

A boatload of volunteers



Eurasian watermilfoil is one invasive that volunteers are trained to monitor for.

PAUL SKAWINSKI

WISCONSIN'S CITIZEN LAKE MONITORING NETWORK CELEBRATES 30 YEARS.

Paul Skawinski, Carolyn Rumery Betz and Sandy Wickman

These volunteers embody the spirits of volunteerism. They are mentors to new volunteers and an inspiration to those who have been around awhile. They are friends to Wisconsin lakes and are involved in a boatload of volunteer activities.

They are Citizen Lake Monitoring Network (CLMN) volunteers.

The network, which is celebrating its 30th anniversary this year, provides opportunities for nearly 1,000 volunteers to monitor water clarity, temperature, phosphorus and chlorophyll-A concentrations, dissolved oxygen, aquatic invasive species, native aquatic plant communities and ice cover.

Some also are participating in a pilot project to monitor lake levels, as well as an advanced lake temperature study, deploying continuous-read temperature loggers to record changes in water temperature throughout the open-water season.

Since CLMN began in 1986, volunteers have contributed over \$4 million worth of donated time (based on a value of \$12/hour). Five of these volunteers have been monitoring their lakes for the full 30 years.

CLMN is supported by the Department of Natural Resources through staff support and a contract with the University of Wisconsin-Extension.

Most volunteers obtain equipment and training from CLMN staff at no cost. Some volunteers conduct many types of monitoring, and some even monitor multiple lakes. Large lakes with many bays and/or inlets may have multiple volunteers collecting infor-



Amy Kowalski, of UW-Extension Lakes, taking a Secchi disc measurement from a canoe.

PAUL SKAWINSKI

mation at various points. Interested volunteers work closely with CLMN staff to determine which types of monitoring would yield the most important information, and to determine how they could complement their lake's existing monitoring activities, if any already exist.

Wisconsin's Citizen Lake Monitoring Network (formerly called the Self-Help Monitoring program) began in 1986 as a successor to the Inland Lake Renewal Program (ILRP). The ILRP focused on improving water quality of impoundments throughout the state, back before there was a clear understanding that a lake is a reflection of its watershed.

During the first year of Self-Help Lake Monitoring, volunteers were solicited through a publicity campaign and by word-of-mouth. Carolyn Rumery Betz was working for the Department of Natural Resources at the time, and was responsible for building the program. She networked with other states whose citizen monitoring programs had been established earlier — New Hampshire, Rhode Island, Florida and Illinois.

Taking the best concepts from those states, Wisconsin's program was born, and 126 volunteers on 113 lakes were trained on how to take a water clarity reading during sessions at each lake. The sessions were taught by Betz or the regional lake specialists, many of whom still work for the department or have had long careers there, including Bob Wakeman, Tim Rasman, Buzz Sorge, Mark Sesing, Susan Graham and others.

A key tool early on — and continuing today — was the Secchi disc, used to take water clarity readings. The first discs used in the program were handmade by a man in the Milwaukee area, who painted each disc and marked each rope in one-foot increments.

The training manual consisted of hand-drawn pictures of a person leaning over the side of a boat using a clothespin to mark two readings, from which an average was calculated. Thousands of postcards were filled out and mailed in, and the data were entered into a database by work-study students at University of Wisconsin-Madison, including Becky Scott and Brad Wolbert, who are now DNR employees.

Within five years, the program ex-

panded, and volunteers collected not just water clarity readings, but chlorophyll and phosphorus samples that were analyzed by the State Lab of Hygiene.

Water samplers were handmade by retired chemist Paul Anderson, who carefully poured concrete into Mason jars and cleverly used the shells of Bic pens to create a one-way valve system to measure dissolved oxygen and temperature at different depths. A rigorous quality assurance program proved that the data the volunteers collected were worthy of uses such as reporting on Wisconsin's water quality to the U.S. Environmental Protection Agency.

New volunteers are able to participate in most CLMN activities — water chemistry is the exception. Although these data are important, water chemistry equipment and analysis of the samples are expensive, and CLMN is limited in how many chemistry volunteers it can financially support. For this reason, only a few new chemistry lakes tend to be added each year, and these lakes are chosen because they have demonstrated needs for water chemistry data.

All water quality data collected by CLMN volunteers are entered into the same database, known as the Surface Water Integrated Monitoring System (SWIMS). These data are used by the Department of Natural Resources, university researchers, sanitary districts, fishing guides, lake organizations, consultants and others to guide lake management activities.

Find current and historical data collected from any lake participating in CLMN at dnr.wi.gov/lakes/clmn.

Feedback from volunteers plays a major role in determining how the CLMN program evolves. As a result of volunteer input, the CLMN website was recently overhauled and an interpretive guide was created to help translate data reports. Additional monitoring activities may be added as the need for more data becomes evident, and the list of aquatic invasive species monitored may change based on new research or additional species showing up in Wisconsin waterways.

You can learn more about becoming a CLMN volunteer at uwsp.edu/cnr/uwexlakes/clmn. 

Paul Skawinski is the Statewide CLMN Coordinator. Carolyn Rumery Betz is a former Statewide CLMN Coordinator and works at UW-Madison. Sandy Wickman is the Regional CLMN Coordinator for North Central Wisconsin.

30-YEAR CITIZEN LAKE MONITORS



SUBMITTED BY MARY JANE BUMBY

MARY JANE BUMBY is a lifelong resident of big Green Lake and has been monitoring its water quality for over 30 years. She routinely measures transparency and dissolved oxygen, identifies phytoplankton and more. Bumby has degrees in biology, botany and zoology, and spent many years as a high school biology teacher. Her master's thesis

involved comparing Green Lake's aquatic plant community to the same measured 50 years earlier.



SUBMITTED BY DALE JALINSKI

DALE JALINSKI is the CLMN volunteer on Bear Lake in Oneida County. He monitors water clarity, chemistry and dissolved oxygen. He has also been a Clean Boats, Clean Waters volunteer for many years, and is a member of the Bear Lake Protection and Rehabilitation District Board. His data collection on Bear Lake has enabled

the local DNR lakes coordinator and Lake District to make better management decisions on this 312-acre seepage lake.



SUBMITTED BY BOB KIRSCHNER

BOB KIRSCHNER monitored Crystal Lake in Langlade County until 2006. He found a replacement to continue his monitoring activities, and moved to Emden Lake in Oneida County. Kirschner monitors water clarity, water chemistry and dissolved oxygen. Kirschner is responsible for managing the aquatics

program at the Chicago Botanic Garden, which includes water quality and aquatic habitat enhancement.



SUBMITTED BY TOM RULSEH

TOM RULSEH lives in Three Lakes, but has been monitoring McDonald Lake in Vilas County since 1986. Between Tom and his father, Roy, they have collected nearly 200 clarity readings and 75 water samples for chemistry analyses. The baseline and historical data collected by the Rulsehs are the only public data available for this

lake. Rulseh also is Vice President of the Three Lakes Historical Society, and President of the Three Eagle Trail Foundation, which has been involved with the planning and construction of a non-motorized trail that connects Three Lakes and Eagle River. In 2015, Rulseh and his wife, Vicki, completed a 3,400-mile tandem bicycle journey from Astoria, Oregon to Portland, Maine.



SUBMITTED BY KAY SCHARPF

KAY SCHARPF was honored with a Citizen Lake Stewardship Award in 2006, and has been a Citizen Lake Monitoring Network volunteer on Franklin Lake in Forest County since 1986. When chemistry monitoring was offered to the volunteers, Scharpf was one of the first to volunteer her time. She also monitors

dissolved oxygen levels in Franklin Lake and watches for invasives. Scharpf also participates in a volunteer breeding bird survey, and was the first Loon Ranger in the state. While Scharpf is a first-rate naturalist and limnologist, her greatest asset is her ability to teach. She has trained countless new water clarity and chemistry volunteers on other lakes.