



Vol. 5 - April 2025

# Dear NETSOB members,

This is your monthly update from the International Network on Soil Biodiversity - <a href="https://www.fao.org/global-soil-partnership/netsob/en/">https://www.fao.org/global-soil-partnership/netsob/en/</a>. If you know someone interested in soil biodiversity who is not a member yet, they can join the network <a href="https://www.fao.org/global-soil-partnership/netsob/en/">https://www.fao.org/global-soil-partnership/netsob/en/</a>. If you know someone interested in soil biodiversity who is not a member yet, they can join the network <a href="https://www.fao.org/global-soil-partnership/netsob/en/">https://www.fao.org/global-soil-partnership/netsob/en/</a>.



# ★ Global Survey – Best practices to conserve soil biodiversity and prevent soil biodiversity loss

NETSOB Working group 2, now led by Dr Jeff Battigelli (Canada), is still accepting responses to their survey on best practices. The aim of this survey is to gather information and examples of current practices and other land management systems applied to soil and their effects on soil biodiversity. You can contribute to the survey <u>here</u> or scanning the QR code. The deadline is **April 30**<sup>th</sup>, **2025.** 

# **★** SOILGUARD Finale: Harnessing the Biodiversity Beneath Our Feet for a Climate-Resilient Future

On March 31<sup>st</sup> the SOILGUARD project hosted a forum highlighting the links between soil science and policy. At the SOILGUARD Final conference in Brussels, they gathered researchers from ReNature and the Lamasus project, policy representatives from DG Agri and DG Envi, Land managers, the environmental NGO NaBU, and John Deere on stage. They reflected on the results of four-year collaborative efforts, which highlighted scientific findings and initiated exchanges on how to translate them into practice and policy. Recordings can be seen here.

SCAN ME

## **★ MOSTFUN and GEO BON: Webinar recording Essential Biodiversity Variables (EBVs)**

On April 9<sup>th</sup> GEO BON and MoSTFun organized a webinar on EBVs. The recording can be seen <u>here</u>.



Important soil biodiversity events are advertised in this space. The events below are **not** organized by FAO or NETSOB.

# SOILGUARD Network of knowledge: outcomes and impacts of a collaborative journey

We are pleased to invite the NETSOB members to the event SOILGUARD Network of knowledge: outcomes and impacts of a collaborative journey, taking place on **Friday, May 9**<sup>th</sup> **from 10am to 12:30pm CEST**.

This event will highlight the crucial role of soil biodiversity in sustaining our ecosystems while presenting the latest updates from SOILGUARD. Our partners and experts will share insights, tools and strategies to better understand and support sustainable soil management.

As SOILGUARD comes to an end, this webinar will help us shape the project's impacts and legacy. Your insights, as always, are invaluable. Your participation and feedback are essential to conclude our collaborative journey and to help and support future soil-related research initiatives.

Whether you are a farmer, researcher, advisor, policymaker, or just curious about soil and about what SOILGUARD has accomplished, join the event!

Register here: Click to join the online event

## **★** European Geosciences Union General Assembly 2025



The EGU General Assembly 2025 brings together geoscientists from all over the world to one meeting covering all disciplines of the Earth, planetary, and space sciences. The EGU aims to provide a forum where scientists, especially early career researchers, can present their work and discuss their ideas with experts in all fields of geoscience. The meeting will take place in Vienna, Austria & Online, **April 27**th to **May 2**nd **2025**. There are over 35 sessions directly or indirectly related to soil biodiversity:

- ➤ BG1.3 Nitrogen Cycling in the Anthropocene: Microbiological Processes, Land-atmosphere-Interactions and Global Change Feedbacks: A 10 years anniversary
- ➤ BG3.4 | PICO Complex case studies for ecosystem responses to global change, climate and hydrological extremes
- BG3.13 Mycorrhizal fungi in forest ecosystems
- ➤ BG3.14 <u>Deadwood in changing forest ecosystems: A Risk or Potential for Climate</u>
  Resilience?
- > BG4.8 Earth Observation Data for Wetland Dynamics and Ecosystem Monitoring
- ➤ BG6.2 Integrating Classical and Molecular Approaches for Assessing Soil Fauna: Challenges and Applications
- ➤ BG8.1 Ecosystem Services and Climate Extremes in Anthropocene: Interactions and Research Gaps
- ➤ BG8.3 Nature-based solutions at the landscape scale: tackling climate and biodiversity crises together
- ➤ BG8.5 Enhancing science-based knowledge on forests' capacities to mitigate climate change
- ➤ BG8.7 | PICO Modeling agricultural systems under global change
- ➤ BG9.1 Remote Sensing Applications for the Biosphere
- ➤ ERE1.5 Advances in Sustainable Nature-Based Carbon Dioxide Removals (CDR): Technical Innovations and Global Impacts
- > ITS3.7/BG0.6 | PICO Biodiversity from a Geoscience perspective
- NH10.3 Developing a risk reduction strategy for multiple slow-onset hazards
- > NH11.1 Geo-hydrological hazards and landscape evolution in climate change scenarios
- NH3.13 Nature-based and bio-based or inspired solutions for geohazard mitigation on slopes and streambanks
- NH3.15 Shallow landslides: monitoring, prediction, modeling
- SSS8.4. Soil health from a multifaceted perspective: Influence of land use and management, at various scales, on soil-plant-microbe interactions, soil organic and inorganic carbon and nutrients
- SSS10.3 Modelling of soil structure and functions in response to extreme environmental events

- SSS12.1 Soil health Intervention: Practical aspects to implement laws
- SSS4.12 Soil biodiversity & agriculture: an intimate relationship
- SSS4.13 Soil fauna as Engineers of Soil Sustainability in land use systems Understanding of processes and the need of monitoring in Europe
- SSS4.2 Plant microbial interactions at soil interfaces: rhizosphere, detritusphere, (bio)pores, and aggregates
- SSS4.3 Arctic, Antarctic and alpine soil food web biodiversity and biogeochemical impacts
- SSS4.4 The role of soil organisms in soil processes and functions
- SSS4.7 Soil biodiversity and functioning in natural ecosystems
- SSS4.9 Frontiers in soil biodiversity research concepts, numbers, methods & more
- > SSS5.11 Interactions between minerals, organic matter, and microorganisms drive the formation and turnover of organic carbon in soil
- SSS5.12 Biogeochemical processes controlling carbon, nitrogen, phosphorus and sulfur cycling in the soil-plant system
- SSS7.1 <u>Understanding biopathways of pollutants in soil-plant-systems for bioremediation</u> and risk assessment
- SSS7.5 Multidisciplinary tools and strategies for the management and rehabilitation of contaminated soils
- SSS8.2 Pedodiversity: major driving factors and influences on ecosystem features
- SSS9.12 Adaptation and resilience in agriculture: addressing climate change with science and technology
- SSS9.23 Soil organic and inorganic carbon and nutrient measurement and modelling at various scales, and their role in the soil health from a multifaceted perspective
- SSS9.6 Organic farming, Soil management and Healthy food

# ★ International Soil Science Conference (SOILS 2025)



The Malaysian Society of Soil Science (MSSS) will host the International Soil Science Conference (SOILS 2025) at Bertam Resort & Water Park, Penang, Malaysia, from 6<sup>th</sup> to 8<sup>th</sup> May 2025. SOILS 2025, themed "Soil Health for Sustainable Future: Bridging Soil, Agriculture, and Environmental Stewardship," aims to foster discussions on tropical soil sustainability. This annual program is also attended by researchers, agronomists, and planters from the government and the private sector to share information related to soil management. More information at <a href="https://www.msss.com.my/">https://www.msss.com.my/</a>

## ★ Ecology of Soil Microorganisms 2025 – Networking across scales



The organizing committee is pleased to welcome you to the fifth conference on the Ecology of Soil Microorganisms to be held in Helsinki, Finland on **June 15<sup>th</sup> to 19<sup>th</sup>, 2025**. The previous meetings attracted participants from all over the world. The ESM conference is an interdisciplinary platform addressing questions related to individual microbes (archaea, bacteria, fungi, oomycetes, protozoa and viruses), microbial communities and their ecological networks. Modern genomic, transcriptomic and proteomic methods are linked with approaches based on soil chemical, biochemical and functional analyses, exploration of soil fauna and plant ecology. They cordially invite experts from all these disciplines to join them in Helsinki to promote state-of-the-art research in the field of soil ecology and enjoy the northern midsummer madness! Check more information at https://www.lvyti.fi/p/Ecology of Soil Mircoorganisms2025 9620/en/conference

# **♦** Soil Biology Masterclass 2025: July 14<sup>th</sup> to 15<sup>th</sup>, 2025

The 2-day **Soil Biology Masterclass** offered by Western Sydney University is designed to provide participants with the core knowledge and principles needed to incorporate soil biology and health into management practices to sustainably increase productivity and profitability. Register to this inperson event <u>here</u>.

# By attending, you will:

- Gain an in-depth understanding of the latest research in soil biology and health; the role of microbes in nutrient cycling and plant interactions; roles of soil fauna and the application of soil biologicals.
- Learn about the future directions for research, technologies and practices.
- Have opportunities to network with our guest presenters and expert researchers, undertake
  a facilities tour and enjoy a networking dinner (included in registration costs).

## Soils For Our Future 2025 Conference: A Gathering of Local Perspectives

The SOILS FOR OUR FUTURE 2025 Conference brings together three conference events: 5<sup>th</sup> Global Soil Security Conference, Canadian Society of Soil Science Annual Meeting, and International Union of Soil Sciences Division 1 - Soils In Space and Time Meeting. Hosted by the Soil Conservation Council of Canada and the Manitoba Soil Science Society. With over 700 researchers, industry members, leaders of farmer organizations, graduate students and other attendees, the SOILS FOR OUR FUTURE 2025 Conference provides global perspective to today's research to sustain our



future. Spanning five days, the conference provides attendees of the events to meet in plenary/technical sessions with their individual organizations and for all to come together in keynote sessions, tradeshow, posters, workshops and field tours. Check more information at <a href="https://site.pheedloop.com/event/EVEYHOPOMAGWN/home">https://site.pheedloop.com/event/EVEYHOPOMAGWN/home</a>

# ★ VII Eurosoil 2025 & X Congreso Iberico de la Ciencia del Suelo



The EUROSOIL is the official meeting of the European Confederation of Soil Science Societies (ECSSS), it is among Europe's most important Soil Sciences events and offers a fantastic opportunity for knowledge transfer among the Soil Sciences community. The EUROSOIL is held every four years and attracts a large audience of over 2500 participants who present their findings through oral and poster presentations across up to 10 parallel sessions. The event also features workshops, and an exhibition of products and services aimed at raising awareness in society, facilitating the exchange of ideas and information and creating business opportunities. Additionally, the Iberian Congress of Soil Sciences (CICS) will also be held during this edition of EUROSOIL. More information at <a href="https://eurosoil2025.eu/EUROSOIL2025">https://eurosoil2025.eu/EUROSOIL2025</a>

**★** Biological Sciences and Environmental Solutions for the Achievement of Sustainable Development Goals (SDGs) International Conference



# **Invitation to Attend**

the International Conference on "Biological Sciences and Environmental Solutions for Achieving the Sustainable Development Goals (SDGs)"

September 24–26, 2025 | Yerevan, Armenia

#### **About the Conference**

The first "Biological Sciences and Environmental Solutions for the Achievement of Sustainable Development Goals (SDGs)" conference serves as a global platform to address the urgent need for sustainable solutions to the world's most pressing environmental and developmental challenges. The "BSES-SDGs" International Conference is dedicated to the 90th anniversary of the Faculty of Biology similarly the 10th anniversary of Research Institute of Biology at Yerevan State University. Established in 1935, the Faculty of Biology traces its origins to the founding of the university. It serves as an Armenia leading scientific and educational center, training highly qualified specialists in various fields of biology. Alumni of the faculty are working in leading educational and research institutions all over the world. Biological and environmental sciences play a transformative role in tackling critical issues such as climate change, biodiversity loss, food insecurity, water scarcity, and public health crises, all of which are central to the United Nation Sustainable Development Goals (SDGs). This conference will collect together leading scientists, educators, policymakers, and practitioners from diverse disciplines to explore the intersection of biological processes, environmental management, and technological innovation. Through insightful discussions, groundbreaking research presentations, and collaborative sessions with main focuson practical applications and policy implications that align with the achievement of specific SDGs.

# **Topics of Conference**

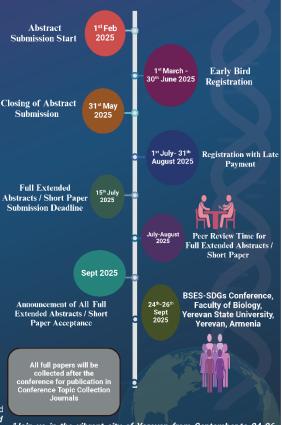
Key themes of BSES-SDGs conference include all aspects of biological research: Cell Biology, Genomics, Proteomics, Metabolomics, Systems Biology, Plant and Fungi Secondary Metabolites, Immunology, Neuroscience, Structural Biology, Animal and Plant Physiology, Bioengineering, Biotechnology, Evolutionary Biology, Bioenthics, Plant Science, Microbiology, Zoology, Mycology, Molecular Biology, Biomedicine, Developmental Biology, Biostatistics, Biochemistry, Biophysics and Bioinformatics. The key thermes related to environmental solutions are: Climate Science, Environmental Policy and Governance, Ecological Restoration, Ecological and Conservation Biology, Sustainable Land Management, Environmental Economics, Renewable Energy and Sustainability, Geospatial Science and Remote Sensing, Hydrology and Watershed Management, Environmental Toxicology, Energy Systems and Sustainability, Environmental Law, Waste Management and Resource Recovery, Eco-innovation and Green Technologies, Environmental Impact Assessment (EIA), Carbon Management and Climate Finance, Air and Water Quality Management, Sustainable Fisheries and Marine Conservation, Agricultural and Crop Science, Environmental Health Science, Ecotourism and Sustainable Development for achieving the Sustainable Development Goals (SDGs).

### **Publication Opportunities**

High-quality short papers, follow rigorous peer review, will be published in esteemed outlets, including books by *IGI Global (USA)*, *De Gruyter Germany*, *AAP-CRC Taylor and Francis (USA)*, *Wiley-Scrivener (USA)*. Selected papers will also be included for publication in prestigious journals such as *with impact factor in Q1*, *Q2 and Q3*. All publications will be indexed in world-renowned databases, including *Scopus*, *Web of Science*, *Google Scholar*, *and ORCID*.

For more information, follow the conference link:

http://bioenv-sdg.ysu.am



Timeline of Conference

"Join us in the vibrant city of Yerevan from September to 24-26, 2025, as we honour the extraordinary 90 year legacy of the Faculty of Biology and 10 year Research Institute of Biology at Yerevan State University Armenia—a legacy of excellence, innovation, and impact. Together, let us explore the transformative power of biological and environmental sciences in shaping a sustainable future for our planet and generations to come"

bioenv\_sdg@ysu.am

### **★** Global Soil Biodiversity Conference 2026



The Local Organizing Committee is excited to welcome the world to Victoria, BC in 2026, and is preparing an exciting scientific program for the 4<sup>th</sup> Global Soil Biodiversity Conference (https://globalsoilbiodiversity2026.org/), which will serve as a pivotal platform for international collaboration and knowledge exchange. As Co-Chairs of the GSB 2026 Local Organizing Committee, Dr Zoë Lindo and Dr Carlos Barreto hope you can join them for this exciting scientific and social event. The keynote speakers have been announced. Check out the Program-at-a-Glance to learn more about the format of the conference. For those traveling from outside of Canada, check out the Travel and Visa tab with important information on visa requirements.

# **Abstract Submission is now open**

Starting today, the conference organizers are accepting abstract submissions for a variety of session themes:

### 1. Soil Biodiversity Under Threat

- 1.1 Agricultural Intensification
- 1.2 Urbanization and Land Degradation
- 1.3 Pollution
- 1.4 Climate Change
- 1.5 Deforestation and Habitat Loss
- 1.6 Cumulative and Interactive Stressors

# 2. Soil Biodiversity as Nature-Based Solutions

- 2.1 Sustainable Agriculture and Food Security
- 2.2 Sustainable Forest Management
- 2.3 Restoration and Climate Resilience

# 3. Soil Biodiversity Science: From Theory to Practice

- 3.1 Conservation and Protection of Soil Biodiversity
- 3.2 Soil Biodiversity and Ecosystem Functioning
- 3.3 Evolutionary Perspectives
- 4. Innovations in Soil Biodiversity Research
- 4.1 Advances in Monitoring and Standardization
- 4.2 Technological, Methodological, and Omics Advances

4.3 Data Infrastructure, Open Science and Big Data

# 5. Patterns in Soil Biodiversity: Space and Time

- 5.1 Global Distribution and Drivers
- 5.2 Latitudinal, Altitudinal and Depth

**Gradients in Soil Biodiversity** 

- 5.3 Temporal Dynamics and Long-Term Trends
- 5.4 Historical Legacies and Paleoecological Perspectives in Soil Biodiversity

# 6. Soil Biodiversity Across Systems and Taxa

- 6.1 Mycorrhizae and Fungal Networks
- 6.2. Rhizosphere and Plant-Soil Interactions
- 6.3 Soil Food Webs and Multi-Taxa Interactions
- 6.4 Systematics and Taxonomy

# 7. From Research to Action: Policy, Health & Society

- 7.1 Policy, Governance and Education
- 7.2 Soil Biodiversity, One Health & Human Well-Being
- 7.3 Economics of Soil Biodiversity: Valuation and Natural Capital
- 7.4 Citizen Science and Public Engagement in Soil Biodiversity