

From
Amy P. Smagula

the Editor

This issue of *LakeLine* focuses on the efforts of the many volunteers who dedicate their time as stewards to



our natural resources. The articles in this issue cover volunteer monitoring efforts on lakes and ponds and streams and rivers. Efforts range from local to international, and

across a range of parameters, from water monitoring to biomonitoring, and ice in/out to shoreline habitat assessments. Volunteers do it all and do it well.

Whatever term you prefer to use, volunteer monitor, water steward, citizen scientist, or something else, these dedicated volunteers contribute hugely to the science of our water resources. Because many of them live next to or near a waterbody, they literally are the eyes on the water, seeing the day to day changes in and around these waterbodies, which is something that a biologist in academia, or government (state, federal, or provincial) or the private sector can't possibly do, given their need to focus on tens or hundreds or even thousands of waterbodies under their purview.

Volunteers who engage in monitoring waterbodies have a vested interest in the resource, and a passion for maintaining it and understanding it. Their efforts at monitoring are solid, following often detailed quality assurance and quality control methods and quality assurance project plans so that the data they collect are rigorous and sound, and can stand up equally with the data collected by trained scientists, and contribute to larger data sets in meaningful ways. Volunteers also work locally to share their knowledge

and raise public awareness about water quality and protection efforts, often presenting their data at local association meetings, municipal events, and sometimes even professional scientific conferences. Their contributions are greatly appreciated, as evidenced by the articles contained within this issue.

Chris Joseph with Keep Tahoe Blue shares an array of volunteer based activities around Lake Tahoe. From water quality "snapshot day," where volunteers collect water quality data from tributaries around the lake, to aquatic invasives species surveys and reporting, and outreach and education related to aquatic invasive species, and citizen scientists reporting on litter and algae blooms, there are hundreds of trained and active volunteers around the shores of this very large lake.

Since 1994, the "Robert Carlson Secchi Dip-In" has been a long-running effort whereby volunteers can collect and upload Secchi disc data across the United States and Canada to report on the clarity of lakes across North America. **Lisa Borre, Kathleen C. Weathers, Michael Forcella, Julie Chambers, Philip Forsberg,** and **Mark LeBaron** provide an overview of the evolution of this program, and how today it is an important part of annual NALMS activities.

Matthew Scott, Scott Williams, and **Linda Bacon** discuss the formation and evolution of Maine's network of volunteer monitors, now in its 55th year. Initially formed under the Maine Department of Environmental Protection and then converted into a non-government organization under the Volunteer Lake Monitoring Program, the program has grown over the years to include a number of parameters and a strong

network of dedicated volunteers, supporting a state and local partnership with lakes in mind.

In an article by **Amanda McQuaid, Georgia Bunnell, Alyssa Daigle** and **Bob Craycraft**, we hear about the two statewide volunteer water quality monitoring programs that have each been active for decades in New Hampshire.

Next, we hear from the staff of **Living Lakes Canada** in British Columbia, Canada, about a unique and collaborative shoreline survey of Kalamalk Lake and Wood Lake. Through a partnership between the Okanagan Indian Band and Living Lakes Canada, the shorelines of both lakes are being surveyed with an eye towards not just science, but the cultural and archaeological values and of these lands as well.

Also included in this issue, we hear about the great work being done by the Lake Partner Program in Ontario, Canada. **Gavin Vance** discussed the evolution of the program from a guided "self-help" approach at lake monitoring, to a much more organized and still growing effort engaging hundreds of volunteer monitors on lakes across Ontario.

Gabrielle Parent-Doliner highlights the importance of the Lake Erie Rangers in filling gaps in data collection outside of typical summer water quality monitoring period. These volunteers number over 200, and monitor as many locations throughout the Lake Erie watershed. They have proven invaluable in collecting chloride data during ice and snow melt, as well as furthering an outreach and education campaign targeting salt users at the source. They are also developing additional programs and test kits for bacteria, nutrients and algae, and also moving into restoration

efforts as well. Their data are shared through publicly accessible data platforms. Water Rangers is a growing program, now active across 20 countries, with the biggest level of activity in Canada, the United States and the United Kingdom providing publicly accessible data, test kits, and more.

Faith Ferrato, Sapna Sharma, Patrick Collins, Debra Kundert, Bill Raaths, Greg Sass, Georgina Shafer, Cathie Taylor and Jennifer Tice share the efforts of a dedicated group of volunteers participating in the Community Lake Ice Collaboration (CLIC). The program, started by Dr. Kenton Stewart, dates back to the 1980s and is focused on gathering data on ice in and ice off dates for lakes across Maine, Michigan, Minnesota, New York and Wisconsin. Data from this effort helps to inform climate studies and more. The co-authors share personal stories and experiences about what motivates them to dedicate their time and contribute their observations to the science of lakes.

Volunteer Monitoring efforts supporting the StreamSmart Citizen Science Program in the Beaver Lake watershed (a drinking water supply) in northwest Arkansas are highlighted by **Olivia Schaap, Erin Scott and Ayla Grace**. The StreamSmart program relies on a network of 37 volunteers across 15 monitoring sites, collecting a range of parameters throughout the year. Many of their volunteers are naturalists who are recruited from the northwest Arkansas Master Naturalists program, while others range from college students to retirees. The crux of the program relies on sustaining a volunteer monitoring program within a network of complementary organizations, all working together and supporting one another and the efforts of all.

Gianna Lourenco, William O'Connor, and Alexia DiLorenzo write about community involvement with electrofishing activities in the Woonasquatucket River. This effort integrates outreach, education, volunteer participation, and discovery of what lives in the river, despite environmental pressures from an urban watershed. Efforts incorporate more than 1200 youth, who ultimately participated in raising trout and studying other elements of the river system.

Our Lakespert, Steve Lundt, shares his experiences over the years with volunteer monitoring programs, and offers some insights into important elements of a volunteer program.

In the Student Corner, master of science candidate, **Claire Paul**, highlights some of her work on Budd Lake in New Jersey.

In a new invited column titled "Tools of the Trade" **Jen Stamp, Tim Martin, and Erik Leppo** provide a review of NALMS Shiny Apps Service, which is an array of R based apps intended to help automate data processing and analysis, and quality assurance of large continuous data sets, among other utilities. These useful apps are housed on the NALMS website at [NALMS Shiny Apps Home Page](#) and are free for use.

And, while not tied to volunteer monitoring, but still an important issue in

lake management, **Paul Hudak** shares an article about shoreline erosion at a lake in Lewisville, Texas, and efforts to stabilize the loose soil.

Finally, please find a Call for Abstracts for the NALMS 2026 symposium in Kelowna, British Columbia, and an advertisement for the NALMS 2026 Student Poster Contest.

We hope you enjoy the number of articles focused on volunteer monitoring in this issue, and that this information leverages local action to monitor and protect waterbodies near you this upcoming season!

Amy P. Smagula is the Chief Aquatic Biologist and Director of the Jody Connor Limnology Center at the New Hampshire Department of Environmental Services. ✨

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