BOOK OF ABSTRACTS

I. SESSION DESCRIPTION

ID: O1

Early career voices and visions for ecosystem services research within the One Health framework in a time of global change

Hosts:

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Abstract:

Ensuring a stable flow of ecosystem services (ES) is critical for human well-being, which depends on maintaining and enhancing ecosystem health. This principle is the cornerstone of the One Health framework, which seeks to improve the health and well-being of all species and ecosystems. Both paradigms prioritise addressing current constraints to resilience and sustainability of positive health and development outcomes. Achieving a sustainable and resilient world will require a shift in our societal vision, through pivotal changes in the human-nature relationship, to mainstream the benefits of nature across society.

As Early Career Researchers (ECRs) are the future generation of scientists, our voices, perspectives and visions are vital to the future trajectory of ES research and to driving transformational change. While many ECRs are familiar with cutting-edge technologies such as AI, machine learning, and smart devices, there is also a recognised need for exposure to keep pace with the continuous evolution of ES framework.

Recognising this importance, the Young Ecosystem Services Specialists (YESS) network is hosting an inclusive and comprehensive session aimed at facilitating the exchange of innovative ideas in ES research, fostering collaboration, and exploring opportunities to extend the One Health framework. The session will provide a platform for ECRs to showcase their ongoing research in flexible formats, engage with a dynamic community of fellow researchers, and expand their professional networks. The session will be followed by a World Café for ECRs focusing on priority biomes, transdisciplinary working and the implementation challenges of transformative change.

Goals and objectives of the session:

1. To showcase the range of novel ecosystem service science research from ECRs that address diverse issues related to societal and ecosystem well-being.
2. Understand cases and experiences related to transformative changes in ecosystem services research from ECRs.
3. Foster collaboration among ECRs and other stakeholders to enhance the impact and mainstreaming of ecosystem services research.

Planned output / Deliverables:

The session will provide an overview of the latest research on ES carried out by ECRs. It will delve into the challenges faced by ECRs and explore potential solutions to these issues. Additionally, the session may propose ideas for YESSs' future direction, activities, and initiatives as an active supporting network for ECRs working in ES research. Recommendations for YESS and ESP can be examined to coordinate activities that navigate both networks through forthcoming changes. Based on the outcomes of the World Café, a research/comment paper will also be produced.

II. SESSION PROGRAM

Room: Expert Street 3

Date of session: 20th of November 2024

Time of session: 11:00–12:30

Timetable speakers

Time	First name	Surname	Organization	Title of presentation
11:00	Introduction of YESS and session organisation			
11:10	Warm-up activities – mapping projects across EU from which YESSers are involved			
11:20	Jomme	Desair	Environmental Social Science Research Group (ESSRG)	Empowering Early Career Researchers for Transformative Change in Biodiversity Research and Policy
11:30	Vince	Van t' Hoff	Foundation of Sustainable Development	Making Nature Count 2024 – Updating the ESVD in 2024 to fit supply and demand.
11:45	Luis	Inostroza	Mendel University in Brno	Understanding the academic and publishing ecosystem: An editor's perspective on scientific production
12:00	Ishaq Hafiz	Khuzama	University of Campania "Luigi Vanvitelli", Italy	Enhancing Ecosystem Services by Introducing Multifunctional Land Use Management in a Semiarid Pastoral System in Portugal.
12:10	World Café and Discussion			

III.ABSTRACTS

The first author is the presenting author unless indicated otherwise.

1. Empowering Early Career Researchers for Transformative Change in Biodiversity Research and Policy

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Engaging early career researchers (ECRs) in biodiversity research and policy-making is essential, as they bring fresh perspectives, innovative ideas, and a deep commitment to addressing environmental challenges. Their involvement ensures a more inclusive approach to decision-making, fostering transformative change. However, empowering ECRs to participate in policy-related research and actively engage in science-policy-society interfaces (SPSIs) remains a significant challenge. This session introduces two ECR-driven networks, A4Cap and BioAgora ECRN, aimed at building ECR capacity for broader inclusion and greater impact.

A4Cap is a network of Alternet Summer School alumni and ECRs from Alternet partner institutes designed to create a collaborative, inclusive community for capacity building and networking among ECRs. Activities include assemblies for skill transfer, co-publishing, and transdisciplinary projects-organised via a non-hierarchical structure. The network focuses on integrating new members and ensuring long-term engagement and impact through capacity-building events and collaborative opportunities, emphasising transdisciplinary approaches and transformative change.

The BioAgora Early Career Researcher Network fosters collaboration and capacity development among ECRs within the BioAgora project. The network organises regular meetings and interactive workshops to strengthen interdisciplinary collaboration, integrate diverse perspectives, and enhance ECRs' collective impact. An upcoming workshop at the annual meeting will gather ECR perspectives on inclusive engagement strategies within SPSIs, fostering a more participatory research environment. The network also plans to engage early career policymakers, bridging the gap between researchers and policymakers early in their careers.

Both initiatives strive to establish collaborations with other ECR networks, building a broader coalition of early career experts in biodiversity conservation. They aim to amplify members' impact, share best practices across different fields and regions, and serve as models for engaging ECRs in the science-policy-society nexus. Through their collaborations, these networks seek to drive progress in biodiversity conservation, ensuring that ECRs play a central role in shaping a sustainable future.

Keywords: capacity building; biodiversity conservation; science-policy-society interfaces; early career researchers; inter- and transdisciplinary collaboration

2. Understanding the academic and publishing ecosystem. An editor's perspective on scientific production

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Starting a career in the academy is challenging. The academic system is highly complex and many times confusing, making the start of an academic career difficult to young scholars. While common practices, protocols and behaviours are well-defined within the scientific arena, they are often not explicit. The most fundamental procedural knowledge that young researchers need to successfully navigate the academic landscape must be learned implicitly through mentoring -if you are lucky enough to have found good mentors- or simply by doing and failing. While the offer of pieces of training in the academic and publishing system is increasing, still, a sense of mystery about many activities that scientists perform remains. From aspects of having criteria to choose a good conference (what makes a conference good), clarifying your objectives for attending a particular conference, understanding what indexation or impact factor means, or simply having a clear picture of the important distinction between scientific research and scientific publication, within knowledge production, are very common areas where things remain unclear even at advanced career stages. This confusing panorama has been the breeding ground for predatory publishers and predatory conferences. The publish or perish modus operandi in the academic system is also showing that a more profound crisis in the scientific arena is unfolding, threatening the foundations of the knowledge production domain. In this presentation, many of these ideas will be discussed. The aim is to discuss the future of science, especially in the context of ecosystem services science.

Keywords: knowledge production, scientific publication, research, academic career

3. Making Nature Count 2024 – Updating the ESVD in 2024 to fit supply and demand

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This abstract aims to provide a discussion on the current standing of the ESVD, its applications, challenges and embeddedness within the international context and frameworks.

After several years of quick developments, the Ecosystem Services Valuation Database (ESVD) has reached over 11,400 monetary values for all ecosystem services and all ecosystem types all around the world. In addition, scientific developments have given space for the integration of monetary valuation data in the scientific, public and private domains. Papers have been written, AI has been piloted and value transfer functions have been developed to better estimate the value of ecosystem services on the basis of bio-physical and socio-economic indicators. The information in the ESVD has been made publicly and freely available on ESVD.net which includes visual representations of the data, a value transfer tool and summary statistics per ecosystem type.

Next to these developments, the monetary valuation data in the ESVD has been increasingly applied in financial and private sector to measure impacts and dependencies on nature and within the policy domain of the Global Biodiversity Framework (GBF) among others. These monetary ecosystem service values are important for sustainable natural resources management (by internalizing the value of nature) and natural capital accounting (by recognizing the value of nature in national accounts).

However, many questions regarding the implementation and transformative nature of monetary valuation remain, also in the scientific domain. How to better link the ESVD and the scientific community and how to fill data gaps? Given different opportunities and challenges, it is important to critically explore methodological considerations, assess advances and discuss applications of monetary valuation – in particular in relation to their potential role to inform decision making, underpin natural capital accounting, and facilitate transformative change towards sustainable natural resources management.

Keywords: ESVD, monetary valuation, application, policy, scientific developments

4. Impact of Climate Change on Forest Ecosystem Services in Southern Iberian Peninsula: The Modulating Role of Lithology

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Forests play an important role in climate change mitigation and supporting of human well-being providing important ecosystem services (ES). Thus, it is crucial to understand how ongoing climate change is impacting the ESs that forest provide. Mediterranean forests are one of the hotspots of biodiversity in the world as well as one of the most threaten areas by climate change. Forests productivity is limited by water scarcity, so future predictions of droughts impose a serious threat to these forests. Despite the increasing awareness of the importance of lithology as a crucial factor for the vulnerability of forests to climate change, the combined impacts of decreasing precipitation and lithology has not been investigated so far. This study was carried out in the context of a large project called LITHOFOR (Modulating role of lithology in the response of Mediterranean forests to climate change) with the aim of understanding if and how lithology modulates the impact of decreasing precipitation on forest ESs. In particular, carbon sequestration in biomass and soils, biodiversity, nutrient cycling and water retention. The study area includes three Sierras located along a natural precipitation gradient from 700 to 1400 mm yr-1 in the South of Spain (province of Malaga). This represents a unique experimental set up where Pinus pinaster forests (maritime pine) grow at the three locations on three distinctive geological substrates (calcareous, peridotite and metapelite). Intensive field data collection was conducted over the course of the project involving above and belowground measurement of 900 trees (45 plots). Preliminary results suggest that forests growing on more stressful lithological conditions store less carbon aboveground but more belowground. Furthermore, these forests were less sensitive to drought and exhibit great belowground biodiversity. The findings have direct implications for forest managers, aiding in the development of targeted conservation strategies and climate change adaptation plans.

Keywords: Climate change, forest ecosystem services, lithology, biodiversity hotspot, Pinus Pinaster