



# NEWSLETTER

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17 November was initiated as a world day to celebrate the technology of geographic information systems (GIS). The first formal GIS Day took place in 1999. Esri inspired the creation of GIS Day.

GIS is a scientific framework for gathering, analyzing, and visualizing geographic data to help people in making better decisions. Turning data into a compelling map it's about knowing how to uncover stories hidden in your data. It's about telling those stories clearly, and simply. GIS can give your narrative a stronger sense of place, illustrate spatial relationships, and add visual appeal and credibility to your ideas by combining rich text with maps and media of all kinds.

More on: <https://www.gisday.com/en-us/overview>



## LIFE OF THE NETWORK

### CONVERGES Past Events



The Working Group 1 of the COST Action CONVERGES organized a workshop in Antalya (Turkey).

Title : **"Workshop on preparing Manual for riparian alliances on European level and neighboring areas"**.

Date : September 13th and 14th, 2021

Agenda and program can see on:

<https://converges.eu/events/workshop-on-preparing-manual-for-riparian-alliances-on-european-level-and-neighboring-areas/>



**Special Session "River vegetation, the challenges of management and conservation and their values and ecosystem services"** at the 63<sup>rd</sup> International Association of Vegetation Science Symposium

This year the meeting was held entirely online. On 22 Sep 2021 was provided a Special Session entitled "River vegetation, the challenges of management and conservation and their values and ecosystem services", organised by Francisca Aguiar & Rui Rivaes. This special session aimed to share research on efforts to

reduce the impoverishment of aquatic and riparian vegetation including, for example, dam removal, implementation of environmental flows, enhancing water quality and ecosystem rehabilitation, as well as societal and political actions. Additional aim was to identify knowledge gaps and stimulate collaborations amongst scientists to better inform river managers, practitioners, and policymakers for sustainable management of river vegetation and their ecosystem services.

More can find on: [https://www.iavs.org/page/Symposium2021\\_ScientificProgram#session3](https://www.iavs.org/page/Symposium2021_ScientificProgram#session3)



**Workshop "SOCIO-ECOLOGICAL RESTORATION OF RIPARIAN VEGETATION BY INTEGRATING BIOTIC AND ABIOTIC PRESSURES"**.

COST Action members organized this workshop at the 12<sup>th</sup> SERE Conference that held online in the period 7-10 September 2021 (<https://www.sere2021.org>).

The workshop was focused on the discussion how abiotic and biotic factors impact the socio-ecological restoration of riparian vegetation, and the current challenges to improve restoration effectiveness. The workshop was organized by COST Converges members Patricia Maria Rodriguez Gonzalez, Ines Marques, having Simon Dufour, Roland Jansson, Eduardo Gonzalez, and Jonas Oliva as keynote speakers.

### CONVERGES Coming Events



**FINAL Conference of the CONVERGENCE COST Action**

The COST Action CONVERGES is pleased to announce that the final event of CONVERGES COST AG will be part of the FIRST International Conference on RIPARIAN ECOSYSTEM SCIENCE and

MANAGEMENT. It will take place in Bratislava (Slovakia) from 6th to 8th April 2022. The conference is organized by the COST Action CONVERGES (<https://converges.eu/>) and by the Plant Science & Biodiversity Center, Slovak Academy of Sciences.

Deadline for abstract submission : 8th Dec. 2021 (reply to propositions in January 2022).

For contacts: [ripa-1@sciencesconf.org](mailto:ripa-1@sciencesconf.org)

## CONVERGES Publications



**Book INTERPRETATIVE MANUAL OF EUROPEAN RIPARIAN FORESTS AND SHRUBLANDS**, Mandžukovski, D., Čarni, A., Sotirovski K. (Eds.) 2021. Ss Cyril and Methodius University in Skopje, Hans Em Faculty of Forest Sciences Landscape Architecture and Environmental Engineering, Skopje. This book comprises an overview of the riverine, swamp, floodplain forests and shrublands throughout the European continent. This handbook gives elements concerning species composition, ecology and management, distribution, conservation status, threats to biodiversity and challenges, etc.

More on: <https://converges.eu/resources/interpretative-manual-of-european-riparian-forests-and-shrublands/>

## CONVERGES Video



### What is riparian vegetation ? Why is it important ?

This video aim to increase the awareness of the need for riparian forest conservation and restoration.

It is presented on the CONVERGES web

<https://converges.eu/resources/riparian-vegetation/>

Also can see it on vimeo

<https://vimeo.com/647601642>

or youtube:

<https://www.youtube.com/watch?v=ZNZVqY59YRU>

## EXTERNAL ISSUES

### Coming events



**XXII-nd International Multidisciplinary Scientific GeoConference SGEM** will be held in Albena resort, Bulgaria, in the period 2.07-11.072022. Scientific Sections & Topics:- Ecology and Environmental Protection, Environmental Economics, Education in GeoSciences and Legislation Ecosystems; Hydrology and Water Resources, Forest Ecosystems; Marine and Ocean Ecosystems; Science and Technologies in Geology, Exploitation and Mining; Informatics, Geoinformatics and Remote Sensing; Energy and Clean Technologies; Nano, Bio, Green and Space-Technologies for a Sustainable Future.

Presented materials are published in Conference proceedings with SJR.

More on: <https://www.sgem.org>



## Publications



**Assessing a novel modelling approach with high resolution UAV imagery for monitoring health status in priority riparian forests** by J. Guerra-Hernández, R. A. Díaz-Varela, J. G. Álvarez-González & P. M. Rodríguez-González. *Ecosyst.* 8, 61 (2021).

Black alder (*Alnus glutinosa*) forests are in severe decline across their area of distribution due to a disease caused by the soil-borne pathogenic *Phytophthora alni* species complex (class Oomycetes), “alder Phytophthora”. Mapping of the different types of damages caused by the disease is challenging in high density ecosystems in which spectral variability is high due to canopy heterogeneity. Data obtained by

unmanned aerial vehicles (UAVs) may be particularly useful for such tasks due to the high resolution, flexibility of acquisition and cost efficiency of this type of data.

More on: <https://doi.org/10.1186/s40663-021-00342-8>



**forests**

Article “**Species-Specific Effects of Groundwater Level Alteration on Climate Sensitivity of Floodplain Trees**” by M. Šenfeldr, P. Horák, J.

Kvasnica, M. Šrámek, H. Hornová and P. Madera

European floodplain forest is facing increasingly frequent and severe drought events related with ongoing climate change. Moreover, this

ecosystem type was frequently affected by river regulation, leading to groundwater table lowering; however, river revitalization has, in some locations, achieved some restoration of groundwater levels. In this study, we investigated the growth–climate sensitivity and growth modulation after groundwater-level manipulation for *Fraxinus angustifolia* Vahl. and *Quercus robur* L. in one of the most important floodplain forest complexes in Central Europe.

More on: <https://www.mdpi.com/1999-4907/12/9/1178>



**water**

Special Issue of Water: “**Ecosystem Functioning in Rivers and Riparian Zones**”. It belongs to the section “Biodiversity and Functionality of Aquatic Ecosystems”. Dr. Nikolai Friberg, *Guest Editor*.

Rivers and their riparian zones are intimately linked and characterized by an interchange of resources across the land/water ecotone. Due to the multifunctionality of riparian zones, conserving and restoring them could have significant implication in improving biodiversity, water quality, and benefits to humans. This Special Issue focuses on functioning of rivers and riparian zones, from understanding the underlying mechanisms and processes to management options, including restoration strategies.

14 papers are published.

More can find on: [https://www.mdpi.com/journal/water/special\\_issues/Ecosystem\\_Functioning\\_Rivers](https://www.mdpi.com/journal/water/special_issues/Ecosystem_Functioning_Rivers)

## scientific reports

Article **Analysing the distance decay of community similarity in river networks using Bayesian methods** by Dias, F.S., Betancourt, M., Rodríguez-González, P.M. and Borda-de-Água. *Sci Rep* 11, 21660

(2021).

The distance decay of community similarity (DDCS) is a pattern that is widely observed in terrestrial and aquatic environments. Niche-based theories argue that species are sorted in space according to their ability to adapt to new environmental conditions. The ecological neutral theory argues that community similarity decays due to ecological drift. The continuum hypothesis provides an intermediate perspective between niche-based theories and the neutral theory, arguing that niche and

neutral factors are at the opposite ends of a continuum that ranges from competitive to stochastic exclusion. We assessed the association between niche-based and neutral factors and changes in community similarity measured by Sorensen's index in riparian plant communities. More on: <https://doi.org/10.1038/s41598-021-01149-x>

## Initiatives



The EU's biodiversity strategy for 2030 calls for the establishment of a new science-policy mechanism: the so-called **Science Service** aiming at ratcheting up the implementation of biodiversity commitment. In a recent [EU publication](#), Eklipse was recognised as a key initiative that will support the Science Service, alongside [BISE](#), [Oppla](#) and [BiodivERsA](#).

Find out the [Events webpage](#) how Eklipse started to collaborate with the newly established [Knowledge Centre for Biodiversity \(EC-KCBD\)](#) for the requests from EC DG R&I on biodiversity and pandemics. It is welcome the inception of [Biodiversa+](#), the new European Partnership on Rescuing biodiversity to safeguard life on Earth and the launch of their [Calls for research proposals](#) on supporting biodiversity and ecosystem protection across land and sea.

More on: <https://www.biodiversa.org/1759>



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