



Issue: October 2023



Highlights

Access Ecological Research Sites for FREE

APPLY
for 4th eLTER
Transnational
and Remote
Access Call

Open until
31st Jan 2024



Are you a **scientist** working in the areas of **biodiversity, biogeochemistry, hydrology** or **socio-ecological** research?



Do you want to study the natural environment at one of our **well-equipped research sites**?

The eLTER PLUS project opens up the eLTER Sites and Platforms for small and medium size research projects from various disciplines. Through the Access Scheme you can visit one or several of 43 long-term research sites in 19 European Countries (Transnational Access) or have your protocol be performed by local staff (Remote Access), or both.

WHERE DOES YOUR RESEARCH
TAKE YOU?

APPLY NOW

<https://elter-ri.eu/apply-now>



elter-ri.eu

Open call for funded access to 43 eLTER research sites in 19 countries

eLTER announces its **4th call for funded Transnational Access (TA)** and **Remote Access (RA)** for scientists working in the areas of biodiversity, biogeochemistry, hydrology or socio-ecological research.

The eLTER PLUS project opens up the eLTER Sites and Platforms for small and medium size research projects from various disciplines. Through the Access Scheme you can visit one or several of **43 long-term research sites in 19 European Countries** (Transnational Access) or have your protocol be performed by local staff (Remote Access), or both.

The application process starts on **1st November 2023** and will close on **31st January 2024**.

All sites are equipped with state-of-the-art instrumentation to enable comprehensive ecological measurement and experimental campaigns. The long-term data on those sites is available to compare with or to be used as a reference. Likewise, state-of-the-art socio-economic research is conducted at several of them. IT facilities are provided for data upload, storage and processing. **Financial support is available**. For a full list of the sites, which were selected to represent all European biogeographic zones, please visit the [eLTER PLUS TA/RA call for proposals webpage](#). To learn more about the Access program, register to the [TA-RA webinar on 8 November](#).

Photo: A flyer announcing the next TA-RA call



eLTER's 'Market Place'

i ... shall serve as hub for eLTERs research community looking for data to support pan-European or habitat-specific research and [Site and Platform Coordinators](#), who have data to offer.

? What is the aim of the 'Market Place'?

It is clearly intended to optimise the connection/transparency between data providers (site and platform coordinators) and the research community looking for long-term or habitat-specific data. Ultimately, the Marketplace is intended to bridge the gap between the two user groups and boost your research collaborations!

? How does the 'Market Place' help?

With the development of eLTER's service portfolio, the 'Market Place' has been introduced as a service to act as a hub where researchers can publish their requests as data calls in a harmonised way and reach several hundreds of eLTER sites and platforms directly without much effort. Likewise, site and platform coordinators can see the list of data calls, requested data and addressed habitats and directly identify those data calls in which they can participate.

i Information for Site and Platform Coordinators...

i Information for Researchers with Data Requests...

New Service: The 'Market Place'

□ Are you a researcher looking for data to support your pan-European or habitat-specific research? Or are you coordinating a site or platform and have data to offer? [The "Market Place"](#) will serve both to bridge the gap and boost your research collaborations!

□ **Data Requests Made Easy:** Researchers: submit your data requests on the 'Market Place' with just a few clicks and reach several hundred eLTER field sites and platforms. Clear specification from you on what is needed will help you to prepare your request in a standardised way connecting you more easily to the site and platform coordinators.

□ **Coordination at Your Fingertips:** Site and platform coordinators: the 'Market Place' provides you with a streamlined hub for responding to research requests that match your data offerings. Find collaboration opportunities for further funding, research and innovation.

□ **A Seamless Data Exchange:** We provide guidance and templates for you as a site and platform coordinators to share your data. Researchers requesting data will be notified of the outcome as soon as their call for data is closed so they can follow up collaboration opportunities.

□ **Rewarding Collaboration:** Providing rewards to site and platform coordinators is a top priority for us. In appreciation, we ask researchers making data requests to always provide incentives to site and platform coordinators by including them in promotion events of research outcomes and to ensure that data contributions from site and platforms are recognised through proper citation and acknowledgement or by offering a joint authorship of research or data papers.



eLTER led long-term study shows that recovery of European freshwater biodiversity has stalled since the 2010s

eLTER researchers, in collaboration with a large international team, examine the state and development of invertebrate biodiversity in European rivers in the renowned journal *Nature* (620).

In their study, they show that biodiversity in river systems from 22 European countries has increased significantly over a period from 1968 to 2020. However, these increases occurred mainly prior to 2010 and, unfortunately, biodiversity has remained at more or less constant levels since then. While the increases in biodiversity in the 1990s and 2000s likely reflect the effectiveness of water quality improvements and restoration projects, the stagnant trend that followed suggests that past actions have been exhausted.

The authors warn that the stagnated trends indicate that many river systems have not been able to fully regenerate. Therefore, they call for additional measures to revive the recovery of biodiversity in inland waters – freshwater ecosystems that are and continue to be exposed to serious pressures such as pollution, invasive species, and climate change.

Starting from > 150 riverine invertebrate time series from 59 eLTER sites across 9 European countries, eLTER scientists reached out to the wider freshwater biodiversity community in Europe by launching a data call in 2020. This resulted in a comprehensive dataset of 1,816 time series, comprising 714,698 individuals of 2,648 taxa from 26,668 samples.

The analyses show significant increases in biodiversity over the 53-year period. The number of unique taxa increased 0.73 percent per year, the number of groups of taxa performing different ecological roles increased 2.4 percent per year, and total abundance of invertebrates increased 1.17 percent per year.

Link to paper: <https://doi.org/10.1038/s41586-023-06400-1>

Reporting Back



The first physical Sites and Platform Forum meeting

The [Sites and Platform Forum \(SPF\) meeting](#) brought together 67 participants from 19 countries to gather in sunny Austria at [WasserCluster Lunz](#) at the beginning of October. This was the first time that this critical internal eLTER stakeholder group met face-to-face to get to know each other, to learn about the recent developments of the eLTER ESFRI process so far and to give feedback & input to the future steps in the process.

Over the four days various topics were covered, including: the whole systems approach, how being involved in eLTER has supported sites in receiving funding, data related topics, governance, training, and the site labelling process. The main themes for the four days were:

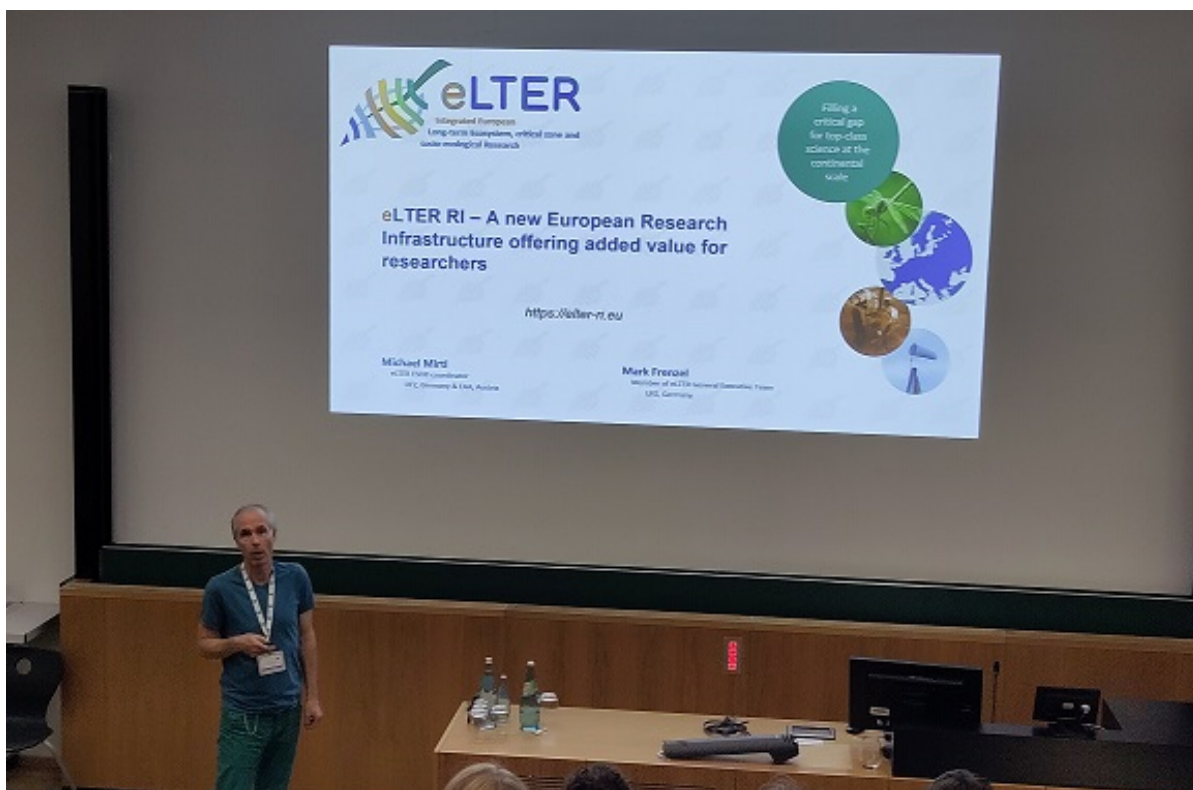
- Networking and collaboration among SPCs
- Guiding the future eLTER RI process
- Synergies across Sites and Platforms
- The future of the SPF

We also had a chance to visit both WasserCluster Lutz and the biological station on the other end of the lake, learning about long-term research done there.

Listening to the vivid discussions and seeing the engagement in the suggested activities showed that we are working with a motivated group of people that will make the journey to an operational eLTER RI much easier.

Everyone seemed very happy to have met others who are facing similar challenges to themselves, and hopefully will have returned home with a clearer understanding of eLTER process and concepts. As one of the participants said in the feedback "I really enjoyed the meeting both personally and professionally."

Photo: Participants at the first SPF physical meeting



eLTER at GfÖ Annual Meeting in Leipzig

From 12-15 September the [annual GfÖ meeting](#), which is an international conference hosted by the Ecological Society of Germany, Austria and Switzerland took place in Leipzig (Germany). More than 1 100 participants from more than 30 countries attended the conference.

One of the 60 thematic sessions was dedicated to "Infrastructures and Networks in Biodiversity Research", a perfect frame for introducing the eLTER Research Infrastructure. To attract people, the eLTER talk was titled "eLTER RI – A new European Research Infrastructure offering added value for researchers" and was delivered by Mark Frenzel from UFZ, Germany.

The focus of the presentation was to introduce eLTER, its stage of development, the concept of standard observations safeguarding harmonised data generated at eLTER sites in the future and finally the multiple benefits created by eLTER: these are ranging from networking opportunities to data access, services and tools.

Finally, the way in which eLTER is linked as a use case to the German [NFDI4Biodiversity](#) (NFDI= National Research Data Infrastructure) was described. The emphasis is on creating a workflow for a functional national node for German eLTER data.

Photo: eLTER presentation during the GfÖ Annual Meeting



eLTER at the Galileo Conference in Naples

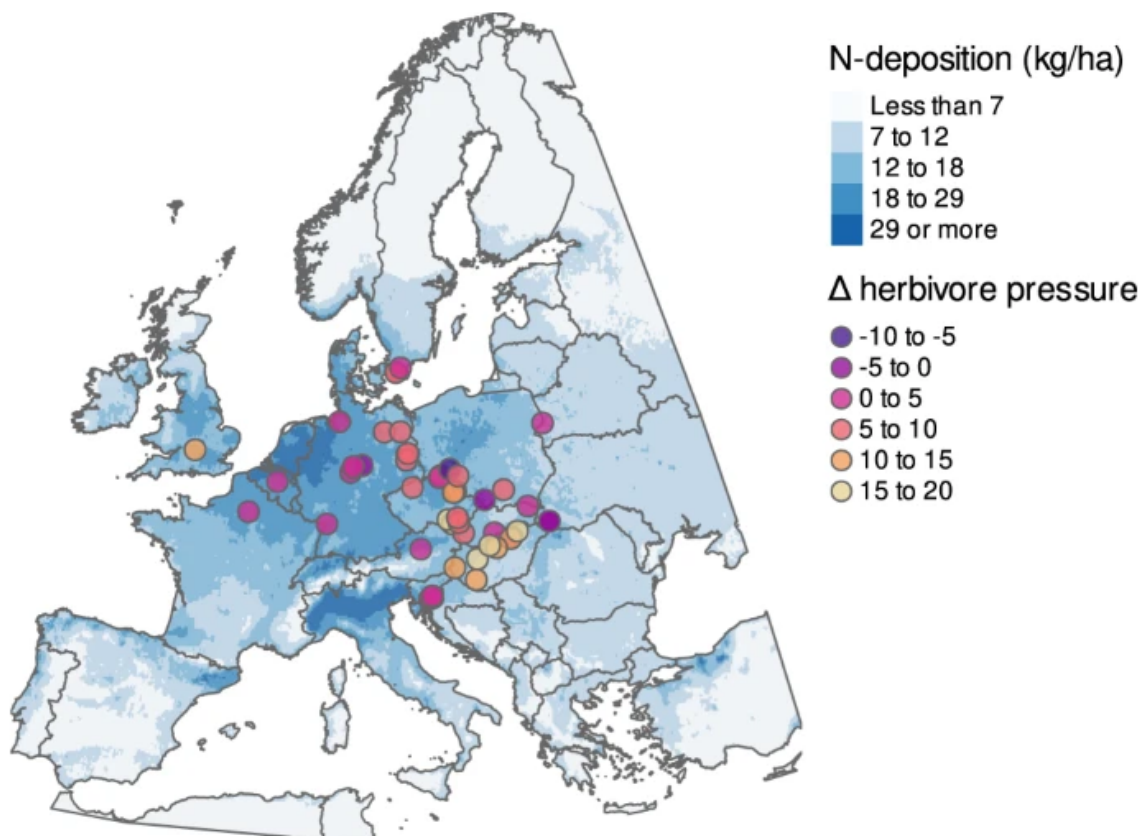
The 8th Galileo Conference on hydrological observatories was held from 12-15 June 2023, at the enchanting Historical Complex of Saints Marcellino and Festo in Naples, Italy. Organised by the Interdepartmental Center for Environmental Research (C.I.R.A.M.) of the University of Naples Federico II, the event brought together 110 participants from 19 countries.

eLTER was represented at the conference by two members, Harry Vereecken and Steffen Zacharias. Both chaired breakout sessions, with Harry Vereecken leading a discussion on developing a strategy for a European network in hydrological observatories, and Steffen Zacharias focusing on the eLTER Standard Observations and their relationship to hydrology. The feedback from these sessions was overwhelmingly positive, sparking significant interest among participants to engage in the eLTER RI.

During the conference's second day, Steffen Zacharias delivered a dedicated keynote presentation on eLTER as a network. The criteria for joining eLTER were outlined, accompanied by results from eLTER PPP and eLTER PLUS projects. This conference not only facilitated valuable discussions but also served as a catalyst for considering the Naples community as a potential nucleus for an expert group in hydrology—a concept that was poised for further development in the future.

Photo: Announcement slide for the Galileo Conference in Naples

Latest Research



New eLTER PLUS Nature Communications paper in cooperation with forestREplot

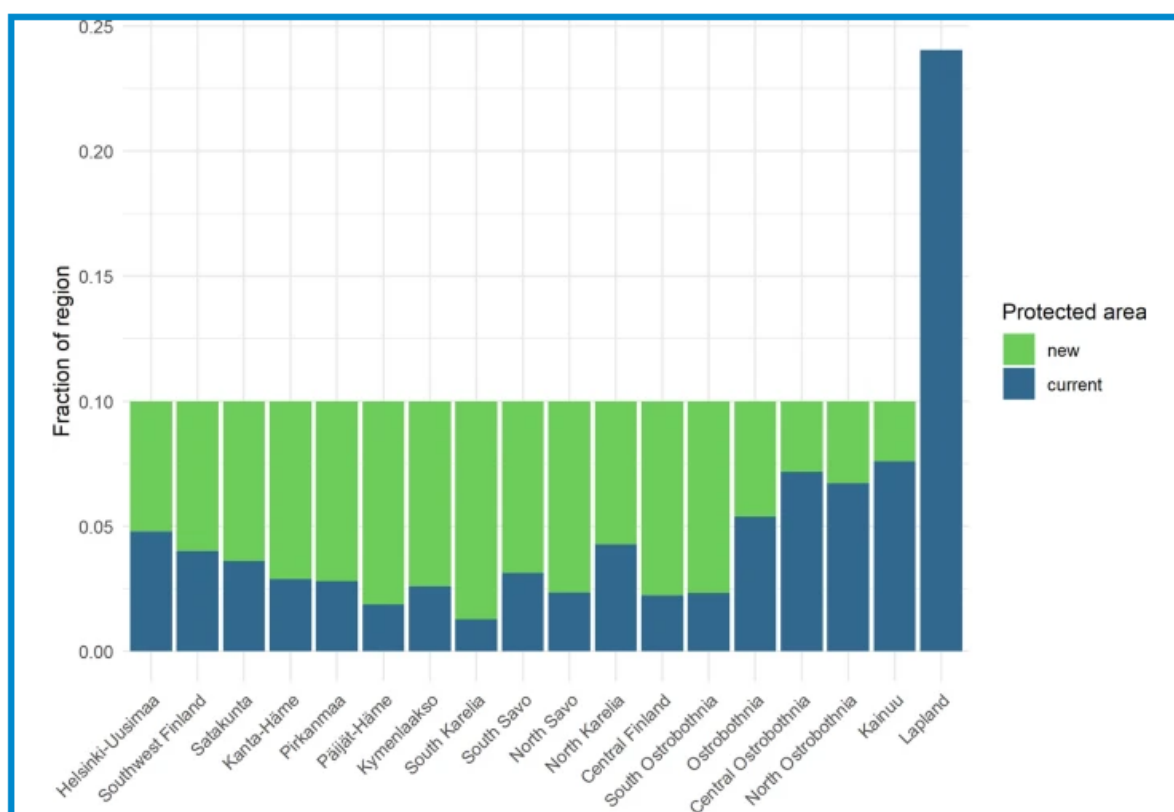
A new [scientific paper](#) in *Nature Communications* acknowledges the eLTER PLUS project. It has been developed in cooperation with [forestREplot](#), which is a database of long-term forest herb layer data of European broadleaf forests also including a couple of LTER Europe sites (e.g. [LTER Zöbelboden](#) in Austria).

The paper combines vegetation resurveys from 52 sites across 13 European countries to test how changes in ungulate herbivory and eutrophication drive long-term changes in forest understorey communities.

It claims that increases in herbivory were associated with elevated temporal species turnover, however, identities of winner and loser species depended on nitrogen (N) levels. Under low levels of N-deposition, herbivory favored threatened and small-ranged species while reducing the proportion of non-native and nutrient-demanding species. Yet all these trends were reversed under high levels of N-deposition. Herbivores also reduced shrub cover, likely exacerbating N effects by increasing light levels in the understorey. Eutrophication levels may therefore determine whether herbivory acts as a catalyst for the “N time bomb” or as a conservation tool in temperate forests.

Read more in the paper [here](#).

Fig. 1: Spatial distribution of resurvey sites, N-deposition in the year 2000, and changes in (Δ) herbivory pressure across Central Europe.



Special issue on “Integrating carbon sequestration and biodiversity impacts in forested ecosystems”

A special issue with the above title was published in the journal *Ambio* on 16 October 2023. This issue contains several papers where LTER data has been used in spatial modelling, remote sensing, developments of research infrastructures, and prioritization of important areas for biodiversity and carbon values.

The special issue also contains papers on economic instruments and policy integration. Several other open access papers available online:

(1) [Modelling the regional potential for reaching carbon neutrality in Finland: Sustainable](#)

[forestry, energy use and biodiversity protection](#)

(2) [Effect of forest management choices on carbon sequestration and biodiversity at national scale](#)

(3) [Utilizing historical maps in identification of long-term land use and land cover changes](#)

(4) [Reforming a pre-existing biodiversity conservation scheme: Promoting climate co-benefits by a carbon payment](#)

Photo: Fraction of new protected forested area needed in the 18 administrative regions of mainland Finland to reach the 10% protection target of the EU biodiversity strategy, part of article (1).

eLTER Videos

Starting from this newsletter, we are introducing eLTER through the videos made during the trainings, meetings and workshops of the infrastructure. This way you can better get to know the faces and voices of eLTER! We start with the eLTER Mallorca consortia meeting (16-20.05.2022), the first project physical event to get on with the eLTER ESFRI process.



Future Events and Calls

eLTER SPF Webinar: 4th eLTER Transnational and Remote Access Call

Date: 08 November 2023 | **Place:** Online

Are you a scientist working in the areas of biodiversity, biogeochemistry, hydrology or socio-ecological research? Do you want to study the natural environment at one of eLTER's well-equipped research sites?

The eLTER PLUS project opens up 43 long-term research sites in 19 European Countries.

We are organising a webinar to introduce you to the TA-RA program, provide some insights from the perspective of current TA-RA project PIs, and to give you the chance to ask questions regarding your own ideas.

[Learn more](#)

2nd Workshop on "Carbon Allocation in Plants"

Date: 20-21 November 2023 | **Place:** Versailles, France

The second edition of the ["Carbon Allocation in Plants" workshop](#) will be held in Versailles, France on 20 - 21 November 2023. It will focus on carbon allocation and acquisition and will address molecular physiology, modelling, and ecophysiology approaches to study carbon allocation.

The workshop aims to bring together European scientists working in this field to discuss the latest advances and their applications.

[Learn more](#)

ICOS Nordic 2023

Date: 21-22 November | **Place:** Bergen, Norway

The [4th ICOS Nordic conference](#) will be held 21-22 November 2023 in Bergen, Norway with two full days of scientific program (9 am – 5 pm) followed by side-events on 23 November.

[Learn more](#)

eLTER SPF Webinar: Data Papers

Date: 22 November 2023 | **Place:** Online

The eLTER SPF webinar on Data Papers will be held online on November 22 2023. The presenters will be Tanja Lindholm and Allan T. Souza, from the University of Helsinki (Finland), who will present relevant information regarding data paper publishing. The focus will be on ecological and environmental research, data publishing, and user experiences in academia.

[Learn more](#)

eLTER PPP & eLTER PLUS SC meeting

Date: 28-29 November 2023 | **Place:** Paris, France

The next eLTER PPP&PLUS steering committee meeting will take place on 28-29 November 2023 in Paris, France.

[Learn more](#)

eLTER Talk: María Begoña García

Date: 04 December 2023 | **Place:** Online

The fifth eLTER Talk for 2023 will be done by María Begoña García. More details about the title of the event and link to the meeting to be confirmed

[Learn more](#)

AGU23: Wide.Open.Science.

Date: 11-15 December 2023 | **Place:** San Francisco, USA and online

For more than 100 years AGU has been opening science - opening pathways to discovery, opening greater awareness to address climate change, opening greater collaborations to lead to solutions and opening the fields and professions of science to a whole new age of justice equity, diversity, inclusion and belonging.

Learn more

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