



FIG. 2. Kelp forest restoration tracker statistics as of 22 August 2022. Updated numbers can be accessed at <https://kelpforestalliance.com/restoration-projects>

Reference

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BUILDING A WORLDWIDE FRESHWATER ZOOPLANKTON DATASET TO SYNTHESIZE PATTERNS OF ZOOPLANKTON COMMUNITY STRUCTURE AND CHANGE

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The Zooplankton as Indicators Group (ZIG) was formed at the Global Lake Ecological Observatory Network (GLEON) “all-hands” meeting in November 2019 in Huntsville, Canada. At the meeting, a small group brainstormed several research ideas related to using zooplankton communities as indicators of ecological change in lakes and reservoirs worldwide. The ideas ranged from focusing on specific questions, such as spatial distributions of cosmopolitan genera, to exploring top-down and bottom-up patterns at a global scale. ZIG quickly realized

that to answer each individual question, all groups would rely on the same data providers, and the data would need to be structured similarly. To prevent each research team from replicating the efforts of constructing a new dataset from the same inputs, ZIG began building a unified decadal dataset of zooplankton community, limnology, and geographic information worldwide. ZIG also recognized that if a flexible data product was created, it could be used to answer multiple research questions including a main synthesis question investigating the existing uses of zooplankton as indicators (e.g., % calanoid copepods as indicators of trophic state) at a worldwide scale.

Currently, ZIG has over 130 participants from a range of career stages and backgrounds including academia, governments, scientific institutions, and environmental consulting firms (full list of current participants can be found here: <https://sfigary.github.io/website/ZIG.html>). Data have been submitted for over 270 waterbodies in 38 countries (Fig. 1), with nearly all datasets including crustacean zooplankton community data by major taxonomic groups, nutrients (total phosphorus and nitrate + nitrite-N), chlorophyll *a*, Secchi depth, surface water temperature, and sampling methods, along with waterbody morphological characteristics, including maximum

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depth, surface area, mixing type, and elevation. Beyond these minimum requirements, many datasets also include additional water chemistry parameters, non-crustacean zooplankton, and zooplankton community identification to species and life stages. The submitted datasets range from 1 to 60 years in duration (median = 4 years), with the longest and oldest dataset starting in 1960, and more than 90% of the datasets include two or more years of data (Fig. 1). Most data are from lakes (84%) and reservoirs (13%), with the remaining data from ponds and large lake embayments, and more than 70% of the datasets include multiple samples per year.

ZIG is currently harmonizing the datasets collaboratively to build the analysis-ready data product. The data are designed in a “tidy” structure (Wickham 2014), where each sample is a row, each column is a variable, and observable units are contained in separate tables. The collaboration is based on a data-sharing agreement that ensures data providers are given the opportunity to participate and all data sources are acknowledged.

Given the enthusiasm and growth of ZIG and building partnerships with other GLEON-related projects, the ZIG co-champions envision this single data product supporting the development of new scientific investigations. Overall,

Waterbodies represented in ZIG

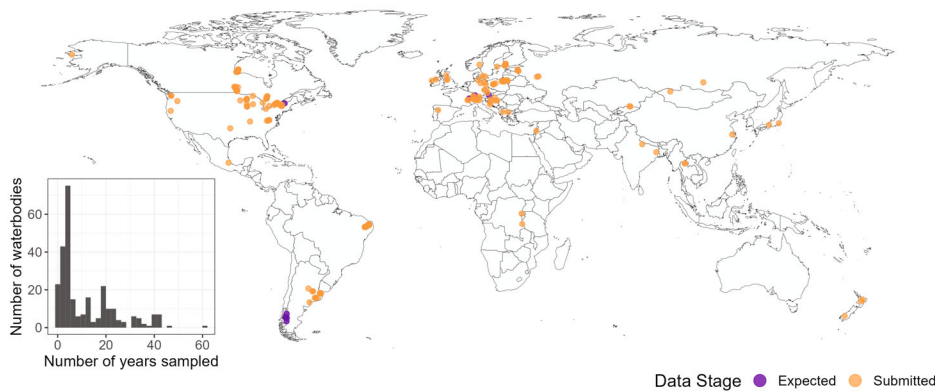


FIG. 1. A map of the submitted (orange) or expected (purple) waterbodies represented in ZIG. The inset histogram shows the number of datasets contributed and the duration of data collection efforts.

ZIG aims to provide a framework for consistent disparate zooplankton data worldwide, by empowering future users with a fully harmonized data product and the ability to include their own data as well. Together, the co-

champions envision these data becoming powerful tools for various basic and applied questions related to zooplankton community composition and ecological change, including the group's main synthesis question of investigating the

INTERVIEW WITH CHRIS FILSTRUP

Why be an Editor?

Carolina C. Barbosa , Clara Mendoza-Lera , and Michael F. Meyer 

Chris Filstrup, a lake scientist working at the University of Minnesota Duluth, has been Deputy Editor and Editor of the *Limnology & Oceanography Bulletin* (*LOB*) for the past 6 years. He retired from his post at the end of 2021. As new *LOB* Associate Editors, we sat down to talk with Chris about his time as *LOB* Editor, highlighting tips and insights on how to be a good editor.

AEs: WELCOME, CHRIS. WHY DID YOU DECIDE TO JOIN THE LOB EDITORIAL BOARD? COULD YOU GIVE US AN OVERVIEW OF YOUR TIME AS LOB EDITOR?

CF: Thank you for having me. I decided to apply for the *LOB* Deputy Editor position when I was a postdoctoral researcher to gain more experience with the roles and responsibilities of being an editor. While I had been an author and reviewer of manuscripts, I still didn't have a solid understanding of the manuscript submission workflow and how associate editors

arrived at publication decisions. At that time, there were not a lot of opportunities for early career researchers to gain editorial experience. I was hoping that the position would prepare me for the next step of becoming an associate editor, and it did. It helped to demystify the whole publication process to me.

As Deputy Editor, I felt that my responsibilities ranged from being a collaborator, reviewer, associate editor, and journal editor-in-chief; basically, incorporating some aspects of all these roles. The *LOB* is a bit different from traditional peer-reviewed journals by relying on contributions from ASLO's membership, which often required reaching out to potential authors to pitch content ideas. From there, I was able to shepherd manuscripts through the entire publication process, from reviewing submissions for journal fit, to sending manuscripts out for review, to making final decisions, to proofing typeset articles. I was also able to work with the ASLO Board and Publications Committee, as well as the talented publishing team at Wiley, to develop strategies to position *LOB* for success in a changing publication landscape.

AEs: WHAT ARE SOME OF THE BIG CHALLENGES TO BEING AN EDITOR AS AN EARLY CAREER RESEARCHER?

CF: I think that the biggest challenge is simply thinking about the time commitment and how

existing uses of zooplankton as indicators of trophic state.

Please reach out to the co-champions, listed here as co-authors, if you wish to participate or learn more about the project.

Reference

Wickham, H. 2014. Tidy data. *J. Stat. Softw.* **59**: 1–23. doi:10.18637/jss.v059.i10.

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ZIG Participants, Global Lake Ecological Observatory Network

the position fits into your career goals. Similar to other early career researchers, I was focused on writing publications and proposals to strengthen my CV to obtain a faculty position. The responsibilities associated with being an editor do take time and can compete with these more typical postdoc roles. If you think of the work as simply another task, then you are not likely to enjoy it. I found these dual roles to be very refreshing, though. Thinking about *LOB* content or reviewing *LOB* submissions allowed me to stay actively engaged in the scientific process at the end of a long day, when I needed a break from data analyses or strictly scientific writing.

AEs: CAN YOU DESCRIBE HOW BEING AN EDITOR CONTRIBUTED TO YOUR CAREER DEVELOPMENT?

CF: Being an editor helped me expand my professional network and continually reminded me of the need to branch out beyond my own disciplinary boundaries. I've met several colleagues from other disciplines, many of whom have become good friends, that I likely would not have gotten to know if not for the position. I believe that conversations with these scientists from outside of my field, along with reviewing their publications, have made me a better scientist by helping me to incorporate different scientific perspectives or approaches