodiversity quantification in monitoring systems
- 11:30 Nathalie Simon:** Metagenomics tools to monitor planktonic biodiversity – towards new indicators
- 11:45 Graziano Pesole:** BioMaS: a cloud-based service facility for the analysis of DNA metabarcoding amplicons

**12:00 Saverio Vicario:** Functional and Phylogenetic diversity estimated by genomics as a way to assess structure of the communities

**12:15 Renzo Kottmann:** Ocean Sampling Day: standardized workflows for large-scale genomic sampling campaigns

**12:30 Discussion session**

S22:

### Infectious Disease Ecology and Evolution

Location: *Reubens*

Chair: **Andy Fenton**

- 10:45 Amanda Minter:** Modeling leptospire dynamics in its reservoir host in an urban slum setting
- 11:00 Ines Fontes:** Parasite persistence and exploitation of colonial invertebrate hosts
- 11:15 Amelia Breton:** Effects of invasion, control and native hosts on grey squirrel parasites in Scotland
- 11:30 Rebecca Young:** Interspecific interactions between the parasites of three-spined sticklebacks (*Gasterosteus aculeatus*, L.) and their effects on host fitness
- 11:45 Melanie Clerc:** Co-infection and immunity affect parasite burden in the wild: Insights from a wild wood mouse system
- 12:00 Susan Withenshaw:** Experimental manipulation of *Bartonella* transmission within wild multi-host rodent communities
- 12:15 Frances Clare:** Changing species susceptibility to *Batrachochytrium dendrobatidis* infection in a multi-host system: a possible environmental effect
- 12:30 Jon Bielby:** Ecological and epidemiological impacts of small-scale badger culling in the UK

S23:

### Ecology and Society

Location: *Artois 2*

Chair: **Lynn Dicks**

- 10:45 Julia Jones:** Assessing the impact of environmental management interventions on ecological outcomes

Thursday

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

Thursday

- 11:00 Claudia Grünewald:** Linking climate, biodiversity and wildlife tourism in African savannahs – a quantitative approach
- 11:15 Caroline Howe:** Ecosystem services and human well-being: taking a trade-offs approach to creating win-wins
- 11:30 Emilie Crouzat:** Influence networks to assess trade-offs and synergies between ecosystem services – Illustration from a participative process over the French Alps
- 11:45 Carla Romeu-Dalmau:** Socioeconomic and agroecological factors influence the impact of Bt cotton (*Gossypium hirsutum* L.) in India
- 12:00 Carmen Van Mechelen:** Design options for ecoroofs in two different climatic contexts: Results of a 2-year experiment
- 12:15 Daniel Richards:** Using social media to analyse cultural ecosystem services
- 12:30 Barbara Smith:** Indigenous and local knowledge as part of a multiple evidence base for pollinator conservation

S24:

## Evolutionary Ecology and Life Histories Species Traits & Life Histories

*Location: Charles de Gaulle*

**Chair: Adele Mennerat**

- 10:45 Florence Debarre:** Evolution of dispersal in spatially and temporally variable environments: the importance of life cycles
- 11:00 Emanuel Fronhofer:** Eco-evolutionary dynamics at the margin: experimental range expansions reveal fundamental shifts in life-history strategies
- 11:15 Dries Bonte:** Evolution in response to metapopulation structure facilitates performance in novel challenging conditions
- 11:30 Andreas Prinzing:** Ancient lineages recently converging to the same trait range: disturbed patches are phylogenetic museums but functional cradles
- 11:45 Catherine Preece:** Plant traits associated with Fertile Crescent crop domestication

- 12:00 Freerk Molleman:** Micro- meets macro-evolution in ecological communities: phytophagous click-beetle species grow larger and predators smaller on phylogenetically isolated trees
- 12:15 Fanny Gascuel:** How ecology and landscape dynamics shape phylogenetic trees
- 12:30 Céline Teplitsky:** Estimating evolutionary potential in the wild: role and stability of the G matrix

S25:

## Plant-Soil Interactions and Biogeochemistry Roots & Decomposition

*Location: Matisse 2*

**Chair: Elena Kazakou**

- 10:45 Ivan Prieto:** Root traits and the root economics spectrum predict root decomposability at the community level: evidence across contrasting land use types
- 11:00 Marine Birouste:** Decomposition of root mixtures from three herbaceous species: effects of root quality and living plants
- 11:15 Liudmila Mukhortova:** Belowground plant detritus allocation in larch forests on permafrost soils of Siberia
- 11:30 Genevieve Finerty:** Leaf trait dissimilarity can modulate the effect of dominant trait values on litter mixture decomposition rates.
- 11:45 Sylvain Coq:** Litter consumption by soil macro-arthropods: does plant life history matters?
- 12:00 Adeline Janus:** Detritivore activity enhanced by contaminated leaf litter
- 12:15 Pierre Lucisine:** Upholding of the leaf litter breakdown process on highly contaminated soils
- 12:30 Raisa Mäkipää:** Biological N<sub>2</sub> fixation in decaying wood – activity of diazotrophic microbes confirmed

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

S26:

## Community Ecology Facilitation & Symbiosis

Location: Rembrant

Chair: Santiago Soliveres Codina

- 10:45 Chris Lowe:** Shining a light on context-dependence in facultative symbioses
- 11:00 Alexis Synodinos:** Facilitation in arid and semi-arid African savannas
- 11:15 Mélanie Picard:** Influence of endozoochory on processes of plant community assembly in agroforested landscapes
- 11:30 Jose Navarro Cano:** Ontogenetic changes in the nursing quality of plants drive dryland dynamics
- 11:45 Ailsa McLean:** Variation in symbiont-conferred resistance to parasitoids of pea aphids
- 12:00 Odrade Nougé:** Symbiont mediated niche limits: facultative gut microbiota restrict the salinity tolerance of brine shrimps
- 12:15 Martijn Callens:** Diet-dependent effects of the *Daphnia* microbiota on its host
- 12:30 Nicolas Gross:** Functional equivalence, competitive hierarchy and facilitation determine species coexistence in highly invaded grasslands

S27:

## Plant-Pollinator Interactions Agricultural Systems

Location: Faidherbe

Chair: Mick Hanley

- 10:45 William Kunin:** Landscape-scale drivers of pollinator abundance and diversity: the AgriLand project
- 11:00 Florence Hecq:** Effects of scale and landscape structure on pollinator diversity and plant pollinator interaction networks in semi-natural grasslands
- 11:15 Colin Fontaine:** Large-scale trade-off between agricultural intensification and crop pollination services
- 11:30 Jennifer Wickens:** Pollinator Response to Floral Resource Provision in Agricultural Landscapes

- 11:45 Olivia Norfolk:** Crop diversity and pollinator conservation: what lessons can be learnt from traditional cropping systems?
- 12:00 Philippa Holder:** Testing for the persistence of dietary pesticides in bumblebees and honeybees
- 12:15 Parthiba Basu:** Wild bee diversity along an agricultural intensification gradient in Eastern India
- 12:30 Mathilde Baude:** Quantifying nectar resources from the flower to the national scale

S28:

## Computational Ecology and Ecological Methods Data & Modelling

Location: Matisse 1

Chair: Markus Eichhorn

- 10:45 Julia Koricheva:** Uses and misuses of meta-analysis in plant ecology
- 11:00 Nick Golding:** Massive-scale joint species distribution modelling using phylogenies, traits and Gaussian processes
- 11:15 Robert O'Hara:** Combining different types of data in species distribution models – let's do it continuously!
- 11:30 Corinne Vacher:** Clustering methods differ in their ability to detect patterns in ecological networks
- 11:45 Elske Van der Vaart:** Using Approximate Bayesian Computation to Calibrate and Evaluate Individual-Based Models
- 12:00 Andre De Roos:** Demographic, equilibrium and evolutionary analysis of structured population models: a general methodology and software package
- 12:15 Simon Dellicour:** Explaining the geographic spread of emerging viruses: a new framework for comparing viral genetic information and environmental landscape data
- 12:30 Mark Genung:** The Price equation and ecosystem functioning: A novel statistical approach to the delivery of pollination services in natural systems

Thursday

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

Thursday

S29:

## Conservation Management and Policy

Location: Artois 1

Chair: Sam Cartwright

- 10:45 Catherine Tayleur:** Where do your bananas come from? Mapping eco-certification of tropical commodities
- 11:00 Beatrice Wedeux:** Concessionary logging clears the way for illegal logging
- 11:15 Keith Kirby:** In Elton's footsteps: using photographs and diary entries (1942-1965) to explore change in Wytham Woods, Oxfordshire, Southern England.
- 11:30 Sam Cruickshank:** Quantifying population declines for Red Lists based on historic presence records
- 11:45 Jessica Walsh:** Using evidence in conservation management: what are the barriers and solutions?
- 12:00 Graham Hopkins:** Invertebrates and Environmental Impact Assessments: A Review of Effectiveness at Reducing Conservation and Development Conflicts
- 12:15 Sander Van Den Burg:** Upscaling innovative practices in private biodiversity governance
- 12:30 Trenkel Verena:** Careful conservation: Proposal for best practice in fisheries

S30:

## Population Ecology and Dynamics Demography & Dispersal

Location: Goya

Chair: Samantha Franks

- 10:45 David Inouye:** Decadal demographic cycles in a long-lived montane sunflower, *Helianthella quinquenervis*, in the Colorado Rocky Mountains
- 11:00 Richard Shefferson:** The evolutionary demography of mycoheterotrophs and mixotrophic plant populations
- 11:15 Lucie Hemrová:** What is more important for species' potential to spread in landscape: local dynamics or species' dispersal?
- 11:30 Federico MANNA:** Disentangling seed bank effects from spatial dispersal effects in plant metapopulation dynamics.

- 11:45 Thibaut Morel-Journel:** Clustered or scattered? The impact of habitat distribution on establishment dynamics
- 12:00 Jenni McDonald:** The demography and predictability of badger population dynamics: Insights from an integrated population analysis
- 12:15 Koen Van Benthem:** A trait-based demographic investigation of small mammal population cycles
- 12:30 Michel Baguette:** Individual variation in mobility and dispersal syndromes in a butterfly

S31:

## Forest Ecology Carbon Dynamics

Location: Matisse 3

Chair: Dan Bebber

- 10:45 Nicholas Ostle:** Don't mess with the moss! : Boreal forest floor carbon cycling
- 11:00 Juliette Boiffin:** Microclimate, burn severity and post-fire tree establishment affect predictions of long-term carbon dynamics in a boreal forest landscape
- 11:15 Nathalie Pluchon:** Impact of fire-derived charcoal on decomposition and microbial communities in boreal forest depends on charcoal and humus type
- 11:30 Edna Roedig:** Simulation of carbon fluxes: the value of Eddy-covariance data for dynamic forest models
- 11:45 Laëtitia Bréchet:** Litter quality and quantity effects on soil CO<sub>2</sub> efflux: application of a version of the Century model adapted to tropical forest conditions
- 12:00 Lindsay Banin:** Are Dipterocarps Different? The role of seedling traits in growth rates in Bornean tropical forests
- 12:15 Nicolas Labrière:** Ecosystem services in a multi-functional forested landscape of Borneo: focus on carbon storage, soil conservation and tree diversity
- 12:30 Sean McMahon:** The importance of seasonality to carbon flux in forest systems

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

## SYMPOSIUM 6:

### **Ménage à Trois: Ecological Consequences of Intricate Interactions between Plants Microbes and Insects**

*Location: Vauban*

**Chair: Arjen Biere and Enric Frago**

- 15:00 Marcel Dicke:** Evolutionary ecology of plant-insect interactions in a microbial context
- 15:30 Julia Ferrari:** Bacterial endosymbionts: Multiple infections and their effect on host ecology
- 15:45 Sharon Zytynska:** Secondary bacterial symbiont community in aphids responds to plant diversity
- 16:00 Mark Mescher:** Effects of plant-associated pathogens and other microbes on chemically mediated interactions among plants and insects.
- 16:15 Ana Pineda:** Beneficial soil microbes effects on aboveground herbivores: Mechanisms in the plant and interactions with carnivorous insects
- 16:30 Thure Hauser:** Interactive impacts of arthropod herbivores and phytopathogens on plant fitness, and why we should care
- 16:45 Alison Bennett:** The role of plant-microbe-insect interactions in biological invasions and food security

## SYMPOSIUM 7:

### **Ecological Networks: From Descriptions to Predictions**

*Location: Van Gogh*

**Chair: Timothée Poisot**

- 15:00 Sonia Kefi:** Ecological networks, beyond food webs
- 15:30 Marta Sales-Pardo:** Inference on complex networks: new options for food web analysis
- 15:45 Florian Schneider:** From allometric foraging to dynamic food webs
- 16:00 Anna Eklof:** Secondary Extinctions in Food Webs: a Bayesian Network Approach
- 16:15 Kevin Cazelles:** Integration of ecological networks in a theoretical stochastic model of Biogeography

**16:30 Ignasi Bartomeus:** Predicting the disassembly of plant-pollinator networks.

**16:45 Discussion**

## S32:

### **Parasites, Pathogens and Wildlife Disease Evolution & Genetics**

*Location: Charles de Gaulle*

**Chair: Stephen Bonser**

- 15:00 Beth Okamura:** Environmental DNA reveals endoparasite diversities and reduces sampling bias
- 15:15 Ellen Decaestecker:** Damped long-term host-parasite Red Queen coevolutionary dynamics: a reflection of dilution effects?
- 15:30 Pierre-Antoine Precigout:** Effects of nitrogen fertilization and wheat canopy architecture on epidemiology and evolution of leaf fungal pathogens
- 15:45 Marlène Dupraz:** Linking morphologic and genetic divergence with host use in the tropical tick complex, *Ornithodoros capensis sensu lato*.
- 16:00 Kirstyn Brunner:** Whole genome phylogenetics of rabies virus in Tanzania
- 16:15 Tania Jenkins:** Local adaptation between malaria and its bird hosts: an experimental approach
- 16:30 Anaïs Appelgren:** Relative fitness of a generalist parasite on alternative hosts : a cross-infestation experiment of the hen flea among sympatric passerine hosts.
- 16:45 Christopher Wilson:** Evolution of host-parasite infectivity matrices in the long-term absence of sexual reproduction

## S33:

### **Marine Ecology and Ecosystems Ecosystem Function & Change**

*Location: Faidherbe*

**Chair: Sander Van Den Burg**

- 15:00 Richard Stafford:** Multiple stressors but only one adaptation? – Implications for marine organisms

Thursday

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

Thursday

- 15:15 Emma Defriez:** Climate-change-related regime shifts have affected spatial synchrony of plankton dynamics across the North Sea
- 15:30 Jasmin Godbold:** Long-term effects of ocean acidification and temperature on species behavior and ecosystem functioning
- 15:45 Camille Mellin:** Humans and climate variability threaten large endemic fishes on coral reefs
- 16:00 Aurélien Prudor:** Impact of environmental variability and extreme climatic events on foraging of tropical seabirds
- 16:15 Sarah Burthe:** Assessing the vulnerability of the marine bird community in the western North Sea to climate change and other anthropogenic impacts
- 16:30 Jordi Pagès:** Green in tooth and claw: marine herbivores as initiators of indirect interactions
- 16:45 Sofie Spatharis:** Phytoplankton productivity under recurrently fluctuating resource supply: A case against exploitative competition

S34:

## Evolutionary Ecology and Life Histories Mating & Parenting

*Location: Artois 2*

**Chair: Joan van Baaren**

- 15:00 Sigrunn Eliassen:** Extra-pair mating and cooperation in collective predator defence
- 15:15 Christian Jørgensen:** Extra-pair mating and cooperative neighbourhoods: theory and predictions
- 15:30 Adele Mennerat:** Testing new predictions on the evolution of female promiscuity and cooperation in socially monogamous species
- 15:45 Lucie Debeffe:** Potential costs and benefits of social dispersal in a polygynous mammal
- 16:00 Alyson Pavitt:** Scatomancy in red deer: what can hormones tell us about reproductive opportunity?
- 16:15 Olivier Lepais:** Paternal inheritance of alternative mating tactics in male Atlantic salmon.
- 16:30 Emily Simmonds:** The individual basis of population-level behavioural plasticity in incubation onset and duration in great tits (*Parus major*)

- 16:45 Emmanuelle Cam:** Variation in fitness components and demographic heterogeneity in female kittiwakes: effects and effect sizes revisited

S35:

## Plant-Soil Interactions and Biogeochemistry Plant-Soil Feedbacks

*Location: Matisse 2*

**Chair: Robert Mills**

- 15:00 Gerlinde De Deyn:** Predicting plant-soil feedback from plant traits
- 15:15 Michael Van Nuland:** Plant-soil feedback drives landscape-level eco-evolutionary dynamics in a foundation tree species
- 15:30 Gregor Müller:** Testing the relative roles of competition and plant-soil feedback in explaining commonness and rarity in alien and native plant species
- 15:45 Floriane Flacher:** Belowground competition in plants can influence plant-pollinator interactions
- 16:00 Wayne Dawson:** Faster-growing herbaceous plant species suffer more negative effects from soil biota than slower-growing species
- 16:15 Elena Kazakou:** Exploring the links between herbivory and belowground processes: the case of permanent rangelands of southern France
- 16:30 Julia Clause:** Seed selection by earthworms: does the inside matter more than the outside?
- 16:45 Jan Willem Van Groenigen:** Earthworms increase plant production: a meta-analysis

S36:

## Community Ecology Community Assembly & Species Traits

*Location: Artois 1*

**Chair: Nicole Goodey**

- 15:00 Jan Leps:** Temporal variability of community biomass – the variability of individual species and asynchrony of species fluctuations

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

- 15:15 Julie Messier:** Similarities and differences in the variance structure across ecological scales of related foliar traits
- 15:30 Yoann Le Bagousse-Pinguet:** Community trait distributions in global drylands are driven by climate and interactions with topo-edaphic factors.
- 15:45 Hannah Marx:** Dissecting drivers of invaded communities in a comparative phylogenetic framework
- 16:00 Loïc Chalmandrier:** Intraspecific trait variability and spatial scale influence trait diversity along alpine gradients
- 16:15 Martin Sullivan:** Do plants on restored and natural saltmarshes occupy the same niche?
- 16:30 David Rogers:** Comparing Native Colonization to Exotic Invasion Dynamics of Temperate Deciduous Forest Understories
- 16:45 Lars Götzenberger:** Informativeness and complementarity of trait-functional vs. phylogenetic diversity

S37:

## Plant-Pollinator Interactions Behaviour & Interactions

*Location: Reubens*

**Chair: Jonathan Silvertown**

- 15:00 Adam Vanbergen:** Grazing alters insect visitation networks and plant mating systems
- 15:15 Dani Lucas-Barbosa:** Integrating Plant-Pollinator and Plant-Herbivore Interactions
- 15:30 Tomás Revilla:** Dynamical transitions in a pollination-herbivory interaction: a conflict between mutualism and antagonism
- 15:45 Anina Knauer:** Bees use honest floral signals as indicators of reward when visiting flowers
- 16:00 Gavin Ballantyne:** Flower visitation and pollinator effectiveness: enhancing plant-visitor networks
- 16:15 Heather Briggs:** Pollinator behavior in a community context: linking behavioral plasticity, heterospecific pollen deposition, and plant reproduction.
- 16:30 Merav Seifan:** How foraging decisions of pollinators may shape plant community structure

- 16:45 Daniel Carstensen:** Spatial variation in plant-pollinator networks: interaction turnover and modularity

S38:

## Computational Ecology and Ecological Methods Ecological Methods

*Location: Rembrant*

**Chair: Nick Golding**

- 15:00 Ben Holt:** Molecular approaches to sampling ecological communities
- 15:15 Hannes Hettling:** SUPERSMART – A Self-Updating Platform for Estimating Rates of Speciation and Migration, Ages and Relationships of Taxa
- 15:30 Yoseph Araya:** Using data collected by citizen scientists: challenges and potential solutions
- 15:45 Piero Visconti:** Active learning methods for efficient surveys of species distribution
- 16:00 Tatiana Ponomareva:** Technology of soil horizons delimitation using imagery in infrared range
- 16:15 Andrés Plaza-Aguilar:** Comparing seasonal differences in the phenology and physiology of Oak and Ash trees using canopy colour signals
- 16:30 Minerva Singh:** Development of a Novel Framework For Harnessing Google Earth Imagery for Biomass Estimation in Tropical Forests
- 16:45 Benoit Gauzens:** How theoretical ecology can be used to increase robustness of complex adaptive systems: an application to computer sciences

S39:

## Conservation Ecology Diversity & Species of Concern

*Location: Matisse 1*

**Chair: Julia Jones**

- 15:00 Nitin Sekar:** Waiting for Gajah: an elephant mutualist's contingency plan for an endangered megafaunal disperser
- 15:15 Catarina Ferreira:** Investigating the role of climate and landscape resistance on carnivore population synchrony

Thursday

# ORAL PRESENTATIONS: THURSDAY 11 DECEMBER

Thursday

**15:30 Karolina Petrovic:** Conserving the European ground squirrel (*Spermophilus citellus*, Rodentia: Scuridae)— population status, distribution and microhabitat requirements

**15:45 Marko Debeljak:** Exposure of endangered European black poplar (*Populus nigra* L.) to potential genetic introgression

**16:00 Jenny Dunn:** Turtle Doves, Trial Plots and *Trichomonas*: conserving the UK's only migrant dove

**16:15 Loïc Hardouin:** Influence of regulated falconry on survival and movement in a translocated houbara bustard population

**16:30 Nicolas Lieury:** Integrating immigration in the conservation of long-lived raptors: application on Bonelli's eagles and Egyptian vultures populations in South-Eastern France

**16:45 Julio Louzada:** A multi-taxa assessment of biodiversity change after single and recurrent wildfires

S40:

## Ecosystem Services

*Location: Goya*

**Chair: Felix Eigenbrod**

**15:00 Sandra Lavorel:** Ecological processes underpinning bundles of ecosystem services: the ecosystem services network concept

**15:15 Peter Long:** The Ecosystem Services Tool (Ecoset)

**15:30 Laure Zupan:** The challenge of protecting biodiversity's multiple facets and ecosystem service supply: a case study on European Tetrapods.

**15:45 Darren Grafius:** The Impacts of Spatial Scale in Modelling Ecosystem Services with InVEST

**16:00 Carole Sylvie Campagne:** The seagrass *Posidonia oceanica*: ecosystem services identification and economic evaluation of goods and benefits

**16:15 Lucy Alford:** The effects of landscape ecology on the thermal tolerance of natural biological control agents (using aphids as a model system)

**16:30 Pete Smith:** Addressing the joint challenges of food security and climate change

**16:45 Simon Willcock:** Using the ecosystems approach to support evidence-based policy: the policy-makers perspective

S41:

## Forest Ecology Forests & Environmental Change

*Location: Matisse 3*

**Chair: Frank Gilliam**

**15:00 Rebecca Snell:** The importance of spatially explicit climate information for assessing the impacts of climate change in mountain forests

**15:15 Maxime Cailleret:** Does the uncertainty in climate change projections affect the predictions of future forest properties?

**15:30 Gregory Carey:** Using a systems approach to predict the effect of climate change on the tree species at Wytham Woods, Oxfordshire.

**15:45 Gabriela Riofrio Dillon:** Decreasing before increasing: lagged changes in nitrogen availability conditions according to forest herbs

**16:00 Rebecca Spake:** Functional group-specific responses to forest recovery in temperate and boreal regions

**16:15 Raúl García-Valdés:** Impacts in forest services due to climate change-induced extinction of species

**16:30 Duncan Procter:** Massive afforestation has allowed the spread of a wood ant

**16:45 Frank Gilliam:** Effects of excess nitrogen deposition on plant biodiversity of contrasting forest ecosystems

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

## SYMPOSIUM 8:

### Reforming and Implementing the Common Agricultural Policy the Role of Science and the need to Understand Policy-making

Location: Vauban

Chair: Piero Visconti & Tim Graham

- 10:00 Tim Benton:** Making the case for policy in sustainable agriculture: the right evidence is necessary but not sufficient.
- 10:30 Andrew Pullin:** Policy-based evidence or evidence-based policy? Ensuring the best available evidence informs environmental decisions.
- 10:45 Guy Pe'er:** The new EU reform failed on European biodiversity: What now?
- 11:00 Lynn Dicks:** CAP in hand: the inter-dependence of pollinator, agriculture and pesticide policies in the UK
- 11:15 András Báldi:** Ten years in the European Union – hopes and realities for farmland biodiversity in Hungary
- 11:30 Lauriane Mouysset:** Co-viability of agriculture and biodiversity in France
- 11:45 Discussion:** Can the CAP secure farmland biodiversity? What is our role in the process?

## SYMPOSIUM 9:

### Ecological Implications of Tree Diseases

Location: Van Gogh

Chair: Ruth Mitchell

- 10:00 Steve Woodward:** Alien invasive pathogens: the major threat to forest ecosystems
- 10:30 Glenn Iason:** Can we use community biotic effects to protect forests?
- 10:45 Marco Pautasso:** European ash (*Fraxinus excelsior*) dieback as a conservation biology challenge: an overview
- 11:00 Lindsay Maskell:** Tree diseases: Potential landscape changes

- 11:15 Ruth Mitchell:** Alternative tree species? Methods for and problems in identifying ecologically alternative tree species to mitigate tree diseases.
- 11:30 Alice Broome:** Ash dieback and loss of biodiversity: applying knowledge to woodland management solutions.
- 11:45 Michael Pocock:** Monitoring to assess the impacts of tree diseases: integrating citizen science with professional monitoring

## S42:

### Global Change Ecology Biogeochemical Cycles

Location: Faidherbe

Chair: Bjorn Robroek

- 10:00 Sabine Reinsch:** High resolution soil respiration measurements help model plant vs. soil derived components of soil respiration under warmer and dryer conditions
- 10:15 Sarah Pierce:** Nitrogen addition moderates the effects of drought on carbon flux in a grassland ecosystem
- 10:30 Audrey Niboyet:** Long-term effects of multiple global environmental changes on the retention and distribution of nitrogen in a grassland ecosystem
- 10:45 Aurore Kaisermann:** Soil biotic legacy effects on the drought response of microbial communities and carbon cycling.
- 11:00 Shun Hasegawa:** Investigating the effects of elevated temperature on carbon, nitrogen and phosphorus cycling in soils under *Eucalyptus tereticornis* growing in whole-tree chambers
- 11:15 Helen Moor:** Combining species distribution modelling with functional traits to predict potential climate change effects on ecosystem services – the case of Swedish wetland vegetation
- 11:30 Tom Walker:** Vegetation composition modifies warming effects on ancient peatland carbon loss
- 11:45 Xavier Le Roux:** Predicting soil bacterial responses to multi-factor global change with trait-based modelling

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

S43:

## Marine Ecology and Ecosystems Patterns & Populations

Location: *Reubens*

Chair: Kyle Demes

- 10:00 Kyle Demes:** Survival of the weakest: Increased frond mechanical strength in a wave-swept kelp inhibits self-pruning and increases whole-plant mortality
- 10:15 Marine Robuchon:** Investigating temporal changes in seaweed communities of Brittany
- 10:30 Paul Tixier:** Demographic consequences of behavioral heterogeneity and interactions with fisheries within a generalist killer whale population.
- 10:45 Julia Baum:** Elucidating Fundamental Properties of Size Structured Food Webs Through the Examination of Pristine Marine Ecosystems
- 11:00 Anne-Sophie Tribot:** Aesthetic and biodiversity of Mediterranean coralligenous reefs
- 11:15 Dominic Andradi-Brown:** Mesophotic reefs as refugia for shallow coral reef fish species.
- 11:30 Adriana Alzate Vallejo:** Neutral dispersal predicts range size distributions of tropical reef fishes
- 11:45 David Claessen:** When everything is not everywhere but species evolve

S44:

## Evolutionary Ecology and Life Histories Fitness & Survival

Location: *Charles de Gaulle*

Chair: Owen Jones

- 10:00 Owen Jones:** Senescence and its consequences across the tree of life.
- 10:15 Sam Cartwright:** Living fast and dying young: how exposure to agriculture in early life affects ageing in a tropical forest bird
- 10:30 V erane Berger:** How do animals optimize the size-number trade-off when aging: insights from reproductive senescence in female Alpine marmots
- 10:45 Claudia Bieber:** Staying hidden: The other selective advantage of hibernation

- 11:00 Jarad Mellard:** Evolutionary responses to environmental change: how do trophic interactions affect adaptation and persistence?
- 11:15 Rebecca Watson:** Survival Implications of Immune Variation in a Wild Mammal Population
- 11:30 Joanne Littlefair:** Maternal effects in the immune system and life history of the Indian meal moth, *Plodia interpunctella*.
- 11:45 C ecile Vanp e:** Immune gene variability influences roe deer natal dispersal

S45:

## Consumer-Resource Interactions Herbivory

Location: *Goya*

Chair: Thure Pavlo Hauser

- 10:00 Clare McArthur:** The dilemma of foraging herbivores: dealing with food and fear
- 10:15 Sandra Barantal:** Relative importance of tree species and genetic diversity for insect herbivory in boreal forests
- 10:30 David Giron:** Insect reprogrammers of plant genomes or the art of manipulation
- 10:45 Nicole Goodey:** The aphid and the mustard oil bomb: Chemical warfare in the cabbage patch
- 11:00 Michael Singer:** One butterfly, six host shifts: peristaltic evolution and ecological traps.
- 11:15 Brice Giffard:** Neighbouring vegetation influences tritrophic interactions between insectivorous birds, herbivorous insects and tree seedlings
- 11:30 Rebecca Stutz:** Resource cues in information-driven foraging: a generalist mammalian browser follows its nose
- 11:45 Armin Bischoff:** Scales and drivers of local adaptation in plant populations

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

S46:

## Community Ecology Models & Model Systems

*Location: Rembrant*

**Chair: Verena Trenkel**

- 10:00 Alicia Montesinos-Navarro:** The role of biotic interactions in determining species responses to environmental change
- 10:15 Evangelia Smeti:** Niche vs neutral theory in experimental phytoplankton metacommunities
- 10:30 Mikael Pontarp:** The Origin of Species Richness Patterns along Environmental Gradients: Uniting Explanations Based on Time, Diversification Rate, and Carrying Capacity
- 10:45 Elodie Parain:** Does community complexity buffer the effect of increased temperature average and variance in simple protist systems?
- 11:00 Sarah Gray:** Experimental test of food-chain length in protist communities: ecosystem size matters, but not the way you may think.
- 11:15 Rémi Perronne:** Designing 'trait-based null model' approaches to investigate community assembly mechanisms
- 11:30 Mickael Chauvet:** How environmental conditions and competition affect community assembly? A case-study with simulated tree communities.
- 11:45 Florian Altermatt:** Dendritic network structure and dispersal affect temporal dynamics of diversity and species persistence

S47:

## Plant-Pollinator Interactions Diversity & Functional Traits

*Location: Matisse 2*

**Chair: Merav Seifan**

- 10:00 Florian Schiestl:** Floral signals in the context of pollination and herbivory
- 10:15 Kazuharu Ohashi:** Keep the old, attract the new: floral color change by plants for a full exploitation of site-faithful pollinators
- 10:30 James Thomson:** Effects of floral characters and plant circumstances on "pollen" transfer by novel artificial flowers

- 10:45 Shu-Mei Chang:** Pollen Competition in Style: Is bigger always better?
- 11:00 Amy Iler:** Consequences of intraspecific variation in flowering phenology: evidence for different flowering strategies in a subalpine plant species
- 11:15 Sarah Barlow:** Do nectar alkaloids enhance pollination?
- 11:30 Matthias Schleuning:** Morphological matching between interaction partners in tropical plant-hummingbird networks
- 11:45 Philip Stevenson:** Sex, drugs and ecosystems: the impact of invertebrate toxins in nectar and pollen.

S48:

## Macroecology, Biogeography and Landscapes Macroecology & Scaling

*Location: Matisse 1*

**Chair: Danilo Neves**

- 10:00 Donald Waller:** Mass effects predict 50-year changes in metacommunity incidence and abundance
- 10:15 Richard Gunton:** Multi-scale spatial density-dependence in parasitoids: a meta-analysis
- 10:30 Florent Mazel:** Mammalian phylogenetic diversity area relationships at a continental scale
- 10:45 David Murrell:** How ecological interactions determine the Species Area Relationship (SAR) at short spatial scales
- 11:00 Julia Reiss:** Allometric scaling in microscopic freshwater fauna
- 11:15 Aliénor Jeliaskov:** Scale-effects in environment-biodiversity relationships within agricultural landscapes
- 11:30 Eoin O'Gorman:** Bending the general rules of ecology in a naturally warmed ecosystem
- 11:45 Richard Sibly:** How juvenile growth scales with adult body mass across species.

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

S49:

## Conservation Ecology Protection & Restoration

*Location: Artois 2*

**Chair: Keith Kirby**

- 10:00 Samantha Hill:** Do protected areas mitigate human pressures? A global analysis of local biodiversity within protected areas
- 10:15 Samantha Franks:** The importance of European protected areas for a long-distance Afro-Palearctic migrant using different migration routes: habitat use of Common Cuckoos during autumn migration
- 10:30 Julieta Decarre:** Assessing the status of the mammal community in a protected area and a human managed landscape of semiarid Chaco
- 10:45 Elodie Chapurlat:** Impacts of a network of Marine Protected Areas on the population density and shell size of the small giant clam *Tridacna maxima* in the lagoon of Moorea, French Polynesia
- 11:00 Tarek Mukassabi:** Medicinal Plants in Cyrenaica, Libya: an endangered component of the ecosystem
- 11:15 Hannah Mossman:** Ingredients to successfully restore a salt marsh? The roles of topographic heterogeneity and targeted planting
- 11:30 James Owens:** Restoring plant species richness and forage quality to hay meadows on the River Shannon, Ireland, the largest floodplain in Britain and Ireland
- 11:45 Felix Eigenbrod:** Vulnerability of ecosystems to climate change moderated by habitat intactness

S50:

## Invasive Species Species Interactions & Functional Traits

*Location: Artois 1*

**Chair: Stephan Peischl**

- 10:00 Marta Carboni:** Phylogenetic and functional patterns of alien species in French grasslands
- 10:15 Sarah Bouchemousse:** Field- and molecular-based studies revealed rare hybridization despite reproductive synchrony between an alien tunicate and its interfertile native congener

- 10:30 Jonathan Henn:** Similarities and differences between native and invasive plant functional traits across environmental gradients in Hawai'i Volcanoes National Park, USA
- 10:45 José Hierro:** Evolutionary analysis of seed size variation in native and non-populations of *Centaurea solstitialis* L.
- 11:00 Nigel Taylor:** Assessing predatory impacts of invasive decapod Crustacea using comparative functional responses
- 11:15 Gaylord Desurmont:** Alien interference: impact of invasive insect herbivores on chemically-mediated plant-parasitoid interactions
- 11:30 Romain Rouchet:** The impact of biological invasions on reciprocal relationships in biological communities
- 11:45 Pavel Kratina:** Invasive copepods modulate networks of biotic interactions and community-level nutritional quality

S51:

## Forest Ecology Patterns & Processes

*Location: Matisse 3*

**Chair: Rebecca Snell**

- 10:00 Felix May:** From pattern to process – confronting dynamic models to spatial forest biodiversity
- 10:15 Sebastian Lehmann:** A size-structured, spatial neutral model predicting multiple community patterns in tropical forests
- 10:30 Rajapandian Kanagaraj:** Analysing the influence of multiscale clustering processes and habitat heterogeneity on spatial distributions of saplings in a neotropical forest
- 10:45 Andreas Huth:** Patterns of Local Species Richness in a Tropical Forest
- 11:00 Thorsten Wiegand:** Stochastic dilution weakens deterministic effects of niche-based processes in species rich forests
- 11:15 Franziska Taubert:** The structure of tropical forests and sphere packings

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

- 11:30 Benoit Cournaud:** Impact of forest management on biodiversity: perspectives with Individual Based Models of forest dynamics.
- 11:45 Guillaume Decocq:** Remnant artificial islands in a self-healing forest ocean

## SYMPOSIUM 10: Eco-evolutionary Feedbacks: Theoretical and Empirical Perspectives

*Location: Vauban*

**Chair: Florence Debarre & Francois Massol**

- 13:00 Richard Gomulkiewicz:** Direct and indirect effects of evolution on the assembly of ecological communities
- 13:30 Anne Duputié:** Consequences of phenological plasticity for range width and niche breadth of temperate tree species under current and future climates
- 13:45 Stephan Peischl:** Expansion load and the evolutionary dynamics of a species range
- 14:00 Jelena Pantel:** Congruent and divergent responses between population genetic and community ecological structure to a heterogeneous environment
- 14:15 Claire De Mazancourt:** Evolutionary responses to a changing environment: how species interactions matter
- 14:30 Britt Koskella:** Spatial and temporal dynamics of bacteria-phage interactions within their long-lived hosts
- 14:45 Discussion**

## S52: Celebrating Citizen Science

*Location: Faidherbe*

**Chair: Michael Pocock**

- 13:00 Romain Julliard:** Biodiversity monitoring through citizen science: a case study from France
- 13:15 Helen Roy:** Celebrating 50 years of the Biological Records Centre

- 13:30 Nathalie Machon:** How to use data generated by general public of a citizen science program for conservation purpose
- 13:45 Anne-Caroline Prévot:** Short and long term individual consequences of participation to citizen-science projects
- 14:00 Rachel Pateman:** A critical assessment of a citizen science project
- 14:15 Jodey Peyton:** Open Farm Sunday Pollinator Survey: Citizen science as a tool for pollinator monitoring?
- 14:30 Charlotte Hall:** FreshWater Watch: lessons from a global mass Citizen Scientist programme
- 14:45 Emma Rothero:** Flight of the Fritillary: a long-running citizen science project linking fritillary flowers and bumblebees.

## S53: Climate Change Ecology

*Location: Van Gogh*

**Chair: James Pearce Higgins**

- 13:00 Paul Caplat:** Swedish birds on the move: explaining niche-tracking with life-histories
- 13:15 Pam Berry:** Responses to climate change: friend or foe?
- 13:30 Pauline Hernandez:** Extreme drought on grasslands: the buffering effect of plant diversity through functional complementarity
- 13:45 Kris Verheyen:** On the importance of past land use for global change biology
- 14:00 Tom Oliver:** High intensity land use inhibits the ability of communities to track climate warming
- 14:15 Blaise Martay:** Climate-driven population trends of terrestrial taxa
- 14:30 Phillipa Gillingham:** Are protected areas useful in a dynamic world?
- 14:45 Mike Morecroft:** Testing the effectiveness of climate change adaptation

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

S54:

## Agricultural Ecology Management & Diversity

*Location: Reubens*

**Chair: Nicola Randall**

- 13:00 Nicola Randall:** The Use of Systematic Mapping Methodology to inform multifunctional buffer strip design
- 13:15 Danny Hoofman:** Enhancing environmental benefits from Agri-Environment schemes: an optimisation tool
- 13:30 Chloe Hardman:** How effective are different agri-environment schemes for pollinators?
- 13:45 Elwyn Sharps:** Agriculture, nest predation and trampling by livestock: Even light grazing of salt marshes causes high rates of nest mortality in Common Redshank *Tringa totanus*.
- 14:00 Pithon Josephine:** Are vineyards important for breeding bird communities at landscape and local scales?
- 14:15 Niamh McHugh:** How must Environmental Stewardships evolve to meet the needs of widespread farmland birds? A case study of the Yellowhammer
- 14:30 Henrietta Pringle:** The foraging potential of energy crops for breeding songbirds
- 14:45 Gavin Siriwardena:** Responses of farmland birds to eight years of Environmental Stewardship: new evidence for positive effects

S55:

## Parasites, Pathogens and Wildlife Disease Dynamics & Consequences

*Location: Charles de Gaulle*

**Chair: Emma Goldberg**

- 13:00 Emma Goldberg:** Challenges to nature conservation that ash dieback is presenting in the UK
- 13:15 Godefroy Devevey:** Population-level consequences of within-host interactions in a pathogen community

- 13:30 Grégoire Perez:** Do Agricultural Landscape Features Influence the Local Abundance of Small Mammals, Ticks and Their Interaction?
- 13:45 Evelyn Rynkiewicz:** Multi-scale relationships of parasite co-infection of populations and individual wild mice: is innate immunity a structuring mechanism?
- 14:00 David Daversa:** Exposure frequency and habitat alter infection of a parasitic chytrid fungus, *Batrachochytrium dendrobatidis*, in semi-terrestrial hosts
- 14:15 Alan Harrison:** The effect of host diversity on the prevalence of *Bartonella* in peridomestic small mammals in Madagascar
- 14:30 Anaid Diaz:** Experimental approach to study the dynamics of bacteria in free-living nematode populations
- 14:45 Gabriel García-Peña:** Disassembly rules influence presence of the environmentally-acquired pathogen, *Mycobacterium ulcerans*

S56:

## Consumer-Resource Interactions Predation

*Location: Goya*

**Chair: Clare McArthur**

- 13:00 Duncan Irschick:** Are there close associations between body form and lifestyle in apex predatory sharks?
- 13:15 Nicolas Courbin:** Alternative flight tactics of zebra after an encounter with lions shape the lion-zebra spatial game in a bushed-woodland savanna
- 13:30 J. Grant Hopcraft:** Navigating between food and predators: Individual choice patterns of Serengeti wildebeest and zebra captured by hierarchical models
- 13:45 Arnaud Sentis:** Interacting effects of predator diversity, enrichment and temperature on species interaction strengths
- 14:00 Carol Garzon-Lopez:** Density and context dependence of seed mortality in a tropical forest: indirect interactions among trees mediated by shared predators

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

- 14:15 Sara Ball:** Size matters: body size determines functional response of ground beetle interactions
- 14:30 Gavin Williams:** Silted substrates: Impact of habitat modification upon predator-prey interactions in streams.
- 14:45 Louise Van oudenove:** Parasitoid response to herbivore induced plant volatiles: a meta-analysis.

S57:

## Community Ecology Aquatic Communities

*Location: Rembrant*

**Chair: Marine Robuchon**

- 13:00 Anne Robertson:** Groundwater Flooding: responses of groundwater ecosystems to an extreme recharge event.
- 13:15 Boris Sauterey:** A model of plankton trophic network eco-evolutionary emergence
- 13:30 Andros Gianuca:** Integrating trait and phylogenetic information into a metacommunity framework: an empirical study with freshwater zooplankton
- 13:45 Caroline Souffreau:** Within- and among-lake community turn-over in bacterioplankton and macrophyte biofilms in a shallow pond system.
- 14:00 Jonathan Tonkin:** Anthropogenic stress alters community concordance at the river-riparian interface
- 14:15 Aurélie Garnier:** Do interactions matter? A fully factorial experiment of five environmental drivers on a microbial aquatic ecosystem.
- 14:30 Anne Pilière:** On the relevance of trait interlinkages for understanding species-environment relationships
- 14:45 Gustavo Castellanos-Galindo:** Measuring community capacity in Neotropical mangrove fish assemblages

S58:

## Plant-Pollinator Interactions Adaptation & Selection

*Location: Matisse 2*

**Chair: Parthiba Basu**

- 13:00 John Pannell:** Mating-system evolution at range margins
- 13:15 Anne-Marie Labouche:** Sex-specific selection for nocturnal versus diurnal pollination in a plant-pollinator/seed predator interaction
- 13:30 Sascha Van der Meer:** The effect of floral gender variation on female reproductive success in gynodioecious *Saxifraga granulata*
- 13:45 Jeffrey Karron:** Do changes in bumble bee species abundance influence reproductive success and mating patterns in monkeyflower?
- 14:00 Renate Wesselingh:** The roles of pollinators in hybridization between two *Rhinanthus* species
- 14:15 Gerardo Arceo-Gomez:** The importance of heterospecific pollen transfer in co-flowering communities: Incidence, fitness effects and ecological and evolutionary consequences
- 14:30 Conchita Alonso:** Uncovering the impact of pollination quality on sexual reproduction of the narrow endemic *Erodium cazorlanum*
- 14:45 Anna Traveset:** Unravelling the role of Galápagos birds as generalized pollinators

S59:

## Physiological Ecology

*Location: Matisse 1*

**Chair: Victor Resco de Dios**

- 13:00 Joseph Bernardo:** Thermal sensitivity of performance and far-sublethal stress, not extreme temperature tolerance, determine species ranges
- 13:15 Sonya Auer:** Greater flexibility in metabolic rate confers a growth advantage under changing food availability
- 13:30 Constant Signarbieux:** Sphagnum mosses and climate change: eco-physiological responses from multi-faceted manipulative experiments

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

- 13:45 Aidan Holohan:** Stomatal mediated gas exchange reflects resource partitioning amongst grassland species at differing soil moisture deficits
- 14:00 Víctor Resco de Dios:** Circadian rhythms as fundamental drivers of diurnal CO<sub>2</sub> and H<sub>2</sub>O canopy fluxes
- 14:15 Brigitte Braschler:** Linking thermal niches, foraging behaviour and local climate: The case for ants in a biodiversity hotspot.
- 14:30 Ana Llandres:** A Dynamical Energy Budget for the whole life-cycle of holometabolous insects
- 14:45 H. Arthur Woods:** Microclimates from macroclimates: the biophysical ecology of a plant-insect interaction in the Chihuahuan Desert of the American Southwest

S60:

## Conservation Ecology Methods & Models

Location: Artois 2

Chair: Chris Clements

- 13:00 Tim Newbold:** A global model of the response to land use of local alpha diversity, beta diversity and endemism; and future projections under socio-economic scenarios
- 13:15 Anne-Christine Monnet:** Species Distribution Models, a key decision tool for conservation translocations
- 13:30 Sylvain Moulherat:** MetaConnect, a new platform for population viability modeling to assist decision makers in conservation and urban planning
- 13:45 Aurélie Coulon:** Effects of quarrying on landscape connectivity: a resistance calibration approach across species, landscapes and time
- 14:00 Christopher Clements:** Factors affecting the detectability of early warning signals in wild populations
- 14:15 Kyle Young:** Using patch dynamics to explore the effects of water abstraction on juvenile salmonid populations

- 14:30 Anne-Sophie Bonnet-Lebrun:** Making the most out of different sources and qualities of data in species distribution modeling: an example on the distribution of brown bears (*Ursus arctos*, L.) in Greece.
- 14:45 Lander Baeten:** Quantifying biotic homogenization: a model-based approach

S61:

## Invasive Species Invasion Risk & Spread

Location: Artois 1

Chair: Jane Hill

- 13:00 Jana Vamosi:** Generalization alters the probability of plant community invasion
- 13:15 Céline Bellard:** Major drivers of invasion risks throughout the world
- 13:30 Audrey Lustig:** How the interaction of invasive species traits and spatial complexity determines the temporal and spatial progression of spread
- 13:45 Noëlie Maurel:** A missing piece in the puzzle: early introduction bias, and its consequences on establishment success and spread of alien garden plants
- 14:00 Steven White:** Modelling the spread of *Xylella fastidiosa* in Puglia, Italy
- 14:15 Virginie GUYOT:** Tree diversity limits the impact of the invasive Asian chestnut gall wasp (*Dryocosmus kuriphilus*) in mature forests in Italy.
- 14:30 Maarten Schrama:** Grassland invasibility varies with legacy effects of drought on soil functioning
- 14:45 Regan Early:** A map of global invasion threat and response capability for the 21st Century

S62:

## Biodiversity and Ecosystem Function Patterns & Productivity

Location: Matisse 3

Chair: Tommaso Jucker

- 13:00 Rudolf Rohr:** Reconciling results of biodiversity-productivity analyses in natural and experimental systems

# ORAL PRESENTATIONS: FRIDAY 12 DECEMBER

- 13:15 Jean Clobert:** AnaEE France infrastructure for the study of continental Ecosystems Processes and Dynamics
- 13:30 Emmanuel Defosse:** Positive effect of species richness on wood and leaf productivity along a climatic gradient in European forests
- 13:45 Tommaso Jucker:** Crown plasticity enables trees to optimize canopy packing in mixed-species forests
- 14:00 Gauthier Ligo:** Maintaining the coexistence of forest species of different shade tolerances with close-to-nature forestry
- 14:15 Xavier Morin:** Temporal stability in forest productivity increases with tree diversity due to asynchrony in species dynamics
- 14:30 Eamon Haughey:** Drought in intensively-managed grassland mixtures – stress resistance and productivity
- 14:45 Susan Jarvis:** Species richness-productivity relationships in UK vascular plants

A full list of authors and abstracts are available on [eventmobi.com/bessfe/](https://eventmobi.com/bessfe/)



# POSTER SESSION 1: WEDNESDAY 10 DECEMBER

Posters will be on display all day Wednesday and Thursday in Lille Metropole, the main Exhibition Hall of the Grand Palais.

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 - J1), which takes place on Wednesday 10 December from 17.45 - 19.15.

All poster numbers with a letter followed by the number 2 will be part of Poster Session 2 (A2 - K2), which takes place on Thursday 11 December from 17.00 - 18.30.

## Agricultural Ecology

- A1.0 Bachir Loukil:** The effects of low doses Propinid on the histology testicle in male rabbits
- A1.1 Caroline Sullivan:** Distribution and typologies of High Nature Value (HNV) farmland in Ireland
- A1.2 Pauline Bristiel:** The effect of artificial selection and latitudinal gradient on leaf functional trade-offs in *Dactylis glomerata* L.
- A1.3 Stephane Derocles:** Simulating the effects of climate-warming on farm ecosystem services: New technologies for agri-sciences
- A1.4 Sékou Coulibaly:** Short-term dynamic of soil fauna under contrasting tillage systems
- A1.5 Lenka Malikova:** Adventitious sprouting in crops: targeted trait, byproduct of selection or forgotten legacy?
- A1.6 Sarah Labruyere:** The influence of oilseed rape and grasslands on the abundance of weed seed-eating carabids at different spatial scales.
- A1.7 Anna Pollier:** The effect of field margin vegetation on the regulation of crop herbivores.
- A1.8 Poeydebat Charlotte:** Optimal pest regulation strategy to counterbalance yield losses due to competition in diversified agroecosystems, a theoretical model-based approach applied to banana
- A1.9 Sylvia Toet:** Quantifying agricultural nitrous oxide emissions with novel automated greenhouse gas technology
- A1.10 Antoine Tardif:** Drought tolerance and resilience of four contrasting deciduous broadleaf tree species
- A1.11 Dominique Carval:** Local share of space in banana crops ensures coexistence in ant community
- A1.12 Sabrina Gaba:** Should we manage weeds for bees?
- A1.13 Fabrice Dessaint:** Decreasing herbicide use by contrasted cropping systems lead to various dynamics of weed communities
- A1.14 Emma McLarnon:** Grasses Bite Back: Silicon Based Defences at the Leaf Surface in a Forage Grass
- A1.15 Marina Mora-Ortiz:** First de-novo transcriptome assembly for gene identification, analysis and annotation, and molecular marker discovery in *Onobrychis viciifolia*
- A1.16 Gaël Caro:** Spatial correlation between agricultural practices and honey bee dynamics: A study in a long-term ecological research territory
- A1.17 Gard Baptiste:** Productive rooftop as living ecosystem from urban organic: a pilot project in Paris
- A1.18 Stephanie Bryan:** Ecological Impacts of a Novel Nematode Control on Soil Microbial Communities
- A1.19 Claire Blowers:** The potential for individual plant species to offer ecosystem services such as water quality enhancement, and pollinator and pest control provision. A Matrix of evidence
- A1.20 David Jones:** Drivers of Earthworm Populations in Agricultural Grasslands
- A1.21 Francisca Sconce:** Collembola and agriculture: untangling the web.

- A1.22 Michel-Pierre Faucon:** Advances and perspectives to improve the phosphorus availability in 4 cropping systems for agroecological phosphorus management
- A1.23 Vincent Bonhomme:** Seeds of morphometrics for the origins of agriculture: experimental charring of modern grains
- A1.24 Ronan Marrec:** Crop succession and habitat preferences drive the distribution and abundance of carabid beetles at multiple spatial scales in agricultural landscapes

## Biodiversity and Ecosystem Function

- B1.0 Malte Jochum:** Consequences of tropical land use for multitrophic biodiversity and ecosystem functioning
- B1.1 Victoria Burton:** Responses of soil biotas to human impacts: from local to global
- B1.2 Paul Kardol:** A meta-analysis of soil biodiversity impacts on the carbon cycle
- B1.3 Zia Mehrabi:** Biodiversity ecosystem functioning and food security
- B1.4 B renger Bourgeois:** Spatial components overcome the influence of local and landscape factors for understory regeneration of plant communities after tree planting in post-agricultural riparian zones.
- B1.5 Evalyne Muiruri:** Testing the enemies hypothesis: avian predators facilitate tree diversity effects on insect herbivores
- B1.6 Jean Francois Cornu:** Interchangeability between IUCN/BirdLife range maps and GBIF points of occurrence for biodiversity assessment: are spatial scale and taxonomy matter?
- B1.7 Lionel Hertzog:** Arthropod community shifts along an experimental plant diversity gradient
- B1.8 Sebastian Gude:** Motility and growth
- B1.9 Ceres Barros:** Land-use and climate changes can cause irreversible state shifts in alpine communities
- B1.10 Bram Sercu:** The Treeweb Project: scaling up functional biodiversity research
- B1.11 Anissia White:** Up the Creek! The value of tidal channels in managed realignment projects

- B1.12 Camille Coux:** Linking species network roles to community functional diversity.
- B1.13 Bolaji Babatunde:** Maintaining ecosystem services for sustainable rural livelihoods in aquatic agriculture systems in the Niger Delta.
- B1.14 Maria Majekova:** Sensitivity of functional diversity indices to missing trait data depends on the type of data available and its transformation
- B1.15 Evy Ampoorter:** Effects of overstorey species diversity on the understorey in mature European forests
- B1.16 Anicet Dassou:** Cropped plant diversity structures arthropod food webs in multi-specific plantain based agroecosystems
- B1.17 Am lie Truchy:** Leaf litter breakdown along three contracting anthropogenic pressure gradients
- B1.18 Yogan Monnier:** How do roots influence soil properties and biotic processes across French agroforestry landscapes?
- B1.19 Louis-Felix Bersier:** Including community composition in biodiversity-productivity models
- B1.20 Barbe Lou:** Functional neighborhood driving biotic interactions driving ecosystem processes
- B1.21 Fabio C G da Silva:** Determining the relationship between plant functional traits, environmental variables and ecosystem functions in British lowland peatlands.
- B1.22 Guy Lemperiere:** Complexity and diversity revisited: a tribute to J.P. Cancela da Fonseca's early works.

## Global Change Ecology

- C1.0 Anthony S v que:** Impact of weather on population dynamics of wild and semi-domesticated reindeer in Western Russia and Siberia.
- C1.1 Sylvain Pincebourde:** Warming tolerance across insect ontogeny: influence of joint shifts in microclimates and thermal limits
- C1.2 Pierre Ga z re:** Rapid adjustment of community composition to local climatic variations and its functional consequences

# POSTER SESSION 1: WEDNESDAY 10 DECEMBER

Wednesday

- C1.3 Hugo Valls Fox:** To drink or not to drink? Behavioral response of large herbivores to seasonal changes in surface water availability in a semi-arid savanna.
- C1.4 Salamatu Fada:** Trends in drivers of vegetation change for Yankari Game Reserve, Nigeria.
- C1.5 Ophélie Ronce:** Effect of pollen dispersal on adaptation and persistence in changing environments: theoretical predictions
- C1.6 María Salinas:** Does aridity influence intraspecific variability in leaf traits of riparian species?: The case of black alder and blackberry in a Mediterranean region
- C1.7 WITHDRAWN**
- C1.8 Makamas Sutthacheep:** Assessing Coral Reef Resilience to Climate Change in Thailand
- C1.9 Sumitra Dewan:** Maternal temperature effects on tree seedlings
- C1.10 Iain McNicol:** Carbon and species dynamics following shifting cultivation in the Miombo woodlands of Tanzania
- C1.11 Hannah Loranger:** The effect of temperature and water availability on tree regeneration at the alpine treeline
- C1.12 Hugo Vincent:** Rare & common species respond differently to climate change
- C1.13 Robin Lundell:** Modelling the overwintering of northern field layer plants under climatic warming by means of functional overwintering types
- C1.14 M. Jane Bunting:** Adaptive capacity of Spring Wheat to climate change
- C1.15 Leen Depauw:** Pastforward: Development trajectories of temperate forest plant communities under global change: combining hindsight and forecasting
- C1.16 Michelle Murray:** Predicting biome-level vegetation responses to future global change – preliminary findings from a global project
- C1.17 Olivier Flores:** MOVECLIM: Montane vegetation as listening posts for climate change
- C1.18 Romain Lorrilliere:** Dispersal rates of bird species affect unequally their responses face the global changes
- C1.19 Pütz Sandro:** A Landscape generator modelling detailed and natural looking land use patterns and its exemplary application for environmental impact assessment
- C1.20 Katarina Fussmann:** The impact of flooding events on microbial groundwater communities

## Macroecology, Biogeography and Landscapes

- D1.0 Dominic Bennett:** Rats, platypuses and evolutionary dead-ends: how observed tree imbalance implies reduced rates of diversification for the evolutionary distinct
- D1.1 Alke Voskamp:** Avian phylogenetic diversity: global patterns and their drivers
- D1.2 Ondine Filippi-Codaccioni:** Opportunistic data in Citizen Sciences: statistical modelling for loose protocols
- D1.3 Jessica Fonseca da Silva:** Distribution, richness and habitat loss of woody plants in the Brazilian Cerrado
- D1.4 Miguel Berdugo:** The typology of patch size distribution of vegetation decouples biotic/abiotic drivers in drylands worldwide
- D1.5 Hannah White:** Environmental drivers of the functional diversity of British birds
- D1.6 Karina Banda:** Floristic relationships of woody plants of seasonally dry tropical forest in the Neotropics
- D1.7 Hannu Saarenmaa:** Macroecological analysis of European butterflies using GBIF data: Changes in abundance and distribution
- D1.8 Boris Demenou:** Origin and history of the Dahomey – Gap separating West and Central African rain forests: insights from the phylogeography of the legume tree *Distemonanthus benthamianus*
- D1.9 Louise Barwell:** Predicting species distributions at fine spatial scales
- D1.10 Jose Gonzalez Lopez:** Species diversity, composition and structure of forests in the Yucatan Peninsula, Mexico

**D1.11 Rachel McDonald:** Landscape complexity and commercially managed apple orchards: potential implications for pest control

## Ecological Genetics and Molecular Ecology

- E1.0 Toshifumi Minamoto:** A basin-scale application of environmental DNA assessment for rare endemic and exotic giant salamander species in Japan
- E1.1 Christian Olsen:** Geneious '16S Biodiversity Tool' for Rapid Bacterial Diversity Characterization
- E1.2 WITHDRAWN**
- E1.3 Leslie Faucher:** Genetic structure of native and newly founded populations of the natterjack toad (*Bufo calamita*) in northern France
- E1.4 Laurence Despres:** Speciation, hybridization, and introgression among three closely-related Alpine butterflies
- E1.5 Sylvie Oddou-Muratorio:** Impacts of tree dieback and mating system on the quality of regeneration in European beech (*Fagus sylvatica*).
- E1.6 Myriam Valero:** Paternity analyses and fine scale genetic structure in a natural population of the haploid-diploid red seaweed *Chondrus crispus*
- E1.7 Christophe Destombe:** Seasonal distribution, host specificity, and the potential for cryptic speciation in the filamentous brown alga *Pylaiella littoralis* in Brittany
- E1.8 Nicolas-George Eliades:** Assessing the genetic local adaptation within the wild population of a narrow endemic tree species: the case of *Cedrus brevifolia* Henry.
- E1.9 Priyadarshini Chakrabarti:** Honey bees can't sniff anymore!
- E1.10 Rory O'Connor:** Habitat specialism and population genetics in the Adonis blue (*Polyommatus bellargus*) and Chalkhill blue butterflies (*Polyommatus coridon*): Higher specialism is associated with a more fragmented population structure.
- E1.11 Quentin Legros:** Genetic basis of adaptation to temperature in *Tribolium castaneum*

**E1.12 Claire Papot:** Gene duplication and allelic diversity within the multigenic family encoding alvinellacin in the hydrothermal vent worm, *Alvinella pompejana*: is gene duplication responsible for a neo-functionalization of the antimicrobial peptide?

## Freshwater & Marine Ecology and Ecosystems

- F1.0 Julie Deter:** Medtrix: a cartographic database concerning marine ecology and anthropogenic pressures along the Mediterranean coast
- F1.1 Sarmistha Saha:** Carbon Cycling Pathways and Plankton communities in the Sewage-fed Fisheries of East Kolkata Wetlands, India
- F1.2 Emilie Macke:** Adaptation to toxic cyanobacteria through the symbiotic microbiota in the waterflea *Daphnia*
- F1.3 Enora Briand:** Changes in *Microcystis* metabolic profiles in response to intra-specific interactions evidenced by a co-culturing/molecular networking approach
- F1.4 Alexander Royan:** River flow variability determines spatial patterns of co-occurrence and functional diversity in river bird assemblages.
- F1.5 Dannielle Green:** Microplastics: a macro-problem for marine ecosystems?
- F1.6 Virginie Cuvillier-Hot:** Immune phenotype changes associated with coastal pollution in a bio-indicator model species: *Hediste diversicolor*
- F1.7 Clément Crenier:** Pivotal role of benthic algae in the survival and growth of a detritivorous invertebrate in detritus-based streams
- F1.8 Floor Soudijn:** Optimization of the yield and resilience of large piscivorous fish by harvesting their prey
- F1.9 Sophie De Grissac:** The Early life at sea of juveniles albatrosses and petrels: a comparative study
- F1.10 Mark Edwards:** Identifying individual Smooth Newts (*Lissotriton vulgaris*) using ventral pigmentation patterns.

## Population Ecology and Dynamics

**G1.0 Qingmin Han:** Carbon source for vegetative growth in *Fagus crenata* in masting year

- G1.1 Frederic Barraquand:** Positive effects of environmental variability on population growth and individual fitness?
- G1.2 Paul Raven:** Damaged goods-using tatty wings to track individual Silver-washed Fritillary butterflies (*Argynnis paphia*)
- G1.3 Takashi Saitoh:** Genetic differentiation associated with migratory habits in a deer population
- G1.4 Guillaume Papuga:** Ecological niche variation and loss of a floral polymorphism in peripheral populations of Mediterranean *Narcissus dubius*
- G1.5 Diala Abu Awad:** Self-fertilisation can be an evolutionary dead-end.
- G1.6 Maud Deniau:** Seedlings: where should you grow?
- G1.7 Laurens Kilsdonk:** Eco-evolutionary dynamics at population structuring: a model-based analysis of evolution-mediated priority effects
- G1.8 Marie Konecna:** Attractiveness of elaiosomes for ants, their chemical composition and phylogenetic differences
- G1.9 WITHDRAWN**
- G1.10 Julia Barthold:** Died or left? Estimating age-specific mortality for the dispersing sex
- G1.11 Thierry Spataro:** How inbreeding depression may prevent extinctions in host-parasitoid systems

## Tropical Ecology

- H1.0 Silvia Gallegos:** Factors limiting montane forest regeneration in a bracken dominated habitat in Bolivia
- H1.1 Pia Parolin:** From the canopy to the floor – seed dispersal in Amazonian floodplains
- H1.2 Tossimidé Hounbedji:** Weeds community of lowlands rice system of Northern Togo's Savannah region
- H1.3 Eleanor Slade:** Biodiversity, ecosystem functions & policy: evaluating best practices in human-modified tropical landscapes
- H1.4 Christiane Pizarro-Hernández:** "Conservation status in two zones of tropical dry forest on Ría Lagartos Reserve of Biosphere, Yucatan, Mexico"

- H1.5 Judith Klein:** Links between benthic invertebrate community structure and abiotic factors in fragmented mangrove habitats
- H1.6 Bernard Moyersoen:** A new, probably endemic fungus belonging to the *Catathelasma* clade (*Tricholomataceae*) in a neotropical forest dominated by the endemic dipterocarp *Pakaraimaea dipterocarpacea* in the Guayana Region, Venezuela: biogeographic implications

## Forest Ecology and Dynamics

- J1.0 Gabriel Gerzabek:** Tree fecundity and gene dispersal in an expanding Pedunculate oak (*Quercus robur*) stand
- J1.1 Friedrich Bohn:** Different forests structures result in different biodiversity-productivity-relationships
- J1.2 Richard Nair:** Forest Partitioning of Decomposed and Deposited Nitrogen
- J1.3 Martha Crockatt:** Edge effects on moisture reduce wood decomposition rate in a temperate forest
- J1.4 Babs Stuiver:** Nitrogen fixation rates of *Pleurozium schreberi* and *Hylocomium splendens* moss communities along a chronosequence following clear-cutting
- J1.5 Ondřej Vild:** Plant species richness increase and composition homogenization under high ungulate pressure in a temperate oak forest
- J1.6 Nwabueze Igu:** Freshwater swamp forests in the Niger Delta, Nigeria: composition, fragmentation and determinants
- J1.7 Manuel Pulgar:** Effect of sampling effort on estimates of plant-plant replacement network structure.
- J1.8 Julie Morin-Rivat:** Late-Holocene moist forests of Central Africa: contribution of charcoal analysis
- J1.9 Radim Hedl:** Sand, clay and management: the origins of novel plant communities in Pannonian oakwoods
- J1.10 Benoit Richard:** Factors controlling the richness and diversity patterns of fungal communities in French temperate forests (RENECOFOR).
- J1.11 Simone Magalhaes:** Machine learning for forest ecology modelling

# POSTER SESSION 2: THURSDAY 11 DECEMBER

## Community Ecology

- A2.0** **Valentine Seymour:** Nature's impact on health: A holistic perspective
- A2.1** **Sirgi Saar:** Plant presence reduces root decomposition rate of non-legume species
- A2.2** **Foteini Pashalidou:** To be in time: egg deposition enhances plant-mediated detection of young caterpillars by parasitoids
- A2.3** **Gustavo Romero:** Resources across ecosystems: Allochthonous aquatic prey subsidize terrestrial predators in a tropical riparian forest
- A2.4** **Eva Svamberkova:** The role of biotic interactions in plant community assembly: What is the community species pool?
- A2.5** **Salvador Rodríguez Zaragoza:** Seasonal variation of protozoan communities in the root zone of two legume bushes at a degraded arid soil
- A2.6** **Laura Henckel:** Disentangle community assembly processes in space and time, a case study on farmland bird
- A2.7** **Nianxun Xi:** Grassland responses to rainfall regime and heterogeneous resource inputs
- A2.8** **Stefanie Maaß:** How data pooling influences the test of neutral models of community structure
- A2.9** **Victor Saito:** Voltinism as a major driver of phylogenetic distance decay of similarity in tropical aquatic insect metacommunities
- A2.10** **Bianca Santini:** The triangular relationship between seed mass and leaf area; the Annuals case.
- A2.11** **Majka Smilauerova:** Effects of plant functional groups on arbuscular mycorrhizal community in a grassland
- A2.12** **Gabriela Montejo-Kovacevich:** Evidence for multitrophic effects of stick-insect camouflage maladaptation
- A2.13** **Dries Huygens:** Preferential uptake patterns of soil nitrogen forms among plant functional types in dry forest ecosystems relate to root architectural traits
- A2.14** **Jessy Loranger:** Species richness and functional space in grasslands: the interplay of fertilization, disturbance and climate
- A2.15** **Anna Štifterová:** Small-scale spatio-temporal community structure dynamics of corticolous microalgal biofilms
- A2.16** **Amandine Erktan:** Modification of root traits along road-sides secondary successions
- A2.17** **Alejandro Zavala-Hurtado:** High species richness' protégée communities under nurse-tree canopies show high susceptibility to local invasions in a semiarid region in tropical Mexico
- A2.18** **Bright Kumordzi:** Do plant assemblages respond homogeneously to local variation in environmental conditions?
- A2.19** **Helena Bestová:** Phylogenetic structure of desmid communities
- A2.20** **Lin Huang:** The role of growth phenology on large sets of species
- A2.21** **Josselin Cornuault:** Timing and Number of Colonizations but Not Diversification Rates Affect Diversity Patterns in Hemosporean Lineages on a Remote Oceanic Archipelago
- A2.22** **Pavel Svoboda:** Spatio-temporal community structure of desmids – could priority effect explain observed patterns?
- A2.23** **Jeremy Cusack:** Random versus trail-based camera trap placement for monitoring terrestrial mammal communities: revealing two faces of the same coin?
- A2.24** **Markéta Chudomelová:** Environmental correlates of the fine scale understory variation in oak and hornbeam dominated forests in the Czech Republic
- A2.25** **Bethan Parkes:** Plant communities altered by persistent volcanic degassing
- A2.26** **Michelle Gibson:** In times of drought and plenty: bird community response to an unprecedented rain event in the Australian Outback
- A2.27** **Andrea Baquero:** Evolution and ecology of hummingbird communities in the Antilles: body size, bill length and floral niche-overlap
- A2.28** **Ana Foronda:** Where do seedling establish and survive in semiarid environments? A case study in a gypsum habitat (Middle Ebro Valley, NE Spain)

# POSTER SESSION 2: THURSDAY 11 DECEMBER

Thursday

- A2.29 Bradley Carlson:** Accounting for snow cover duration improves predictions of alpine plant community properties
- A2.30 Rachel Kehoe:** Light pollution affects traits and function in web-building spiders.
- A2.31 Vicente Jiménez Ontiveros:** Extinction - Colonization Signatures in the Dynamics of Microbial Communities.
- A2.32 Benoit Vanhee:** Are assemblages of Springtails (Arthropoda) from spoil tips distinct from those of surrounding environments?
- A2.33 Richard Pannell:** Movement and Community Dynamics of Insect Herbivores - A Mesocosm Experiment.
- A2.34 Oluwafisayo Adeniran:** Personality and Functional Traits Determining Grasshopper Dispersal

## Plant-Soil Interactions and Biogeochemistry

- B2.0 Rosemary Haskell:** Belowground bodyguards: Investigating the role of symbiotic root fungi on plant silicon and associated defences
- B2.1 Xavier Raynaud:** Spatial Ecology of Bacteria at the Microscale in Soil
- B2.2 Eduardo Medina-Barcenas:** Tree species effect on soil carbon dynamics under climate change
- B2.3 Bertie Welch:** Trace greenhouse gas fluxes from lowland tropical rainforest in Panama
- B2.4 Juliette Bloor:** Power in numbers? Density effects of three dung beetle species on dung removal and plant litter decomposition
- B2.5 Nathalie Cheviron:** Biochem-Env, a platform of environmental biochemistry for research in ecology and ecotoxicology
- B2.6 Luis Lopez-Sangil:** Soil organic C losses under drying-rewetting conditions: are they determined by differing factors depending on C stability?
- B2.7 John Crawford:** Mechanisms and controls of priming effects in forest ecosystems
- B2.8 Minggang Wang:** Timing effects of aboveground defoliation on population dynamics of root-feeding nematodes

- B2.9 Hélène Vogt-Schilb:** Ecological strategies of terrestrial orchids for reproduction and resource acquisition: insights from an extensive survey in France
- B2.10 Marie Simonin:** Disturbance of soil nitrogen cycle by titanium dioxide nanoparticles
- B2.11 Audrey Boigne:** Effect of soil characteristics on plant species development: importance of the response in a restoration of wet grassland for agricultural uses
- B2.12 Juliette Bloor:** Impacts of extreme summer drought on grassland soils: a European experiment
- B2.13 Benjamin Jackson:** Localized N<sub>2</sub>O emissions associated with actino rhizal nodules of black alder
- B2.14 Peter Orrell:** AMF – Pollinator Networks: Can differing arbuscular mycorrhizal fungal communities influence the structure of pollinator communities and in turn yield production, and does this vary according to plant traits?

## Plant-Pollinator Interactions

- C2.0 Michael Whitehead:** Sexual mimicry in sympatric orchid species promotes outcrossing, multiple paternity and reproductive isolation.
- C2.1 Daniel Gervasi:** Impact of Changing Pollinator Environments on the Evolution of Plants
- C2.2 Paula Salonen:** Bee population responses to urbanisation mediated by diminishing diversity of floral traits
- C2.3 Roxane Delle-Vedove:** Sources of scent variation and pollination mutual in the dioecious European Palm (*Chamaerops humilis*)
- C2.4 Paul CaraDonna:** Within-season temporal variation of a plant-pollinator network from the Colorado Rocky Mountains, USA.
- C2.5 Marie Voillemot:** Ecological and genetic implications of the loss of self-incompatibility in the toadflax *Linaria cavanillesii*
- C2.6 Carine Emer:** The impact of the invasive alien plant, *Impatiens glandulifera*, on native pollen-stigma networks
- C2.7 Johanne Brunet:** Can pollinators explain the variation in flower colour in the Rocky Mountain Columbine?

# POSTER SESSION 2: THURSDAY 11 DECEMBER

- C2.8 Hui Wang:** Maintenance of flower colour polymorphism in the food-deceptive *Iris lutescens* (Iridaceae): a view through plant-pollinator interactions
- C2.9 Ellen Moss:** The impacts of simulated climate warming on plant-pollinator interactions and ecosystem services in UK agro-ecosystems
- C2.10 Grigoris Kylafis:** Positive Interactions and Catastrophic Shifts in Plant Communities
- C2.11 WITHDRAWN**
- C2.12 Emmanuelle Porcher:** Pollinators constrain plant mating systems: a community perspective on patterns of pollen transfer and plant selfing rates
- C2.13 WITHDRAWN**
- C2.14 Yuval Sapir:** Somewhere over the rainbow: Role of pollinators as selection agents on the extreme floral size and dark color of the Royal Irises.
- C2.15 Baptiste Schmid:** Adaptive foraging of nectar feeding birds in species-rich plant communities
- C2.16 Rein Brys:** Disruption of the distylous syndrome in *Primula veris* and empirical evidence for Darwin's cross-promotion hypothesis.
- C2.17 Clotilde Lepers:** How does plant reproductive systems affect plant-pollinator interactions? Modeling plant-pollinator demography for distylous and dioecious plant species.
- C2.18 Christophe Andalo:** Metabarcoding and NGS techniques to infer pollinator-mediated interactions in plant communities
- C2.19 Judith Trunschke:** Deceptive orchids experience stronger pollinator-mediated selection than rewarding orchids do

## Evolutionary Ecology and Life Histories

- D2.0 Abdul Rahman:** The ecology of life history variation in three-spined stickleback
- D2.1 Eleanor Heyworth:** Horizontal transfer and competition in pea aphid symbionts
- D2.2 Kimberley Mullins:** What traits influence the flammability of grasses?
- D2.3 Jana Duchoslavová:** When and what to share? Physiological integration in a clonal plant.

- D2.4 Loubab Zedane:** A phylogenetic hypothesis of the olive family (Oleaceae) based on complete plastid genomes and nuclear ribosomal units: Application to the study of breeding systems transitions
- D2.5 Benoit Pujol:** The moulding of senescence by evolution in plants
- D2.6 Xianfeng Jiang:** A study of the mating system of a homostyle-heterostyle primrose *Primula chungensis*
- D2.7 Aurélie Coulon:** The effects of landscape features on roe deer dispersal trajectories
- D2.8 Lynn Govaert:** Quantifying the importance of ecology and evolution in a resurrection ecology study.
- D2.9 Bethan Hindle:** A structured approach to modelling the impact of environmental variation on the evolution of bet hedging strategies
- D2.10 Cindy Canale:** Phenotypic plasticity in response to environmental changes in a socially hibernating mammal
- D2.11 Tomáš Koubek:** Comparative analysis of plant plasticity to light signals
- D2.12 Tomas Herben:** Herbs are different: Clonal and bud bank traits matter more than Leaf-Height-Seed traits
- D2.13 Jitka Klimesova:** Live fast, die young. Is leaf economic spectrum related to plant demography?

## Parasites Pathogens and Wildlife Disease

- E2.0 Clarence Schmitt:** Can habitat quality affect innate immune responses in tree swallows?
- E2.1 WITHDRAWN**
- E2.2 Heike Lutermann:** Species interactions in the ectoparasite community of an African small mammal
- E2.3 Sara Kada:** Tick and tick-borne disease range expansion under climate change: vector life-histories and dispersal constraints in seabird ticks
- E2.4 Kishan Gandhi:** Risk Factors for Parasite Infection in an Ethiopian population
- E2.5 Andy Devaynes:** The Potential Relationship between Bacterial load of the nest box and fledging success of *Cyanistes caeruleus* (Blue tits)

- E2.6 Kevin Sanchez-Thirion:** Resource quality modulates the impact of multiple stresses on survival and behavior of the amphipod *Gammarus fossarum*.
- E2.7 Klara Wanelik:** Spatial and temporal variation in colony attendance of immature common guillemots: implications for the dynamics of a naturally circulating tick-borne pathogen
- E2.8 Emily Pascoe:** Rumble in the intestinal jungle: interactions between gut macro- and microbiota
- E2.9 Josephine Walker:** Predicting seasonal patterns of nematode transmission between wildlife and livestock in Botswana

## Consumer-Resource Interactions

- F2.0 WITHDRAWN**
- F2.1 Hugh Hanmer:** Supplementary feeding of wild birds may increase local nest predation
- F2.2 Emma Jardine:** Global Distribution of Grass Defence Traits
- F2.3 Gaëtane Le Provost:** Landscape factors and local plant community impact herbivore communities on contrasted functional traits
- F2.4 Parris Humphrey:** Une Ménage à Mille? Putting plant-herbivore interactions in the context of phyllosphere bacteria
- F2.5 Bastien Castagneyrol:** Not safe among kins: insect herbivory on oak saplings increases with their relatedness to neighbors
- F2.6 Abdulaziz Assaeed:** Libyan jird (*Meriones libycus*Lichtenstein) activities induce habitat patchiness in conserved hyperarid rangelands of Central Saudi Arabia.
- F2.7 Renata Buresova:** Which plant is laziest?
- F2.8 Eva Horcickova:** Vegetation under the extensive influence of wild ungulates

## Food Webs Networks and Complexity

- G2.0 Elsa Canard:** How a multi-host pathogen is affected by the trophic structure of its host community?
- G2.1 Callum Macgregor:** How does light pollution affect nocturnal pollination interactions?

- G2.2 Clare Gray:** The recovery of a large collection of freshwater food webs from acidification
- G2.3 Nicolas Hette-Tronquart:** Does species richness influence trophic diversity? A food web study along the upstream downstream gradient of a temperate river.
- G2.4 Milton Barbosa:** The role of an abundant species in food web structure: an experimental approach
- G2.5 Irene Bender:** Effects of climate change on mutualistic networks in a tropical diversity hotspot

## Ecosystem Services

- H2.0 Samuel Leigh:** Harnessing multiple ecosystem services from novel crop rotations
- H2.1 Iris Bumb:** Effects of management regimes and harvesting date on organ herbage quality: relationships with traits
- H2.2 Jacob Bishop:** Can pollinators improve food-system resilience under climate change?
- H2.3 Erika Degani:** Can Novel Crop Rotations Enhance Biodiversity-Derived Ecosystem Services Underpinning Arable Production?
- H2.4 Katie Horgan:** Making an ecosystem services approach relevant in an existing biodiversity research programme.
- H2.5 Caroline Devaux:** Dynamics of ecosystem services at landscape scale: resilience under different scenarios of global changes
- H2.6 Eleanor Webster:** Carbon storage in floodplain fens along a gradient of saline influence

## Conservation Ecology Management and Policy

- J2.0 WITHDRAWN**
- J2.1 Harison Andriambelo:** Landscape scale consequences of dispersal traits of trees in a changing environment: a case study of a tropical moist forest, Ankeniheny-Zahamena, Madagascar
- J2.2 Robert Cruickshank:** Blood, sweat and tears: non-invasive vs. non-disruptive

## POSTER SESSION 2: THURSDAY 11 DECEMBER

- J2.3 Soumik Chatterjee:** Habitat factors at different landscape scales shape avian frugivore community in and around a moist deciduous forest degradation gradient.
- J2.4 Suzanna Mason:** Change in rate of range expansion under climate change varies across taxonomic groups
- J2.5 Micheline Sheehy** Skeffington: Turloughs –do they occur globally?
- J2.6 Caitriona Maher:** The River Shannon Callows, Ireland: an examination of how flooding patterns and farming practices affect plant communities and dipteran assemblages on unregulated floodplain meadows.
- J2.7 Thamasak Yeemin:** Coral reef conservation for maintaining ecosystem services in the Gulf of Thailand and the Andaman Sea
- J2.8 Marios Andreou:** Habitat mapping and study of the composition and structure of the habitat types 1520\* and 5220\* in Cyprus
- J2.9 Dan Chamberlain:** Identifying key conservation threats to Alpine birds through expert knowledge
- J2.10 Clémentine Azam:** Is part-night lighting an efficient way to reduce the impact of artificial light on bats?
- J2.11 Sarah Hanrahan:** Ecology and conservation of Arctostaphylos heath in the Burren, Western Ireland
- J2.12 Zoe Holden:** Perceptions of scale in Ecosystem Services
- K2.4 Lucie Meyer:** Genetic structure and dispersion processes of an invasive plant, *Ambrosia artemisiifolia*, within an agricultural landscape.
- K2.5 Viktoria Wagner:** InvasEVe: Large-scale assessment of alien plant invasions in European forests
- K2.6 Genevieve Prevost:** Can the invasive American black cherry (*Prunus serotina*) be a helpful host to the invasive Asiatic cherry fly (*Drosophila suzukii*)?
- K2.7 Olivier Flores:** Invasive or not? Two decades of exotic plants dynamics on La Réunion Island
- K2.8 Harold Balbach:** Risk reduction in invasive species management

### Invasive Species

- K2.0 Ahmad AbdulHameed:** Mapping of invasive plant species in Yankari Game Reserve, Bauchi, Nigeria using geographic information system
- K2.1 Hirotaka Komine:** Environmental characteristics of capture site for the eradication of invasive mongoose in Amami-Oshima Island, Japan.
- K2.2 Daisuke Hayasaka:** Differences in susceptibility of invasive *Linepithema humile* supercolonies and non-target ground arthropods to fipronil
- K2.3 Rupert Houghton:** Why wait for the 'silver bullet' when controlling invasive species? The feasibility of using an optimal combination of 'copper bullets' for the long-term management of invasive crayfish species.