

Sub Theme 3: Nurturing Aquatic Vitality: Resilience Strategies Amid Environmental Changes

Background: The global water environment is facing significant challenges, including the deterioration of water quality and quantity and the loss of biodiversity on a global scale, resulting in severe impacts on aquatic ecosystems worldwide. Eco-hydrology, as an interdisciplinary field, recognizes the interconnectedness of ecosystems and water dynamics and seeks to understand and manage the intricate relationships between them.

Objective: This session aims to foster a multidisciplinary dialogue among scientists, policymakers, and practitioners to address the complex challenges faced by water resources in the context of global environmental changes. There should be special focus on the impact of the hydrology of river and/or wetland systems on the functioning of the aquatic ecosystems. The session provides a platform to integrate scientific knowledge, policy frameworks, and practical solutions to tackle evolving water-related issues.

Topics may involve:

- Ecosystem-Water Interactions
- Hydrology Advancements: Innovations and Challenges
- Water Challenges in Changing Landscapes: A Multidisciplinary Approach
- Integrating Ecology and Hydrology in Eco-Hydrology Research
- Climate Change and Water Resources: Implications and Adaptations
- Nature's Water Managers: The Roles of Wetlands, Floodplains, Forests, and Green Infrastructure in Regulating Water Flows and Pollution
- Innovations in Water Quality Monitoring and Assessment
- Ecosystem Dynamics in Intermittent Rivers and Temporary Wetlands
- Preserving Tradition in Modern Water Management: Indigenous Knowledge and Practices
- Holistic Approaches to Sustainable Water Resources: Bridging Science, Policy and Practices

We encourage the submission of papers that advance our understanding in this field, providing new theory and techniques for investigating the fundamental principles governing ecohydrological processes in the changing environment.

Keywords: eco-hydrology, ecosystem-water interactions, hydrology advancements, water quality, biodiversity loss, aquatic ecosystems, environmental changes, water dynamics, policy frameworks, climate change, water resources, wetlands, floodplains, forests, rivers, lakes, green infrastructure, water flows, ecosystem services, traditional knowledge, water management, ecohydrological processes.

Invited Keynote speaker:

Prof. Luc Brendonck