## AII-IUFRO Conference 2022

Forests in a Volatile World – Global Collaboration to Sustain Forests and Their Societal Benefits

## **Forests and Water**

Organized by

IUFRO Forest and Water Task Force and Division 8

① 23 September 2022, 14:30 – 16:15 CEST

♥ Vienna, Hybrid Event

To join us, please register for the Conference: Registration

Management of forest-water relations directly and indirectly affects various SDGs. This session will critically examine three SDGs (SDG 1: No Poverty; SDG 6: Clean Water and Sanitation; and SDG 13: Climate Action) in terms of the impacts of forest management on water supplies and people, and likely co-benefits and trade-offs.

It will also present case studies from around the world that demonstrate the close connections between forest-water management and each of the three SDGs under a changing environment. Practical forest management strategies and policy implications will be emphasized.

### **PROGRAM**

14:30 – 14:35 pm	Introduction to the session
14:35 – 15:30 pm	Panel presentations  "Forest-water and its contributions to global water security" –  Irena Creed  "Accessing transcal forest restoration contribution for water
	"Accessing tropical forest restoration contribution for water supply: insights from Atlantic Forest" – Silvio Ferraz



	"Forest and water an overview" – Lars Hogbom  "Evidence integration for coherent policy: perspectives on managing soil-forest-water-climate interactions" – Lulu Zhang
15:30 – 15:40 pm	Panel discussion
15:40 – 16:15 pm	Flash talks
	"Protection and maintenance of water resources through implementing the sustainable forestry initiative in the Southeastern US" – Jamie Nettles
	"Ecosystem services transition in forested catchments amidst climate change: A case study of the Densuano Catchment of Ghana" – Theodora Akweley Asiamah
	"The effects of thinning on hydrological processes: a global meta-analysis" – Antonio del Campo
	"Key success factors of restoration on forested peatlands in Europe" – Teppo Hujala
	"Analysis of forest-specific ecosystem services with regard to water balance components" – Eva Verena Müller
	"Tree water use and climate – emerging trends and drivers" – Mathias Neumann
	"The role of hydrological research and modelling for designing resilient forest landscapes in Central Asian mountain regions" – John Stanturf

### **MODERATION**



## Sandra Luque

National Research Institute for Agriculture, Food and the Environment (INRAE), France

As a landscape ecologist, my research interests cover a broad range of areas that include geography, ecology, global change (terrestrial ecosystems), landscape change dynamics, biodiversity indicators and conservation and management of natural resources, in particular forests. The main focus of my research is on spatio-temporal dynamics and disturbances at the landscape level. Within this context, I emphasize the key role that the human dimension imprints on both, obvious and subtle impacts on ecosystems.



#### **PANELLISTS**



**Irena Creed** 

Department of Physical & Environmental Sciences, University of Toronto Scarborough, Canada

Professor Irena Creed is an internationally acclaimed ecosystem scientist, with wide-ranging research interests, including planetary health, climate change, watershed sciences, communities-at-risk, and the science-policy interface. She has studied environmental issues across Africa, Asia, Europe and North America. She is a former Canada Research Chair, and her scholarship has been recognized with various awards, honours, and professorships, including fellowship of the Royal Society of Canada and an honorary doctorate of agricultural sciences at Uppsala University in Sweden.



Silvio Ferraz

University of São Paulo, Brasil

Prof. Silvio Ferraz is Associate Professor at "Luiz de Queiroz" College of Agriculture (ESALQ), University of São Paulo (USP). His research is related to forest conservation and management in order to conserve water and ecosystem services. He is the coordinator of Forest Hydrology Laboratory at ESALQ and scientific coordinator of the forested catchment environmental monitoring program (PROMAB) at the Forest Science and Research Institute (IPEF). Prof. Ferraz has published more than 100 scientific papers and his publications reflect his interests on watershed management, forest plantation hydrology, forest restoration, landscape ecology, ecosystem services, conservation planning and stream ecology.



**Lars Hogbom** 

Forestry Research Institute of Sweden and Swedish University of Agricultural Sciences, Sweden

He has more than 30-years of experience conducting field-research related to forest nutrient cycling. He has also studied the environmental effects of forest management and forest operations on soil and water quality. In addition, he is working with knowledge exchange and communication to a long range of stakeholders both to the operational forestry as well as to politicians and decision makers in questions related to soil water and soil.



**Lulu Zhang** 

United Nations University and Technische Universität Dresden, Germany

Lulu Zhang leads a research group at UNU. Forest system and climate mitigation/adaptation is her core expertise. She started her academic career with the German Federal Ministry of Education and Research (BMBF) for her PhD at the Technische Universtät Dresden. At UNU, she further developed professional experience in transdisciplinary work and capacity development for sustainable resource management, through several projects in different regions, including China, Germany, Tanzania, and Nigeria, awarded by various funding agencies and state ministries. Her work and activities aim to translate knowledge for evidence-based decision-making and implementation at various scales.



#### **FLASH PRESENTERS**



#### **Jami Nettles**

Southern Environmental Research Manager, Weyerhaeuser Company, United States

Dr. Jami Nettles manages a team of 6 scientists, focused on wildlife, aquatic biology and hydrology in managed forests. Her interests are the effects of silviculture and forest-based bioenergy on water quality and quantity, predominantly in southern pine forests. She has a Ph.D. in Civil and Environmental Engineering from the University of Alabama.



### **Theodora Akweley Asiamah**

University of Environment and Sustainable Development, Ghana

Dr. Theodora Akweley Asiamah is a Lecturer at the University of Environment and Sustainable Development (UESD) in Ghana. She teaches Natural Resource Management, Introduction to Sustainable Development, Sustainable Agriculture, and Statistics for Development. She holds a Doctor of Philosophy (PhD) in Development Studies, a Master of Philosophy (M. Phil) in Agricultural Administration and a Bachelor of Science Degree (BSc.) in Agriculture, all from the University of Ghana. Her research interests include the social-ecological dimensions of riparian forests; ecosystem services; the social aspects of forestry, and the social-ecological dimension of climate change and agriculture.



### Antonio del Campo

Technical University of Valencia, Spain

Dr. Antonio D. del Campo is a Forestry Engineer. He is tenured professor at the Polytechnic University of Valencia. His teaching is related to forest science and engineering; and his research, with the eco-hydrology of forest systems and with forest restoration. His merits have been recognized with four six-year terms by the National Commission for the Evaluation of Research Activity and he has more than 100 peer reviewed publications. He has done stays at the universities of Oregon, Idaho and British Columbia.



### Teppo Hujala

University of Eastern Finland, School of Forest Sciences, Finland

Teppo Hujala holds MSc and DSc (Agr. & For.) degrees from the University of Helsinki, Finland. His expertise contains futures research, family forest owners, forest planning, policy analysis, service research, action research, and multicriteria and qualitative methods. He is the prime editor of "Services in family forestry". He has received the IUFRO 3.08.00 Brandl Award for outstanding contribution to the field of small-scale forestry research. In IUFRO, he serves as a Deputy Coordinator of Research Group 3.08.00 Small-scale Forestry, he is a member of the Task Force Gender Equality in Forestry, and Finland's alternate representative in the International Council.





#### Eva Verena Müller

Research Institute of Forest Ecology and Forestry, Trippstadt (FAWF), Germany

Born in Darmstadt/Germany (1979), I first studied performance art at the Folkwang University in Essen. Several engagements at theatres, national and international cinema and television productions followed. 2017, I graduated with a Master of Science at the University of Rostock, which was followed by a doctoral position at the research institute of forest ecology and forestry in Trippstadt/Germany (FAWF). My dissertation examined forest-specific ecosystem services with regard to water balance components in the forest. Since August 2022, I have been employed as scientific assistant at the FAWF in the department "Forest and Water".



#### **Mathias Neumann**

University of Natural Resources and Life Sciences Vienna, Austria

Mathias Neumann holds a tenure track position at BOKU Vienna in the field of "Sustainable Forest Carbon Management". His current research interests focus on carbon cycling in vegetation, litter and soil and the potential of managament to modify these processes. During his two-year research in Australia with Prof. Mark Adams (Swinburne University of Technology, Melbourne), he started working on carbon isotopes and using them to quantify tree water use.



#### **John Stanturf**

Estonian University of Life Sciences, Estonia, and InNovaSilva, Denmark

Dr. John Stanturf is a Visiting Professor at the Estonian University of Life Sciences, and a restoration specialist with In-NovaSilva. He retired in 2018 as a Senior Scientist from the US Forest Service. He continues to consult and conduct training on Forest Landscape Restoration and serves as Deputy Coordinator of the Task Force on "Transforming Forest Landscapes for Future Climates and Human Well-Being." His research on restoration, disturbance, climate change adaptation, and bioenergy is conducted in temperate, boreal, and tropical forests in North and South America, Europe, Africa, and Asia. His PhD in Forest Soils is from Cornell University.

