

## Job opportunities / grants

### → Assistant Professor position in Conservation Science Department of Environmental Science, Policy, and Management, University of California, Berkeley, USA



We view conservation science as interdisciplinary and applied by necessity; combining aspects of biology, ecology, geography, data science and environmental policy, management, and justice to dissect threats and generate solutions related to biodiversity loss, climate change, land conversion, unsustainable consumption, water scarcity, wildfire, disease, invasive species, and other challenges. We seek applicants whose work addresses conservation issues in a broad sense, including (but not limited to) approaches from population or community ecology, wildlife, fisheries or habitat conservation, forest or rangeland science, computer/data science or ecoinformatics, protected area or working lands management, and conservation governance, planning, policy or effectiveness.

More information and application here.





### → Tenure-Track Assistant Professor or Associate Professor in Freshwater Ecology Department of Biology, Faculty of Science, University of Copenhagen, Denmark

The selected candidate is expected to take a leading role in the establishment of an externally funded research program focussing on pelagic freshwater ecology. In addition to research, duties also include teaching and supervision of students at the undergraduate, graduate and PhD-levels, with prime course assignments within the Biology degree program. The position may also include duties requested by the department such as departmental citizenship tasks.

The candidate will be embedded in the Section for Freshwater Biology. Research in the section spans all types of freshwaters, generally applying a broad, ecosystem oriented approach. Specifically, research focuses on production and transformation of organic matter, biogeochemical processes, ecology and physiology of aquatic organisms, biodiversity, food chain interactions, and influence of climate change, land use and nature restoration on ecosystem quality. The research is conducted with a local, regional and global scope. The section has well-equipped state-of-the-art laboratory facilities, including temperature controlled rooms and a greenhouse.

More information here.

# → PhD position in ecological modelling of biodiversity in riverine networks University of Natural Resources and Life Sciences, Vienna, Austria



Over one million barriers on Europe's rivers have resulted in extensive loss of river connectivity. Moreover, 70-90 % of Europe's floodplains are ecologically degraded due to human modifications. Thus, it is overdue to integrate spatio-temporal connectivity across the hydrographic network of rivers into biodiversity analyses to allow for accurate biodiversity. We are looking for a PhD-candidate who focuses on modelling approaches (1) to analyse freshwater biodiversity in relation to river networks and their connectivity, (2) to develop generic and scalable workflows related to biodiversity, and (3) to highlight prerequisites for monitoring of riverine biodiversity across large spatial extents.

More information and the general BOKU PhD entry requirements can be found here.

#### Universität Zürich<sup>™</sup>



#### → PhD position in Community and Ecosystems Ecology

University of Zurich and the Department of Aquatic Ecology of Eawag, Switzerland

Using existing experience and data as a springboard, we will focus on freshwater macroinvertebrates (amphipods) to study meta-ecosystem dynamics in freshwater streams. For the project, we offer state-of-the-art infrastructure, access to extensive indoor and outdoor mesocosm facilities as well as access and long-term data from a set of headwater streams that we have been monitoring over the last decade. The planned research project will fit in the wider range of research conducted in the Altermatt lab, involving conceptual and experimental work on meta-ecosystems including theory and microcosm experiments, and environmental DNA (eDNA) techniques.

Deadline for application: 25 February 2023

For more information here.

#### → Postdoc position in Bioinformatics

IGB

Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), Germany

For the EU-Biodiversa project "Aquatic FUNgal biodiversity: developing knowledge and strAtegies to inform ConservaTION priorities and measures (FUNACTION)" with partners from Sweden, Estonia, Switzerland, Italy and Portugal, we are inviting applications for a postdoctoral position starting in April-May 2023 with a duration of 36 months. The postdoctoral project centres on the assessment of the positioning, performance, and effectiveness of existing priority areas for protecting aquatic fungal (AF) biodiversity and function across position in watershed, season, and mesohabitat via identification of spatiotemporal AF biodiversity and functional patterns and their drivers as well as comparison among different landscape units and protection status.

Deadline for application: 15 February 2023

For more information here.

#### → Bolsa de Mestre

#### Departamento de Biologia, Universidade de Aveiro, Portugal



A tender is hereby opened for the award of 1Research Grant (RG) under the service agreement of the University of Aveiro – Effects of Extreme Events on aquatic ecosystems – phytoplankton and phytobentos of the Biology Department/GeoBioTec.

Deadline for application: 6 February 2023

Conditions and complete information can be found here.

# → PhD position in stream metacommunity ecology University of Canterbury, Christchurch, New Zealand



You will develop a project on spatio-temporal dynamics of stream metacommunities. You will have the flexibility you need to create and develop your own ideas while relying on my assistance. The main topics to be potentially explored include:

- the role of keystone communities in stream metacommunity dynamics;
- how stream connectivity affects community recovery;
- the effects of habitat loss vs. habitat deterioration on metacommunity dynamics;
- contexts in which stochasticity decouples biodiversity responses from environmental variation.

For more information, please contact Dr. Tadeu Siqueira (<u>tadeu.siqueira@canterbury.ac.nz</u>).

#### → Post-Doc in Aquatic Ecology/Ecotoxicology



France's National Research Institute for Agriculture, Food and Environment

This 18-month post-doc position, analyzing the influence of toxic chemical contamination on stream invertebrate communities, is in line with the dynamic of the team's work on the use of the sentinel species *Gammarus fossarum* in the field of biomonitoring the effects of chemical pollution in rivers.

You will be in charge of 1/ an inventory of the available data on the hydro-regions covered by the RMC basin in order to define different study areas presenting a homogeneity of the expected species assemblages; 2/ the study on different spatial scales of the relationship "ecotox indicators vs. species abundance/diversity"; 3/ the identification for sensitive and tolerant taxa to toxic chemical pressure, thus questioning the phylogenetic or functional determinants of species vulnerability; 4/ the analysis of the faunistic lists observed in the monitoring networks in order to identify a possible impact of chemical pressure on the stations not currently monitored by gammarid caging; 5/ the communication of the results.

Application and more information by e-mail <a href="mailto:arnaud.chaumot@inrae.fr">arnaud.chaumot@inrae.fr</a>.

# → PostDoc position in freshwater ecology and conservation Balaton Limnological Research Institute, Tihany, Hungary



The researcher can either use our fish data base and long term monitoring data sets to provide high quality publications on the effects of anthropogenic activities and/or biological invasions on the diversity and community organization of fish communities and/or develop own research project(s) in the field of fish ecology and conservation. For field studies a variety of fishing devices are provided while for experimental work aquaria with different sizes are available in the laboratory of the institute. Conducting meta-analyses or writing systematic reviews which are related to the structure, functioning and conservation of freshwater ecosystems is also an option, as well as continental scale studies using large scale data bases. For developing ideas, specific details of the work of the Fish and Conservation Ecology research group of the institute can be found <a href="https://example.com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-com/here/conservation-conservation

Deadline for application: 25 February 2023

For more information, contact with Dr. Tibor Erös (eros.tibor@blki.hu).

#### → Two PhD positions in aquatic ecology and biodiversity Centro Superior de Investigaciones Científicas, CSIC, Spain



We are looking for two motivated students with a Master degree in the areas of mathematics, computer science, physics, mathematical biology, or theoretical ecology willing to complete a doctoral degree in either a Complex Systems PhD program (UPM, the Technical University of Madrid) or and Aquatic Ecology PhD program from University of Barcelona or Girona under the supervision of Jose Angel Capitan (UPM) and David Alonso (CSIC) in the framework of a recently granted coordinated project entitled "UNIQUE-PRIORITY: Unveiling the dynamic equations for eco-evolutionary systems in the face of environmental uncertainty and limited data"

Contact details and more information: David Alonso (<a href="dalonso@ceab.csic.es">dalonso@ceab.csic.es</a>) and José A. Capitán (<a href="jacapitan@upm.es">jacapitan@upm.es</a>).

# → Postdoc position in Watershed Nutrient Cycling Aquatic Biogeochemistry Group, University of Lethbridge, Canada



A fully funded, two-year postdoctoral fellowship (PDF) is available to investigate wetland nutrient retention and phosphorus and nitrogen cycling in a multi-use agricultural watershed in southern Alberta, Canada. The project background is about The Frank Lake wetland, which drains into the Little Bow River and Twin Valley Reservoir. This watershed is faced with degradation of habitat and water quality due to its long history of intensive landuse, and inputs of agro-industrial and municipal effluent. There is concern about the effects that nutrient loading is having on the wetland, the river, and the downstream multi-use reservoir.

For more information, please email Dr. Bogard (<u>matthew.bogard@uleth.ca</u>).

## Conferences, workshops and courses

#### **→LAC Fisheries Congress 2023**

Cancún, México, 15-18 May, 2023

On behalf of the 1st Latin American and Caribbean Fisheries Congress (LACFC) planning committee and partners, we wish to invite you to join us in Cancun, Mexico from May 15-18, 2023, for this new event which aims to foster a renewed sense of collaboration and connection among fisheries science professionals from across the Americas through the sharing of scientific knowledge and strengthening of regional ties. We would be honored if you consider sharing your research and ideas by submitting an abstract to one of our 25 unique symposia, and by registering for the event.

While we encourage you to read through our symposia and other information available in the attached brochure and here on our website, we have also prepared an informational webinar where you may learn more about the purpose of this event, our program, and receive answers to any of your questions from some of our co-chairs and staff. You can register for that above.

As leaders in your field and country we would especially appreciate it if you could share this message with your colleagues to help us have better representation of your interests and country.

More information <u>here</u>.

→ XIX Spanish Biometric Conference and VIII Ibero-American Biometric Meeting (CEB-EIB 2023) Toledo, España, 21-23 Junio, 2023



El Centro Ibérico de Restauración Fluvial (CIREF) junto con la Condeferación Hidrográfica del Tajo (CHT), Wetlands International y la Dirección General del Agua del Ministerio para la Transición Ecológica y el Reto Demográfico de España, tienen el placer de comunicarles el lanzamiento del IV Congreso Ibérico de Restauración Fluvial, RestauraRíos 2023. Esta edición estará dedicada a reflexionar sobre los desafíos que tenemos por delante en materia de restauración fluvial con vistas al 2030.

El año 2030 se presenta como una fecha clave para la salud de los ríos europeos. RestauraRíos 2023 va a ser el foro en el que se lleve a cabo una reflexión y un intercambio de información entre las personas preocupadas por la salud de los ríos, ya que se dará cita a personas relacionadas con la gestión, la investigación y la planificación fluvial, expertos/as en restauración fluvial, naturalistas, voluntariado de la conservación fluvial, comunicadores o personas interesadas en la recuperación de nuestros ríos. De este modo concurrirán personas procedentes de confederaciones hidrográficas, administraciones estatales y autonómicas, diputaciones, ayuntamientos, agencias del agua, consultorías, universidades, centros de investigación, medios de comunicación, ONGs y asociaciones a nivel regional, nacional o internacional y vinculadas a los ecosistemas acuáticos o sean parte de algún grupo de interés sobre la conservación fluvial en cualquier lugar de la Península Ibérica o del resto de Europa.

### →13th Symposium for European Freshwater Science

Hosted by: Freshwater Biological Association **18 – 23 June 2023**, Newcastle University, UK



Registration is now open <a href="here">here</a>, and full details of the exciting conference excursions will be added to the website over the next few weeks so watch this space! These excursions will showcase the best of the region's fabulous environment, culture and heritage and are an excellent way to network with your peers. Other networking and training opportunities will be offered via a range of workshops and the gala dinner, which will take place at St James' Park.

Call for abstracts is also open here. Submission deadline is 24 February 2023.

The Iberian Association of Limnology (AIL) offers **2 grants** for **students** and **1 grant** for **early-career** to attend and present a communication at the 13th Symposium for European Freshwater Science SEFS13.

The information of this call and the formulary for the presentation is <a href="https://example.com/here.">here.</a>
The grants will cover the early registration fee for **2 students** (280€ each) and **1 early registration fee** for regular participants in the case of early-career (510€ each).

- The **students grant** is open to **members of the Young AIL group** (J-AIL) or student members of **SIBECOL** that have their AIL or SIBECOL **fees updated** when this call opens.
- The early-career grant is open to ordinary members of AIL and SIBECOL that defended his/her PhD up to 5 years ago that have their AIL or SIBECOL fees updated when this call opens.
- The candidates must be the **first author** and the presenters of the communication at the meeting.
- This grant cannot be accumulated with any other grants covering the registration fee to the same meeting.
- This grant will be attributed only if the candidate's institution does not grant him/her with the registration fee, which needs to be testified in a written declaration to be signed by the candidate.

The application form and associated documents need to be sent by e-mail, in a single PDF file, to the AIL secretary (<u>secretaria@limnologia.net</u>) before **1st March 2023**.

## → ASLO Aquatic Science Meeting

4 – 9 June 2023, Palma de Mallorca, Spain

As you know, as AIL and SIBECOL members we agreed with the ASLO to benefit from the same registration discount than a ASLO member. Anyone interested has to express its interest before 1st of February sending an email to <a href="mailto:secretaria@limnologia.net">secretaria@limnologia.net</a>.

We will then make a list of all members interested, provide it together with SIBECOL secretary to the ASLO and then be back to you with the codes before the 15th February.



- Modelos de distribución de especies con estadística bayesiana en R

   2nd edition. 30

  January to 3 February, Online live. More here.
- Introduction to transposable element detection using sequencing data— 2nd edition. 20 to 24 March, Online live. More here.
- Graphs with R's ggplot– 2nd edition. 11 and 12 April, Online live. More <u>here</u>.
- Data Manipulation with R Tidyverse 2nd edition. 17 to 20 April, Online live. More here.
- Introduction to Palaeogenomics 3rd edition. 15 to 26 May, Online live. More here.
- Environmental variables: how to download and process them with R 5th edition. 1 and 2 June, Online live. More <a href="here">here</a>.
- Modelos Generalizados Aditivos Mixtos (GAMM) para datos con estructuras de correlación en tiempo y en espacio 2nd edición. 26 to 30 June, Online live. More here.
- Species occurrence data download and cleaning with R 4th edition. 3 and 4 July,
   Online live. More <a href="here">here</a>.

Remember you have special discounts (20%) for being sibecol member.

## Other interesting information

#### → Call to the XXXV PREMI INTERNACIONAL CATALUNYA 2023

It is given to those persons who have made key contributions to the development of cultural, scientific or human values around the world. Deadline for submitting candidatures **1 March 2023**.

Submission of candidatures must be done through the Gencat's page Procedures, by entering the proposing letter and curriculum vitae <a href="here">here</a>. For any problem, contact the prize's secretariat, at pic@gencat.cat.

### → Third Call for Transnational Access to European Aquatic Mesocosm Facilities in 2023

The EU Research Infrastructure project AQUACOSM-plus has opened the third call for Transnational Access (TA) in 2023 to more than 60 aquatic mesocosm facilities throughout Europe. AQUACOSM-plus provides funding to academic and industrial (including SMEs) research groups, individual scientists, experts, professionals and university students from all over the world (up to 20% non-Europeans and associated countries) to participate in mesocosm experiments that have been planned by the facility providers; propose own ideas for mesocosm experiments at the partner facilities in cooperation with the local team; participate in or propose coordinated experiments at several partner facilities in cooperation with an international team

More information on the TA APPLICATION PROCESS and DEADLINES for individual calls at the respective facilities can be found <a href="https://example.com/here">here</a>.

#### → Call for students and Postdocs to visit eLTER sites and do some joint research



Are you a scientist working in the areas of biodiversity, biogeochemistry, hydrology or socioecological research? Do you want to study the natural environment at one of our wellequipped research sites?

Through its dedicated access scheme, the eLTER PLUS project opens up the eLTER Research Infrastructure (eLTER RI) and aims to attract a wide range of users from various disciplines. The scheme addresses both physical access to long-term research sites (Transnational Access-TA) and an access mode in which local site staff perform measurements/sampling according to user defined protocols (Remote Access-RA), or a combination of both.

More information here.

# Final degree, master and thesis abstracts

→ PhD THESIS: Carbon fluxes in a Mediterranean reservoir under a scenario of changing hydrology

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Sup: Enrique Moreno Ostos and Rafael Marcé Romero

University of M alaga

Inland waters have been related to human development from ancient times supporting us with a wide range of ecosystem services. Recently, it has been highlighted the key role that these systems play in the global carbon cycle becoming a key element in weather regulation and climate change adaptation policies. Within inland waters, reservoirs have been reported as one of the most active compartments in the global carbon cycle. The number of reservoirs is in expansion due to population growth, linked to an increase in water and energy demand. Beside that, climate change and direct anthropogenic pressures (irrigation, land use changes, etc.) trigger alterations in hydrology and thermal structure which could modify carbon fluxes in aquatic ecosystems. Furthermore, the last report of IPCC (AR6) points out the Mediterranean region as one of the most affected by these pressures.

Although there has been an important improvement in the scientific knowledge about carbon fluxes in reservoirs there is still a lack of information due to its high spatial and temporal variability and this is especially conspicuous for Mediterranean ecosystems. Therefore, more research is necessary to understand the effects of hydrological and thermal structure changes on carbon fluxes in Mediterranean reservoirs in order to be able to improve predictions and anticipate and reduce climate changes effects. This thesis tackles the effect of hydrological and thermal structure changes in carbon fluxes in a Mediterranean reservoir (El Gergal, Seville) measuring CO2 and CH4 fluxes from water surface, CO2 fluxes from drawdown areas and the accumulation of CO2 and CH4 in the hypolimnion. The results showed that hydrology and thermal structure (i.e. water level, water residence time and stratification length) have an impact on carbon fluxes in the reservoir affecting CO2 and CH4 fluxes. In an annual balance, El Gergal acts as a net source of carbon to the atmosphere. Global potential warming and C emissions are more intense during the stratification period. During stratification, water level is lower, increasing drawdown areas and, therefore, rising CO2 emissions from these surfaces. In addition, water column stratification and higher residence time enhance anoxia in the bottom of the reservoir promoting anaerobic respiration of organic matter. This leads to higher production of CH4 that together with lower water level will increase diffusive and ebullitive fluxes of CH4. Furthermore, anaerobic processes produce reduced substances (e.g. HS -), impairing water quality, and accumulate CO2 and CH4 in the hypolimnion that could be released to the atmosphere during fall turnover. These results suggest that longer stratification periods with more frequent and intense droughts, which lead to low water episodes with higher residence time and higher risk of anoxia, will impair water quality and enhance the carbon footprint of reservoirs.

→ PhD THESIS: Unveiling character evolution in peridinioid dinoflagellates: clarifying phylogeny towards a stable classification

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Sup: António José de Brito Fonseca<sup>1</sup>, Sandra Carla Fernandes Craveiro <sup>1</sup> and Øjvind Moestrup<sup>2</sup>

- <sup>1</sup> University of Aveiro, Portugal
- <sup>2</sup> Copenhagen University, Denmark

Dinoflagellates are protists with unusual behavioural and cellular features, found in both marine and fresh water. Their traditional classification, based mainly on the externa morphology, is not supported by current knowledge on detailed cell ultrastructure combined with DNA-sequence based phylogenies. The application of this combined approach to the group of armoured dinoflagellates traditionally organized around the genus Peridinium, the so-called peridinioids, has induced changes in our understanding of the phylogeny of this group, some of them quite unexpected. Detailed ultrastructural examination of further peridinioids is required to establish phylogenetically relevant characters in the group, and to provide realistic scenarios of character evolution in dinoflagellates. In the present work, several dinoflagellates isolated into culture from freshwater bodies in Portugal (W Iberia) were examined ultrastructurally and included in ribosomal DNA-based phylogenetic hypotheses. One proved to be a new species of the woloszynskioid genus Tovellia, described as T. rubescens sp. nov. based on regular colour changes from yellowish-green to reddish observed in cultures of this organism. Detailed ultrastructural analysis of T. rubescens afforded the opportunity to confirm the stability of several fine-structural features associated with the Tovelliaceae, a group relevant for the understanding of the features of the ancestral to the peridinioids. The discovery in Portugal of a Sphaerodinium species different from the one previously examined in detail represented the first demonstration of species-level diversity in the genus by modern techniques and allowed the verification of significant, unusual characters potentially characteristic of the genus, again with relevance to our understanding of plesiomorphic characters in peridinioids. The examination of a strain of typical Parvodinium, a genus segregated in 2008 from the genus Peridinium solely on the basis of plate arrangement, resulted in the addition of a fine-structural identity to the genus that will allow further comparisons to be made within the family Peridiniopsidaceae. Detailed finestructural examination of this strain of Parvodinium umbonatum—P. inconspicuum species complex (which includes the type of the genus) afforded the recognition of characters potentially typical of Parvodinium, which do not correlate with amphiesmal plate arrangements. The presence of two somewhat different populations identifiable as Peridiniopsis cunningtonii in a nearby lake afforded the opportunity to reassess the affinities of this species, which also revealed a closer relationship with Parvodinium than with Peridiniopsis; a new combination, Parvodinium cunningtonii comb. nov., was proposed, and a new variety was described, Parvodinium cunningtonii var. inerme var. nov. These observed affinities highlight the current uncertainty about all species of Peridinium, Peridiniopsis and Parvodinium that have not yet been examined by modern methods. Tentative scenarios of character evolution in peridinioids were also presented in this work, incorporating the newly obtained fine-structural information and highlighting the need for further stabilization of genus, family and order level classifications, and the necessity for a reavaluation of the wealth of fine-structural dinoflagellate features uncovered during the past 20 years.

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