

XXII Symposium of the Iberian Association of Limnology (AIL)
University of Vigo
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Guest Editors
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PREFACE

Inland The XXII Symposium of the Iberian Association of Limnology (AIL) was held at the University of Vigo, Vigo, Spain, from June 23rd to 28th, 2024. Under the theme “Aquatic ecosystems under threat: improving our knowledge to mitigate the effects of global change, promoting adaptive management and involving citizens,” this in-person conference brought together around 300 researchers and students from over 20 countries, primarily from Europe and Latin America, to share their expertise and discuss some of the most pressing environmental and societal challenges. The meeting featured 214 oral presentations and 112 poster presentations, organized into 16 regular and 7 special scientific sessions. Topics covered a wide range of areas in ecological research, including ecology, community ecology, microbial ecology, aquatic biodiversity, functional diversity, ecohydrology, ecosystem services, ecosystem functioning, aquatic invasive species, biogeography, evolutionary ecology, global change, climate change, environmental monitoring, aquatic restoration, urban water ecosystems, water management, wetland restoration, reservoir management, non-perennial rivers, extreme aquatic ecosystems, and environmental risk assessment. Special sessions focused on aquatic ecotoxicology, groundwater, adaptive management, eDNA, LTER (Long Term Ecological Research), biodiversity conservation, and Justice, Equity, Diversity and Inclusion (JEDI). Additional themes included meta-systems ecology, pollination ecology, and the effects of urbanization, microplastics, salinization, and wildfires on aquatic ecosystems. In addition to the scientific sessions, the conference offered three technical workshops designed to provide hands-on training. The first workshop focused on meta-analysis in limnology, introducing statistical tools for evidence synthesis and data integration. The second covered the essentials of eDNA-based biodiversity assessments, addressing both the strengths and limitations of molecular tools in freshwater monitoring. The third workshop introduced scientific illustration using Inkscape, emphasizing effective visual communication and figure design for ecological research. Throughout the six-day event, invited keynote speakers presented cutting-edge research. Dr. Florian Leese (University of Duisburg-Essen, Germany) delivered the Margalef Conference titled “Beyond hype: Towards the reliable use of DNA-based biodiversity data in freshwater research & application.” Dr. Katrin Attermeyer (WasserCluster Lunz & University of Vienna, Austria) gave the Young AIL lecture, “Speed bumps and highways: aquatic carbon processing from source to sea.” Dr. Sebastian Birk (University of Duisburg-Essen) presented the European Senior Scientist lecture, “Building blocks for upscaling freshwater restoration: The role of science in a trans-disciplinary challenge,” sharing insights from the H2020 MERLIN project. Dr. Sonja Ehlers (Alfred Wegener Institute, Germany) gave the European Younger Scientist lecture, “Plastic pollution research in aquatic ecosystems.” Finally, Dr. Leandro Juen (Universidade Federal do Pará, Brazil) delivered the Iberoamerican Lecture, “Alteraciones ambientales y sus efectos en la biodiversidad de insectos acuáticos en la Amazonia,” focusing on the effects of land-use changes on aquatic insect biodiversity in the Amazon. The Gender & Science Group of AIL presented a talk analyzing the impacts of climate change on freshwater ecosystems and the role of women, using art as a lens of interpretation. The symposium aimed to promote inclusive scientific events, ensuring that everyone felt safe and had equal opportunities to participate. The 2024 AIL “Trajectory Prize” was awarded to Maria Rosa Vidal Abarca for her outstanding contributions to ecology. Her keynote talk, “Pocas ‘luces’ y muchas ‘sombas’ en el cuidado de mayores desde una perspectiva de género: Un análisis desde la Academia,” offered a compelling reflection on gender, science, and care work, challenging scientists to consider broader societal responsibilities. The symposium also celebrated young researchers with the Best PhD Thesis Awards. Keynote presentations were delivered by Carlos Cano Barbacil (“Hydrological alteration, critical swimming speed and life history in inland fish”) and Ana Portela (“Linking biodiversity, ecosystem services, and ecological stability for river ecosystem sustainability”). A round table titled “Shallow Lakes at Risk” featured contributions from Josefina Maestu (Honorary Professor, University

of Alcalá de Henares), Eduardo de Miguel (Director, Fundación Global Nature), Mónica Velo (Aguas de Galicia), and Ignacio Granados (Sierra de Guadarrama National Park), who presented the current status of these ecosystems and engaged in a lively discussion with the audience. One of the main goals of the meeting was to foster diversity and inclusion within the limnological community, while supporting and inspiring students and early-career researchers attending for the first time. Through scientific sessions, workshops, and social activities — including a conference dinner, a mixer with traditional Galician music and seafood, and field trips to the Cíes Islands (part of the National Park) — the symposium created a welcoming and dynamic space for collaboration and exchange. On behalf of the organizing and scientific committees, I would like to thank everyone who made this event a success. Special thanks to Josefina Garrido for her unwavering support from the start, and to Iria Villar for her continuous help throughout the process. I am also deeply grateful to all colleagues from the University of Vigo who contributed to organizing this meeting — it was truly a great team effort. Thanks as well to the AIL board, the AIL membership (including J-AIL), and the AIL Gender & Science Group for their ongoing support, suggestions, and commitment to inclusivity. We also thank the University of Vigo and the City Council for their institutional support. Finally, heartfelt thanks to all participants — to those who presented their work, organized and chaired sessions and workshops, and especially to the organizing committee and volunteers whose dedication made this meeting possible. It was truly inspiring to witness the enthusiasm of the Iberian limnology community in sharing knowledge, fostering dialogue, and advancing the interdisciplinary spirit of ecological science. Thank you all for being part of this event, and best of luck to the next organizers!

Romina Álvarez-Troncoso on behalf of the organizing committee.