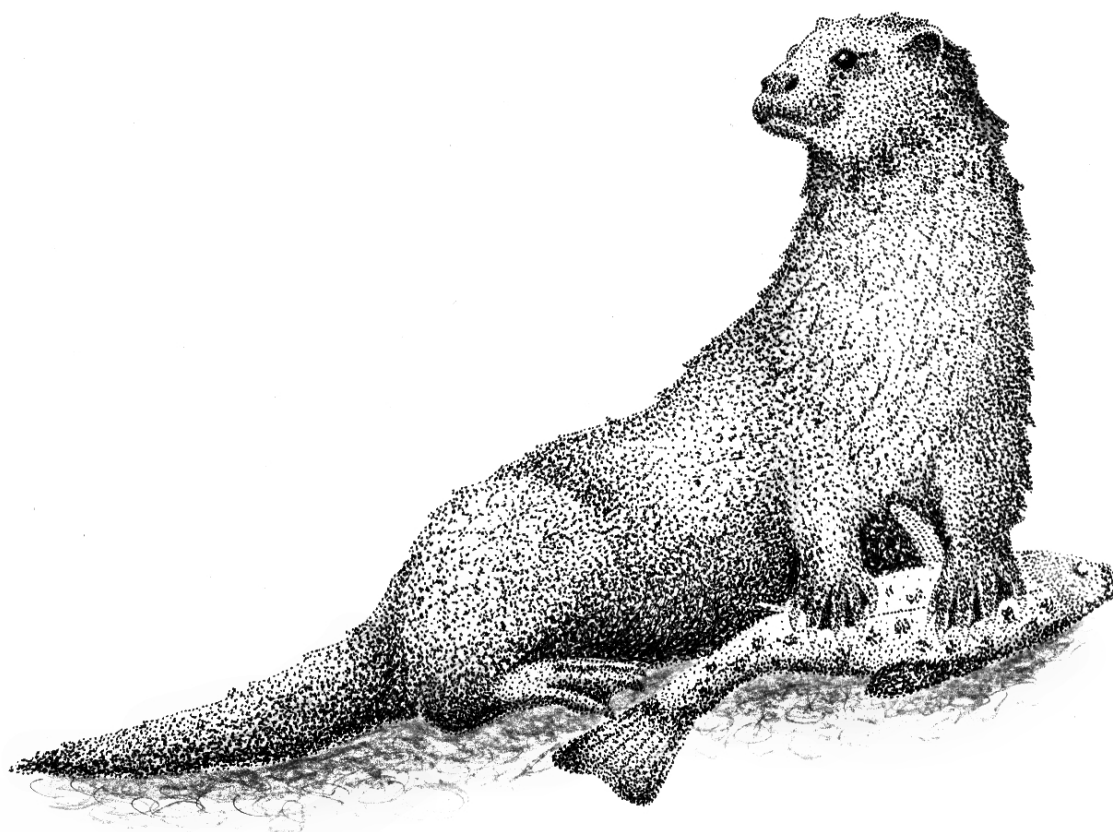


Scientific programme schelude



Graphics by: Sarah Maršíková
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Quick meeting overview

Time	Monday Aug 22	Tuesday Aug 23	Wednesday Aug 24	Thursday Aug 25	Friday Aug 26
9:00 – 9:30		Opening			
9:30 – 10:00		Plenary (Luigi Boitani)	Plenary (Eszter Kelemen)	Plenary (Anders Wijkman)	Plenary (Zuzana Münzbergová)
10:00 – 10:30		Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:30 – 11:00		Morning Sessions	Morning Sessions	Morning Sessions	Morning Sessions
11:00 – 12:30		Lunch	Lunch	Lunch/ SCB Meeting Members	Lunch
12:30 – 13:00	9:00 – 17:00 Training courses	Afternoon Sessions	Afternoon Sessions	Afternoon Sessions	Afternoon Sessions
13:00 – 13:30		Coffee Break	Coffee Break	Coffee Break	Coffee Break
13:30 – 14:00		Evening Sessions	Poster Session	Evening Sessions	Evening Sessions
14:00 – 15:30		Evening Sessions	BBQ Party (19:30 – 22:00)	Discussion "In times of war and borders walls"	Discussion "The future of conservation"
15:30 – 16:00		Movie "The Shepherds of the Earth"			Closing Ceremony
16:00 – 16:30	Opening Ceremony				
16:30 – 17:00	Welcome Cocktail Reception				
17:30 – 18:00					
18:00 – 18:30					
18:30 – 19:00					
19:00 – 22:00					

List of sessions

A Symposia

Topic	Day	Time	Room
Animal migration to northern latitudes: environmental changes and increasing threats	Wed 24	10:30	E1
Biodiversity across the Aquatic–Terrestrial Boundary: Rivers and their Riparian Zones	Thu 25	10:30, 14:00	T
Biodiversity conservation interventions in agricultural landscapes	Tue 23	16:30	Library
Biodiversity post–2020: synthesizing large–scale predictions for the future under climate and land use change	Wed 24	14:00	AULA
Bringing nature back to cities: using green infrastructure to support arthropod biodiversity	Wed 24	14:00	E3
Conservation & Law: perspectives from the Post2020 Biodiversity Framework and the EU–Nature Conservation rules	Wed 24	10:30	AULA
Conservation genetics: future directions for genetic and genomic applications for the conservation, restoration and monitoring of biodiversity	Wed 24	10:30, 14:00	Library
Emerging challenges and opportunities for the CAP on supporting and conserving farmland biodiversity	Fri 26	10:30	AULA
Forest Policies and their impacts on Biodiversity and Ecosystem Services in a changing world	Fri 26	13:30	AULA
Impact evaluation for nature conservation in a changing world	Tue 23	16:30	AULA
Insect pollinators conservation in urban areas	Wed 24	10:30	E2
Integrating Land System Science and Conservation Science for deeper insights into conservation challenges and opportunities	Fri 26	13:30	Library
Large–scale assessments for conservation of European biodiversity	Fri 26	10:30	Library
Making agroecosystems more biodiverse: from local measures to landscape optimization	Tue 23	11:30, 14:00	Library
Making the most out of ecosystem services assessments for conservation practice	Tue 23	16:30	T
Monitoring biodiversity trends and threats using novel digital tools	Thu 25	10:30, 14:00	Library
Naturalistic grazing by large herbivores: understanding biodiversity patterns in restored self–regulating temperate savanna–grassland ecosystems	Fri 26	10:30, 13:30	E1
Planning where and how to best conserve and restore biodiversity	Tue 23	14:00	T
Reconciling conservation with animal welfare	Tue 23	16:30	E3
Reducing the future biodiversity crisis given different future worlds	Tue 23	11:00	AULA
Similarities and differences in agroecology and urban ecology	Fri 26	10:30	T
Social and ecological values: Charting a course forward for SCB Europe post	Tue 23	11:00, 14:00	E3
Synergy between nature and culture: the role of historical and sacred natural sites in biodiversity conservation	Wed 24	14:00	Round hall
The future of biodiversity monitoring in Europe	Wed 24	14:00	E1
The future of European forests: the paradigm shift from forestry to socioecological forest management	Wed 24	10:30	T
The multiple dimensions of forest biodiversity as a starting point for sustainable management (organized by COST BOTTOMS–UP CA18207)	Thu 25	14:00	E1

Towards landscapes of coexistence between people and megafauna	Tue 23	16:30	E1
Traditional ecological knowledge for conservation: weaving traditional knowledge with science in and for Europe	Thu 25	10:30, 14:00	E2
Understanding the geography of large mammal comebacks in Europe	Tue 23	11:00	E1
Wildlife movement management frameworks in conservation of social ecological systems	Tue 23	14:00	E1

B Oral presentations sessions

Topic	Day	Time	Room
Alien and invasive species	Thu 25	16:30	E3
Animal ecology and conservation	Fri 26	10:30	E2
Biodiversity and conservation in non-European countries	Tue 23	14:00, 16:30	Round hall
Climate change effects and adaptation	Tue 23	11:00, 14:00	E2
Conservation at the science-policy interface	Thu 25	16:30	Library
Conservation in agricultural landscapes	Thu 25	10:30, 14:00	AULA
Conservation policies and tools	Thu 25	16:30	E1
Conservation under global change	Thu 25	10:30, 14:00	E3
Disturbance ecology	Fri 26	13:30	E2
Economics of biodiversity & ecosystem services	Thu 25	14:00	Round hall
Ecosystem management and restoration	Tue 23	11:00	T
Education & environmental sociology	Wed 24	10:30	Round hall
Evidence-based conservation	Thu 25	16:30	E2
Forest conservation and management	Wed 24 Thu 25	14:00 10:30	T E1
Freshwater and marine conservation	Thu 25	16:30	T
Grassland ecology and management	Thu 25	16:30	AULA
Interdisciplinary approaches to conservation	Tue 23	14:00	AULA
Landscape ecology and conservation	Fri 26	13:30	E3
Methods and analytical tools	Tue 23	11:00	Round hall
Pollinator conservation	Wed 24	14:00	E2
Spatial ecology and conservation	Fri 26	10:30	E3
Urban ecology and conservation	Fri 26	13:30	T

C Speed presentations sessions

	Day	Time	Room
Speed 1	Tue 23	11:00	E4
Speed 2	Tue 23	14:00	E4
Speed 3	Tue 23	16:30	E4

D Workshops

Topic	Day	Time	Room
Attitudes towards large carnivores	Wed 24	10:30	E3
Emotion and Faith as Drivers of Conservation (World Café)	Wed 24	12:50	Library 259
Genetic considerations as part of conservation reintroductions, supplementations and translocations	Tue 23	16:30	E2
How international Conventions, Treaties and Organizations serve Nature Conservation	Wed 24	16:30	AULA
Publishing conservation science	Wed 24	12:50	AULA
Science–Policy Interfaces in a Rapidly Changing World	Thu 25	10:30	Round hall
What's driving insect decline (and what's not)?	Fri 26	10:30, 13:30	Round hall

E Discussion panels

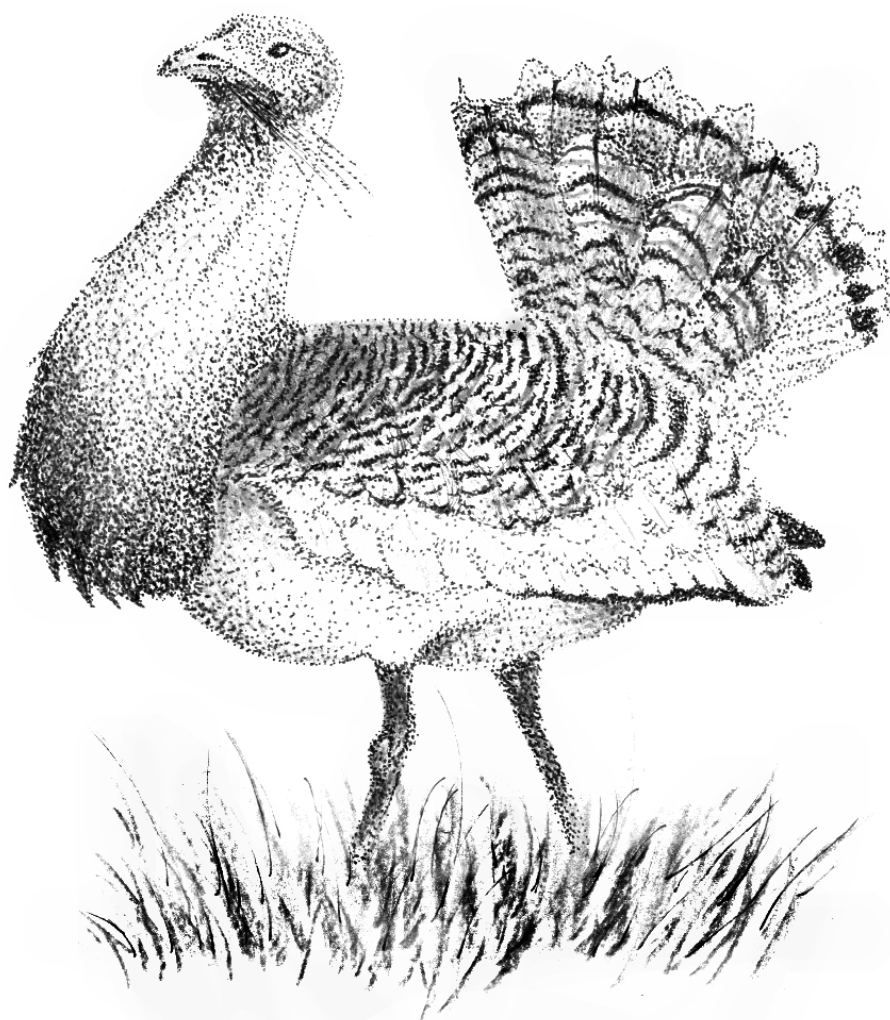
Topic	Day	Time	Room
In times of war and borders walls: conservation for peace, peace for conservation	Thu 25	18:30	AULA
The future of conservation – the future for us: What is the agenda for the next decade?	Fri 26	16:00	AULA

F SCB meetings

Topic	Day	Time	Room
SCB members meeting	Thu 25	12:50	AULA
Nordic chapter annual meeting	Wed 24	13:00	E1

Programme book

Tuesday, August 23rd



Graphics by: Sarah Maršíková
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Tuesday, August 23rd 2022

Room	AULA	T	Library	E1	E2	E3	Round hall	E4
9:00–9:30								
	Opening							
9:30–10:30	Plenary: Luigi Boitani – The large carnivores of Europe: the challenges of conservation and coexistence (AULA)							
10:30–11:00	Coffee break							
11:00–13:00	SY 1/1 Reducing the future biodiversity crisis given different future worlds	SE 1/1 Ecosystem management and restoration	SY 1/2 Making agroecosystems more biodiverse: from local measures to landscape optimization	SY 1/1 Understanding the geography of large mammal comebacks in Europe	SE 1/2 Climate change effects and adaptation	SY 1/2 Social and ecological values: Charting a course forward for SCB Europe post–	SE 1/1 Methods and analytical tools	Speed 1
13:00–14:00	Lunch time							
14:00–16:00	SE 1/1 Interdisciplinary approaches to conservation	SY 1/1 Planning where and how to best conserve and restore biodiversity	SY 2/2 Making agroecosystems more biodiverse: from local measures to landscape optimization	SY 1/1 Wildlife movement management frameworks in conservation of social ecological systems	SE 2/2 Climate change effects and adaptation	SY 2/2 Social and ecological values: Charting a course forward for SCB Europe post–	SE 1/2 Biodiversity and conservation in non european countries	Speed 2
16:00–16:30	Coffee break							
16:30–18:30	SY 1/1 Impact evaluation for nature conservation in a changing world	SY 1/1 Making the most out of ecosystem services assessments for conservation practice	SY 1/1 Biodiversity conservation interventions in agricultural landscapes	SY 1/1 Towards landscapes of coexistence between people and megafauna	WS 1/1 Genetic considerations as part of conservation of reintroductions, supplementations and translocations	SY 1/1 Reconciling conservation with animal welfare	SE 2/2 Biodiversity and conservation in non european countries	Speed 3
18:30–20:00	Break							
20:00–22:00	FILM (Club C)							

9:30 – 10:30 PLENARY: Luigi Boitani – The large carnivores of Europe: the challenges of conservation and coexistence (AULA) Room: **AULA**

The large carnivores of Europe are, with few local exceptions, increasing in number and expanding in ranges. The trend is likely to continue as increasingly large parts of Europe are being abandoned in mountains and marginal agricultural areas. Conservationists must face a shift in focus, from battling to save endangered species to managing a conservation success with extensive economic, social and ecological implications.

11:00 – 13:00 SESSION: Methods and analytical tools Room: **Round**

- 11:00 – 11:15 The use of lethal methods in arthropod conservation research
Lovei, Gabor; Ferrante, Marco; Moeller, Daniella; Moeller, Gabriella;
- 11:15 – 11:30 Predator avoidance behaviour of large carabids revealed by non-destructive methods in a managed oak-hornbeam forest
Růžičková, Jana; Elek, Zoltán;
- 11:30 – 11:45 eDNA for terrestrial arthropods : state of the art and perspectives for management and conservation
Leandro Rivel, Camila; Jay-Robert, Pierre; Pétilion, Julien;
- 11:45 – 12:00 A tool for the Ethical Assessment of the application of Assisted Reproduction Technologies (ART) in conservation.
De Mori, Barbara; Pollastri, Ilaria; **Spiriti, Maria Michela**; Biasetti, Pierfrancesco; Galli, Cesare; Goeritz, Frank; Hermes, Robert; Holtze, Susanne; Stejskal, Jan; Hildebrandt, Thomas B. ;
- 12:00 – 12:15 Implementation of a modern sampling design for the revision of the red list of fungi for Switzerland
Schlegel, Markus; Ecker, Klaus; **Gross, Andrin**;
- 12:15 – 12:30 Citizen science outperform standardized Atlases as data source when predicting narrow-ranged species
Arenas-Castro, Salvador; Regos, Adrián; Martins, Ivone; Honrado, João; Alonso, Joaquim;
- 12:30 – 12:45 Species habitat suitability increased during COVID19 lock-downs
Sillero, Neftalí; Arenas-Castro, Salvador;
- 13:30 – 13:45 A quasi experimental analysis of the impact of new mining developments on deforestation in Zambia
Morley, Jonathan; Buchanan, Graeme; Mitchard, Edward; Keane, Aidan;

11:00 – 13:00 SESSION: Ecosystem management and restoration Room: **T**

- 11:00 – 11:15 The consequences of biodiversity-oriented management of forest structure on the breeding success of forest birds – a systematic review of experimental studies
Cordeiro Pereira, João; Mikusiński, Grzegorz; Storch, Ilse;
- 11:15 – 11:30 Rewilding – the farmers perspective. Perceptions and attitudinal support for rewilding among the English farming community.
Mikolajczak, Katarzyna; Jones, Nikoleta; Sandom, Christopher J. ; Wynne-Jones, Sophie; Beardsall, Antonia; Burgelman, Suzanna; Ellam, Lucy; Wheeler, Helen;
- 11:30 – 11:45 Towards a Holistic Approach to Rewilding in Cultural Landscapes
Massenberg, Julian; Schiller, Johannes; Schröter-Schlaack, Christoph;
- 11:45 – 12:00 Evaluate the return of key-stone large animals (megafauna) to restore European biodiversity under different forecasted social and climate scenarios.
Davoli, Marco; Svenning, Jens-Christian;
- 12:00 – 12:15 The effects of visitor´s load on vegetation in 20 nature trails across Estonia: negative effects on diversity prevail independently of habitat type
Laanisto, Lauri; Härm, Ly; Jaksi, Piia;
- 12:15 – 12:30 Conservation and public participation in IUCN's ecosystem governance
Zuklin, Tomas;

- 12:30 – 12:45 Quantifying effects of wetland restorations on bird communities in agricultural landscapes
Kačergytė, Ineta; Pärt, Tomas; Berg, Åke; Arlt, Debora; Žmihorski, Michal; Knape, Jonas;
- 12:45 – 13:00 Disentangling the effect of forest management decisions and emergent forest structure on forest heterogeneity
Landivar, Carlos; Pereira, Joao; Hendel, Anna-Lena; Dormann, Carsten;
- 11:00 – 13:00 SESSION: Climate change effects and adaptation 1/2** Room: **E2**
- 11:00 – 11:15 Climate warming is linked to insect declines and increases in Switzerland in the last 40 years
Neff, Felix; Korner-Nievergelt, Fränzi; Rey, Emmanuel; Martínez-Núñez, Carlos; Herzog, Felix; Knop, Eva;
- 11:15 – 11:30 Changes in aquatic macroinvertebrate community in a protected alpine pondscape over a 20-year period – Investigating fingerprints of climate change impact
Fahy, Julie; Demierre, Eliane; Piaudel, Axelle; Oertli, Beat;
- 11:30 – 11:45 Contrasting responses of trophic guilds to forest decline reshape canopy insect communities
Le Souchu, Elodie; Parmain, Guilhem; Bankhead-Dronnet, Stéphanie; Brand, Matthias; Damoiseau, Sébastien; Sallé, Christian; Bouget, Christophe; Sallé, Aurélien;
- 11:45 – 12:00 Recent range shifts of birds, moths and butterflies are driven by the width of their thermal niche
Hällfors, Maria; Heikkinen, Risto K. ; Kuussaari, Mikko; Lehikoinen, Alekski; Luoto, Miska; Pöyry, Juha; Saastamoinen, Marjo; Virkkala, Raimo; Kujala, Heini;
- 12:00 – 12:15 Understanding and predicting climate change induced vegetation shifts in a temperate grassland based on long-term monitoring and field experiments
Kröel-Dulay, György; Orbán, Ildikó; Kertész, Miklós; Mojzes, Andrea; Szitár, Katalin; Ónodi, Gábor;
- 12:15 – 12:30 Phenological shifts in pear flowering predicted under all future climate scenarios
Reeves, Laura; Garratt, Michael; Fountain, Michelle; Senapathi, Deepa;
- 12:30 – 12:45 Local adaptation to climate anomalies relates to species phylogeny
Melero, Yolanda; Evans, Luke C. ; Kuussaari, Mikko; Schmucki, Reto; Stefanescu, Constantí; Roy, David B; Oliver, Tom H. ;
- 12:45 – 13:00 Looking for some shade? The importance of rocks compared to vegetation as a thermoregulatory refuge for desert lizards
Stark, Gavin; Levy, Ofir; Ma, Liang; Zeng, Zhi-Gao; Du, Wei-guo;
- 11:00 – 13:00 SYMPOSIUM: Making agroecosystems more biodiverse: from local measures to landscape optimization 1/1** Room: **E3**

Organized by: Knapp Michal, González Ezequiel, Czech University of Life Sciences Prague

Biodiversity is declining worldwide at an unprecedented scale and rate, with detrimental consequences on ecosystem functioning and services. Changes in land cover and agricultural intensification resulting from modern production systems pose extreme threats to biodiversity across scales and taxa [1]. Extremely simplified landscapes with large fields of only a few crop species and where most semi-natural habitats were lost are widespread, which calls for a re-design of agricultural landscapes to enhance biodiversity [2,3]. To maintain the food production capacity that allows feeding the human population and to stop the ongoing biodiversity decline, immediate solutions are needed [4,5]. Ecologists and conservationists should provide evidence-based guidelines to stakeholders (from farmers to politicians) on how to ensure sustainable agricultural production.

Most likely, all the available tools, such as novel agricultural practices, efficient local conservation measures and sophisticated landscape planning, should be combined to achieve this goal. In this symposium, we propose a stimulating exchange of novel ideas among scientists, ranging from well-established group leaders (invited speakers) to early-career researchers (case study presentations). Furthermore, the symposium will also provide an opportunity to synthesize this information and facilitate the communication of relevant concepts and practices towards decision makers. The symposium will begin with a series of 8 invited lectures by established researchers, followed by 3 presentations of case studies focusing on measures to support biodiversity conservation in agricultural landscapes. The symposium will end with

a panel discussion (ca. 45 minutes) where the different topics will be discussed and a summary from the different perspectives will be elaborated.

- 11:00 – 11:30 Optimizing Agricultural Landscapes for Biodiversity and Ecosystem Services.
Landis, Douglas;
- 11:30 – 11:45 Building a biodiversity hotspot systems in agricultural landscapes: first experiences from the Wild Flower Fields experiment, Hungary
Báldi, András; Pellaton, Raoul; Bihaly, Áron Domonkos; Sziget, Viktor; Lellei-Kovács, Eszter; Máté, András; Sárospataki, Miklós; Soltész, Zoltán; Somay, László; Kovács-Hostyánszki, Anikó;
- 11:45 – 12:00 Enhancing weed multifunctionality through landscape-scale management
Petit, Sandrine;
- 12:00 – 12:15 Harnessing the push-pull technology for biodiverse agroecosystems in East Africa: the UPSCALE project
Poppenborg Martin, Emily;
- 12:15 – 12:30 Bugs at your service: recent insights into biocontrol and pollination in crop production systems
Bianchi, Felix;
- 12:30 – 12:45 Integrating biodiversity into productive arable agricultural systems
Woodcock, Ben;
- 12:45 – 13:00 Optimising agricultural landscapes for biodiversity conservation and crop production using yield maps and ecological theory
Knapp, Michal; Teder, Tiit; Lukas, Vojtěch; Štrobl, Martin; Knappová, Jana; Landis, Douglas; González, Ezequiel;
- 11:00 – 13:00 **SYMPOSIUM: Social and ecological values: Charting a course forward for SCB Europe post- 1/2** Room: **E3**

Organized by: John Piccolo, Karlstad University; Sanna Stålhammar, Swedish Agricultural University

The Society for Conservation Biology was founded in 1985. Our stated mission was and still is “To advance the science and practice of conserving Earth’s biological diversity.” From the outset, society founders recognized the multidisciplinary nature of solving conservation problems.

Alongside the growth of SCB, the international community recognized the impending biodiversity crisis, leading to, e.g., the Convention for Biological Diversity and the Millennium Ecosystem Assessment. By the early 2000s nature conservation in general began to focus on ecosystem services, i.e., the protection of biodiversity as a means to deliver goods and services to humans. Concepts such as ecosystem services, “natural capital”, and “nature’s contributions to people” are now central to the discipline of conservation biology as well as nature conservation at large. The widely-hailed Dasgupta Review is the latest example focusing on the economics of biodiversity.

For many, however, such utilitarian values are incommensurable with the values inherent in both cultural and biological diversity. Whereas cultural diversity values have rightly gained much attention in conservation in recent years (although obviously not enough), ecological values appear to be increasingly marginalized. For example, the ecocentric values that were, and still are, central normative postulates of SCB seem to be at odds with much of mainstream conservation.

How can SCB chart a course forward through a conservation landscape that is increasingly utilitarian? On one hand our normative postulates collide with mainstream approaches. On the other hand we are part of the broader neoliberal lifestyle, and we are increasingly implicated as “fines and fences” or “colonial conservationists” or even “green liars”. How can we balance social and ecological values and justice in the post 2020 conservation world – how much “good life” is too much for individual people or the collective human enterprise if we wish there to be good lives for the remainder of Earth’s biodiversity?

The aim of this panel is to lay the groundwork for an SCB task force or working group that will address research and policy aspects of social and ecological values. We will begin with a panel discussion at the Fall 2021 SCB Europe Webinar, and continue with a symposium at ECCB 2022 in Prague. We envision a summary article for an SCB journal, and look forward to a broader collection of articles for a special journal issue on social and ecological values in conservation.

- 11:15 – 11:30 Socio-psychological factors, beyond knowledge, predict people's engagement in pollinator conservation and reveal new opportunities for increasing uptake
Knapp, Jessica; Phillips, Ben; Clements, Jen; Shaw, Rosalind; Osborne, Juliet;
- 11:30 – 11:45 How to encourage people to increase biodiversity in their gardens? An application of the Theory of Planned Behavior
Samus, Andreas; van Heezik, Yolanda; Freeman, Claire; Dickinson, Katharine;
- 11:45 – 12:00 A bird in the bush worth two on the feeder? The complex question of food provisioning.
Deshpande, Purabi; Haukka, Anna; Rönkä, Katja; Santangeli, Andrea; Avelo, Tuomas; Thorogood, Rose; Lehikoinen, Aleks;
- 12:00 – 12:15 Spatial targeting to achieve the dual biodiversity goals – ecosystem service provisioning and species conservation as such
Smith, Henrik G.; Brady, Mark V.; Carrié, Romain; Ekroos, Johan; Olsson, Ola; Persson, Anna; Sidemo Holm, William; Wätzold, Frank; Weber, Julia;
- 12:15 – 12:30 Mongolian herders' ecological understanding in their landscape and landscape change
Batdelger, Gantuya;
- 11:00 – 13:00 SYMPOSIUM: Understanding the geography of large mammal comebacks in Europe** Room: E1
- Organized by: Stephanie Kramer-Schadt, IZW Berlin, Germany; Tobias Kuemmerle, Humboldt-University Berlin, Germany; Nuria Selva, Polish Academy of Science, Krakow, Poland
- After centuries of persecution and local extirpation, large mammals have made a remarkable comeback in Europe recently. Given the importance of large herbivores and carnivores for ecosystem functioning, these comebacks also provide opportunities to restore degraded ecosystems. Yet, Europe's landscapes are heavily human-modified, exhibiting high human population densities, widespread land use, and high levels of landscape fragmentation. It is unclear to what extent recent range expansions of large mammals are sustainable. At the same time, critical information about where large mammals have returned, where they find potential habitat and how these habitats are connected, and how their populations might evolve in the near future is incomplete. In this symposium, we aim to synthesize research that contributes to understanding the geographies of large mammal comebacks in Europe. This includes novel methodologies for mapping habitat, identifying dispersal corridors, and assessing population dynamics – made possible through the integration of big wildlife and remote sensing data. The session will showcase how this fosters novel insights into what fosters or inhibits recolonization, how recovering species interact, and how human-wildlife interactions are reshaped. In sum, the symposium will showcase how understanding geographies of large mammal recoveries in Europe can contribute to assessing opportunities and limitations of large mammal restoration.
- 11:00 – 11:15 Integrating big animal tracking data at a continental scale for assessing the potential of Eurasian lynx recovery across Europe
Oeser, Julian; Heurich, Marco; Kramer-Schadt, Stephanie; Kuemmerle, Tobias;
- 11:15 – 11:30 Reconnecting lynx populations across continental Europe
Meyer, Ninon; Signer, Johannes; Dormann, Carsten; Andrén, Henrik; Persson, Jens; Linnell, John; Mattisson, Jenny; Jobin, Anja; Ornicans, Aivars; Dula, Martin;
- 11:30 – 11:45 Alpine lynx populations need connectivity improvements for future self-sustainment
Sánchez Arribas, Eva; Planillo, Aimara; Premier, Joseph; Kürschner, Tobias; EUROLynx, Partners; Kramer-Schadt, Stephanie; Molinari-Jobin, Anja;
- 11:45 – 12:00 Anthropogenic barriers affect large carnivore range expansion in Iberia
Fandos, Guillermo; Pratzner, Marie; Nill, Leon; Kuemmerle, Tobias; Zurell, Damaris;
- 12:00 – 12:15 Evaluating the effectiveness of surrogates for large mammal connectivity conservation
Dutta, Trishna; De Barba, Marta; Signer, Johannes; Frank, Shane; Fedorca, Ancuta; Thuiller, Wilfried; Lucas, Pablo; Maiorano, Luigi; Pflüger, Femke; **Selva, Nuria**;
- 12:15 – 12:30 Understanding spatio-temporal dynamics of returning wolves to Germany
Planillo, Aimara; Louvrier, Julie; Wenzler-Meya, Moritz; Reinhardt, Ilka; Kluth, Gesa; Michler, Frank-Uwe; Stier, Norman; Knauer, Felix; Kuemmerle, Tobias; Kramer-Schadt, Stephanie;

12:30 – 12:45 Opportunities and limitations for the range expansion of European bison and moose in Europe
Bluhm, Hendrik; Kümmerle, Tobias;

11:00 – 13:00 SYMPOSIUM: Reducing the future biodiversity crisis given different future worlds Room: AULA

Organized by: Tord Snäll, Swedish University of Agricultural Sciences

The Biodiversity Crisis in a Changing World requires acknowledging multiscale policy development and land-use planning. Global policy for future biodiversity conservation is ultimately implemented at landscape and local scales. In parallel, landscape-scale green infrastructure planning needs to account for future socio-economic dynamics at national and global scales. This includes deciding on the use of forests to mitigate climate change. Besides raw materials and biodiversity, forests provide multiple ecosystem services, including stress relief and reduction. However, holistic analyses of forests to meet the growing demand of wood and still retain multiple ecosystem services and biodiversity are still lacking. The proposed symposium will present an approach to account for global Shared Socioeconomic Pathways (SSPs), and the global demand for wood that they will generate, to restore the green infrastructure of landscapes. We will further present how future scenarios may affect the future delivery both woody and non-woody ecosystem services (ES), stress relief and reduction and multiple measures of biodiversity. Making reliable projections ES and biodiversity into the future requires models accurately reflecting underlying dynamics among species. This e.g. includes accounting for species interactions and we will present ongoing model development work on both tree and beetle species communities. For this holistic evaluation, we have convened an interdisciplinary group of system analysts, foresters, ecologists and conservation biologists analysing scenarios of the future that have been formulated together with stakeholders. We aim to identify novel combinations of forest management and conservation practices meeting global demand of wood given by alternative global SSPs. We will combine socioeconomic scenario analysis, state-of-the-art forest planning optimization tools and models for ecosystem services and biodiversity. Global, national and landscape analyses will be presented focusing on a wide range of ecosystem services and organism groups (birds, bryophytes, deadwood fungi and beetles) in central European and Nordic forests.

11:00 – 11:15 Introduction of Reducing the future biodiversity crisis given different future worlds
Snäll, Tord;

11:15 – 11:30 Downscaling the fulfillment of global climate targets to national and landscape level harvest projections and biodiversity assessments
Forsell, Nicklas;

11:30 – 11:45 Timber demand effects on the multifunctional management of Non-Woody Forest Ecosystem Services and Biodiversity
Toraño Caicoya, Astor; Toraño Caicoya, Astor; Stephan, Jörg; Klein, Julian; di Fulvio, Fulvio; Forsell, Nicklas; Snäll, Tord;

11:45 – 12:00 Higher synergies and alleviated trade-offs between ecosystem services from forest policies embedding more natural climate solutions in the production landscape
Mazziotta, Adriano; Lundström, Johanna; Forsell, Nicklas; Moor, Helen; Eggers, Jeannette; Subramanian, Narayanan; Aquilué, Núria; Morán-Ordóñez, Alejandra; Brotons, Lluís; Snäll, Tord;

12:00 – 12:15 Boreal forests and restorative health benefits to humans: management recommendations, synergies and trade-offs
Burgas, Daniel; Potterf, Mária; Duflot, Rémi; Eyvindson, Kyle; Stoltz, Jonathan; Gyllin, Mats; Klein, Julian; Grah, Patrik; Snäll, Tord; Mönkkönen, Mikko;

12:15 – 12:30 Rebuilding green infrastructure in boreal production forest given future global wood demand
Moor, Helen; Eggers, Jeannette; Fabritius, Henna; Forsell, Nicklas; Henckel, Laura; Bradter, Ute; Mazziotta, Adriano; Nordén, Jenni; Snäll, Tord;

12:30 – 12:45 Balancing conservation and production in the bioeconomy: stakeholder-based management scenarios make biodiversity winners and losers in the boreal forest
Klein, Julian; Henckel, Laura; Eggers, Jeannette; Bradter, Ute; **Fabritius, Henna**; Moor, Helen; Snäll, Tord;

12:45 – 13:00 High resolution ALS-derived forest structure explains ecomorphological trait variation in assemblages of wood-living beetles

Drag, Lukáš; Burner, Ryan; Stephan, Jörg; Birkemoe, Tone; Potterf, Mária; Snäll, Tord; Sverdrup-Thygeson, Anne; Müller, Jörg;

11:00 – 13:00 SESSION: Speed 1

Room: **E4**

- 11:05 – 11:10 How does Citizen Science help in monitoring protected neglected species?
Campanaro, Alessandro; Gisondi, Silvia; Blandino, Cristina; Lenzi, Alice;
- 11:10 – 11:15 From Endangered Plant Species Conservation to Use Conflict Management: An Application of Volunteered Geographic Information in Wetland Protected Area Management
Chao, Chih-liang;
- 11:15 – 11:20 What moves citizens to engage in wildlife conservation activities? The case of European bison, moose and wolf in Germany
Ostermann-miyashita, Emu-felicitas; Kiffner, Christian; König, Hannes; Pernat, Nadja; Bellingrath-Kimura, Sonoko-Dorothea; Hibler, Sophia;
- 11:30 – 11:35 Human-vectored seed dispersal: A potential threat to the flora of protected areas
Lukács, Katalin; Tóth, Ágnes; Tóth, Katalin; Kiss, Réka; Kelemen, András; Bátor, Zoltán; Tölgyesi, Csaba; Hábczyus, Alida Anna; Deák, Balázs; Valkó, Orsolya;
- 11:35 – 11:40 Investigating the potential for hybridisation between non-native Eriocheir mitten crab species in the River Dee.
Taite, Morag; Waymouth, Thomas; George, Ruby; Wray, Ben; Clarke, Paul; Ironside, Joe;
- 11:40 – 11:45 Protecting terrestrial communities from climate change – invasion synergies on South Georgia Island.
Tichit, Pierre; Dawson, Wayne; Brickle, Paul; Convey, Peter; Newton, Rosemary;
- 11:45 – 11:50 The potential of using biosynthetic metabolites of entomopathogenic bacteria in the mitigation of amphibian chytridiomycosis
Ujszegi, János; Boros, Zsófia; Fodor, András; Hettyey, Attila;
- 12:00 – 12:05 Assessing the assemblage level impacts of micropollutants on stream-dwelling fishes in an urbanized area
Ferincz, Árpád; Weiperth, András; Lente, Vera; Hegedűs, Anna; Keszte, Szilvia; Kondor, Attila; Pirger, Zsolt; Molnár, Éva; Maász, Gábor; Urbányi, Béla;
- 12:05 – 12:10 Determinants of domestic cats (*Felis catus*) presence in natural landscapes of Spain: Implications for the role of domestic cats in ecological interactions
Hernandez Hernandez, Javier; Sánchez-Cerdá, Mariola; Cabezas-Díaz, Sara; Gil-Sánchez, José María; Rodríguez-Siles, Javier; Virgós, Emilio;
- 12:10 – 12:15 Designing reintroduction strategies in Cinereous vultures
Izquierdo, Pablo;
- 12:15 – 12:20 Microclimate in hollow trees and how it affects an inhabiting beetle species, *Osmoderma eremita*
Lindman, Ly; Öckinger, Erik; Ranius, Thomas;
- 12:30 – 12:35 Effects of indiscriminate poaching on the population persistence of a non-target species of conservation concern
Montgomery, Robert; Mudumba, Tutilo; Wijers, Matthew;
- 12:35 – 12:40 Population genetics of the Black Grouse in the Czech Republic after twenty years of strong decline
Rolečková, Barbora; Hájková, Petra; Svobodová, Jana; Tomášek, Václav; Pelikánová, Hana; Vondrka, Aleš; Flousek, Jiří;
- 12:40 – 12:45 Isolation by time in a terrestrial vertebrate: a potential mechanism for sympatric speciation
Sagi, Liran; Bouskila, Amos;

14:00 – 16:00 SESSION: Biodiversity and conservation in non European countries 1/2

Room: **Round**

- 14:00 – 14:15 Behavioural ecology of reintroduced Przewalski's horses in the Great Gobi B Strictly Protected Area

(Mongolia). Implications for conservation.

Bernátková, Anna; Oyunsaikhan, Ganbaatar; Šimek, Jaroslav; Komárková, Martina; Arenas-Castro, Salvador; Sillero, Neftalí; Bobek, Miroslav; Ceacero, Francisco;

- 14:15 – 14:30 Genomic inbreeding and its consequences for the hihi, a threatened endemic passerine of Aotearoa New Zealand
Duntsch, Laura; Whibley, Annabel; Bailey, Sarah; Brekke, Patricia; Ewen, John G. ; Santure, Anna W. ;
- 14:30 – 14:45 Birds and intensive fruit production in Brazilian Caatinga: how farming changes bird communities and what impact this could have for production?
Zielonka, Natalia; Muñoz-Sáez, Andrés; Arellano, Eduardo; Oliveira da Silva, Fabiana; Rebouças, Patricia; Silva Ferreira, Vinina; Butler, Simon J. ; Dicks, Lynn V. ;
- 14:45 – 15:00 The forest that stands beyond: importance of the landscape for mammal species in a deforestation hotspot
Decarre, Julieta; Jankowicz, Carolina; Biganzoli, Fernando;
- 15:00 – 15:15 Using presence-only points to model the influence of climate on the broad-toothed rat (*Mastacomys fuscus*)
Alley, Charlotte; Guilbault, Emy; Hayward, Matt;
- 15:15 – 15:30 Could forest restoration initiatives hinder rather than help biodiversity loss and climate change mitigation?
Warren-Thomas, Eleanor; Arbaleaz Gaviria, Juliana; Chavarro, John; Jones, Julia; Leclère, David; Peña, Andres; Rosa, Isabel; Visconti, Piero;
- 15:30 – 15:45 SYSTEMATIC CAMERA-TRAPPING AND OCCUPANCY ANALYSIS TO ASSESS OCCURRENCE AND CONSERVATION STATUS OF CRYPTIC MAMMALS IN TROPICAL FORESTS
Greco, Ilaria; Rovero, Francesco;
- 15:45 – 16:00 Predicting mammal occupancy in tropical protected areas from species characteristics: a pantropical analysis
Semper-Pascual, Asunción; Bischof, Richard; Milleret, Cyril; Beaudrot, Lydia; Vallejo-Vargas, Andrea F. ; Ahumada, Jorge A. ; Akampurira, Emmanuel; Bitariho, Robert; Espinosa, Santiago; Jansen, Patrick A;
- 14:00 – 16:00 SESSION: Interdisciplinary approaches to conservation** Room: **AULA**
- 14:00 – 14:15 Value versus values: Drivers of attitudes towards wildlife
Lehnen, Lisa; Arbieu, Ugo; Böhning-Gaese, Katrin; Bunnefeld, Nils; Glikman, Jenny A. ; Kaczensky, Petra; Mehring, Marion; Reinhardt, Ilka; Mueller, Thomas;
- 14:15 – 14:30 Species wished to protect: poor convergence between knowledgeable farmers and conservationists
Ulicsni, Viktor; Babai, Dániel; Szentirmai, István; Molnár, Zsolt;
- 14:30 - 14:45 Human-elephant conflict mitigation as a public good: what determines fence maintenance?
Kamdar, Arjun; Smith, David; Nagendra, Harini; Baishya, Hiten; Ratnam, Jayashree; Sekar, Nitin;
- 14:45 – 15:00 The attractiveness of bird species to humans – the iratebirds.app citizen science project tells us which birds are the most likable to us
Haukka, Anna; Lehikoinen, Alekski; Mammola, Stefano; Morris, William; Santangeli, Andrea;
- 15:00 – 15:15 Multi-Action Conservation Planning across realms: A Mixed Integer Programming Model approach
Salgado-Rojas, José; Hermoso, Virgilio; Álvarez-Miranda, Eduardo;
- 15:15 – 15:30 Nature through the AI lens: questioning how scientists shape individual's experience of natural environments in algorithm-driven citizen sciences
Truong, Minh-Xuan; van der Wal, René;
- 15:30 – 15:45 Planning for the experience of nature in protected areas
Dan-Rakedzon, Nitzan; Lissovsky, Nurit; Shwartz, Assaf;
- 15:45 – 16:00 Diving into a world of data: Marine and freshwater fishes in zoos and aquariums
Nielsen, Rikke Oegeland; Juergens, Jacqueline; Conde, Dalia;

14:00 – 16:00 SESSION: Climate change effects and adaptation 2/2

Room: **E2**

- 14:00 – 14:15 Adapting biodiversity conservation to a warming climate: a synthesis
Ranius, Thomas; Hämäläinen, Aino; Widenfalk, Lina A; Seedre, Meelis; Felton, Adam; Filyushkina, Anna; Öckinger, Erik;
- 14:15 – 14:30 Keep it or leave it – the role of reversible conservation investments in optimal reserve design under climate change
Gerling, Charlotte; Schöttker, Oliver; Hearne, John;
- 14:30 – 14:45 Do protected areas work as ‘safe havens’ for avian communities in a warming climate?
Hintsanen, Leena; Lehikoinen, Aleks; Marjakangas, Emma-Liina;
- 14:45 – 15:00 Avoiding the trade-off between carbon gain and water loss in tree-based climate mitigation.
Tölgyesi, Csaba; Hábenczyus, Alida Anna; Török, Péter; Bátori, Zoltán; Tóth, Benedek; Valkó, Orsolya; Deák, Balázs; Kelemen, András;
- 15:00 – 15:15 How does climate change influence the pressures on Austria’s threatened species and habitats?
Zulka, Peter; Milasowszky, Norbert; Oberleitner, Irene; Baumgartner, Christian; Bieringer, Georg; Diry, Christian; Enzinger, Karin; Gilli, Christian; Gollmann, Günter; Grabenhofer, Harald;
- 15:15 – 15:30 Body size response to local and global climate variables, a case study on reptiles from southern Danube Delta Biosphere Reserve
Telea, Alexandra; Vlad, Sabina; Cogălniceanu, Dan; Fănar, Geanina; Carlsson, Martin; Iosif, Ruben; Drăgan, Ovidiu; Plăiașu, Rodica; Băncilă, Raluca;
- 15:30 – 15:45 Exposure of ape habitat to extreme events and climate change impacts
Heinicke, Stefanie; Ferreira, Julie; Carvalho, Joana S. ; Lange, Stefan; Ordaz-Németh, Isabel; Mengel, Matthias;
- 15:45 – 16:00 Effects of forest fires on the composition of vascular plants and bryophytes in hemiboreal Estonia
Orumaa, Argo; Tullus, Tea; Tullus, Arvo; Köster, Kajar; Metslaid, Marek;

14:00 – 16:00 SYMPOSIUM: Planning where and how to best conserve and restore biodiversity

Room: T

Organized by: Martin Jung, Piero Visconti, International Institute for Applied Systems Analysis

Biodiversity is changing and protected areas are among our best tools to ensure the safeguarding of threatened species and key ecosystem services alike. The new EU Biodiversity strategy set out several key policy targets, including an expansion of the European protected area network for 30% of land and oceans, of which 10% are to be strictly protected. Thus, the question arises where such areas should be placed so that key species populations are preserved and benefits from ecosystem services maximized, while also minimizing conflicts with important economic sectors and ensuring resilience to future changes. Often only restoration of degraded or abandoned land might be a viable option due to the extensive modification of European landscapes. Systematic conservation planning (SCP) approaches are the most widely used framework to integrate quantitative and qualitative data for better decision support about the implications of future actions. A number of recent studies have showcased how SCP can determine areas that bring the greatest value for biodiversity and ecosystem services (O’Connor et al. 2021, Jung et al. 2021), while others have highlighted the potential of widespread ecosystem restoration (Strassburg et al. 2021). Similarly the increasingly worsening climate crisis requires that SCP approaches specifically account for anticipated refugia and range shifts of species (Stralberg et al. 2020), while also integrating stakeholder and practitioners visions and knowledge to increase management effectiveness and acceptance (Lees et al. 2021). These developments highlight the potential but also the urgency of well-designed planning frameworks for policy advice.

In this session we aim to bring together leading experts on systematic conservation and restoration planning to showcase best practice examples of systematic planning in Europe. We welcome all terrestrial, freshwater and marine submissions as well approaches that focus on conservation and/or restoration.

- 14:00 – 14:15 European conservation and restoration options under future land-use scenarios
Jung, Martin; Chapman, Melissa; Lewis, Matthew; Visconti, Piero;
- 14:15 – 14:30 Conservation planning for species and nature’s contributions to people
O’Connor, Louise; Pollock, Laura J. ; Verhagen, Willem; Verbuh, Peter H. ; Lavorel, Sandra; Renaud, Julien; Thuiller, Wilfried;

- 14:30 – 14:45 Spatial prioritisation of threat management for biodiversity conservation across the Natura 2000 network
Hermoso, Virgilio; Salgado-Rojas, José; Lanzas, Mónica; Álvarez-Miranda, Eduardo;
- 15:00 – 15:15 The regionalization of adaptive amphibian responses to climate change: lessons for conservation management in Iberian Peninsula
Alagador, Diogo;
- 15:15 – 15:30 Data uncertainties in spatial conservation plans: which ones are important?
Kujala, Heini;
- 15:30 – 15:45 Conservation planning in a context of land use change and multiple sustainability targets
Verburb, Peter; Malek, Ziga; Venier-Cambron, Camille;
- 15:45 – 16:00 NaturaConnect – Designing a resilient and coherent Trans-European Network for Nature and People
Visconti, Piero; Jung, Martin; Pereira, Henrique; Fernandez, Nestor;
- 14:00 – 16:00 SYMPOSIUM: Social and ecological values: Charting a course forward for SCB Europe post- 2/2** Room: **E3**
- 14:00 – 14:15 Market solutions for conserving farmland biodiversity: how to establish a successful wildlife-friendly certification scheme?
Alif, Živa; Šumrada, Tanja;
- 14:15 – 14:30 Assessing People's Values of Nature: Where Is the Link to Sustainability Transformations?
Stålhammar, Sanna;
- 14:30 – 14:45 What is an eco-evolutionary conservation ethic and why do we need one?
Professor John Piccolo, Karlstad University;
- 14:00 – 16:00 SYMPOSIUM: Making agroecosystems more biodiverse: from local measures to landscape optimization 2/2** Room: **Library**
- 14:00 – 14:30 Beyond organic farming – harnessing biodiversity-friendly landscapes
Tscharntke, Teja;
- 14:30 – 14:45 Field defects in oilseed rape: a promising alternative for insect conservation in arable fields?
Gonzalez, Ezequiel; Štrobl, Martin; Kadlec, Tomáš; Knapp, Michal;
- 14:45 – 15:00 Natural enemy diversity stabilizes biological pest control via enhanced species asynchrony
Perez-Alvarez, Ricardo; Martin, Emily A. ;
- 15:00 – 15:15 Breeding birds in European Agroforestry systems
Edo, Manon; Rösch, Verena; Entling, Martin;
- 15:15 – 15:30 Intercropping oats with undersown clovers supports pollinators without reducing yields
Boetzl, Fabian; Douhan Sundahl, Anna; Friberg, Hanna; Viketoft, Maria; Bergkvist, Göran; Lundin, Ola;
- 15:30 – 15:45 Where to bee? Different types of semi-natural habitats are required to sustain diverse wild bee communities in agricultural landscapes
Maurer, Corina; Sutter, Louis; Martínez-Núñez, Carlos; Pellissier, Loïc; Albrecht, Matthias;
- 14:00 – 16:00 SYMPOSIUM: Wildlife movement management frameworks in conservation of social ecological systems** Room: **E1**
- Organized by: Pavla Hejcmanová, Czech University of Life Sciences Prague – Czechia, Zoological Society of London – UK, Luca Börger, Swansea University, UK
- Movement of organisms is one of the key mechanisms determining individual responses to resources, environmental change and species interactions, patterns of changes in species' traits and genetic diversity, and, ultimately, the distribution of biodiversity (Brose et al. 2004; Nathan et al. 2008). Movement is

therefore fundamental for predicting human impact on biodiversity, e.g. in the context of changes in landscape configuration, habitat deterioration and climate change (Jeltsch et al. 2013). Recent technological advancements certainly provide big data on movement patterns of unprecedented quality, but a key challenge now is to make full use of such data with regard to better understanding and predicting biodiversity dynamics and how to make the outputs readily accessible and integrated, i.e. how to communicate them in an understandable way to conservation practitioners (Barton et al. 2015; Fraser et al. 2018). The importance of understanding the patterns and drivers of movement for effective conservation and management has been recognized (Katzner and Arlettaz 2020), there is, additionally, often a disjoint in aims and goals of researchers and managers in conservation science and movement ecology. We aim to tackle the gaps in understanding between aims of conservation practitioners and researchers, and in how science-based findings in movement ecology may refine decision-making and thus contribute to fulfilling conservation objectives. We therefore invite practitioners and scientists from both fields to a debate on joint and transdisciplinary approaches for effective conservation in the Anthropocene.

- 14:15 – 14:30 Moving tracks across socio-scapes
Harris, Nyeema;
- 14:30 – 14:45 Foraging personalities modify effects of habitat fragmentation on biodiversity
Jeltsch, Florian; Rohwäder, Marie-Sophie; Szangolies, Leonna;
- 14:45 – 15:00 Movement models identify management targets overlooked by common space-use models: a case study of invasive wildlife in an agroecosystem
Street, Garrett; Boudreau, Melanie; Ellison, Natasha;
- 15:00 – 15:15 Long term tracking of big mammals in detail: how could new biologging techniques improve data for wildlife management
Ježek, Miloš; Silovský, Václav; Faltusová, Monika;
- 15:15 – 15:30 SUPPLEMENTAL FEEDING AND ANIMAL MOVEMENT: ECOLOGICAL CONSEQUENCES OF A WIDESPREAD MANAGEMENT PRACTICE
Ossi, Federico; Ranc, Nathan; Moorcroft, Paul; Cagnacci, Francesca;
- 15:30 – 15:45 The Twiga Tracker Initiative: Merging Site Specific Conservation Management with Continental Scale Ecological Studies for Giraffe
Brown, Michael; Fennessy, Julian; Stabach, Jared;
- 15:45 – 16:00 Modelling and managing animal and human movements in social-ecological systems
Borger, Luca; Potts, Jonathan; Loison, Anne;

14:00 – 16:00 SESSION: Speed 2

Room: **E4**

- 14:05 – 14:10 Exploring links between local knowledge, values and livelihoods in the land-sea interface: Insights on emerging tradeoffs and change in fisher communities
Barceló, Matías; Tengö, Maria; Gelcich, Stefan;
- 14:10 – 14:15 The first comprehensive data on the distribution of reptiles within the Southern Bug eco-corridor, Ukraine
Oskyrko, Oleksandra; Jablonski, Daniel;
- 14:15 – 14:20 To a charismatic rescue: Designing a blueprint to save fishing cats, aiding in wetland conservation
Rana, Divyashree; Samad, Imran; Rastogi, Sankarshan;
- 14:30 – 14:35 Influence of organic farming on the ecological resilience of plant communities to drought
Carrié, Romain; Ekroos, Johan; Smith, Henrik;
- 14:35 – 14:40 Assessing cost-effectiveness of agri-environment schemes under climate change: the case of meadow bird conservation in Northern Germany
Gerling, Charlotte; Drechsler, Martin; Keuler, Klaus; **Sturm, Astrid;** Wätzold, Frank;
- 14:40 – 14:45 Managing climate change impacts on land use and ecosystem services
Tramberend, Peter;
- 14:55 – 15:00 Social information alters the effect of habitat fragmentation on bird diversity and its stability
Bełcik, Michał; Lenda, Magdalena; Amano, Tatsuya; Pustkowiak, Sylwia; Skórka, Piotr;

- 15:00 – 15:05 FRAMEwork – Experiences from the first year of the Czech Farmer Cluster to improve biodiversity in the agricultural landscape
Bohnet, Iris; Janeckova Molnarova, Kristina; Zagata, Lukas; **Drhlíková, Kristýna**;
Travnicek, Jan; Trakalova, Emilie;
- 15:05 – 15:10 Assessing cost-effectiveness advantages of state-dependent agri-environment schemes
Hecker, Lutz Philip; Sturm, Astrid; Wätzold, Frank;
- 15:10 – 15:15 Where agri-environment schemes do not exist
Nikolić, Tijana; Tarčak, Sonja; Lugonja, Predrag; **Marković, Miljana**; Brdar, Sanja;
- 15:25 – 15:30 Mapping paleochannel grasslands and their conservation opportunities in an agricultural commodity frontier of South America
Andrade-Díaz, María; **Piquer-Rodríguez, María**; Baldi, German;
- 15:30 – 15:35 Grassland type and seasonal effects have a bigger influence on plant diversity than prairie dog disturbances in semi-arid grasslands
Rodríguez Barrera, Maria; Kühn, Ingolf; Estrada-Castillón, Eduardo; Cord, Anna;
- 15:35 – 15:40 The influence of traffic and flowering plant diversity on the movements and mortality of flower-visiting insects along roads
Daniel-Ferreira, Juliana; Berggren, Åsa; Bommarco, Riccardo; Wissman, Jörgen; Öckinger, Erik;
- 15:40 – 15:45 Species interactions disrupted by roads
Quiles Tundidor, Pablo; Barrientos Yuste, Rafael;

16:30 – 18:30 WORKSHOP: Genetic considerations as part of conservation reintroductions, supplementations and translocations

Room: **E2**

(Organized by: Philippine Vergeer, Wageningen University, Plant Ecology and Nature Conservation Group; Robert Ekblom, The Swedish Environmental Protection Agency, Environmental Analysis Department).

In order to prevent further decline and local extinctions of plant and animal species, reintroductions, supplementations and translocations are increasingly applied in nature conservation. However, with varying success. The reason for this may be linked to genetic processes, which are often not fully considered in restoration practices. In this workshop, we aim to bring together conservation biologists, practitioners and policy makers to highlight and discuss the importance of genetic considerations in conservation and restoration.

The workshop will begin with a series of short presentations of case studies, research findings and lessons learned of (re)introductions. We will discuss how genetic considerations have been adopted and highlight work that is needed both before and after (re)introduction efforts, such as habitat quality checks, genetic screenings, the importance of monitoring, implementation of specific management practices and legislation and troubleshooting in problematic (re)introduction programmes.

After the presentations we will start a discussion with invited experts from the field to explore lessons learned and identify bottlenecks and opportunities. Participants are invited to provide example(s) from their own practice. Examples can be send to: wg1.gbike@gmail.com. A selection of case studies will be discussed on major themes such as bottlenecks and opportunities, risks, methodology, and implementation in management.

This workshop is an initiative of COST Action CA18134 – Genomic Biodiversity Knowledge for Resilient Ecosystems „G-BIKE“ and will provide a forum for discussion to increase awareness of genetic processes in nature conservation, leading to more effective and successful conservation outcomes.

Invited Speakers:

Martin Gaywood – University of the Highlands and Islands, Scotland;
José A Godoy – Estación Biológica de Doñana, CSIC, Spain;
Christina Hvilsom – Copenhagen Zoo, Denmark;
Philippine Vergeer – Wageningen University, the Netherlands.

Invited Experts:

Robert Ekblom – The Swedish Environmental Protection Agency, Sweden;
Peter Galbusera – Antwerp Zoo Centre for Research and Conservation, Belgium;
Myriam Heuertz – Biogeco, INRAE, Univ. Bordeaux, France;
Joachim Mergey – Research Institute for Nature and Forest & KU Leuven, Belgium;

16:30 – 18:30 SESSION: Biodiversity and conservation in non European countries 2/2 Room: **Round**

- 16:30 – 16:45 Elevated fires during COVID-19 lockdown reveal protected area vulnerability
Eklund, Johanna; Jones, Julia, P. G. ; Räsänen, Matti; Geldmann, Jonas; Jokinen, Ari-Pekka; Pellegrini, Adam; Rakotobe, Domoina; Rakotonarivo, O. Sarobidy; Toivonen, Tuuli; Balmford, Andrew;
- 16:45 – 17:00 Plant diversity and the conservation role of three indigenous agroforestry systems of South-eastern Rift- valley Landscapes, Ethiopia
Tesfay, Hafte; Tesemma, Mesele; Hager, Herbert;
- 17:00 – 17:15 Amphibians and reduced impact logging: variable species but similar community responses
Asad, Sami; Guharajan, Roshan; Abrams, Jesse; Lagan, Peter; Kissing, Johnny; Sikui, Julsun; Wilting, Andreas; Rödel, Mark-Oliver;
- 17:15 – 17:30 The fetish market of Lomé, Togo: An alarming hotspot for the trade of globally threatened species
Boissier, Olivier; Su, Shan; Kolani, Zebigou; Arcilla, Nico;
- 17:30 – 17:45 Population genomics of a cephalopod species reflect oceanographic barriers and inbreeding patterns
Pereira, Ricardo; Bein, Bernhard; Lima, Françoise; Leite, Tatiana; Lima, Sergio;
- 17:45 – 18:00 Mapping the remaining genomic diversity of African elephants
Chrzanová Pečnerová, Patrícia; Ishida, Yasuko; Meisner, Jonas; Hanghoej, Kristian; Dalen, Love; Heller, Rasmus; Roca, Alfred; Siegismund, Hans;
- 18:00 – 18:15 Testing the long-term outcome of a genetic rescue attempt in a small, genetically depauperate population of the endangered New Zealand hihi (*Notiomystis cincta*)
Nicholls, Sarah; Ewen, John G; Gottelli, Dada; Grueber, Catherine E. ; Santure, Anna; Trask, Amanda;
Brekke, Patricia;
- 18:15 – 18:30 Using eDNA presence/non-detection data to characterize the abiotic and biotic habitat requirements of a rare, elusive amphibian
Perl, R. G. Bina; Avidor, Ella; Roll, Uri; Malka, Yoram; Geffen, Eli; Gafny, Sarig;

16:30 – 18:30 SYMPOSIUM: Reconciling conservation with animal welfare Room: **E3**

Organized by: Miriam A. Zemanova, Environmental Sciences and Humanities Institute Switzerland

The focus of conservation biology has traditionally been on preserving species, populations, and ecosystems [1]. Recently, there has been an increasing debate about whether conservation strategies need to consider the welfare of individual animals as well [2]. Many wildlife can be harmed through conservation research and management, for instance, in invasive sampling, management of invasive species, reintroductions and translocations, culling, or trophy hunting [3–6]. The objective of this session is to open a discussion on animal welfare issues that might arise through some conservation research or management strategies, present different approaches and views on the topic, and find potential synergies between conservation and animal welfare science.

- 16:30 – 17:00 Meeting both conservation and animal welfare goals in wildlife research
Zemanova, Miriam;
- 17:00 – 17:15 Impact of tracking devices on health and animal welfare in Northern Bald Ibis
Voelkl, Bernhard; Fritz, Johannes;
- 17:15 – 17:30 Simple nestbox modifications can reduce drastic heat-related mortality in lesser kestrel *Falco naumanni* nestlings
Corregidor-Castro, Alejandro; Morinay, Jennifer; Morganti, Michelangelo; Assandri, Giacomo; Ramellini, Samuele; Morbiato, Elisa; De Capua, Enrico; Cecere, Jacopo G. ; Pilastro, Andrea; Rubolini, Diego;
- 17:30 – 17:45 Public judgment of rewilding in relation to different views of animal welfare
Gamborg, Christian; Palmer, Clare; Jensen, Frank Søndergaard; Sandøe, Peter;

17:45 – 18:00 Using the Ethical Matrix for analyzing value conflicts in conservation
Biasetti, Pierfrancesco; de Mori, Barbara;

18:00 – 18:15 Acknowledging wild animal suffering and the need for compassion challenges conservation fundamentally
Katz, Tristan;

16:30 – 18:30 SYMPOSIUM: Biodiversity conservation interventions in agricultural landscapes Room: **Library**

Organized by: Thijs Fijen, Plant Ecology and Nature Conservation Group, The Netherlands

Intensive agriculture is one of the main drivers of biodiversity decline. Because the world population will continue to increase, we need fundamental changes in the agricultural system to maintain food production and increase biodiversity levels in agricultural landscapes. While we have a good idea of what works for biodiversity conservation, implementation of biodiversity conservation interventions in agriculture is lacking behind, possibly because the benefits for farmers are unclear.

Land-use in intensive agricultural landscapes is highly simplified and contain few habitats that are suitable as biodiversity refuges. Most studies studying biodiversity interventions, such as hedgerow planting or wildflower strips, focus on restoring these biodiversity refuges by taking land out of production. As a result, the benefits of these biodiversity interventions for farmers need to be larger than the costs of a lower cover of productive land. Such benefits could be achieved with higher productivity due to enhanced ecosystem service delivery, but also with a higher revenue (e.g. due to organic farming, local/nature-produce produce premium), or intrinsic values ('because I find it important'). Furthermore, because space in agricultural landscapes is limited, increasing focus is being put on how the habitat quality of the unproductive land can be improved. For example, road verges can harbour relatively high biodiversity levels, but only if the management is aimed at biodiversity management, rather than on reducing costs of management. Furthermore, changing agricultural practices, such as crop diversification and strip-cropping, are also promising innovative solutions that aim to maintain food production while increasing biodiversity levels. However, we have little insight in which measures work when and where, and what the benefits for farmers and biodiversity are. In this symposium we will collate some examples of biodiversity interventions in agricultural landscapes that aim to build a synergy between sustainable food production and biodiversity conservation.

16:30 – 16:45 The value of biodiversity interventions in agricultural landscapes
Kleijn, David; Fijen, Thijs; Scheper, Jeroen;

16:45 – 17:00 Sown set-aside fields promote biodiversity at local and landscape scales in Hungary
Kovács-Hostyánszki, Anikó; Batáry, Péter; Kőrösi, Ádám; Orci, Kirill Márk; Somay, László; Soltész, Zoltán; Szigeti, Viktor; Báldi, András;

17:00 – 17:15 Grassland management effects on ecosystem
Reinier de Vries;

17:15 – 17:30 Landscape-scale agri-environment schemes in social-ecological systems for promoting pollinators
Hass, Annika;

17:30 – 17:45 Mass-flowering crops as a pollinator biodiversity enhancing intervention
Fijen, Thijs;

17:45 – 18:00 Are mass-flowering crops beneficial or detrimental for the conservation of wild pollinators?
Riggi, Laura; Lundin, Ola; Berggren, Åsa;

18:00 – 18:15 Diversified farming at field- and landscape scale for biodiversity and ecosystem services
Raderschall, Chloé; Lundin, Ola; Lindström, Sandra A.M.; Gagic, Vesna; Bommarco, Riccardo;

18:15 – 18:30 Species-habitat networks: A promising tool in applied landscape ecology
Marini, Lorenzo; Lami, Francesco;

16:30 – 18:30 SYMPOSIUM: Towards landscapes of coexistence between people and megafauna Room: **E1**

Organized by: Benjamin Bleyhl, Humboldt-University Berlin

Large-bodied animals, often referred to as megafauna, are particularly at risk in the world's increasingly

human-dominated landscapes. These species compete with people over food and space, often leading to conflicts and subsequently suppression or extirpation. The loss of megafauna from many landscapes is deeply worrisome because these species have key roles in food webs, are critical for healthy ecosystems, and contribute in various ways to human well-being. Understanding which landscapes allow for coexistence between people and large mammals, or landscapes of coexistence – and which landscapes do not – is therefore important for informing conservation planning and management. Despite a plethora of studies on the prevalence and intensity of human-wildlife conflict, possible pathways leading to landscapes of coexistence are still unclear. This symposium aims to take a social-ecological perspective on this issue. Building upon the emerging concept of human-wildlife coexistence, the symposium will explore the research frontiers in our understanding of human-megafauna coexistence, showcase novel analytical advances, and provide empirical case studies of conservation actions that fostered coexistence. The questions we will explore, through contributed talks and joint discussions, will be: Which ecological and social factors foster or inhibit coexistence and how do megafauna adapt to human-dominated landscapes? Which actors are particularly affected by specific types of conflict associated with megafauna? How do different megafauna species interact, linking the conflicts they are associated with? How does human behaviour and land use determine landscape connectivity for megafauna, and thus the potential for megafauna to adapt to human pressure and to recolonize areas from which they have been extirpated historically? Which societal changes, policy and governance options provide pathways towards landscapes of coexistence? Taking an interdisciplinary approach, this symposium aims to answer these questions with a focus on European megafauna but is open to contributions from all world regions.

- 16:30 – 16:45 Coping with the challenges of human-wildlife conflicts in the 21st century. Is coexistence just a dream of nature lovers?
Koenig, Hannes; Hemminger, Karoline; **Ostermann-miyashita, Emu-felicitas**; Srivastava, Nimisha; Hibler, Sophia; Gandl, Nina; Bluhm, Hendrik; Uthes, Sandra; Kiffner, Christian;
- 16:45 – 17:00 Anthropogenic resistance – considering human-wildlife conflict in conservation planning
Ghoddousi, Arash; Dutta, Trishna; Dietsch, Alia M. ; Kuemmerle, Tobias;
- 17:00 – 17:15 Addressing human-tiger encounters using socio- ecological information on tolerance and risk
St John, Freya; Linkie, Matthew; Deere, Nicholas; Martyr, Deborah; Millyanawati, Betty; Faulkner, Sally; Le Comber, Steven; Mangunjaya, Fachruddin; Leader-Williams, Nigel; McKay, Jeanne;
- 17:15 – 17:30 Coexisting with different human-wildlife coexistence perspectives
Glikman, Jenny A. ; Frank, Beatrice; Ruppert, Kirstie; Marchini, Silvio;
- 17:30 – 17:45 Sustainable human-megafauna coexistence potential and the role of willingness to coexist
Vogel, Susanne; Vasudev, Divya; Ogotu, Joseph; Taek, Purity; Berti, Emilio; Goswami, Varun R. ; Kaelo, Michael; Munk, Michael; Li, Wang; Svenning, Jens-Christian;
- 17:45 – 18:00 Engaging a billion people to foster coexistence with megafauna from local to global scales and back
Bunnefeld, Nils; Rakotonarivo, Sarobidy; Hodgson, Isla; Thomas-Walters, Laura; Jones, Isabel; Valero, Diana; Duthie, Brad;
- 18:00 – 18:15 Exploring the coexistence potential for humans and megafauna in future European landscapes
Davoli, Marco; Svenning, Jens-Christian;

16:30 – 18:30 SYMPOSIUM: Impact evaluation for nature conservation in a changing world Room: **AULA**

Organized by: Caterina Cosmopolis del Carpio, University of Sheffield, UK; Tanya O'Garra, Middlesex University, UK; Johanna Eklund, University of Helsinki, Finland

The current biodiversity crisis requires effective policies and interventions that lead to positive impacts on biodiversity. Counterfactual approaches (e.g., propensity score matching, instrumental variables, randomised controlled trials, etc.) can generate robust and causal information about the environmental and social impacts of conservation interventions, providing crucial insights into what works (or does not work). These methods are well established and used in other disciplines such as economics and medicine; however, they are still rarely applied in nature conservation. This symposium aims to present the most recent advances concerning impact evaluations of different conservation interventions (e.g., ranging from terrestrial and marine protected areas to biodiversity offsets, and community-based species conservation programs). This will be achieved by (1) providing insights into different approaches to evaluating environmental and social impacts, (2) discussing the strengths and limitations of these different approaches, and (3) exploring the factors that influence conservation outcomes and how they vary between different conservation interventions. The symposium will bring together seven researchers from diverse backgrounds and provide a platform for discussion on methods and best practices, future research needs and priorities, and how they can be used to achieve biodiversity conservation goals.

- 16:30 – 16:45 A counterfactual approach to evaluating the effectiveness of biodiversity offsets – Case study of the Ambatovy mine in Madagascar
Devenish, Katie; Desbureaux, Sébastien; Willcock, Simon; PG Jones, Julia;
- 16:45 – 17:00 Protected areas have a mixed impact on waterbirds, but management helps
Jones, Julia; Wauchope, Hannah;
- 17:00 – 17:15 Impacts of community forest managed areas on deforestation and forest fragmentation during a political crisis in Madagascar
Neugarten, Rachel; Rasolofoson, Ranaivo; Vieilledent, Ghislain; Barrett, Christopher; Rodewald, Amanda;
- 17:15 – 17:30 Assessing the impact of protected areas on biodiversity and the role of experimental design
Geldmann, Jonas;
- 17:30 – 17:45 Does protected area establishment result in pre-emptive forest clearing? Exploring the case of Madagascar's protected area system expansion
Llopis, Jorge; Jones, Julia;
- 17:45 – 18:00 Effects of protected areas on biodiversity occurrence trends – a country-wise multi taxon evaluation
Santangeli, Andrea; Antão, Laura; Weigel, Benjamin; Vanhatalo, Jarno; Hällfors, Maria; Kaarlejärvi, Elina; Ovaskainen, Otso; Roslin, Tomas; Saastamoinen, Marjo;
- 18:00 – 18:15 Forest and poverty: Hidden contributions of forest to multidimensional poverty
Cosmopolis-del-Carpio, Caterina; Tsuchiya, Aki; Oldekop, Johan;

16:30 – 18:30 SYMPOSIUM: Making the most out of ecosystem services assessments for conservation practice

Room: T

Organized by: Eszter Tanács, András Báldi, Centre for Ecological Research, Institute of Ecology and Botany; Thomas Hein, University of Natural Resources and Life Sciences, Vienna

Nature conservation started at species and area focused protection, then stepped further to integrate conservation into the whole landscape. However, despite successes concerning certain species or areas, the general decline of biodiversity in Europe has not stopped, instead accelerated. The ecosystem services (ES) framework is a more recent approach based on the assumption that linking conservation efforts to human well-being will broaden the public's understanding of the aims and necessity of preserving nature. It is also expected to be more suitable for integrating the already existing economic accounting structures and decision making. ES assessments have already been tested in countless countries and regions at different scales. The EU Biodiversity Strategy to 2020 required EU member states to map and assess their ES. These assessments provide valuable information on the ecosystems and their values, including their extent and condition as well as the range of functions and services they provide to society. Yet planning and conservation-related legislation are still mostly species- and/or area-based, as is conservation practice. Given the current severe biodiversity crisis, it is essential to bring ecosystem mapping and assessment knowledge to the hands of managers and provide keys on how to apply this knowledge in practice. This symposium aims to overview factors that affect how the ES framework can work for conservation practice.

- 16:30 – 17:00 The effects of river floodplain restoration on ecosystem services
Hein, Thomas; Becsi, Renate; Bondar-Kunze, Elisabeth; Böck, Kerstin; Funk, Andrea; Grüner, Barbara; Muhar, Susanna; Tschikof, Martin;
- 17:00 – 17:15 Differences in assessment of relative importance of certain ecosystem services amongst stakeholders linked with a Central Hungarian forest
Vadász, Csaba; Tormáné Kovács, Eszter; Fejes, Zsófia; Hajagos, Gabriella;
- 17:15 – 17:30 Carpathian Peatlands – functions, importance, conservation and improved management
Szewczyk, Monika; Mikołajczyk, Piotr;
- 17:30 – 17:45 Ecosystem services, conflicts, and well-being impacts: A forest restoration project along the river Drava at the Croatian-Hungarian border
Pataki, György; Kelemen, Eszter; Szakál, Diana;

17:45 – 18:00 Ecosystem service valuation as argument for wetland restoration
Lucius, Irene; **Ereifej, Laurice**; Perosa, Francesca; Hristov, Ivan;

18:00 – 18:15 Post-project use of ecosystem type, condition and services maps in conservation practice
Tanács, Eszter; Tormáné Kovács, Eszter; Báldi, András;

16:30 – 18:30 SESSION: Speed 3

Room: **E4**

16:35 – 16:40 Habitat Relationship Model for Terrestrial Vertebrates in an Urbanizing Region
Northrop, Robert;

16:40 – 16:45 Re-zoning Our Conservation Area: Incorporating Socioeconomic Factors to Spatial Multi-Criteria Analysis in Mangrove Conservation Planning
Trialfhianty, Tyas; Beger, Maria; Quinn, Claire;

16:45 – 16:50 UAV-Based Wildlife Survey: Methodology and Ethical Considerations
De Kock, Meyer; Hejzmanová, Pavla;

16:50 – 16:55 Continuous country-wide forest monitoring through remote sensing-based yearly assessments of forest status
Welle, Torsten; Franke, Jonas;

17:05 – 17:10 Interspecific competition between mice and voles induced by ad libitum food resources: a simulation of climate change effects on sympatric species?
Ferrari, Giulia; Devineau, Olivier; Tagliapietra, Valentina; Cagnacci, Francesca;

17:10 – 17:15 Putting drylands on the map: definitions, designations, and conservation status of global arid landscapes
Lewin, Amir; Rachmilevitch, Shimon; Roll, Uri;

17:15 – 17:20 A global analysis of habitat change research in reptiles and amphibians: What have we done so far?
Tan, Nicholas Wei Cheng; Herrel, Anthony; Roedder, Dennis;

17:30 – 17:35 Wood-inhabiting fungi in rocky pine forests in the High Coast Region in Sweden
Carlsson, Fredrik; Sandström, Jennie; Jonsson, Bengt Gunnar; Edman, Mattias;

17:35 – 17:40 The absolute value of genetic diversity in the genomic era
Da Fonseca, Rute;

17:40 – 17:45 Assisting Rangers to Halt Poaching Activities with Green Stochastic Games
Kiam, Jane Jean; Sabbadin, Régis; Ponzoni Carvalho Chanel, Caroline; Harder, Benedikt; Schulte, Axel;

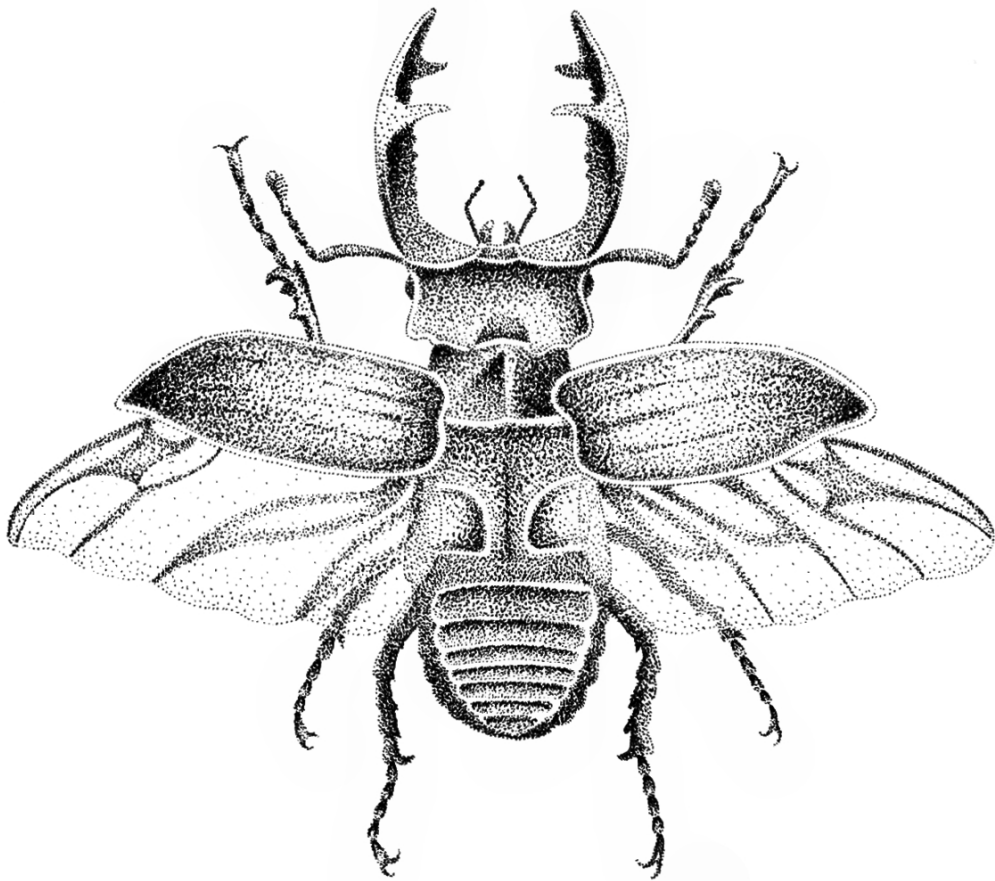
17:45 – 17:50 Animal-Visitor Interactions (AVIs) in South Africa: a participatory approach to facilitate ethical reasoning
Pollastri, Ilaria; Muzzo, Alessia; Biasetti, Pierfrancesco; Vogt, Gregory; Manenti, Raoul; de Mori, Barbara;

18:00 – 18:05 Serious mathematical biases in the calculation of the Living Planet Index
Tószögyová, Anna; Storch, David;

18:05 – 18:10 Effective restoration of species-rich grasslands: the importance of timing in sowing target species seeds
Kiss, Réka; Deák, Balázs; Tóth, Katalin; Lukács, Katalin; Rádai, Zoltán; Kelemen, András; Migléc, Tamás; Tóth, Ágnes; Godó, Laura; Valkó, Orsolya;

18:10 – 18:15 Modelling population viability analysis of isolated green lizard populations as an implication for translocation
Loumová, Petra; Vlček, Martin; Svobodová, Jana;

Programme book
Wednesday, August 24th



Graphics by: Sarah Maršíková
Lucanus cervus

Wednesday, August 24th 2022

Room	AULA	T	Library	E1	E2	E3	Round hall	
9:00–10:00	Plenary: Ezter Kelemen – Diverse values and plural valuation: options and opportunities to contribute to sustainability transformations (AULA)							
10:00–10:30	Coffee break							
10:30–12:30	SY 1/1 Conservation & Law: perspectives from the Post2020 Biodiversity Framework and the EU–Nature ...	SY 1/1 The future of European forests: the paradigm shift from forestry to socioecological forest ...	SY 1/2 Conservation genetics: future directions for genetic and genomic applications for the conservation ...	SY 1/1 Animal migration to northern latitudes: environmental changes and increasing threats	SY 1/1 Insect pollinators conservation in urban areas	WS 1/1 Attitudes towards large carnivores	SE 1/1 Education & environmental sociology	
12:30–14:00	WS 1/1 Publishing conservation science	Lunch time	Lunch time	Nordic Chapter Annual Meeting	Lunch time	WS 1/1 World Cafe (LIB 259)	Lunch time	
14:00–16:00	SY 1/1 Biodiversity post-2020: synthesizing large-scale predictions for the future under climate ...	SE 1/1 Forest conservation and management	SY 2/2 Conservation genetics: future directions for genetic and genomic applications for the conservation ...	SY 1/1 The future of biodiversity monitoring in Europe	SE 1/1 Pollinator conservation	SY 1/1 Bringing nature back to cities: using green infrastructure to support arthropod biodiversity	SY 1/1 Synergy between nature and culture: the role of historical and sacred natural sites in biodiversity ...	
16:00–16:30	Coffee break							
16:30–18:30	WS 1/1 How international Conventions, Treaties and Organizations serve Nature Conservation	POSTER SESSION (Rounded hall)						
18:30–19:30	Break							
19:30–22:00	BBQ Party (MCEV II)							

9:00 – 10:00 PLENARY: Eszter Kelemen – Diverse values and plural valuation: options and opportunities to contribute to sustainability transformations (AULA) Room: **AULA**

The IPBES Global Assessment (GA) (IPBES, 2019) called for transformative actions to halt the loss of biodiversity which, at its current unprecedented pace, is threatening with the disruption of the social-ecological systems we are living in. The GA also highlighted that the indirect drivers of change (such as population growth, unsustainable production and consumption patterns, technology development or governance deficiencies and conflicts) are underpinned by the worldviews and values society holds. The scientific interest in values and valuation and its relationship to governance and policymaking is growing rapidly, leading to the recognition that acknowledging diverse values in decision-making is the prerequisite to effectively support and manage system-wide transformations towards a more sustainable future, but at the same time needs substantial changes in our existing governance systems (Visseren-Hamakers et al. 2021).

The recent IPBES Assessment on Values and Valuation, getting discussed at the IPBES Plenary 9 in July 2022, digs deep into the theory and practice of the valuation of nature and its contributions to people, and provides guidance to the scientific community, as well as to decision-makers in different sectors and scales, on how to operationalize the values of nature in decision-making. This plenary presentation will share some of the key insights of the Values Assessment, especially how the values of nature can be conceptualized, how it is possible to assess the diversity of values, and what options and opportunities are available for decision-makers to act upon the diverse values of nature.

10:30 – 12:30 WORKSHOP: Attitudes towards large carnivores Room: **E3**

(Organized by: Michela Pacifici, Sapienza Università di Roma (IT); Jenny Anne Glikman, Instituto de Estudios Sociales Avanzados (IESA-CSIC)).

Attitudinal studies toward large carnivores are becoming a common practice as a start for understanding human wildlife coexistence. However, human coexistence with wildlife is influenced by a variety of factors that researchers and managers struggle to identify and address. As human-wildlife interactions increase over time, successful wildlife conservation will depend not only on understanding attitudes towards wildlife, but also on implementing successful strategies for an effective coexistence among interest groups. The goal of this workshop is to advance our collective understanding of attitudes toward large carnivores, and to identify approaches to foster coexistence across Europe. The workshop will begin with a series of short presentations of research findings and lessons learned for understanding attitudes towards large carnivores across diverse European countries. Specifically, researchers will highlight case studies from southern Europe (Italy, Albania) to northern Europe (Switzerland, Germany and Sweden), as well as eastern Europe (Romania). Furthermore, there are gradients of length in co-habitation with large carnivores among these countries; there are some where large carnivores have been never extirpated, and others where recolonization is recent. After this series of presentation, participants will break into smaller groups to explore lessons learned and identify potential patterns that influence attitudes toward large carnivores, and that can support coexistence. Finally, the session participants will reconvene to summarize and synthesize progress made in small groups and to discuss potential implications for assessment, application, and evaluation of work designed to promote coexistence.

10:30 – 12:30 SESSION: Education & environmental sociology Room: **Round**

10:30 – 10:45 A Binational Course-based Undergraduate Research Experience as a model for Sustainability Education
Mclaughlin, Jacqueline; Postolache, Carmen;

10:45 – 11:00 Training citizen scientists for invasive species monitoring with wildlife detection dogs
Haack, Nora; Harms, Wiebke; Grimm-Seyfarth, Annegret;

11:00 – 11:15 DISCUSSION TIME SLOT

11:15 – 11:30 Human-Nature Relationships in East Asian Animated Films
Pan, Yuan;

11:30 – 11:45 Predicting support for conservation regulations: Novel applications of the New Ecological Paradigm in protected area landscapes
Dorward, Leejiah; Agustin, Ika; Dwiyahreni, Asri; Kaduma, Joseph; Kohi, Edward; Mawenya, Rose; Mchomvu, Jesca; Prayitno, Karlina; Sabiladiyni, Humairah; Sankeni, Stephen;

11:45 – 12:00 Why Do UNESCO Biosphere Reserves Get Less Recognition than National Parks? A Landscape Research

Perspective on Protected Area Narratives in Germany
Aschenbrand, Erik; Michler, Thomas;

12:00 – 12:15 Gender and caregiving influences academic performance of ecologists
Piquer-Rodríguez, María; Lomascolo, Silvia; Novillo, Agustina; Sandoval-Salinas, María; Fontanarrosa, Gabriela; Núñez Montellano, Gabriela; Alvarez, Marisa; Aschero, Valeria; Chillo, Verónica; Fanjul, María Elisa;

10:30 – 12:30 SYMPOSIUM: The future of European forests: the paradigm shift from forestry to socioecological forest management Room: **T**

Organized by: Pierre Ibisch, Centre for Economics and Ecosystem Management, Eberswalde University for Sustainable Development, Germany; Nuria Selva, Institute of Nature Conservation, Polish Academy of Sciences, Krakow, Poland; Stefan Kreft, Naturwald Akademie, Lübeck, Germany; Peter Hobson, Centre for Economics and Ecosystem Management, Writtle University College, UK

The symposium is characterized by inter- and transdisciplinary analyses of forests as complex socioecological systems. The naturally continuous ecosystems have been greatly reduced and fragmented by land use and infrastructure; forestry use has led in large parts to the predominance of unnatural systems, in the worst case young, species-poor or monocultures of uniform aged stands. Environmental conditions are made worse by the presence of permanent roads, trails and by the use of large, industrial-scale machinery. The vulnerability of forests to pressures such as overexploitation and climate crisis is unprecedented. The danger of forest fires is growing, the onset of extreme droughts and heat waves as well as insect damage and diseases are causing trees to die across entire landscapes. Conventional responses in forest practice to tree dieback such as salvage logging, the thinning of semi-intact forests, as well as reforestation with exotic species add further stress to already weakened ecosystems. Public interest in forests is growing. It is becoming clear that, in addition to wood as a raw material, the essential regulating ecosystem services such as carbon storage, cooling of landscapes, water retention are inextricably linked to human wellbeing. At the same time, there is enormous uncertainty and far-reaching challenges for forest practitioners and decision-makers. The economic viability of previous forestry models is no longer given, the state has to intervene with subsidies – it is time to implement adequate reward systems for forest ecosystem services based on objective measurements. Existing laws relating to forests are no longer appropriate to meet the current and future challenges. The EU Forest Strategy faces a variety of criticisms and strong support. Some states have embarked to develop new conceptual frameworks and instruments for conservation and sustainable management of forests. Forest management needs to integrate ecological knowledge and an ecosystem approach much better.

10:30 – 11:00 The EU Forest Strategy, the opposition and the way forward
Deparnay-Grunenberg, Anna;

11:00 – 11:15 Natura 2000 and forest conservation
Křenová, Zdenka;

11:15 – 11:30 The impact of forests characteristics on forest recreational value – an European perspective
Giergiczny, Marek; Jacobsen, Jette; Glenk, Klaus; Meyerhoff, Jürgen;

11:30 – 11:45 Ecosystem based forest management in the city forest of Lübeck
Sturm, Knut; Welle, Torsten;

11:45 – 12:00 Social-ecological forest management as a strategy in the concatenant forest, biodiversity and climate crises
Ibisch, Pierre;

10:30 – 12:30 SYMPOSIUM: Insect pollinators conservation in urban areas Room: **E2**

Organized by: Edina Török and Riho Marja, Landscape and Conservation Ecology, Centre for Ecological Research, Hungary

Pollinators have declined worldwide with accelerated speed since after the Second World war due to, for instance, intensified agriculture production, urbanization, and land-use changes, and climate change (Dicks et al. 2021; Nieto et al. 2014). Several conservation programs have been developed to combat this issue (Geppert et al. 2020; Ruckelshaus et al. 2020), but they are not generally initiated in urban areas. However, urban green infrastructure may support high levels of biodiversity, including rare and protected species, and provide a refugium for diverse insect pollinators, which can help to increase ecosystem functions and ecosystem services (Hall et al. 2017; Baldock et al. 2019).

In this symposium, we would like to focus on pollinator conservation in urban habitats. Pollinators have a significant role in increasing the yield of common garden products such as apples, strawberries, and

plums. Also, they pollinate garden flowers which are of esthetical value for the inhabitants. The participants will share information about the urban ecology of the main insect pollinators. Compared to natural areas, urban habitats pose different challenges to pollinators, like direct human pressure, traffic, urban pollution, invasive species, insecticides, and new enemies. The symposium will identify the key mechanisms to support and enhance insect pollinators in urban environments, provide a new overview of their conservation risks and trade-offs, and share the latest ecological knowledge about the topic.

Finally, the symposium will provide participants with a more holistic picture of urbanization's effect on insect pollinators and offer the opportunity to develop a new interdisciplinary research network of participating scientists.

- 10:30 – 11:00 Conservation opportunities for pollinators in urban landscapes
Baldock, Katherine;
- 11:00 – 11:15 Urbanization effects on insect pollinator diversity: a global meta-analysis
Török, Edina; Riho, Marja; Batáry, Péter;
- 11:15 – 11:30 Bumble bee colony health and performance vary widely across the urban ecosystem
Theodorou, Panagiotis; Kühn, Olga; Baltz, Lucie; Wil, Christopher; Rasti, Sirius; Bucksch, Carolina; Strohm, Erhard; Paxton, Robert; Kurze, Christoph;
- 11:30 – 11:45 Temperature drives wild bee community assembly in an urban environment
Geppert, Costanza; Cappellari, Andree; Corcos, Daria; Caruso, Valerio; Cerretti, Pierfilippo; Mei, Maurizio; Marini, Lorenzo;
- 11:45 – 12:00 Conserving bee diversity in gardens through vegetation and nesting resources across urban landscapes
Egerer, Monika;
- 12:00 – 12:15 Pollinators and people: socio-economic drivers of allotment garden management and impacts on urban pollinator communities
Martelli, Francesca; Scott, Alister James; Goddard, Mark; Baldock, Katherine;
- 10:30 – 12:30 **SYMPOSIUM: Conservation & Law: perspectives from the Post2020 Biodiversity Framework and the EU-Nature Conservation rules** Room: **AULA**
- Organized by: Volker Mauerhofer, Mid Sweden University
- At the edge of a continuously accumulating biodiversity crisis, biodiversity and conservation law reached at the beginning of the 3rd decade of the 21st century a crossroad with several paths open. Business as usual is no option anymore and claims for stopping biodiversity loss have been extended in latest UN- and EU-policy documents by a political goal of a reversal of biodiversity loss towards planetary net gains. The symposium strives to provide legal and regulative analysis and pathways for conservation in the context of the EU-Nature Conservation rules and the 2022 upcoming Post2020 Biodiversity Framework to effectively address the Biodiversity Crisis by reversing the loss of habitat types and populations of species. Methods applied are different legal interpretation methods, regulative studies and case analyses. The presentations provided will provide details analyses of the current legal status and innovative solutions for safeguarding biodiversity.
- 10:30 – 10:45 Safeguarding biodiversity by modifying law
Kokko, Kai;
- 10:45 – 11:00 Access and Benefit Sharing in the Global Biodiversity Framework: How to Measure the Reciprocity for Nature?
Sirakaya, Aysegul;
- 11:00 – 11:15 The contribution of the EU Habitats Directive to the net gain approaches of the UN Post 2020 Biodiversity Framework and EU Biodiversity Strategy
Mauerhofer, Volker;
- 11:15 – 11:30 Halting the Loss of Biodiversity in the European Union; the Effect of the Environmental Liability Directive
Fogleman, Valerie;
- 11:30 – 11:45 Birds in gilded cages: An investigation of the illegal trade of wild songbirds in the EU
Juergens, Jacqueline; Bruslund, Simon; Staerck, Johanna; Oegelund Nielsen, Rikke; Conde, Dalia;

- 11:45 – 12:00 Strategic climate change litigation, science and the EU Habitats Directive: moving from adaptation to contestation?
Schoukens, Hendrik;
- 12:00 – 12:15 Urban conservation and restoration in times of climate change: going beyond a little bit of ‘greening’
Cliquet, An;
- 10:30 – 12:30 SYMPOSIUM: Conservation genetics: future directions for genetic and genomic applications for the conservation, restoration and monitoring of biodiversity 1/2** Room: **Library**
- Organized by: Michelle Henley, University of Edinburgh, UK
- The Society for Conservation Biology Europe Section was formed to promote conservation biology and its application to conserve biological diversity in Europe. The section’s goals include promoting the role of scientific review in assessment of conservation strategies and to develop, promote and facilitate networks of communication and collaboration among Society members, and other researchers, managers, government agencies and non-governmental organizations in Europe and throughout the world.
- The world is facing an imminent climate and biodiversity crisis due to anthropogenic pressures on the environment. Many ecosystems are degraded and as a result, many species and habitats are threatened or at risk of extinction within decades, more than ever before in human history. Genetic diversity is crucial for the long-term survival of species, and the application of genetic methods is now widely accepted in biodiversity assessments and conservation management programs².
- Within conservation science, there is increasing recognition of the value of genetic data to support management decisions. However, it is widely recognized that there is a disconnect between the availability of genetic information and the application of this information to inform conservation policy and species management^{1,2}. In addition, much of the genetic research is focused on species which have an economic value or are charismatic and iconic, rather than on species which are scarce or with an unknown conservation status.²
- Management of wild populations would benefit from collaborate partnerships between genetic researchers and conservation practitioners¹. The panel will identify partnerships and opportunities for integrating genomic and genetics in conservation actions and policy to ensure genetic research can provide effective solutions for the conservation and of populations and species.
- 10:30 – 11:00 Science–management initiatives to monitor genetic diversity using newly proposed indicators
Laikre, Linda;
- 10:45 – 11:00 Introducing the G–BiKE
Heuertz, Myriam; Vernesi, Cristiano;
- 11:15 – 11:30 Making sense of effective population size estimates in conservation
MERGEAY, Joachim;
- 11:30 – 11:45 Calling for a re–assessment of conservation policy on hybrids
Galbusera, Peter; Ball, Alex; Bertola, Laura; Bishop von Wettberg, Eric; Fienieg, Elmar; Helsen, Philippe; Kopatz, Alexander; Russo, Isa–Rita; Senn, Helen; Stronen, Astrid Vik;
- 11:45 – 12:00 Using plant genetics to investigate how landscape change, habitat fragmentation and connectivity affect diversity
Cousins, Sara; Plue, Jan;
- 12:00 – 12:15 The application gap: genomics for ecosystem service management
Heuertz, Myriam; Carvalho, Silvia; Galindo, Juan; Rinkevich, Baruch; Robakowski, Piotr; Aavik, Tsipe; Barth, Julia; Cotrim, Helena; González–Martínez, Santiago C. ; Grebenc, Tine;
- 12:15 – 12:30 Are key trophic interactions of large carnivores maintained in human–dominated landscapes? Insights from DNA metabarcoding
De Barba, Marta; Beaumelle, Camille; García–Rodríguez, Alberto; Albrecht, Jörg; Boyer, Frédéric; Coissac, Eric; Groff, Claudio; Konec, Marjeta; Lionnet, Clement; Miquel, Christian;
- 10:30 – 12:30 SYMPOSIUM: Animal migration to northern latitudes: environmental changes and increasing threats** Room: **E1**

Organized by: Vojtěch Kubelka, University of South Bohemia, Czech Republic

Every year, many wild animals undertake long-distance migration to breed in the North, taking advantage of seasonally high pulses in food supply, fewer parasites and lower predation pressure in comparison with equatorial latitudes. However, growing evidence suggests that climate change-induced phenological mismatches have reduced food availability. Furthermore, novel pathogens and parasites are spreading Northwards, and nest or offspring predation has increased at many Arctic and North temperate locations. Altered trophic interactions have decreased the reproductive success and survival of migratory animals. Reduced advantages for long-distance migration have potentially serious consequences for community structure and ecosystem function. Changes in the benefits of migration need to be integrated into projections of population and ecosystem dynamics and targeted by innovative conservation actions. During this targeted workshop, we will discuss recent disruptions of migration profitability for birds, mammals and insect, together with consequences for population dynamics, community structure and ecosystem functioning as well as effective conservation measures.

10:30 – 11:15 Animal migration to the North breeding grounds: still advantageous strategy or maladaptive behaviour?
Kubelka, Vojtech;

11:15 – 11:35 Coping with environmental change: Are migrants particularly vulnerable?
Nemeth, Zoltan;

11:35 – 11:55 Revealing threats through the full annual cycle in a long distance migratory bird species
Kiss, Orsolya; Tokody, Béla;

11:55 – 12:15 A novel model applied on the constant effort mist-netting reveals important patterns in population dynamics of long-distance migratory birds
Telenský, Tomáš; Storch, David; Klvaňa, Petr; Cepák, Jaroslav; Jelínek, Miroslav; Reif, Jiří;

12:50 – 13:50 WORKSHOP: Publishing conservation science

Room: **AULA**

(Organized by: Mark Burgman, Editor-in chief, Conservation Biology).

The publishing landscape is changing rapidly, mostly for the better. In this session, Mark will very briefly outline the basic publication process, the history of the three SCB journals (Conservation Letters, Conservation Science and Practice, and Conservation Biology) and the differences between them. He will then be available to try to answer any questions you may have about scientific publication in general, or the philosophies, processes and potential futures of the three SCB journals.

12:50 – 13:50 WORKSHOP: Emotion and Faith as Drivers of Conservation (World Café)

Room: **LIB259**

Radhika Borde¹ and Alison A. Ormsby²

¹ University of Leeds, UK

² University of North Carolina at Asheville, USA

This world café will be a forum for thinking through 'non-rational' drivers of ecologically oriented action, exploring both emotion and faith. Our interest focuses on collective forms of action that result in the conservation of species or natural habitats, as well as individual forms involving daily behavior and acts that mitigate carbon emissions or enhance natural habitats for non-human species on a small scale. We will focus on two such non-rational drivers – emotion and faith. We take emotion to encompass aesthetic emotions (feelings of awe caused by natural landscapes, etc.), relational emotions (relating to non-human, and particularly, wild species, positively), emotions of fear/anxiety (fear/anxiety surrounding what might be caused by the climate crisis). We take faith to encompass religious faiths, spiritualities, as well as personal beliefs that provide a moral imperative for ecologically oriented action or a conviction that humans have agency vis-à-vis impacting the environment positively.

In the 45 minutes that this world café will last – we will first introduce our work on this and related topics briefly. We are two of the four editors of a new book collection on a related topic.

(see <https://www.taylorfrancis.com/books/edit/10.4324/9781003246190/religion-nature-conservation-stephen-awoyemi-radhika-borde-andrew-gosler-alison-ormsby>)

We hope to be able to divide participants into 5–6 small groups – they will be asked to discuss this topic based on sub–themes (to which they can also add or remove depending on their knowledge and interest). Some examples of these sub–themes include the following: sacred natural sites, faith–based conservation, sacred species, cultural values of nature, deep ecology, climate anxiety, the natural sublime, relating to non–humans, etc. The facilitators (Radhika Borde and Alison A. Ormsby) will be moving between groups and noting key thoughts and messages. Final thoughts/messages will be co–created by the facilitators and café participants, and projects that could conceivably result from this exercise will also be discussed.

14:00 – 16:00 SESSION: Forest conservation and management 1/2 Room: T

- 14:00 – 14:15 The Scandinavian Mountains Green Belt – a unique intact forest landscape of European importance
Jonsson, Bengt Gunnar; Angelstam, Per; Bubnicki, Jakub W. ; Mikusinski, Grzegorz; Svensson, Johan;
- 14:15 – 14:30 The Importance of Green Infrastructure for Deadwood Dependent Beetles
Bergmark, Paulina; Larsson Ekström, Albin; Hekkala, Anne–Maarit; Hjalten, Joakim; Svensson, Johan; Neumann, Wiebke;
- 14:30 – 14:45 Validation of the MAES–HU forest condition assessment with fine scale data
Zoltán, László; Tanács, Eszter; Standovár, Tibor;
- 14:45 – 15:00 Combining pure and mixed beech stands to maximize biodiversity and conservation value in temperate European beech forest landscapes
Heinrichs, Steffi; Leidinger, Jan; Weisser, Wolfgang W. ; Schall, Peter;
- 15:00 – 15:15 The importance of remotely sensed forest structural variables for identifying bat habitats and habitat restoration sites in forests
Hendel, Anna-Lena; Winiger, Nathalie; Zielewska–Büttner, Katarzyna; Adler, Petra; Ganz, Selina; Braunisch, Veronika;
- 15:15 – 15:30 Effects of different forest management on microclimate: field experiments in oak–hornbeam forest stands
Kovács, Bence; Horváth, Csenge Veronika; Tinya, Flóra; Németh, Csaba; Ódor, Péter;
- 15:30 – 15:45 Effects of logging intensity on species and functional composition in the national park „Fruška gora“
Tarčak, Sonja; Župunski, Milan; Borišev, Milan;
- 15:45 – 16:00 Landscape–level habitat amount affects the species density of deadwood–dwelling lichens
Hämäläinen, Aino; Fahrig, Lenore; Strengbom, Joachim; Ranius, Thomas;

14:00 – 16:00 SESSION: Pollinator conservation Room: E2

- 14:00 – 14:15 Landscape type and floral resources modify plant–pollinator network structure and stability: implications for pathogen exchange
Vanbergen, Adam; VOODOO consortium;
- 14:15 – 14:30 Effects of sown wildflower fields and strips on wild pollinators in agricultural landscapes
Bihaly, Áron; Kovács–Hostyánszki, Anikó; Sárospataki, Miklós; Piross, Imre Sándor; Pellaton, Raoul; Báldi, András;
- 14:30 – 14:45 Using butterflies as a bioindicator for pollinator communities
Segre, Hila; Kleijn, David; Bartomeus, Ignasi; WallisDeVries, Michiel; Fijen, Thijs;
- 14:45 – 15:00 Functional traits of plants and pollinators explain resource overlap between honeybees and wild pollinators
Cappellari, Andrea; Bonaldi, Giovanna; Mei, Maurizio; Paniccia, Dino; Cerretti, Pierfilippo; Marini, Lorenzo;
- 15:00 – 15:15 Genomic divergence and a lack of introgression between commercial and wild bumblebees, *Bombus terrestris*
Kardum Hjort, Cecilia;
- 15:15 – 15:30 Novel neonicotinoid–like insecticides and food stress: synergistic threat for wild bee pollinators? – Evidence

from laboratory and semi-field experiments

Schwarz, Janine; Knauer, Anina C. ; Alaux, Cédric; Allan, Matthew J. ; Dean, Robin R. ; Klein, Alexandra-Maria; Michez, Denis; Tamburini, Giovanni; Wintermantel, Dimitry; Albrecht, Matthias;

15:30 – 15:45 Impacts of agricultural land use on genetic diversity in generalist and specialist blue-winged butterfly species

Nolen, Zachary; Jamelska, Patrycja; Torres, Sofía; Rundlöf, Maj; Wahlberg, Niklas; Runemark, Anna;

15:45 – 16:00 Dutch landscapes are losing insect-pollinated plants

Pan, Kaixuan; Marshall, Leon; Biesmeijer, Koos; R. de Snoo, Geert;

14:00 – 16:00 SYMPOSIUM: Bringing nature back to cities: using green infrastructure to support arthropod biodiversity

Room: **E3**

Organized by: González Ezequiel, Czech University of Life Sciences Prague; María Silvina Fenoglio (IMBIV, UNC/CONICET, Argentina)

Urbanization is one of the greatest threats to biodiversity globally (Elmqvist et al, 2016). As urban areas are expected to continue expanding at the expense of natural and cultivated areas, there is an urgent need to find strategies to conserve biodiversity within cities. In consequence, the diversity of arthropod communities is usually lower in cities than in rural-natural areas (Fenoglio et al., 2020), and the combined effects of multiple urbanization drivers, along with the role of species traits, can explain the mechanisms behind these biodiversity declines (Fenoglio et al., 2021). Designing, creating and managing components of the urban green infrastructure are promising ways to support arthropod biodiversity in cities. Green roofs, vacant lots, and urban gardens are some of the most common components of the urban green infrastructure and have been shown to support arthropod communities (e.g., Tresch et al, 2020; Egerer et al, 2020; Fabian et al, 2021). Nevertheless, in order to effectively conserve biodiversity in cities, different aspects of the design and management of these habitats need to be considered. In this symposium, researchers from different countries will summarize their experiences of how to support arthropod biodiversity in cities in a series of 5–6 invited lectures. The symposium will end with a panel discussion where the different approaches and their effectiveness will be compared and a set of recommendations for conserving arthropod biodiversity in cities will be developed.

14:15 – 14:30 Land sharing in urban gardens to support insect biodiversity

Egerer, Monika;

14:30 – 14:45 Is Vacant Land a Valuable Habitat for Urban Bees?

Gardiner, Mary;

14:45 – 15:00 Urban grassland habitats are valuable for maintaining insect and plant diversity

Venn, Stephen;

15:00 – 15:15 Effects of highway pollution on plant-insect interactions

Meineke, Emily; Eng, David; Richards, Lora; Karban, Richard;

15:15 – 15:30 What factors drive arthropod communities on extensive green roofs of Central Argentina?

Gonzalez, Ezequiel; Fabián, Diego; Salvo, Adriana; Bikić, Boris; Sanchez Dominguez, Maria V. ; Fenoglio, Maria Silvina;

14:00 – 16:00 SYMPOSIUM: Synergy between nature and culture: the role of historical and sacred natural sites in biodiversity conservation

Room: **Round**

Organized by: Balázs Deák; Lendület Seed Ecology Research Group, Institute of Ecology and Botany, Centre for Ecological Research, Hungary

Land use intensification over the past centuries has become one of the major threats to biodiversity at a global scale. Extensive stands of remaining natural habitats are generally restricted to the few protected areas; and consequently resources dedicated to conservation are also focussed there. However, remnants of the natural habitats could remain in small, generally island like habitats outside these reserves. In general, the existence of these sites is associated with their attributes that makes them inadequate for agricultural production or infrastructural developments (like in the case of verges or rocky outcrops), but nowadays it is getting to be recognised that long-term existence of certain natural sites is often supported

by their sacred, historical or cultural values. Such sites as old cemeteries, churchyards, shrines, sacred grooves and ancient burial mounds have centuries- or millennia-long histories, and due to the religious respect and social taboos confined to them they primarily have been recognised for their spiritual values and have not been used for agricultural or industrial production. Historical and sacred natural sites have often been utilised and managed in an extensive traditional way since historical times that supports the long-term maintenance of natural habitats and their characteristic species even in heavily transformed landscapes. In many regions together with other habitat fragments, these sites form a complimentary network of natural habitats beyond the official protected areas, and exist because of the willingness of the local people to protect them. In this symposium, we put the role of historical and sacred natural sites in biodiversity conservation into a broader context. We seek to understand the social drivers maintaining their biodiversity, the factors that threaten their existence, and the necessary conservation actions that can contribute to their preservation. We encourage integrated and interdisciplinary studies, including case studies, policy assessments and sustainability studies.

- 14:00 – 14:15 Sacred natural sites in space and time
Bhagwat, Shonil;
- 14:15 – 14:30 The sacred commons: Conflicts and solutions of resource management in sacred natural sites
Rutte, Claudia;
- 14:30 – 14:45 The role of Sacred Natural Sites in Italy for conserving biodiversity, forests and cultural landscapes
Zannini, Piero;
- 14:45 – 15:00 Ecosystem Services from Urban Sacred Natural Sites
Ormsby, Alison;
- 15:00 – 15:15 Role of ancient historical monuments in conservation – Bronze and Iron age burial mounds as sentinels of grassland biodiversity
Balazs, Deak; Valkó, Orsolya;
- 15:15 – 15:30 The role of cemeteries in biodiversity conservation
Löki, Viktor; Nagy, Jenő; Malkócs, Tamás; Lovas-Kiss, Ádám; Fekete, Réka; Süveges, Kristóf; Takács, Attila; Molnár V., Attila;
- 14:00 – 16:00 SYMPOSIUM: Conservation genetics: future directions for genetic and genomic applications for the conservation, restoration and monitoring of biodiversity 2/2** Room: **Library**
- 14:00 – 14:15 A reduced SNP panel to identify wolf population admixture vs. hybridization with other *Canis* taxa
Stronen, Astrid Vik; Mattucci, Federica; Fabbri, Elena; Galaverni, Marco; Cocchiararo, Bernardino; Skrbinšek, Tomaž; Vlasseva, Albena; Caniglia, Romolo;
- 14:15 – 14:30 High throughput sequencing of microsatellites for ecological research – practical large-scale application to brown bears (*Ursus arctos*) and beyond
Skrbinšek, Tomaz; Boyer, Frederic; Fumagalli, Luca; Iosif, Ruben; Jelenčič, Maja; Konec, Marjeta; Pazhenkova, Elena; Promberger, Barbara; Taberlet, Pierre; De Barba, Marta;
- 14:30 – 14:45 Bridging the gap: How can genetic analysis translate to conservation action in the Eurasian lynx
Mueller, Sarah;
- 14:45 – 15:00 Ponui Island and promising potential for genetic rescue in a long-loved, flightless national icon
Undin, Malin; Hills, Simon; Lockhart, Peter; Castro, Isabel;
- 15:00 – 15:15 Conservation genetics in the highlands; contrasting strategies in Scotland and beyond
Ball, Alex; Senn, Helen; Partners, RZSS WildGenes;
- 15:15 – 15:45 How to single out species and populations for monitoring of genetic diversity
Hvilsom, Christina; Segelbacher, Gernot;
- 14:00 – 16:00 SYMPOSIUM: The future of biodiversity monitoring in Europe** Room: **E1**
- Organized by: Henrique M. Pereira, Néstor Fernández, MLU/iDiv; Petteri Vihervaara, Rob J.J. Hendriks, Biodiversa+; Aletta Bonn, UFZ/FSU/iDiv; Alejandra Moran, CREAF)

The EU Biodiversity Strategy for 2030, a core part of the European Green Deal, is a major attempt to

fight the current biodiversity crisis. In order to track progress towards achieving its goals and to enhance evidence-based decision-making in policy and practice, biodiversity monitoring is of utmost importance. Effective biodiversity policy and impactful conservation and restoration action in Europe are currently hampered by spatially and temporally fragmented, taxonomically biased monitoring efforts that lack integration. Effective improvements of data collection, data flows and reporting need to be tailored to the needs of policymakers and other data users at sub-national, national, and European levels.

In this session, we present potential avenues to enhance and harmonize biodiversity monitoring across Europe: assessing user and policy needs; mapping current monitoring initiatives; identifying essential monitoring variables; enhancing monitoring to support the Nature Directives, Climate and Soil Policies, and Bioeconomy Strategy; Ultimately, we propose to create a Europa Biodiversity Observation Network (EuropaBON) to deliver an integrated, co-designed monitoring framework. We close the session with a presentation of the new European biodiversity partnership Biodiversa+ to aid in the implementation of the EuropaBON and a presentation on NaturaConnect – a new initiative that aims to design a resilient and coherent Trans-European Network for Nature and People.

- 14:00 – 14:15 User and policy needs for biodiversity monitoring in Europe
Moersberger, Hannah; Martin, Juliette; Georgieva, Ivelina; Junker, Jessica; McCallum, Ian; Bonn, Aletta; Pereira, Henrique;
- 14:15 – 14:30 Mapping and making current European monitoring initiatives accessible via a web-based database
Morán Ordóñez, Alejandra; Martí Pino, David; Villero, Dani; Herrando, Sergi; Brotons, Lluís;
- 14:30 – 14:45 Essential Biodiversity and Ecosystem Service Variables as a powerful tool to overcome current monitoring roadblocks
Pereira, Henrique; Junker, Jessica; Fernández, Néstor; Fernandez, Miguel; Valdez, Jose W. ;
- 14:45 – 15:00 Biodiversity monitoring to support the Birds, Habitats, and Water Framework Directives
Fernández, Néstor; Solheim, Anne L. ; Brotons, Lluís; Hernando, Sergi; Jandt, Ute; Bruelheide, Helge;
- 15:00 – 15:15 Biodiversity monitoring and forecasting to support the Bioeconomy Strategy and EU citizens at large
Ceia-Hasse, Ana; Capinha, César;
- 15:15 – 15:30 Biodiversa+, the new European-funded biodiversity partnership
Vihervaara, Petteri; Body, Guillaume; Naeslund, Mona; Basset, Alberto; Dinesen, Lars; Rosenberg, Anna; Hendriks, Rob; Heck, Anna; Mandon, Cécile; Eggermont, Hilde;
- 15:30 – 15:45 Using a novel biodiversity data standard and platform to mainstream the Essential Biodiversity Variables
Fernández, Néstor; Pereira, Henrique M. ; Langer, Christian; Quoss, Luise; Fernández, Miguel;
- 14:00 – 16:00 SYMPOSIUM: Biodiversity post-2020: synthesizing large-scale predictions for the future under climate and land use change** Room: **AULA**
- Organized by: Laura Bosco, Marjakangas Emma-Liina, Finnish Museum of Natural History, Finland
- Anthropogenic pressures including climate and land use change are widely recognized as major drivers of the ongoing global biodiversity crisis (1). Processes such as increasing temperatures, urbanization and agricultural intensification are just a few of the stressors to species, and communities and forcing them to either adapt, move or go extinct. Although effects of those anthropogenic pressures are already visible in many ecosystems globally, current climate change scenarios are predicting a further increase in global mean temperatures above pre-industrial levels (2), exacerbating the loss of biodiversity, termination of evolutionary potential and disruption of ecosystem services (3). Many species are not able to adapt to the new conditions rapidly enough and are coerced to shift their ranges to match their environmental niches (4). Despite the fast-increasing research addressing global change and its effects on biodiversity, most of the past work on the topic has been conducted at the national or regional level hampering the feasibility to synthesize patterns and draw conclusions at a scale relevant to policy making and conservation action (5). Furthermore, with a growing human population and ongoing climate change we know that anthropogenic pressures will likely continue to intensify in the future – which is why we now need to anticipate major and scale-relevant drivers for future biodiversity based on lessons from the past (6). Our symposia will serve as a platform for synthesizing large-scale, international studies covering large spatial areas and a wide range of taxa to obtain a more holistic and “big-picture” overview of main drivers for future biodiversity patterns and solutions to mitigate its loss thereafter.
- 14:00 – 14:30 Biodiversity post-2020: Closing the gap between global targets and national-level implementation
Perino, Andrea; Pereira, Henrique Miguel;

- 14:30 – 14:45 Can global biodiversity trends be detected using local species richness?
Valdez, Jose; Callaghan, Corey; Junker, Jessica; Purvis, Andy; Hill, Samantha; Pereira, Henrique;
- 14:45 – 15:00 Forecasting future range shifts to an endangered freshwater mussel in Europe: the importance of considering biotic interactions
P. da Silva, Janine; Gonçalves, Duarte Vasconcelos; Lopes–Lima, Manuel; Anastácio, Pedro M. ; Banha, Filipe; Emmanuel, Frimpong; Gama, Mafalda; Miranda, Rafael; Reis, Joaquim; Filipe, Ana Filipa;
- 15:00 – 15:15 European Breeding Bird Atlases as a tool to study large–scale changes in biodiversity
Voříšek, Petr; Keller, Verena; Herrando, Sergi;
- 15:15 – 15:30 Using global scenarios of phylogenetic diversity to design conservation priorities
Robuchon, Marine; Pavoine, Sandrine; Véron, Simon; Delli, Giacomo; Faith, Daniel; Mandrici, Andrea; Pellens, Roseli; Dubois, Grégoire; Leroy, Boris;
- 15:30 – 15:45 Mapping future mammal exposure to extreme drought and warm spells
Soria, Carmen; Serlupi–Crescenzi, Matteo; Pacifici, Michela; Rondinini, Carlo;
- 16:30 – 18:30** **WORKSHOP: How international Conventions, Treaties and Organizations serve Nature Conservation** Room: **AULA**

(Organized by: Katalin Pap, University of Szeged), WED 24

During this workshop we will explore, how international/intergovernmental institutions provide support for Nature Conservation practitioners. What is the frame, finance behind each organization, and how can they achieve their mandate? Who is responsible for monitoring and who can facilitate the communication between the contracting parties?

Speakers from the Ramsar Convention, Bern Convention, Washington Convention, IUCN, and FAO will introduce in 10 min slots their organization, funding sources, goals and recent work, which was implemented to enhance and facilitate the work of Nature Conservation practitioners.

Large Scale action: How can we assess, what has and hasn't worked in science and environmental policy? IF the assessment is done, what are the measures organizations shall take to be more effective?

Small Scale action: WHAT are the actual actions – suggested by the organizations at the workshop – a common citizen/farmer/researcher can do, to prevent/slow down global ecological issues? How can we turn TALK into ACTION? Finance into PRACTISE?

Expected speakers:

Isabel Wallnöfer – Junior Professional for Europe, Technical Support, Secretariat of the Convention on Wetlands (<https://www.ramsar.org/>);

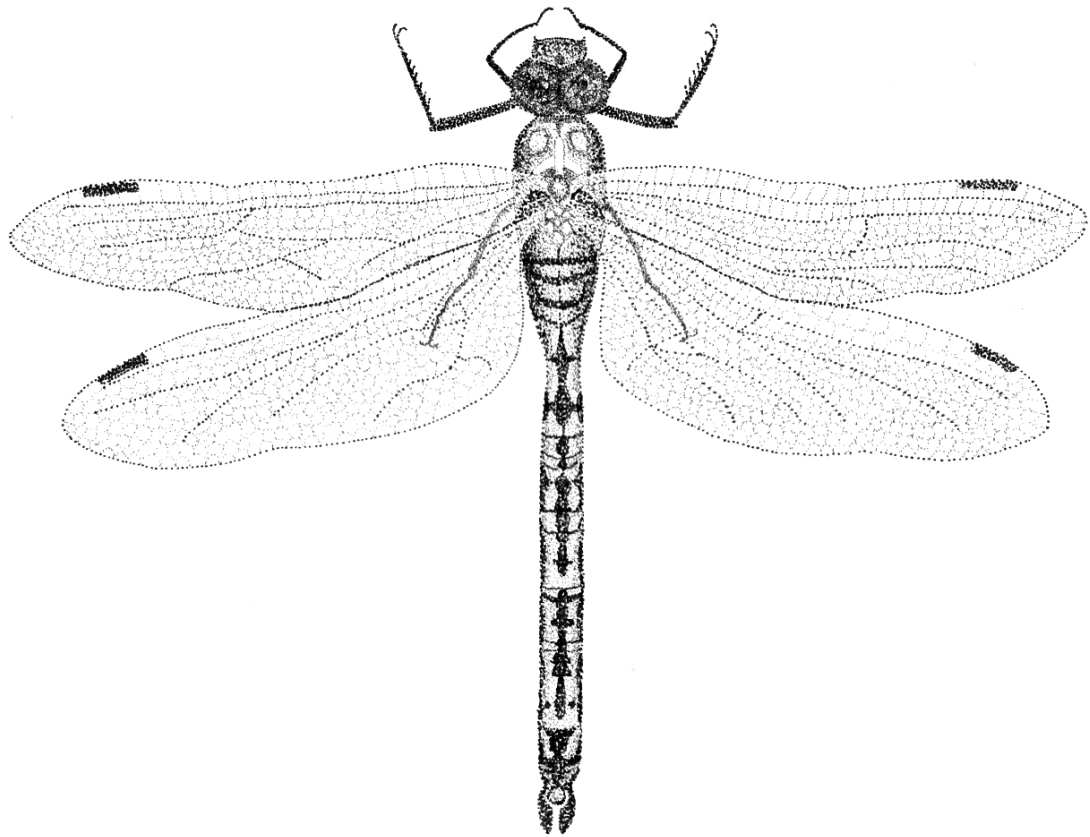
Jan Plesník – Senior Member of the Bureau of the Bern Convention Standing Committee from the Nature Conservation Agency of the Czech Republic (<https://www.coe.int/en/web/bern-convention>);

Luigi Boitani – Professor of the University of Rome, associated with the Species Survival Commission (SSC) of IUCN (<https://www.iucn.org/>);

Anna Kanshieva – Biodiversity Expert at FAO (<https://www.fao.org/europe/ar/>)

<https://www.nature.com/articles/d41586-022-00110-w>

Programme book
Thursday, August 25th



Graphics by: Sarah Maršíková
Anax imperator

Thursday, August 25th 2022

Room	AULA	T	Library	E1	E2	E3	Round hall
9:00–10:00	Plenary: Anders Wijkman – Earth4All (AULA)						
10:00–10:30	Coffee break						
10:30–12:30	SE 1/2 Conservation in agricultural landscapes	SY 1/2 Biodiversity across the Aquatic-Terrestrial Boundary: Rivers and their Riparian Zones	SY 1/2 Monitoring biodiversity trends and threats using novel digital tools	SE 1/1 Forest conservation and management	SY 1/2 Traditional ecological knowledge for conservation: weaving traditional knowledge with science in ...	SE 1/2 Conservation under global change	WS 1/1 Science-Policy Interfaces in a Rapidly Changing World
12:30–14:00	Lunch time						
14:00–16:00	SE 2/2 Conservation in agricultural landscapes	SY 2/2 Biodiversity across the Aquatic-Terrestrial Boundary: Rivers and their Riparian Zones	SY 2/2 Monitoring biodiversity trends and threats using novel digital tools	SY 1/1 The multiple dimensions of forest biodiversity as a starting point for sustainable management	SY 2/2 Traditional ecological knowledge for conservation: weaving traditional knowledge with science in ...	SE 2/2 Conservation under global change	SE 1/1 Economics of biodiversity & ecosystem services
16:00–16:30	Coffee break						
16:30–18:30	SE 1/1 How international Conventions, Treaties and Organizations serve Nature Conservation	SE 1/1 Freshwater and marine conservation	SE 1/1 Conservation at the science-policy interface	SE 1/1 Conservation policies and tools	SE 1/1 Evidence-based conservation	SE 1/1 Alien and invasive species	
18:30–20:00	Discussion panel (AULA)						
20:00–22:00	FILM (Club C)						

9:00 – 10:00 PLENARY: Anders Wijkman – Earth4All (AULA)Room: **AULA**

Presentation of a report that will be launched in the summer of 2022, partly as a 50-year follow-up to the Limits to Growth. "Earth4All" is an international initiative, supported by the Club of Rome, Potsdam Institute for Climate Impact Studies, Stockholm Resilience Center and the Norwegian Business School. The purpose is to accelerate the systems-changes we need for an equitable future on a finite planet. The dominant economic model of today is destabilising societies – socially and ecologically. It is time for change.

Combining the best available science with new economic thinking, Earth4All is designed to explore and promote five transformations that can create prosperity for all within the planetary boundaries. The five turnarounds are focused on poverty, inequality, energy, food systems and empowerment of women.

A better future is possible, but we don't have much time. The next ten years must see the fastest economic transformation in history!

10:30 – 12:30 WORKSHOP: Science-Policy Interfaces in a Rapidly Changing WorldRoom: **Round**

(Organized by: Eszter Kelemen, Institute for Sociology, Centre for Social Sciences (HU); Marie Vandewalle, Department of Conservation Biology, Helmholtz Centre for Environmental Research (GE); Juliette Young, INRAE – FR; Hien T. Ngo, UN-FAO (IT).

The concept of science-policy interfaces (SPIs) has been attracting a growing interest both in theoretical and empirical research since its inception in the mid-2000s. SPIs can be understood as social processes of mutual relations and knowledge co-creation between policy-makers, scientists and other actors in the policy process which contribute to more robust policy decisions (van den Hove, 2007). Interactions between actors of the SPIs are facilitated by boundary organizations, showing large diversity in terms of whom they engage, what knowledge creation processes are developed, or which scales they operate at (Sarkki et al. 2020). In recent years, biodiversity focused SPIs are proliferating at various scales of decision-making, ranging from global (e.g. IPBES) to EU (e.g. Eklipse, OPPLA) and national level platforms.

Current crises affecting different dimensions of our lives – i.e. climate change, biodiversity loss, the socio-economic and health impacts of the pandemics, or the emergence of 'alternative truths' and the growing mistrust in science and political institutions – requires SPIs to adapt to a rapidly changing world. Strategic policy documents and scientific papers urge for transformative changes, including transformations in how politics and governance are enacted, and rethinking the role science and knowledge play in the policy process. Key aspects of the renewal of SPIs include, among others, the widening of their scope by collaboration between existing interfaces along horizontal topics (see e.g. the recent IPBES-IPCC report), and the broadening of the range of actors who participate (i.e. moving towards science-policy-society interfaces).

The objective of this workshop is to contextualize SPIs among these changing circumstances and discuss potential new pathways for SPIs which can genuinely contribute to transformational change.

10:30 – 12:30 SESSION: Forest conservation and management 2/2Room: **E1**

- 10:30 – 10:45 Harmonising forest management terms and definitions for effective biodiversity studies
Trentanovi, Giovanni; Campagnaro, Thomas; Ammer, Christian; Bravo-Oviedo, Andrés; Chianucci, Francesco; D'Andrea, Ettore; del Río, Miren; Doerfler, Inken; Fotakis, Dimitris; Kepfer Rojas, Sebastian;
- 10:45 – 11:00 Effect of microclimate on deadwood organisms
Gossmann, Anika;
- 11:00 – 11:15 Long-term effects of prescribed fire and dead wood manipulations on boreal polypore communities
Ramberg, Ellinor; Berglund, Håkan; Penttilä, Reijo; Strengbom, Joachim; Jönsson, Mari;
- 11:15 – 11:30 Richness and Redundancy: Spider and Plant Function in Buffered Riparian Systems
Marker, Jeffery; Eckstein, Lutz; Bergman, Eva; Lafage, Denis;
- 11:30 – 11:45 Conservation of deadwood dependant lichens in pine forests
Larsson Ekström, Albin; Sjögren, Jörgen; Djupström, Line; Thor, Göran; Löfroth, Therese;

- 11:45 – 12:00 Beetle community response to commercial thinning in boreal forests
Holmström, Lukas; Sjögren, Jörgen; Hekkala, Anne-Maarit; Lindberg, Eva; Hjältén, Joakim Hjältén;
- 12:00 – 12:15 Multi-level habitat selection by a forest specialist in a spatially heterogeneous landscape
Ettwein, Antonia; Korner, Pius; Lanz, Michael; Pasinelli, Gilberto;
- 12:15 – 12:30 The White-backed Woodpecker as an umbrella species for threatened saproxylic beetles in Central Europe.
Angeleri, Romain; Kormann, Urs; Roth, Nicolas; Ettwein, Antonia; Lanz, Michael; Pasinelli, Gilberto; Arlettaz, Raphaël; Lachat, Thibault;
- 10:30 – 12:30 SESSION: Conservation under global change 1/2** Room: **E3**
- 10:30 – 10:45 Differential effects of nitrogen addition on terrestrial invertebrates: a global meta-analysis
Gallego-Zamorano, Juan; de Jonge, Melinda M.J. ; Runge, Katharina; Hulls, Steven; Wang, Jiaqi; Huijbregts, Mark A.J. ; Schipper, Aafke;
- 10:45 – 11:00 Local and landscape drivers of long-term arthropod trends in Switzerland
Martínez-Nuñez, Carlos; Neff, Felix; Obrist, Martin K. ; Gossner, Martin; Bollmann, Kurt; Herzog, Felix; Knop, Eva; Luka, Henryk; Cahenzli, Fabian; Albrecht, Matthias;
- 11:00 – 11:15 Habitat availability explains recent range losses in terrestrial mammals
Pacifici, Michela; Cristiano, Andrea; Lumbierres, Maria; Mallon, David; Tognelli, Marcelo; Belant, Jerrold; Lucherini, Mauro; Meijaard, Erik; Solari, Sergio; Rondinini, Carlo;
- 11:15 – 11:30 Understanding the drivers of common bird populations decline in Europe.
Rigal, Stanislas; Devictor, Vincent; Dakos, Vasilis; PECBMS, Working Group;
- 11:30 – 11:45 Velocity and magnitude of global change in mountain areas
Dragonetti, Chiara; Visconti, Piero; Daskalova, Gergana; Di Marco, Moreno;
- 11:45 – 12:00 Global changes in terrestrial, freshwater, and coastal ecosystem extents over three decades
Meyer, Carsten; Remelgado, Ruben;
- 12:00 – 12:15 Long-term changes in bryophyte diversity of central European managed forests against the background of climate changes
Cacciatori, Cecilia; Tordoni, Enrico; Muter, Elżbieta; Czerepko, Janusz; Lech, Paweł;
- 12:15 – 12:30 Overcoming implicit bias in ecology and conservation publishing
Maas, Bea; Pakeman, Robin; Godet, Laurent; Smith, Linnea; Devictor, Vincent; Primack, Richard;
- 10:30 – 12:30 SESSION: Conservation in agricultural landscapes 1/2** Room: **AULA**
- 10:30 – 10:45 Effects of insect pollination on crop quality: A global analysis
Gazzea, Elena; Batáry, Péter; Marini, Lorenzo;
- 10:45 – 11:00 Pollinators, pests and yield – multiple trade-offs from insecticide use in a mass-flowering crop
Knapp, Jessica; Bates, Adam; Jonsson, Ove; Klatt, Björn; Sahlin, Ullrika; Svensson, Glenn; Widhalm, Theresia; Rundlöf, Maj;
- 11:00 – 11:15 Organic farming and environmentally-friendly management practices enable complementary diversification of plant-bumblebee food webs
Marja, Riho; Klein, Alexandra-Maria; Viik, Eneli; Batáry, Péter;
- 11:15 – 11:30 Biodiversity and the resilience of nature's benefits to people: a case study of pollination and pest management in South Africa
Williams, Jessica; Groner, Vivienne; Ferguson-Gow, Henry; Spooner, Fiona; Shen, David; Munyai, Caswell; Mabhaudhi, Tafadzwanashe; Slotow, Rob; Pearson, Richard;
- 11:30 – 11:45 The potential of flower strips to enhance biocontrol in conventionally managed cereal fields
Rodenwald, Nathalie; Leuschner, Christoph; Batáry, Péter;

- 11:45 – 12:00 Nesting behavior drives contrasting responses of wild bee communities to management and local conditions in vineyards
Wersebeckmann, Vera; Entling, Martin H. ; Leyer, Ilona;
- 12:00 – 12:15 Prevalence of anticoagulant rodenticides in European polecats (*Mustela putorius*) from agricultural areas
Carmona, Guillermo; Burgos, Tamara; Barrientos, Rafael; Martin-Garcia, Sara; Hernández, Javier; Palacín, Carlos; Quiles, Pablo; Bandeira, Victor; Mateo, Rafael; Virgós, Emilio;
- 10:30 – 12:30 SYMPOSIUM: Monitoring biodiversity trends and threats using novel digital tools 1/2** Room: **Library**
- Organized by: Ivan Jaric, Biology Centre of the Czech Academy of Sciences; Uri Roll, Ben-Gurion University of the Negev; Ana Sofia Vaz, CIBIO/InBIO, University of Porto; Ricardo Correia, University of Helsinki
- The information age is characterized by rapid accumulation of myriad types of digital data. Central to this revolution is the Internet, which is a source of unprecedented amounts of highly diverse and readily accessible data, via webpages, social media, and various other data platforms. These data are constantly created and stored in the digital realm and form an omnipresent part of the modern world. They also provide novel opportunities for research that can inform conservation. Conservation culturomics is an emerging field of inquiry that aims to promote conservation by exploring human-nature interactions as these are manifested in online and other digital archives (1,2). iEcology is the study of ecological patterns and processes using data generated for other purposes and stored digitally (3,4). Together these rapidly developing fields hold much promise in harnessing voluminous and rapidly expanding databases to better understand the natural world and people's interactions with it. In doing so they provide new research opportunities in conservation science at scales unfathomable until a few years ago. In the proposed symposium we will highlight how these novel opportunities could be harnessed to track biodiversity patterns, trends and threats, including human-nature interactions across scales, while also addressing key challenges (2-4). Specifically, we will show how iEcology approaches can be used to explore spatio-temporal trends in biodiversity, monitor rare or endangered species, and threats to its persistence (3-5). Conservation culturomic approaches have been used to explore interest in nature, conservation and the environment; highlight cultural ecosystem services and their value for people; look at people's interest in species or regions of conservation concern; and quantify attitudes towards conservation interventions and policies (6). As data accumulates, methods develop, and these approaches become common-place amongst conservationists, conservation culturomics and iEcology will become central to our ability to successfully tackle the biodiversity crisis.
- 10:30 – 10:45 Trends and dynamics in conservation culturomics and iEcology research
Roll, Uri; Correia, Ricardo; Jaric, Ivan; Vaz, Ana Sofia;
- 10:45 – 11:00 Digital data sources and methods for conservation culturomics
Correia, Ricardo; Ladle, Richard; Jaric, Ivan; Malhado, Ana; Mittermeier, John; Roll, Uri; Soriano-Redondo, Andrea; Verissimo, Diogo; Fink, Christoph; Hausmann, Anna;
- 11:00 – 11:15 Social media in conservation science: opportunities, challenges and going forward
Di Minin, Enrico;
- 11:15 – 11:30 A novel digital approach to quantifying political vulnerability of protected areas
Ladle, Richard; dos Santos, Jhonatan; Correia, Ricardo; Mendes Malhado, Ana Claudia;
- 11:30 – 11:45 Evaluating global progress in awareness of biodiversity and conservation action worldwide
De Oliveira Caetano, Gabriel; Vardi, Reut; Jaric, Ivan; Correia, Ricardo; Roll, Uri; Verissimo, Diogo;
- 11:45 – 12:00 How supportive can deep learning be in biodiversity research? Three tales of cultural services, biological invasions, and wildlife trade
Vaz, Ana Sofia; Cardoso, Ana Sofia; Bryukhova, Sofiya; Ladle, Richard; Renna, Francesco; Reino, Luis; Vicente, Joana R. ; Tabik, Siham;
- 12:00 – 12:15 How well does online information-seeking behavior indicate public conservation orientation? Taxonomy and personal characteristics matter
Akasaka, Munemitsu; Kubo, Takahiro; Soga, Masashi;
- 12:15 – 12:30 Transience of public attention in conservation science
Jaric, Ivan; Correia, Ricardo; Bonaiuto, Marino; Brook, Barry; Courchamp, Franck; Firth, Josh; Gaston, Kevin; Heger, Tina; Jeschke, Jonathan; Ladle, Richard;

10:30 – 12:30 SYMPOSIUM: Biodiversity across the Aquatic–Terrestrial Boundary: Rivers and their Riparian Zones 1/2

Room: T

Organized by: Jacqueline Hoppenreijns, Jeffery Marker, John Piccolo, Karlstad University, Sweden

It is difficult to find an ecological topic that receives more attention than the headline “Biodiversity Crisis”. For decades, researchers have been sounding the alarm about human induced environmental degradation, exploitation, and negligence, and its direct and indirect effects on species around the world. Unfortunately, this discourse very often overlooks the biodiversity of freshwater ecosystems.

Freshwater accounts for a fraction of the total water on Earth, and yet hosts a disproportionately large number of species and critical functions: it provides water, food, and habitat to enormous amounts of microorganism, plant and animal species, while regulating the weather, climate, and flows of matter and energy (Albert et al., 2021). Equally as important, many waterbodies and forms of living with water have exceptional historical and cultural value (Jackson (2005) in Humphries, 2007).

Spatial extension and the increasingly intensive use of aquatic waterbodies and groundwater have led to an overall degradation and destruction of waterbodies and the landscapes around them. Similar to the waterbodies themselves, their associated wetlands and riparian zones experience the negative effects of pollution, over-exploitation, flow modification, invasive species, and the climate crisis, placing the species that live within, at a significant risk (Reid et al., 2019).

Global collaboration (Tiegs et al., 2019) increases our understanding of the importance of the interface between aquatic and terrestrial systems, the processes that occur within, and the way these depend on their spatial context. Simultaneously, attention for under-represented taxa (e.g. Tolkkinen et al., 2020) and non-Western ways of disseminating knowledge (e.g. Martuwarra RiverOfLife et al., 2021) slowly increases and shows that there is much left to explore. Our symposium will bring together researchers and conservationists working on these important and exciting topics, as well as those that aspire to contribute to these fields. Our goal is to outline a real-world aquatic-riparian conservation research framework and spur future collaboration between attendees with a focus on freshwater biodiversity.

10:35 – 11:00 Biodiversity change in terrestrial and aquatic ecosystems
Magurran, Anne;

11:00 – 11:15 Indigenous Knowledge Systems and Practices (IKSP) of riverine fishers in the Philippines: linking social capital to socio-ecological resilience
Maliao, Ronald; Jaspe, Beverly; Cahilig, Ritchel; Cahilig, Richard;

11:15 – 11:30 Trophic structure and the effect of environmental variables on riverine fishes in an anthropogenically altered river ecosystem
Horka, Petra; Musilova, Zuzana; Holubova, Katerina; Jandova, Katerina; Kukla, Jaroslav;

11:30 – 11:45 Contextualizing Fish Habitat in Novel Riverscapes
Hansen, Henry;

11:45 – 12:00 Impacts of Hydropower Dams on Semi-Aquatic Megafauna
Altanov, Vassil; He, Fengzhi; Bremerich, Vanessa; Jähnig, Sonja;

10:30 – 12:30 SYMPOSIUM: Traditional ecological knowledge for conservation: weaving traditional knowledge with science in and for Europe 1/2

Room: E2

Organized by: Zsolt Molnár, Centre for Ecological Research, Hungary; Fernández-Llamazares Álvaro, Helsinki Institute of Sustainability Science, Finland

The Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services (IPBES) has advanced our understanding of the ways in which scientists, conservation practitioners and Indigenous Peoples and local communities (IPLC) can work together for better stewardship of our planet (Hill et al. 2020, Brondizio et al. 2021). The last ECCB conference in Finland had a full session dedicated to IPBES, which discussed the importance of traditional ecological knowledge in European contexts. This symposium is aimed to expand on this topic, highlighting how working with traditional knowledge systems can enrich conservation science, policy and practice across Europe. The roles of IPLC, and their interwoven knowledge systems, practices and worldviews, in conservation have been actively discussed (and debated) in the recent scholarly literature (Fernández-Llamazares et al. 2021, Reyes-García et al. 2021), and several of the lead authors of these publications will contribute to the symposium in person. Working with place-based

knowledge, practices and worldviews is often a challenge for conservation scientists and practitioners (Molnár and Babai 2021) but there is a growing body of scientific evidence highlighting that it can lead to enhanced environmental governance and stewardship (Berkes 2021). The session will bring into focus European experiences, but will also draw inspiration from best practices and cases studies from elsewhere.

- 10:30 – 11:00 Our (Traditional) Knowledge Our Way?
Hill, Rosemary;
- 11:00 – 11:15 Sustaining traditional knowledge systems for better environmental stewardship
Fernández-Illamazares, Álvaro;
- 11:15 – 11:30 Societal extinction of species
Jaric, Ivan; Roll, Uri; Bonaiuto, Marino; Brook, Barry; Courchamp, Franck; Firth, Josh; Gaston, Kevin; Heger, Tina; Jeschke, Jonathan; Ladle, Richard;
- 11:30 – 11:45 Biocultural approaches to advance the inclusion of traditional ecological knowledge in conservation in Europe
Díaz Reviriego, Isabel; Hanspach, Jan;
- 11:45 – 12:00 Reviewing across knowledge systems for better conservation: the case of the 'Gourmet omnivorous' pigs
Molnár, Zsolt; Demeter, László; Szabados, Klára; Kiš, Alen; Ajvazović, Milutin; Runjanin, Borislav; Mandušić, Vlada; Biró, Marianna; Öllerer, Kinga; Marinkov, Jelena;
- 14:00 – 16:00 SESSION: Economics of biodiversity & ecosystem services** Room: **Round**
- 14:00 – 14:15 Exploring the role of agricultural trade in the future of nature and people
Leclere, David; Janssens, Charlotte; Valin, Hugo; Hill, Samantha; Escobar, Neus; Boere, Esther; Havlik, Petr;
- 14:15 – 14:30 Quantifying ecosystem services and disservices derived from biodiversity in cacao agroforestry: Socio-ecological opportunities for smallholder farming
Vansynghe, Justine; Ocampo-Ariza, Carolina; Maas, Bea; Martin, Emily A. ; Thomas, Evert; Hanf-Dressler, Tara; Schumacher, Nils-Christian; Ulloque-Samatelo, Carlos; Yovera, Fredy F. ; Tschardtke, Teja;
- 14:30 – 14:45 How to add monetary value to degraded rural landscapes through soil carbon sequestration in natural regeneration?
Boeni, Ana Flavia; Rother, Débora Cristina; Nel, Lyndré; Centeri, Csaba; Tormáné Kovács, Eszter;
- 14:45 – 15:00 Public payments for private actions in German forests against the biodiversity and climate twin crises
Kreft, Stefan; Benndorf, Anke; Hennenberg, Klaus; Reise, Judith; Welle, Torsten; Eberl, Justus; Endres, Ewald; Günther-Dieng, Klaus; Unseld, Rüdiger; Böttcher, Hannes;
- 15:00 – 15:15 Monitoring costs for result-based payments: Will remote sensing technologies be the game-changer?
Schöttker, Oliver; Hütt, Christoph; Jauker, Frank; Witt, Johanna; Bareth, Georg; Wätzold, Frank;
- 15:15 – 15:30 Economic growth and extinction threat of short-ranged species
Sol, Joeri;
- 15:30 – 15:45 Should the biodiversity bank be a savings bank or a lending bank?
Drechsler, Martin;
- 14:00 – 16:00 SESSION: Conservation under global change 2/2** Room: **E3**
- 14:00 – 14:15 Understanding the drivers and consequences of global insect biodiversity change
Outhwaite, Charlie; Newbold, Tim;
- 14:15 – 14:30 Temporal changes in grassland bumblebee communities are buffered by local and landscape-level floral availability
Kendall, Liam; Nicholas, Kimberly; Brady, Mark; Olsson, Peter; Smith, Henrik;
- 14:30 – 14:45 Climate connectivity modelling across European terrestrial habitats highlights movement corridors for range-shifting species
Fourcade, Yoan; Sonntag, Sylvain; WallisDeVries, Michiel F; Kuussaari, Mikko; van Swaay, Chris A M; Heliölä, Janne; Öckinger, Erik;

- 14:45 – 15:00 Identifying 'climate keystone species' as a tool for conserving ecological communities under climate change
Marjakangas, Emma-liina; Santangeli, Andrea; Lehikoinen, Aleks;
- 15:00 – 15:15 Assessing species' exposure to climate change to support extinction risk assessments for the IUCN Red List
Mancini, Giordano; Cazalis, Victor; Lucas, Pablo M. ; Santini, Luca; Di Marco, Moreno;
- 15:15 – 15:30 The role of socio-economic factors in range filling of European alien mammals
Tedeschi, Lisa; Essl, Franz; Capinha, César; Rondinini, Carlo;
- 15:30 – 15:45 Wildlife behavioral responses to anthropogenic disturbances around natural water sources in the desert
Zahabian, Einat; Saltz, David; Berger-Tal, Oded;
- 15:45 – 16:00 The role of fisheries management in conservation of freshwater fish species in the Czech Republic
Lyach, Roman;

14:00 – 16:00 SESSION: Conservation in agricultural landscapes 2/2 Room: **AULA**

- 14:00 – 14:15 Developing the first result based agri-environmental scheme in Hungary: a case study from the Órség National Park
Szentirmai, István; Czibik, Eszter; Kelemen, Eszter; Megyesi, Boldizsár; Pataki, György;
- 14:15 – 14:30 Mapping socio-political networks as a tool to manage human-carnivore interactions
Srivastava, Nimisha; Linnell, John D. C. ; Sattler, Claudia; Schröter, Barbara; Krishnamurthy, Ramesh; Fürst, Christine; König, Hannes J. ;
- 14:30 – 14:45 Man vs. Machine – Cost Comparison of Bird-Monitoring Techniques for Result-Based Payments in Agriculture
Markova-Nenova, Nonka; Engler, Jan Oliver; Wätzold, Frank; Cord, Anna;
- 14:45 – 15:00 Improving agricultural life cycle assessment for biodiversity conservation
Klein, Noëlle; Herzog, Felix; Grêt-Regamey, Adrienne; Jeanneret, Philippe; van Strien, Maarten; Kay, Sonja;
- 15:00 – 15:15 Disentangling the effects of management, field structure of fallows and surrounding landscape composition to promote steppe bird conservation
Revilla-Martín, Natalia; Giralt, David; Bota, Gerard; Sanz-Pérez, Ana; Sardà-Palomera, Francesc;
- 15:15 – 15:30 Does regional context influence the effectiveness of Agri-environment Measures in protecting the habitat of farmland birds?
Roilo, Stephanie; Cord, Anna;
- 15:30 – 15:45 Understanding the relative impact of different threats to large carnivores in a global deforestation hotspot
Romero-Muñoz, Alfredo; Bleyhl, Benjamin; Camino, Micaela; De Angelo, Carlos; Decarre, Julieta; Giordano, Anthony J. ; Maffei, Leonardo; Nanni, Sofía; Noss, Andrew; Nuñez-Regueiro, Mauricio M. ;
- 15:45 – 16:00 How to grow pulses as a means to enhance biodiversity and ecosystem services in rainfed annual farming systems in the Mediterranean? A meta-analysis.
Vollheyde, Anna-Lena; Cebrián-Piqueras, Miguel Angel; von Haaren, Christina;

14:00 – 16:00 SYMPOSIUM: Traditional ecological knowledge for conservation: weaving traditional knowledge with science in and for Europe 2/2 Room: **E2**

- 14:00 – 14:15 Haymeadows and pastures in the present and past. Traditional and historical knowledge in successful species conservation
Ivaşcu, Cosmin; Iuga, Anamaria; Westin, Anna; Lennartsson, Tommy; Biro, Alina;
- 14:15 – 14:30 In the trap of interacting drivers: the disintegration of extensive, traditional grassland management in Central and Eastern Europe
Babai, Dániel; János, Béla; Molnár, Zsolt;
- 14:30 – 14:45 Learning collaboration in the adaptive co-management environment: example from Lahemaa National Park in Estonia
Linno, Kaisa; Pilving, Tarmo; Suškevičs, Monika;

- 14:45 – 15:00 Combining local and academic knowledge to define and assess wild food plant sustainable foraging in Norway
Teixidor Toneu, Irene; Giraud, Nicolas J; Karlsen, Pål; Annes, Alexis; Kool, Anneleen;
- 15:00 – 15:15 Traditional shepherding in central Apennine and its vanishing: impact on biodiversity and ecosystem services
Catorci, Andrea; Scocco, Paola; Tardella, Federico Maria; De Felice, Elena; Panichella, Tiziana; Moscatelli, Sara;
- 14:00 – 16:00 SYMPOSIUM: The multiple dimensions of forest biodiversity as a starting point for sustainable management** Room: **E1**
- 14:15 – 14:30 Multi-taxon conservation strategies are highly needed, but also challenging: examples from boreal and hemi-boreal forests
Strengbom, Joachim;
- 14:30 – 14:45 Trade-offs between timber revenues and biodiversity conservation shift for taxa differently affected by forestry in boreal landscapes
Mazziotta, Adriano; Dufлот, Rémi; Eyvindson, Kyle; Juutinen, Artti; Le Tortorec, Eric; Miettinen, Kaisa; Moilanen, Atte; Podkopaev, Dmitry; Pohjanmies, Tähti; Reunanen, Pasi;
- 14:45 – 15:00 A European platform of forest multi-taxon biodiversity and stand structure data
Burrascano, Sabina; Chianucci, Francesco; Doerfler, Inken; Kepfer-Rojas, Sebastian; Mitić, Bozena; Munzi, Silvana; Nagel, Thomas Andrew; Ódor, Peter; Paillet, Yoan; Sitzia, Tommaso;
- 15:00 – 15:15 A European series of forest stands of different ages and their multi-taxon biodiversity
Sitzia, Tommaso; Chianucci, Francesco; Campagnaro, Thomas; Barreto de Andrade, Rafael; Fotakis, Dimitrios; Kepfer-Rojas, Sebastian; Landivar Albis, Carlos Miguel; Paillet, Yoan; Penner, Johannes; Trentanovi, Giovanni;
- 15:15 – 15:30 With experimental approach towards sustainable forest management – upscaling local multi-taxon experiments to European level
Tinya, Flóra; Čížek, Lukáš; Doerfler, Inken; Heilmann-Clausen, Jacob Heilmann-Clausen; Hédl, Radim; de Groot, Maarten; López, Rosana; Ódor, Péter; Mårell, Anders; Nordén, Björn;
- 15:30 – 15:45 Habitat thresholds for forest biodiversity as recommendation for managers in Europe
Doerfler, Inken; Oettel, Janine; Haeler, Elena; Lapin, Katharina; Paillet, Yoan; Burrascano, Sabina; Vandekerckhove, Kris; Ciach, Michał; Campanaro, Alessandro; Campagnaro, Thomas;
- 15:45 – 16:00 Validating forest biodiversity indicators with multi-taxonomic data: An Europe-wide analysis
Paillet, Yoan; Aszalós, Reka; Brazaitis, Gediminas; Campagnaro, Thomas; Chianucci, Francesco; Ciach, Michał; Doerfler, Inken; Gültekin, Yaşar Selman; Haeler, Elena; Heilmann-Clausen, Jacob;
- 14:00 – 16:00 SYMPOSIUM: Monitoring biodiversity trends and threats using novel digital tools 2/2** Room: **Library**
- 14:00 – 14:15 Double advantages in monitoring biodiversity trends and threats using digital tools in the context of recreational fishing
Sbragaglia, Valerio; Espasandín Soneira, Lucía; Coll, Marta;
- 14:15 – 14:30 Tracking the social dimension of ongoing fish distributional range shift in marine recreational fishing
Espasandín, Lucía; Coll, Marta; Sbragaglia, Valerio;
- 14:30 – 14:45 Comparing interest in nature across culturomic and other digital sources
Vardi, Reut; Roll, Uri;
- 14:45 – 15:00 Observing the flowering phenology of an invasive succulent through the lens of social media
Canavan, Susan; Rodríguez, Jonatan; Castillo, Maria Loreto; Maříková-Moodley, Desika; Pipek, Pavel; Pyšek, Petr; Novoa, Ana;

- 15:00 – 15:15 Digital and traditional marketing approaches for effective fundraising in conservation
Kubo, Takahiro; Yokoo, Hide-Fumi; Veríssimo, Diogo;
- 15:15 – 15:30 Strengthening Ecological Monitoring Through Conservation Technology: Applying the Spatial Monitoring and Reporting Tool (SMART), Wildlife Insights and KoBotoolbox to Ecological Surveys
Lynam, Antony; Detoef, Diane; Strindberg, Samantha; Choo, Liling; Palmer, Jonathan;
- 15:30 – 15:45 Nature apps – Gaining Ecological and Conservation Insights from Dedicated Smartphone Applications
Cihlová, Anna; Jarić, Ivan; Roll, Uri;
- 14:00 – 16:00 SYMPOSIUM: Biodiversity across the Aquatic–Terrestrial Boundary: Rivers and their Riparian Zones 2/2** Room: **T**
- 14:00 – 14:15 Biogeomorphology and riparian ecosystem conservation
Larsen, Annegret;
- 14:15 – 14:30 Ecological rehabilitation of riparian vegetation in regulated rivers: catchment-wide environmental flows or local erosion protection?
Malm Renöfält, Birgitta; Jansson, Roland; Widén, Åsa;
- 14:30 – 14:45 The effects of an ecosystem engineer species (Castor fiber) in the light of the biodiversity crisis along Central European watercourses
Juhász, Erika; Vági, Balázs; Molnár, Zsolt; Sári, Gergő; Szabó, Gyula; Klébert, Antal; Katona, Krisztián; Németh, András; Biró, Marianna;
- 14:45 – 15:00 The effects of ecosystem restoration on soil biota: 5-year data from a BACI experiment in forested wetlands
Runnel, Kadri; Löhmus, Asko; Tamm, Heidi;
- 15:00 – 15:15 Understanding the resilience of artificially drained forest-wetland landscapes
Löhmus, Asko;
- 15:15 – 15:30 The role of the Ramsar Convention on Wetlands in conservation – a review of wetland policy and practice
Wallnöfer, Isabel; Salathé, Tobias;
- 15:30 – 15:45 Mainstreaming the importance of Riparian Zones in Norway
Iversen, Anders;
- 16:30 – 18:30 SESSION: Alien and invasive species** Room: **E3**
- 16:30 – 16:45 An alien pathogen fungus may alter the natural regeneration dynamics of a keystone forest tree species throughout Europe
Demeter, László; Molnár, Ábel Péter; Kiš, Alen; Vadász, Csaba; Horváth, Ferenc; Csóka, György; Öllerer, Kinga; Molnár, Zsolt;
- 16:45 – 17:00 Alien and invasive woody plant pathogens in the Czech Republic and predicting their impact on Natura 2000 habitats
Chumanová, Eva; Černý, Karel; Haňáčková, Zuzana; Brestovanská, Tereza; Zýka, Vladimír;
- 17:00 – 17:15 Native expansive dominants threaten the diversity of plant communities in a way comparable to alien invasive species
Hejda, Martin; Sádlo, Jiří; Kutlvašr, Josef; Petřík, Petr; Vítková, Michaela; Vojík, Martin; Pyšek, Petr; Pergl, Jan;
- 17:15 – 17:30 Resilience of bird communities to alien species in a highly human-dominated landscape
Marcolin, Fabio; Chamberlain, Daniel; Segurado, Pedro; Reino, Luís;
- 17:30 – 17:45 Invader-pollinator paradox: Invasive goldenrods benefit from large size pollinators
Moroń, Dawid; Marjańska, Emilia;
- 17:45 – 18:00 Ongoing effects of the salamander-killing chytrid fungus *Batrachochytrium* salamandrivorans on salamander populations in northwestern Europe
Erens, Jesse; Preißler, Kathleen; Speybroeck, Jeroen; Beukema, Wouter; Spitzen-van der Sluijs, Annemarieke; Stark, Tariq; Schmidt, Benedikt R. ; Martel, An; Steinfartz, Sebastian; Pasmans, Frank;

- 18:00 – 18:15 Urban fire salamander monitoring – a race against the plague
Schindwein, Xenia;
- 18:15 – 18:30 Persisting lineages in introduced species
Berggren, Åsa; Kanuch, Peter; Cassel-Lundhagen, Anna; Preuss, Sonja; Nordlander, Göran;
- 16:30 – 18:30 SESSION: Evidence-based conservation** Room: **E2**
- 16:30 – 16:45 Time to skip causal claims and to be more transparent in conservation evaluations
Pärt, Tomas; Josefsson, Jonas; Hiron, Matthew; Kačergytė, Ineta; Rubene, Diana; Knape, Jonas; Auffret et al., Alistair;
- 16:45 – 17:00 A simple measure of habitat heterogeneity is a good proxy of species of conservation concern
Hekkala, Anne-Maarit; Sjögren, Jörgen; Jönsson, Mari; Kärvelo, Simon; Strengbom, Joachim;
- 17:00 – 17:15 “Show me the money!”: Poor reporting of costs of conservation interventions hampers ability to prioritize funds for nature.
Christie, Alec; Martin, Philip; Petrovan, Silviu; Sutherland, William; **White, Thomas;**
- 17:15 – 17:30 Quantifying complex impacts of targeted supplementary feeding for the conservation of a threatened bird population
Fenn, Sarah; Bignal, Eric; Bignal, Sue; Trask, Amanda; McCracken, Davy; Monaghan, Pat; Reid, Jane;
- 17:30 – 17:45 Post-release survival of captive-bred Egyptian vultures
Efrat, Ron; Mueller, Thomas; Sapir, Nir; Berger-Tal, Oded;
- 17:45 – 18:00 Unpacking links between ad-hoc management and demography in an endangered tropical wild bird
Robinson, Theresa;
- 18:00 – 18:15 Genetic diversity of wild olives in Greece: a diverse resource in danger of erosion
Tourvas, Nikolaos; Ganopoulos, Ioannis; Koubouris, Georgios; Kostelenos, Georgios; Manthos, Ioannis; Aravanopoulos, F.A. (Phil);
- 18:15 – 18:30 Butterfly and Moth Conservation: results from a global synopsis of evidence
Bladon, Andrew; Smith, Rebecca; Sutherland, William;
- 16:30 – 18:30 SESSION: Grassland ecology and management** Room: **AULA**
- 16:30 – 16:45 Water management impacts on food availability for wet grassland breeding waders
Bötsch, Yves; Krahn, Louiza; Remmers, Tim; Korossy-Julius, Laurens; Zöckler, Christoph; Hunke, Philip; Hötker, Hermann;
- 16:45 – 17:00 Effects of isolation on bird communities and their functional traits in fragmented grasslands
Lakatos, Tamás; Marcolin, Fabio; Gallé, Róbert; Batáry, Péter;
- 17:00 – 17:15 The ecological niche and conservation value of Central European grassland orthopterans: a quantitative approach
Dvořák, Tomáš; Hadrava, Jíří; Knapp, Michal;
- 17:15 – 17:30 DNA barcoding provides new insights into the drivers of earthworm species diversity in old Swedish grasslands
Torppa, Kaisa; Engelbrecht Clemmensen, Karina; Glimskär, Anders; Skånes, Helle; Roslin, Tomas; Viketoft, Maria; Taylor, Astrid; Maaroufi, Nadia;
- 17:30 – 17:45 Effects of agri-environmental payments on the diversity and functionality of a semi-natural grassland habitat
Napoleone, Francesca; Probo, Massimiliano; Mariotte, Pierre; Ravetto Enri, Simone; Lonati, Michele; Argenti, Giovanni; Burrascano, Sabina;
- 17:45 – 18:00 Landscape-scale connectivity and fragment size affect species composition of grassland fragments
Gallé, Róbert; Korányi, Dávid; Tölgyesi, Csaba; Lakatos, Tamás; Marcolin, Fabio; Török, Edina; Kuli-Révész, Kitti; Szabó, Ágota; Szitár, Katalin; Torma, Attila;

- 18:00 – 18:15 Grasslands along linear infrastructure are species-rich but only partly support species of conservation concern
Öckinger, Erik; Dániel-Ferreira, Juliana; Fourcade, Yoan; Bommarco, Riccardo; Wissman, Jörgen;
- 18:15 – 18:30 Costs and benefits of grassland reconstruction as an alternative to landscaping in industrial areas
Csonka, Anna Cseperke; Török, Katalin; Halassy, Melinda;

16:30 – 18:30 SESSION: Conservation policies and toolsRoom: **E1**

- 16:30 – 16:45 A global overview of biodiversity offsetting governance
Droste, Nils; Alkan Olsson, Johanna; Hanson, Helena; Knaggård, Åsa; Lima, Guilherme Rodrigues; **Lundmark, Linda**; Thoni, Terese; Zelli, Fariborz;
- 16:45 – 17:00 Catapulting nature onto the agenda: governance opportunities and barriers of nature-based solutions
Martin, Juliette; Bayer, JoAnne; Scolobig, Anna;
- 17:00 – 17:15 One Park, Two Owners – Inconsistencies in Forest Stewardship
Křenová, Zdenka; Janík, Tomáš; Romportl, Dušan;
- 17:15 – 17:30 Using spatiotemporal models to understand the drivers of fires regimes and impact of anti-deforestation policies in the Brazilian Amazon
Valette, Michel; Mills, Morena; Woods, Jem; Kountouris, Yiannis; Singh, Minerva;
- 17:30 – 17:45 Cost-effective biodiversity conservation under climate change: land purchase versus conservation contracts
Wätzold, Frank; Gerling, Charlotte; Keuler, Klaus; Sturm, Astrid; Leins, Johannes; Drechsler, Martin;
- 17:45 – 18:00 Prioritising management action for biodiversity conservation in Catalonia
Lanzas, Monica; Salgado, José Ignacio; Pla, Magda; Pou, Nuria; Bota, Gerard; Hermoso, Virgilio;
- 18:00 – 18:15 Simple but massive conservation action leads to landscape-scale recovery of amphibians
Moor, Helen; Bergamini, Ariel; Vorburger, Christoph; Holderegger, Rolf; Bühler, Christoph; Egger, Simon; Schmidt, Benedikt R. ;
- 18:15 – 18:30 Adaptive management of conservation risks
Canessa, Stefano; Oneto, Fabrizio; Ottonello, Dario; Rosa, Giacomo; Salvidio, Sebastiano;

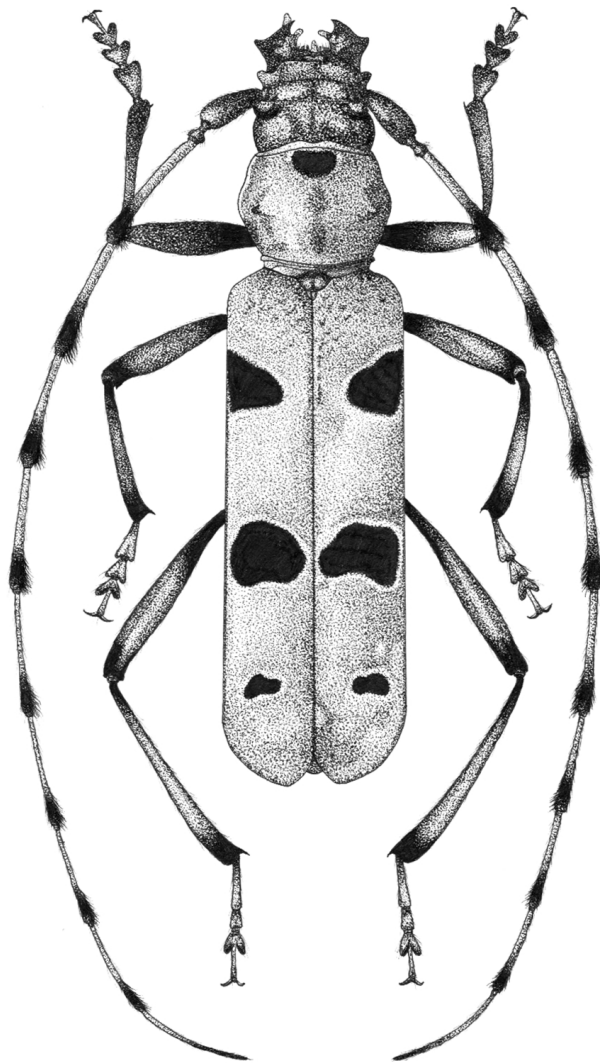
16:30 – 18:30 SESSION: Freshwater and marine conservationRoom: **T**

- 16:30 – 16:45 Freshwater community shifts following war-driven declines of large savanna mammals
Demare, Guillaume; Spielner, Marko; Grabow, Karsten; Rödel, Mark-Oliver;
- 16:45 – 17:00 Selective effect of fish farming management on freshwater diversity
Harabiš, Filip; Šigutová, Hana; Šípková, Hana; Hronková, Jana; Dolný, Aleš; Vojar, Jiří; Šigut, Martin; Poskočilová, Anna-Marie;
- 17:00 – 17:15 Non-target effects of Bti-based mosquito control on dragonflies
Entling, Martin; Ul Islam, A.S.M. Mufachcher; Bundschuh, Mirco; Gerken, Maximilian; Gerstle, Verena; Kolbenschlag, Sara L. ; Manfrin, Alessandro; Brühl, Carsten A. ;
- 17:15 – 17:30 Distribution, growth and feeding studies of two invasive cichlids (*Vieja* sp. and *Parachromis* sp.) in a natural thermal water habitat of temperate Central Europe
Lente, Vera; Staszny, Ádám; Weiperth, András; Hegedűs, Anna; Keszte, Szilvia; Urbányi, Béla; Ferincz, Árpád;
- 17:30 – 17:45 Identifying hydrogeomorphological and ecological filters for seed dispersal and riparian vegetation composition in a boreal river system
Hoppenreijns, Jacqueline; Lind, Lovisa; Eckstein, Lutz;

- 17:45 – 18:00 Towards Sustainable Fisheries: Forgotten Catch of Small-Scale Bottom Set Nets in Northern Adriatic
Hanžek-Turnšek, Hana; Tomažič, Marjana; Benussi, Matteo; Jančič, Matic; Lazar, Bojan;
- 18:00 – 18:15 A step back on the conservation of a highly threatened species: opposite signs of recovery on *Pinna nobilis* population from Mar Menor lagoon
Nebot-Colomer, Elisabet; Deudero, Salud; Mourre, Baptiste; Fraile-Nuez, Eugenio; Álvarez, Elvira; Albertosa, Marina; Ruiz, Juan Manuel; Vázquez-Luis, Maite;
- 18:15 – 18:30 Biomonitoring sandy beach marine biodiversity using environmental DNA.
Cook, Heath; Therkildsen, Nina; Bemis, William;
- 16:30 – 18:30 SESSION: Conservation at the science-policy interface** Room: **Library**
- 16:30 – 16:45 Translating agro-ecological approaches from one region to another – the importance of context-based solutions and multi-sector knowledge exchange.
Senapathi, Deepa; Willcox, Bryony; Dhandapani, Selvakumar; Prasad, Girija; Rajaraman, Ranjith; Pakkirisamy, Manikandan; Garratt, Michael; Potts, Simon; Raj, Rengalakshmi;
- 16:45 – 17:00 The Birds@Farmland Initiative: enhancing farmland bird conservation by the CAP
Schindler, Stefan; Stockhammer, Katrin; Moreira, Francisco; Barov, Boris; Morelli, Federico; Giralt, David; Herzon, Iryna; Hristoskova, Silvia; Krall, Attila; Luoni, Federica;
- 17:00 – 17:15 Linking landscape-scale conservation to regional and continental outcomes for a migratory species
Mattsson, Brady J.; Devries, James H.; Dubovsky, James A.; Semmens, Darius; Thogmartin, Wayne E.; Derbridge, Jonathan J.; Lopez-Hoffman, Laura;
- 17:15 – 17:30 Greece shows the way for a roadless policy in Europe: links with the European biodiversity strategy
Kati, Vasiliki; Kassara, Christina; Tzortzakaki, Olga; Petridou, Maria; Psaralexi, Maria; Galani, Antonia; Gotsis, Dimitris; Papantoniou, Stratos; Papaioannou, Haritakis;
- 17:30 – 17:45 No evidence that hunting wolves reduces livestock damages in Slovakia
Kutal, Miroslav; Duľa, Martin; Royer, Alisa; López-Bao, José Vicente;
- 17:45 – 18:00 Noise pollution from wind turbines and its effects on wildlife: a cross-national review of current policies and planning regulations
Teff-seker, Yael; Berger-Tal, Oded; Lehnardt, Yael; Teschner, Naama;
- 18:00 – 18:15 Better seabirds bycatch data collection can help to identify problems and suggest mitigation measures
Morkunas, Julius; Morkūnė, Rasa; Rouxel, Yann;
- 18:15 – 18:30 ARE WE SPECTATORS, CURATORS, OR CARETAKERS? NATURALNESS AND APPLYING PRINCIPALISM TO CONSERVATION
Saltz, David;
- 18:30 – 20:00 WORKSHOP: In times of war and borders walls: conservation for peace, peace for conservation** Room: **AULA**
(Organized by: Nuria Selva, Institute of Nature Conservation Polish Academy of Science, Poland; Zdenka Krenova, Global Change Research Institute CAS, Czech Republic; Stefan Kreft, Policy Committee of the Society for Conservation Biology – Europe Section, moderated by: Pierre Ibisch, Eberswalde University for Sustainable Development, Germany)

Programme book

Friday, August 26th



Graphics by: Sarah Maršíková
Rosalia alpina

Friday, August 26th 2022

Room	AULA	T	Library	E1	E2	E3	Round hall
9:00–10:00	Plenary: Zuzana Münzbergová – Rapid adaptation: A chance or a danger in species conservation? (AULA)						
10:00–10:30	Coffee break						
10:30–12:30	SY 1/1 Emerging challenges and opportunities for the CAP on supporting and conserving farmland ...	SY 1/1 Similarities and differences in agroecology and urban ecology	SY 1/1 Large-scale assessments for conservation of European biodiversity	SY 1/2 Naturalistic grazing by large herbivores: understanding biodiversity patterns in restored self-...	SE 1/1 Animal ecology and conservation	SE 1/1 Spatial ecology and conservation	WS 1/2 WS-What's driving insect decline (and what's not)?
13:00–13:30	Lunch time						
13:30–15:30	SY 1/1 Forest Policies and their impacts on Biodiversity and Ecosystem Services in a changing world	SE 1/1 Urban ecology and conservation	SY 1/1 Integrating Land System Science and Conservation Science for deeper insights into conservation ...	SY 2/2 Naturalistic grazing by large herbivores: understanding biodiversity patterns in restored self-...	SE 1/1 Disturbance ecology	SE 1/1 Landscape ecology and conservation	WS 2/2 WS-What's driving insect decline (and what's not)?
15:30–16:00	Coffee break						
16:00–17:30	<p>"The future of conservation – the future for us: What is the agenda for the next decade?"</p> <p>A plenary session concluding the ECCB 2022, envisioning positive futures with keynote from William Sutherland, and panellists Anders Wijkman, Anne Magurran, Juliette Young, Ladislav Milko, moderated by Antony Lynam SCB president "</p>						
17:30–18:00	Closing ceremony						
18:00–20:00	Break						
20:00–22:00	Congress banquet dinner						

9:00 – 10:00 PLENARY: Zuzana Münzbergová – Rapid adaptation: A chance or a danger in species conservation?Room: **AULA**

In her talk she will explore plant species abilities to adapt to changing environmental conditions, which may be both beneficial e.g. in case of helping plants to deal with changing climate as well as detrimental e.g. in species adaptations to cultivation in ex-situ collections. She will also explore whether cultivation of plants in private gardens, a novel approach to ex-situ species conservation, may mitigate the problems observed in other ex-situ collections.

10:30 – 12:30 WORKSHOP: What's driving insect decline (and what's not)? 1/1Room: **Round**

(Organized by: Andrew Bladon, Lynn Dicks, University of Cambridge).

The last few years have seen a rapid rise in concern for the state of insect populations globally^{1,2}. Despite efforts to collate and understand existing long-term datasets, many insect taxa, in many regions, remain desperately understudied, and the threats to their survival are poorly understood^{3,4}. We will gather experts from across the ECCB conference to develop a framework for understanding what we do know about these understudied insects. The workshop will serve as a seed event, with participants invited to run similar workshops at regional conferences later in the year, or in early 2023. Where possible, some of these events will take place in non-English languages, to enable participation by a diverse group of experts⁵. The results of the ECCB and regional workshops will be compiled, and used to inform the structure of a global Delphi-process, which will run in 2023. By synthesising expert knowledge on the threats to understudied insects from around the world, our workshop will shine a light on currently unseen aspects of the biodiversity crisis.

References:

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Miličić, M., Popov, S., Branco, V. V. & Cardoso, P. *Insect threats and conservation through the lens of global experts. Conserv. Lett.* 14, e12814 (2021).

Saunders, M. E., Janes, J. K. & O'Hanlon, J. C. *Moving On from the Insect Apocalypse Narrative: Engaging with Evidence-Based Insect Conservation. BioScience* 70, 80–89 (2020).

Amano, T. et al. *Tapping into non-English-language science for the conservation of global biodiversity. PLOS Biol.* 19, e3001296 (2021).

Expected speakers:

Lynn Dicks – insect conservation, knowledge synthesis methods.

Andrew Bladon – Lepidoptera ecology and conservation, running expert assessments of conservation actions.

Charlie Outhwaite – biodiversity conservation, threat assessments.

10:30 – 12:30 SESSION: Spatial ecology and conservationRoom: **E3**

10:30 – 10:45 Understanding the fine-scale, spatiotemporal drivers of species distribution and abundance for mobile species conservation.

Dobson, Rachel; Jennings, Stewart; Willis, Stephen G. ; Cheke, Robert A. ; Challinor, Andrew; Dallimer, Martin;

10:45 – 11:00 Human disturbance disrupts home range dynamics in a large carnivore.

Parres, Aida; Bartoń, Kamil A. ; Sergiel, Agnieszka; Zięba, Filip; Zwijacz-Kozica, Tomasz; Selva, Nuria;

- 11:00 – 11:15 Mapping roadless areas: mission impossible?
Hoffmann, Monika; Bartoń, Kamil; Ostapowicz, Katarzyna; Ibsch, Pierre; Selva, Nuria;
- 11:15 – 11:30 An overlooked type of the long-distance dispersal of plants: The trade of commercial potting substrates
Sonkoly, Judit; Takács, Attila; Molnár V., Attila; Török, Péter;
- 11:30 – 11:45 Fungal diversity monitoring through the air? – a case study on a waxcap grassland
Schlegel, Markus; Panziera, Jenny; Zengerer, Veronika; Zani, Deborah; Brännhage, Jonas; Gross, Andrin;
- 11:45 – 12:00 Evaluating the use of irreplaceability to identify Key Biodiversity Areas, and the effects of geographical scale
Lumbierres, Maria; Nania, Dario; Dahal, Prabhat Raj; Schuster, Richard; Butchart, Stuart H. M. ; Donald, Paul F. ; Rondinini, Carlo; Di Marco, Moreno;
- 12:00 – 12:15 EDGE Zones revisited: spatial priorities for the conservation of tetrapod evolutionary history
Pipins, Sebastian; Pollock, Laura; Baillie, Jonathan; Owen, Nisha; Gumbs, Rikki;
- 12:15 – 12:30 Spatial ecology of conflicts: unravelling patterns of wildlife damage at multiple scales
Bautista, Carlos; Revilla, Eloy; Berezowska-Cnota, Teresa; Fernández, Néstor; Naves, Javier; Selva, Nuria;

10:30 – 12:30 SESSION: Animal ecology and conservationRoom: **E2**

- 10:30 – 10:45 Discovering the role of habitat characteristics on saproxylic insects using a rapid assessment of feeding galleries and boreholes
Oettel, Janine; Braun, Martin; Connell, James; Hoch, Gernot; Gschwantner, Thomas; Lapin, Katharina; Essl, Franz; Gossner, Martin M. ;
- 10:45 – 11:00 Butterfly functional diversity is not only determined by grassland type, but also by the presence of management and landscape context
Szabó, Ágota Réka; Ernst, Lunja M. ; Gallé, Róbert; Batáry, Péter;
- 11:00 – 11:15 Demographic patterns of fertility and embryo mortality in a threatened bird population
Morland, Fay; Hemmings, Nicola; Brekke, Patricia;
- 11:15 – 11:30 Hatching failure and conservation management of threatened birds – a meta-analysis and systematic review
Marshall, Ashleigh; Balloux, Francois; Hemmings, Nicola; Brekke, Patricia;
- 11:30 – 11:45 Pesticides cause an unexpected silent spring in oak forests
Müller, Jörg; Mitesser, Oliver; Hochrein, Sophia; Weisser, Wolfgang;
- 11:45 – 12:00 Identifying factors that influence the rediscovery of missing terrestrial vertebrate species
Evans, Thomas;
- 12:00 – 12:15 Rescue an invisible mammal: Fighting for the highly specialized but extremely threatened subterranean blind mole rats in Central Europe
Németh, Attila; Moldován, Orsolya;
- 12:15 – 12:30 New Evidence on the Linkage of Population Trends and Species Traits to Long-Term Niche Changes
Tirozzi, Pietro; Orioli, Valerio; Dondina, Olivia; Bani, Luciano;

10:30 – 12:30 SYMPOSIUM: Naturalistic grazing by large herbivores: understanding biodiversity patterns in restored self-regulating temperate savanna-grassland ecosystems 1/2Room: **E1**

Organized by: Miloslav Jirků, Biology Centre, Czech Academy of Sciences, Czech Republic

Naturalistic grazing by large herbivores is an increasingly practiced way of managing habitats with conservational value. It has the potential to restore and enhance biodiversity by creating large-scale self-sustainable environments vital for organisms requiring regular disturbances moderating and/or reversing successional changes. After the cessation of agricultural and/or military use, vast abandoned

areas of Europe are subject to successional changes, including the dominance of dense species poor tallgrass, litter accumulation and bush encroachment. These successional changes result in (yet) reversible decrease of biodiversity. To facilitate biodiversity conservation by restoration of the abandoned open and semi-open habitats, European bison, (semi)wild horses (mostly Exmoor ponies), and semi-wild cattle (e.g. Tauros) are being introduced to former farmlands and military training areas throughout Europe. Although the naturalistic grazing by large herbivores obviously promotes biodiversity in economically sound way, scientific research on outputs of this increasingly widespread practice remains surprisingly scarce. The symposium provides summary of existing scientific evidence on methodological aspects and biological outputs of naturalistic grazing schemes in Central Europe. For the very first time, both botanical and zoological lines of scientific evidence, together with practical experience, confront critically the naturalistic grazing landscape management with challenges of our over-bureaucratic world facing unprecedented global changes. While biological, technical, and animal welfare requirements are clearly met by naturalistic grazing practice, the legislative frame of existing grazing reserves remains insecure at best. Are we on our way to promote or doom this promising way of nature conservation and land use?

- 10:45 – 11:00 The use of grazing for biodiversity and ecosystem management in marginal farmland areas
Ribeiro, Inês; Líbano Monteiro, Marta; Themudo Barata, Leonor; Gama, Ivo; Rodrigues, Nuno; Domingos, Tiago; Proença, Vânia;
- 11:00 – 11:15 Identity of grazing livestock and intensity jointly shape grazing effects on sand grassland vegetation
Kovacsics-Vári, Gergely; Tóth, Katalin; Sonkoly, Judit; McIntosh-Buday, Andrea; McIntosh-Buday 1,2; Balogh, Nóra; Díaz Cando, Patricia; Törő, Istvánné; Guallichico Suntaxi, Luis Roberto; Espinoza Ami, Francis David; Demeter, László;
- 11:15 – 11:30 Introduction of large herbivores restored plant species richness in abandoned dry temperate grassland
Mudrák, Ondřej; Dvorský, Miroslav; Doležal, Jiří; Jirků, Miloslav;
- 11:30 – 11:45 Effects of livestock grazing in temperate forests – traditional enhancing present scientific understanding
- 11:45 – 12:00 Patterns of taxonomic, functional, and phylogenetic diversity in forest-grassland mosaics
Ho, Khanh V.; Kröel-Dulay, György; Lengyel, Attila; Ónodi, Gábor; Bátori, Zoltán; Tölgyesi, Csaba; Török, Péter; Erdős, László;
- 12:00 – 12:15 Former military training area Milovice (Czechia): changes of landscape and vegetation mosaic in the regional biodiversity hotspot
Jirků, Daria; Hais, Martin; Jirků, Miloslav;
- 12:15 – 12:30 Plant biodiversity is highly resistant to shrub encroachment in loess steppe fragments
Török, Péter; Teleki, Balázs; Sonkoly, Judit; Erdős, László; Prommer, Mátyás; Tóthmérész, Béla;
- 12:45 – 13:00 Naturalistic grazing by large herbivores in a wetland non-governmental Bird Reserve Josefov Meadows, Czech Republic
Břeněk Michálek; **Zdeněk Vermouzek**, Czech Society For Ornithology;

10:30 – 12:30 SYMPOSIUM: Similarities and differences in agroecology and urban ecology Room: T

Organized by: Péter Batáry, Centre for Ecological Research, Hungary

Global biodiversity conservation cannot rely on protected natural and semi-natural areas alone, as sustainable conservation requires strategies for managing whole landscapes including areas allocated mainly to production or to urban development (Margules & Pressey 2000, *Nature*; Grimm et al. 2008, *Science*). On the one hand, nearly half of the Earth's terrestrial surface is moulded by agriculture; so the contribution of agricultural areas to biodiversity is critical for successful long-term conservation (Tallis et al. 2009, *Front. Ecol. Environ.*). On the other hand, more than half of the human population live now in cities with urban areas comprising 3% of the Earth's terrestrial surface (Johnson & Munshi-South 2017, *Science*).

Ecologists and conservation practitioners often view agricultural land or urbanised areas as a biological desert or a hostile matrix isolating habitat fragments. However, farming systems and urban green spaces may support high levels of biodiversity (Stoate et al. 2001, *J. Environ. Manage.*; Aronson et al. 2017, *Proc. Roy. Soc. B*). Urban areas can also act as reserves in some cases, for example bumble bee colonies have been shown to develop better and produce more offspring in urban areas than in agroecosystems (Samuelson et al. 2018, *Proc. Roy. Soc. B*). Both, agroecosystems and urbanised areas, may also provide environmental benefits and important ecosystem functions and services such as pollination and biological

control (Klein et al. 2007, Proc. Roy. Soc. B; Tratalos et al. 2007, Global Change Biol.). Finally, both agricultural intensification and urbanisation are among the focal topics of EU's research (see e.g. H2020 or BiodivERSA calls) highlighting the need of studying similarities and differences in agroecology and urban ecology.

In summary, this symposium aims to provide current knowledge about the effects of agricultural intensification and urbanization on biodiversity and ecosystems services while considering how these different disciplines can complement each other.

- 10:30 – 11:00 What urban ecology can learn from agroecology and biodiversity research
Weisser, Wolfgang;
- 11:00 – 11:15 High-flying insect abundances in urban versus rural systems
Knop, Eva; Grimm, Majken; Liechti, Felix;
- 11:15 – 11:30 Diverse opportunities for grassland biodiversity in agricultural and urban landscapes
Duflot, Remi; Pithon, Josephine A. ; Aviron, Stéphanie; Alignier, Audrey; Beaujouan, Véronique; Burel, Françoise; Cochard, Arnaud; Ernoult, Aude; Pain, Guillaume; Daniel, Hervé;
- 11:30 – 11:45 Effects of urbanization on biological control of insect pests and associated functional groups: a global meta-analysis
Korányi, Dávid; Egerer, Monika; Rusch, Adrien; Szabó, Borbála; Batáry, Péter;
- 11:45 – 12:00 Linking socioeconomic status and urban biodiversity: are rich areas species-rich?
Chamberlain, Dan; Reynolds, Chevonne; Amar, Arjun; Henry, Dominic; Caprio, Enrico; Stofberg, Miqkayla; Batáry, Péter;
- 12:00 – 12:15 Effects of village modernization on biodiversity – urbanization in rural areas.
Rosin, Zuzanna; Pärt, Tomas; Low, Matthew; Kotowska, Dorota; Tobolka, Marcin; Szymański, Paweł; Hiron, Matthew;
- 12:15 – 12:30 Bird responses to urbanization change depending on reference level, rural or natural
Batary, Peter; Kurucz, Kornelia; Suarez-Rubio, Marcela; Chamberlain, Dan;
- 10:30 – 12:30 SYMPOSIUM: Large-scale assessments for conservation of European biodiversit**
Room: **Library**
- Organized by: Dario Nania, Carlo Rondini, Sapienza University of Rome; Alessandro Chiarucci, Alma Mater Studiorum University of Bologna, Italy
- In Europe, the rate of biodiversity loss caused by global change is increasing. Large scale assessments are needed in order to develop effective conservation strategies to protect Europe's biodiversity in the coming years. Macroecological approaches can support conservation efforts and environmental policy which can be applied across multiple countries in Europe. Further, it is crucial to assess the effects that biodiversity loss is having on our lives, as our societies depend on it. The goal of the symposium is to deepen our knowledge about large scale assessments and their implementation in conserving Europe's biodiversity. The symposium will consist of six talks of 15 minutes. The research presented in the talks focuses on assessments at different geographical scales, as well as on different biodiversity levels. Case studies will span from country level (UK and Italy) to macro regions (southern Europe), as well as to the continental scale. The studies focus on different taxa, including both plants and animals (vertebrates and invertebrates) species. Further, one of the talks will focus on how large scale assessments can be used to estimate consequences of global change on nature's contribution to people. After the presentations, a panel discussion will be open to allow participants to discuss the different approaches. In doing so, participants will have a chance to share thoughts and ideas on how large scale assessments can strengthen conservation efforts in Europe.
- 10:30 – 10:45 Ecological barriers mediate spatiotemporal shifts of bird communities across Europe
Bosco, Laura; Marjakangas, Emma-Liina; Versluijs, Martijn; Xu, Yanjie; Santangeli, Andrea; Holopainen, Sari; Mäkeläinen, Sanna; Lehikoinen, Aleksii;
- 10:45 – 11:00 Plant protection by the Natura 2000 network across EU countries
Chiarucci, Alessandro; Zannini, Piero; Di Musciano, Michele; Santovito, Diletta; jansen, Florian; Jiménez-Alfaro, Borja; Testolin, Riccardo; Cazzolla GAtti, Roberto; Rocchini, Duccio; Partners, EVA;

- 11:00 – 11:15 Testing Key Biodiversity Areas Criteria on Amphibians and Reptiles of Italy
Nania, Dario; Lumbierres Civit, Maria; Falaschi, Mattia; Ficetola, Gentile Francesco; Pacifici, Michela; Rondinini, Carlo;
- 11:15 – 11:30 Conservation biogeography of small Mediterranean islands
Testolin, Riccardo; Zannini, Piero; Chiarucci, Alessandro;
- 11:30 – 11:45 The effect of climate and land use change interactions on species' distribution change in Great Britain
Cristiano, Andrea; Suggitt, Andrew; Jeffries, Michael;
- 11:45 – 12:00 High biodiversity areas preserve Nature's Contributions to People under climate change
Cimatti, Marta; Chaplin-Kramer, Rebecca; Di Marco, Moreno;

10:30 – 12:30 SYMPOSIUM: Emerging challenges and opportunities for the CAP on supporting and conserving farmland biodiversity

Room: **AULA**

Organized by: Karine Princé, CESCO-MNHN and External Expert for the European Commission

The collapse of biodiversity is – along with climate breakdown – a clear and present danger to our civilisation's survival (Steffen et al. 2015). In this frame, it is acknowledged that intensive agricultural practices used to increase the provision of food and biomass-based fuels is one of the main causes of biodiversity loss (IPBES 2018). In the EU, agricultural land management is heavily influenced by the Common Agricultural Policy (CAP). Though it is difficult to assess to which degree the CAP is directly impacting biodiversity, it is also recognised that it has a great influence on it, being the largest subsidies scheme the EU runs, and spending 77% (2014–2020 period) of the EU budget allocated to protecting and enhancing biodiversity (ECA Special Report 13/2020). Recognising the need to reinforce the efforts to support and improve biodiversity performance in farmland, the new CAP has set the preservation of landscapes and biodiversity as one of its nine key objectives. There are several elements that can support an improved performance of the policy, among which possibilities offered by the new CAP green architecture, new monitoring techniques, an improved understanding of the impact of farming practices on biodiversity, and ultimately an overall agreement that the current decade is critical to reach the turning point and reverse biodiversity trends. This symposium will highlight emerging challenges and opportunities for the Common Agricultural Policy on supporting and conserving farmland biodiversity. The diverse topics covered in this symposium will also illustrate recent advances on the development of agri-environmental indicators for the CAP, as well as emerging perspectives on policy options.

- 10:30 – 10:45 Agriculture and biodiversity in Europe: challenges and opportunities ahead for the CAP
Bradley, Harriet;
- 10:45 – 11:00 (How) can the EU Common Agricultural Policy still address the crisis of farmland biodiversity?
Pe'er, Guy;
- 11:00 – 23:15 The potential for EU Common Agricultural Policy measures to support wild pollinators on farmland
Dicks, Lynn; Cole, Lorna; Kleijn, David; Stout, Jane; Potts, Simon G. ; Scheper, Jeroen;
- 11:15 – 11:30 Contribution of CAP data and remote sensing to the calculation of a biodiversity indicator for farmers, policy makers and other stakeholders
Sirami, Clelia;
- 11:30 – 11:45 FROM CITIZEN SCIENCE DATA TO POLICY IMPACT ASSESSMENT: AN INTEGRATED MODELLING APPROACH TO CALCULATE THE FBI IN AGRICULTURAL POLICY SCENARIOS
Prince, Karine; Chiron, François; Barbosa, Ana Luisa; Hurlé, Jesus Barreiro; Fellmann, Thomas; Hristov, Jordan; Weiss, Franz; Paracchini, Maria-Luisa;
- 11:45 – 12:00 National strategic planning and result-oriented CAP: a new obstacle or some good news for biodiversity policy integration?
Šumrada, Tanja; Erjavec, Emil;
- 12:00 – 12:15 Moving towards sustainable agriculture through transformational conflict science
Young, Juliette; Calla, Simon; Skrimizea, Eirini; Lecuyer, Lou;

13:30 – 13:50 WORKSHOP: What's driving insect decline (and what's not)? 2/2Room: **Round**

(Organized by: Andrew Bladon, Lynn Dicks, University of Cambridge).

The last few years have seen a rapid rise in concern for the state of insect populations globally^{1,2}. Despite efforts to collate and understand existing long-term datasets, many insect taxa, in many regions, remain desperately understudied, and the threats to their survival are poorly understood^{3,4}. We will gather experts from across the ECCB conference to develop a framework for understanding what we do know about these understudied insects. The workshop will serve as a seed event, with participants invited to run similar workshops at regional conferences later in the year, or in early 2023. Where possible, some of these events will take place in non-English languages, to enable participation by a diverse group of experts⁵. The results of the ECCB and regional workshops will be compiled, and used to inform the structure of a global Delphi-process, which will run in 2023. By synthesising expert knowledge on the threats to understudied insects from around the world, our workshop will shine a light on currently unseen aspects of the biodiversity crisis.

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Amano, T. et al. *Tapping into non-English-language science for the conservation of global biodiversity.* *PLOS Biol.* 19, e3001296 (2021).

Expected speakers:

Lynn Dicks – insect conservation, knowledge synthesis methods.

Andrew Bladon – Lepidoptera ecology and conservation, running expert assessments of conservation actions.

Charlie Outhwaite – biodiversity conservation, threat assessments.

13:30 – 15:30 SESSION: Landscape ecology and conservationRoom: **E3**

- 13:30 – 13:45 Amphibian detection dog reveals the secret life of newts on land to support their conservation
Grimm-Seyfarth, Annegret; Harms, Wiebke;
- 13:45 – 14:00 Tracking animal movement to inform the design of effective ecological corridors in agroecosystems
Handel, Michal; Spiegel, Orr; Shwartz, Assaf;
- 14:00 – 14:15 Potential dispersal pathways within the range margins of ectotherms, can they move in response to climate change?
Boyer, Igor; Pagano, Alain; Bertrand, Romain; Isselin-Nondedeu, Francis;
- 14:15 – 14:30 Balancing the varying effects of functional connectivity provided by landscape green infrastructure habitats for grassland plant communities
Kimberley, Adam; Hooftman, Danny; Bullock, James; Escribano-Avila, Gema; Honnay, Olivier; Krickl, Patricia; Lara-Romero, Carlos; Plue, Jan; Poschlod, Peter; Santamaria, Silvia;
- 14:30 – 14:45 Untangling the climate vs biodiversity crisis dilemma: sustainable windfarm development at a global biodiversity hotspot
Kassara, Christina; Tampouratzi, Lydia; Gotsis, Dimitris; Tzortzakaki, Olga; Petridou, Maria; Psaralexi, Maria; Sidiropoulos, Lavrentis; Vasilakis, Dimitris; Galani, Antonia; Mpoukas, Nikos;

- 14:45 – 15:00 Impact assessment study of wind energy infrastructure spatial planning on large birds of prey of Greece– Sensitivity mapping methodological approach
Anagnostopoulou, Aspasia; Bourdakís, Eustratios; Kaltsis, Apostolos; Tsiopelas, Nikolaos; Saravia, Victoria ; Dimalexis, Anastasios; Sidiropoulos, Lavrentis; Bousbouras, Dimitris; Tsiakiris, Rigas; Rousopoulos, Ioannis;
- 15:00 – 15:15 Scanning a landscape for High Conservation Value Forests with machine learning
Bubnicki, Jakub; Angelstam, Per; Svensson, Johan; Mikusiński, Grzegorz; Jonsson, Bengt Gunnar;
- 15:15 – 15:30 Long-term changes in insect diversity under moderate human activity in a UNESCO biosphere reserve
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- 13:45 – 14:00 Evidence of quadratic effects of traffic volume on roadkill probability
Denneboom, Dror; Bar–Massada, Avi; **Shwartz, Assaf**;
- 14:00 – 14:15 Mapping the impact range of traffic noise on animal behavior in non-urban environments and in protected habitats reveals alarming consequences
Lehnardt, Yael; Murali, Gopal; Roll, Uri; Berger–Tal, Oded;
- 14:15 – 14:30 Combining continuous measures of moonlight and cloud coverage to assess the influence of real moon illumination over wildlife–vehicle collisions
Cerri, Jacopo; Bužan, Elena; Pokorny, Boštjan;
- 14:30 – 14:45 Who and where: Wildlife traits as predictors of roadkills of birds and mammals in Latin America
Medrano–Vizcaino, Pablo; Grilo, Clara; Pinto, Fernando; Carvalho, William; Melinski, Ramiro; Schultz, Eduardo; Gonzalez–Suárez, Manuela;
- 15:00 – 15:15 Primary forest dynamics as a template for forest management
Čada, Vojtěch; Trotsiuk, Volodymyr; Janda, Pavel; Mikoláš, Martin; Bače, Radek; Vítková, Lucie; Nagel, Thomas A. ; Svoboda, Miroslav;
- 15:15 – 15:30 Is land sparing or land sharing better for the conservation of disturbance–dependent species?
Tälle, Malin; Öckinger, Erik; Löfroth, Therese; Pettersson, Lars B. ; Smith, Henrik G. ; Stjernman, Martin; Ranius, Thomas;

13:30 – 15:30 SESSION: Urban ecology and conservationRoom: **T**

- 13:30 – 13:45 Spatiotemporal interactions of a novel mesocarnivore community in an urban environment before and during SARS–CoV–2 lockdown
Louvrier, Julie; Planillo, Aimara; Stillfried, Milena; Hagen, Robert; Börner, Konstantin; Kimmig, Sophia; Ortmann, Sylvia; Schumann, Anke; Brandt, Miriam; Kramer–Schadt, Stephanie;
- 13:45 – 14:00 Does urban wild food foraging create negative ecological impacts? A mixed–methods study in Vienna, Austria
Schunko, Christoph; Brandner, Anjoulie;
- 14:00 – 14:15 Assessing the contribution of cities to regional biodiversity – insights from a large–scale systematic bird survey across urban, rural, and natural areas
Ventura, Lior; Strubbe, Diederik; Shwartz, Assaf;
- 14:15 – 14:30 Understanding the influence of numerous urban environmental factors on avian physiology
Jensen, Johan Kjellberg; Ziegler, Ann–Kathrin; Isaxon, Christina; Jiménez Gallardo, Lucía Gloria; García Dominguez, Susana; Rissler, Jenny; Nilsson, Jan–Åke; Isaksson, Caroline;
- 14:30 – 14:45 Urbanization decreases species richness of soil invertebrates but increases their abundance until climate gets wetter: a meta–analysis
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- 14:45 – 15:00 Assessing the effects of a brownfield-like substrate aggregate mound on plant and ground arthropod communities in Cambridge, United Kingdom
Ki, Tiffany; Smith, Victoria; Turner, Edgar;
- 15:00 – 15:15 Reclaiming vacant land for green infrastructure to provide ecosystem services
Pham, Michelle; Spring, MaLisa; Sivakoff, Frances; Gardiner, Mary;
- 15:15 – 15:30 Urban horticulture for biological conservation
Ossola, Alessandro; Farrell, Clare; Williams, Nicholas; Leishman, Michelle;
- 13:30 – 15:30 SYMPOSIUM: Naturalistic grazing by large herbivores: understanding biodiversity patterns in restored self-regulating temperate savanna-grassland ecosystems 2/2** Room: **E1**
- 13:30 – 13:45 Naturalistic grazing in crowded Central Europe: from reintroduction of megafauna to rational landscape management
- 13:30 – 13:45 Megaherbivores rewilding and functional diversity of affected communities: Plants and insects across refaunated sites in Czechia
Konvicka, Martin; Vodickova, Veronika; Perlik, Michal; Potocky, Pavel; Ashmarina, Daria; Jirku, Miloslav;
- 13:45 – 14:00 N = 2 (x5). An attempt to compare effects of feral horse refaunation on five checkerspot butterfly species inhabiting dry grasslands of Podyjí National Park.
Konvicka, Martin; Hajkova, Klara; Vodickova, Veronika; Vrba, Pavel; Sbaraglia, Claudio; Shovkun, Dmitry; Bartonova, Alena; Grill, Stanislav; **Fric, Zdenek**;
- 14:00 – 14:15 Effects of ivermectin use on dung beetle communities: Lasting decrease in functionality and richness
Ambrožová, Lucie; Zítek, Tomáš; Sládeček, František; Perlík, Michal; Kozel, Petr; **Dostál, Dalibor**; Jirků, Miloslav; Čížek, Lukáš;
- 14:15 – 14:30 Eurasian crane (*Grus grus*) as ecosystem engineer in grasslands – conservation values, ecosystem services and disservices related to a large iconic bird
Valkó, Orsolya; Borza, Sándor; Godó, Laura; Végvári, Zsolt; Deák, Balázs;
- 14:45 – 15:00 Responses of large carnivores and their prey to landscape heterogeneity in Polesia (Ukraine) before the war started
Kudrenko, Svitlana; Vyshnevskiy, Denys; Zedrosser, Andreas; Selva, Nuria; Heurich, Marco;
- 15:00 – 15:15 Ecological insights gained in over 15 years of European bison grazing in the coastal dunes of Kraansvlak, the Netherlands.
Rodriguez, Esther;
- 13:30 – 15:30 SYMPOSIUM: Forest Policies and their impacts on Biodiversity and Ecosystem Services in a changing world** Room: **AULA**

Organized by: Daniel Burgas, Clemens Blattert, Mikko Mönkkönen, University of Jyväskylä, Finland

The European and global biodiversity policies have recently emphasised the necessity of a transformative change that requires a reinforced attention to interconnections, synergies and trade-offs between diverse societal needs towards and ecological functions of nature (1,2). Forests are one of the key environments to advance this change and they cover over one-third of the land in Europe. However, the status of conservation of forest habitats in Europe remains poor or bad (3). In the last decades, there has been an increase in demands from forests (e.g., timber, energy production, climate mitigation, recreation), some of them in strong conflict with biodiversity targets (4,5). To address such demands, forest issues are dealt with by a growing plethora of disparate sector policies, with often competing objectives and instruments, the implementation of which is often not coordinated, nor are compliant or impacts monitored across the policies (6). Having tools to evaluate forest policies across sectors and scales is essential to advance towards biodiversity conservation targets. This symposium will discuss state-of-the-art methods to evaluate the coherence of forest-related policy targets within single policies, between sectoral policies (e.g. biodiversity strategy vs. forest strategy vs. bioeconomy strategy) and across administrative scales (e.g. national vs EU policies). Policy evaluation will contemplate different climate change scenarios. The symposium will show concluding results from the ongoing MultiForest research consortium as well as from other research

evaluating forest policy in Europe with consequences for biodiversity. The symposium is solution-oriented and aims to deliberate on pathways towards more effective policy mixtures for forest ecosystem services and biodiversity, for instance for the national implementation of the new EU Forest strategy.

- 13:30 – 13:45 EU Forest and Biodiversity Governance
Puelzl, Helga;
- 13:45 – 14:00 (In)Coherences of national forest policies in Europe; examples from Norway, Finland and Germany
Vergarechea, Marta; Astrup, Rasmus; Blattert, Clemens; Toraño-Caicoya, Astor; Burgas, Daniel; Mönkkönen, Mikko; Eyvindson, Kyle; Di Fulvio, Fulvio; Øistad, Knut; Lukkarinen, Jani;
- 14:00 – 14:15 Climate change mitigation targets compromise forest ecosystem services and biodiversity
Blattert, Clemens; Mönkkönen, Mikko; Burgas, Daniel; Di Fulvio, Fulvio; Toraño Caicoya, Astor; Vergarechea, Marta; Klein, Julian; Hartikainen, Markus; Antón-Fernández, Clara; Astrup, Rasmus;
- 14:15 – 14:30 Policies impact on forest multifunctionality across Europe
Toraño Caicoya, Astor; Vergarechea, Marta; Blattert, Clemens; Mönkkönen, Mikko; Burgas, Daniel; di Fulvio, Fulvio; Klein, Julian; Antón-Fernández, Clara; Snäll, Tord; Poschenrieder, Werner;
- 14:30 – 14:45 Nordic forest governance shifts towards multi-functionality and non-regulatory approaches
D'Amato, Dalia; Brockhaus, Maria; Ekström, Hanna; Iliev, Bogomil E. ; Lier, Markus; May, Wilhelm; Thomsen, Marianne; **Droste, Nils;**
- 14:45 – 15:00 National timber harvest projections under the EU Green Deal and 2030 biodiversity strategy
Di Fulvio, Fulvio; Lauri, Pekka; Forsell, Nicklas;
- 15:00 – 15:15 Lessons to leverage policy coherence for forest multifunctionality and biodiversity
Lukkarinen, Jani; Pitzén, Samuli; Primmer, Eeva;
- 13:30 – 15:30 SYMPOSIUM: Integrating Land System Science and Conservation Science for deeper insights into conservation challenges and opportunities** Room: **Library**
- Organized by: Tobias Kuemmerle, Alfredo Romero Munoz, Humboldt–University Berlin; Tak Iwamura, Oregon State University
- The main driver of the current biodiversity crisis is how we use land. Decisions about land use are made in land systems – social-ecological systems where land use is a key link between people and nature. Land System Science has recently emerged as a scientific field exploring the drivers, geographies, processes, and outcomes of land-use change through the lens of social-ecological research. However, this discipline remains weakly integrated with Conservation Science. In this symposium, we showcase how perspectives from Land System Science can enhance our understanding of conservation challenges and opportunities, and thus our ability guide conservation planning action. Cross-fertilization and a deeper integration of Land System Science and Conservation Science help to explore questions such as: How and where does land use interact with other drivers of biodiversity loss? When and how does land use-change trigger conservation responses, and why do some regions undergo rapid land-use change and receive more conservation attention than others? Which land-use changes open up restoration opportunities? How can a focus on land-use actors help to better target policies, increase conservation effectiveness, and improve conservation planning? The symposium will bring together individuals from the fields of Land System Science and Conservation Science, as well as researchers and practitioners of different cultural backgrounds and career stages to explore these questions, and to foster collaboration across disciplinary boundaries.
- 13:30 – 13:45 Effects of land-tenure regimes on deforestation in Brazil
Pacheco, Andrea; Meyer, Carsten;

- 13:45 – 14:00 Land systems for mapping and understanding interactions among threats to biodiversity
Kuemmerle, Tobias; Baumann, Matthias; Pötzschner, Florian; Prutzer, Marie; Romero-Munoz, Alfredo;
- 14:00 – 14:15 Evaluating policy outcomes in complex land-use systems
Droste, Nils; D'Amato, Dalia; Ekström, Hanna; Iliev, Bogomil Emilov; Thomsen, Marianne;
- 14:15 – 14:30 Fostering protected area effectiveness through a social-ecological perspective
Loos, Jacqueline;
- 14:30 – 14:45 Conservation frontiers – Understanding relationships between expanding land use and expanding conservation efforts
Buchadas, Ana; Qin, Siyu; Kuemmerle, Tobias;
- 14:45 – 15:00 The impacts of agricultural land use and production on vertebrate biodiversity differ greatly across products, space and biodiversity indicator
Kastner, Thomas; Bidoglio, Giorgio; Dullinger, Stefan; Erb, Karl-Heinz; Essl, Franz; Krausmann, Fridolin; Matej, Sarah; Semenchuk, Philipp;
- 15:00 – 15:15 Factors influencing the allocation of international conservation efforts
Qin, Siyu; Prutzer, Marie; Meyfroidt, Patrick; Kuemmerle, Tobias;
- 15:15 – 15:30 Putting land-use actors in focus for improved conservation planning and effectiveness
Iwamura, Takuya;

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Graphics by: Sarah Maršíková,
Bufo viridis

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- P002 **Bioclimatic modelling of Lantana camara invasion in the Shivalik landscape of Western Himalaya**
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- P003 **Catch me if you can: Mitigation of Common Myna (Acridotheres tristis) presence and activity in protected areas**
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- P004 **Detection of marine invasive non-native species in a special area of conservation using digital droplet PCR assays and metabarcoding approaches.**
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- P005 **Distribution and pathways of introduction of alien plant species in Romania**
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- P006 **The development of a protocol for declaring alien species absent from a country.**
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- P007 **Attractive sinks in insect population – plasticity of habitat selection process**
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- P008 **Biodiversity as the source of heterospecific social information: the effect on territory selection and vocal mimicry in the Marsh Warbler**
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- P009 **Determination of Leucocytozoon prevalence in Central European Boreal Owls**
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- P010 **Distribution and population size of the Freshwater Pearl Mussel Margaritifera margaritifera (Mollusca: Bivalvia) in Latvia 2020-2021**
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- P014 **Establishing boundaries in Conservation Biology: The case of European wild rabbit subspecies in the Iberian Peninsula**
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- P015 **Estimating actual abundance of European sousliks: Using UAV imagery, pixel based imaging and random forest classification to count souslik burrows**
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- P016 **Factors shaping Yellow Wagtail abundance in intensively cultivated farmland: disentangling the roles of surrounding habitat, field characteristics and food supply**
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- P017 **Global patterns in human tolerance by birds in the Anthropocene**
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- P019 **Hotspot and correlates of an occurrence of potentially zoonotic pathogens: a case study of brown bears in Poland and Croatia**
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- P022 **Melanism in *Natrix natrix* (Linnaeus, 1758) from Danube Delta Biosphere Reserve, Romania**
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- P023 **Monitoring bat populations in savanna biome: a case study in Kruger NP.**
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- P028 **Singing activity under traffic noise: a case study of Yellowhammer around highways**
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