



Michigan Chapter North American Lake Management Society

P.O. Box 4812
East Lansing MI 48826

www.mcnalms.org

Fall 2018

Presidential Ponderings...



By Mike Solomon, McNALMS President

As Senior Hydrologist with Restorative Lake Sciences. I have had numerous opportunities to interact with many different Lake Improvement Boards or Boards formed under the Township Authority. Many of them have been focused on control of invasive species and Eurasian water milfoil in particular. More recently many of these Boards are starting to reach out in new directions and looking at additional lake improvements such as natural shorelines, lake-watershed management plans, storm water effects on urban lakes, harmful algal blooms, aeration and other concerns to riparian owners.

McNALMS along with MLSA can be valuable resources for lake front owners on how to address these and other issues. This year alone, McNALMS participated in a lunch-and-learn on Managing Fish Habitat in a Changing Climate, the MLSA conference at Crystal Mountain in April and more recently the Inland Lakes Partnership event in October in Grand Rapids. Additionally, McNALMS again jointly funded a student grant.

We continue to reach out to new members to grow our organization and extend our efforts at educating professionals, lay people and especially riparian owners. McNALMS is made up of resource professionals, university educators, consulting firms, drain commissioners, riparian's, students and lay people with an interest in inland lake management. At our November Board meeting we discussed whether to host a National NALMS meeting in the next 2 to 3 years. This is an exciting opportunity, but it would really stretch our resources. Come join us at a Board meeting, help spread the word to others about McNALMS, and let's all help protect and manage our valuable inland lake resources.

McNALMS Life Time Achievement Award

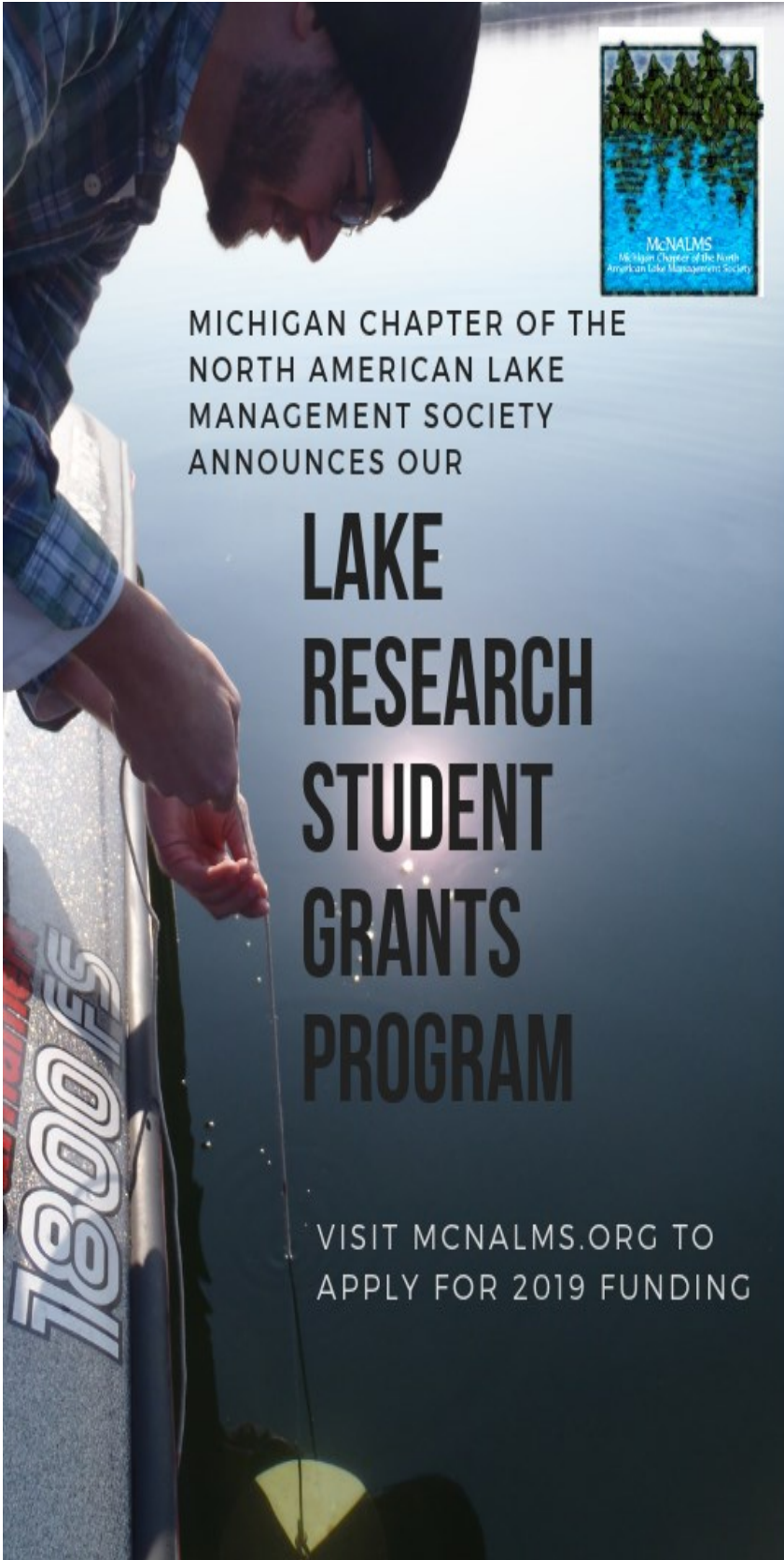
The Michigan Chapter of the North American Lake Management Society periodically gives out a Lifetime Achievement Award to an individual who has significantly contributed to the advancement of inland lake education, has provided leadership in addressing key lake issues, and has exhibited excellence in promoting lake ecology and/or management. This year McNALMS presented the Lifetime Achievement Award to Mr. Ralph Bednarz. Mr. Bednarz has been a champion of lake protection and has spent his professional career monitoring and managing lakes in Michigan. Ralph Bednarz retired from the Michigan Department of Environmental Quality (DEQ) in 2011 after a 35 year career in environmental protection and water resources management in Michigan. Three months after retiring, Ralph came back to the DEQ Water Resources Division as a U.S. EPA Senior Environmental Employment Program specialist to coordinate the implementation of the 2012 National Lakes Assessment (NLA) in Michigan. He also served as a national trainer for the 2012 NLA. Ralph managed the DEQ's inland lakes water quality



monitoring programs, including the Lake Water Quality Assessment (LWQA) monitoring program and the Cooperative Lakes Monitoring Program (CLMP). He was responsible for the implementation of the 2007 and 2012 NLA in Michigan. He coordinated the development and implementation of the Michigan Clean Water Corps (MiCorps) volunteer water monitoring network. Ralph currently stays involved with protective lakes management programs in Michigan through the Michigan Inland Lakes Partnership, Michigan Natural Shoreline Partnership and McNALMS. Congratulations Ralph and thank you for all your hard work!

McNalms, Protecting and Managing Michigan's Inland Lakes

www.mcnalms.org



McNALMS and MLSA Student Grant for 2019

Proposals Being Accepted for 2019 Lake
Research Student Grants Program

The [Michigan Chapter North American Lake Management Society](#) (McNALMS) and [Michigan Lake Stewardship Associations](#) (MLSA) are now accepting proposals from students and lake leaders for the 2019 Lake Research Grants Program (LRGP). The purpose of the program is to promote the research and outreach efforts of both University students and those that have completed a water-focused leadership-training program. Projects that increase the understanding of lake ecology, strengthen collaborative lake management, address inland lake fisheries, build lake partnerships and/or expand citizen involvement in lake management are eligible for consideration. Projects must focus on Michigan waters.

Examples of previously funding projects include:

- A study on littoral zone restoration and nutrient enrichment source impacts on macrophyte and epiphytic algal communities
- An analysis of phosphorus loading and the ecological impacts from agricultural tile drains in a west Michigan watershed.
- A study looking at social, cultural, and economic factors underlying lakeshore property owners' willingness to conserve natural aquatic habitat on their properties.

A total of up to \$4,000 has been allocated for funding two or more projects in 2019. Proposals will be funded for one calendar year.

Applicants must be either:

- University/College graduate student(s) conducting applied research/outreach projects.
- University/College undergraduate student(s) working on special studies projects.
- Citizens enrolled in the [Michigan Lake and Stream Leaders Institute](#), [Michigan Conservation Stewards Program](#), or similar volunteer leadership training program or watershed academy.

McNALMS membership, or enrollment for membership, is required upon application. McNALMS membership is free for full-time students. Application materials and proposal guidelines are available at [McNALMS Grant Program](#).

McNALMS Corporate Member Spotlight



40 Years of Managing Michigan Lakes

Lake Management Planning

Vegetation Surveys

Water Quality Monitoring

Bathymetric Mapping

Herbicide Applications

Natural Shoreline Restoration

Terrestrial Plant Management

Now with three locations to serve you!

800-382-4434 • www.plmcorp.net

Michigan Waterfront Alliance

Membership Application

MWA Mission Statement "This corporation is formed to protect, preserve and promote the wise use of inland waters – lakes, streams, rivers, creeks and the waters and bottomlands of the State of Michigan."

Please help us in our efforts to be a legislative "Watchdog" to protect Michigan's Inland Lakes & Streams.

Annual dues:

Individual membership \$50 - Lake Associations \$100

Corporations \$200

Please print:

Name _____

Date _____

Street _____

City _____ State _____

Zip _____ County _____

Phone _____

Email _____

Make checks payable to: Michigan Waterfront Alliance

Send dues and contributions to: Michigan Waterfront Alliance

PO Box 369 Fenton, MI 48430

McNALMS Corporate Members



Aquaweed.com



Helpmylake.com



Phycotech.com



Plmcorp.net



Progressiveae.com/water-resources



Restorativelakesciences.com



MichiganInlandLakesPartnership

McNALMS Board Members 2018

President: Mike Solomon

(Wexford Co Drain Commissioner/Restorative
Lake Sciences)

President Elect: Beth Clawson

(Michigan State University)

Secretary: Roger Carey

(Retired Riparian)

Treasurer: Jason Broekstra

(PLM Lake & Land Management Corp.)

Executive Director Emeritus Howard Wandell

(Retired Riparian)

Past President: Lois Wolfson

(Michigan State University)

Directors at Large

Ralph Bednarz (Retired Riparian)

Erick Elgin (Michigan State University)

Joe Nohner (Michigan DNR)

Syndell Parks (GenPass LLC/GVSU)

**Michigan Lake
Stewardship Associations**
(Formerly Michigan Lake & Stream Associations)

Save the Dates!
58th Annual Conference
May 3 & 4, 2019



Innovations in Lake Management
Crystal Mountain Resort
Thompsonville, MI
www.mymlsa.org

Follow McNALMS on Facebook & Twitter

facebook

twitter 

Introduction to Lakes 6 Week Online Course

NOW ENROLLING!

LEARN ABOUT:
LAKE ECOLOGY
SHORELINES
WATERSHEDS
AQUATIC PLANTS
AND MORE!

**MICHIGAN STATE
UNIVERSITY**

Extension

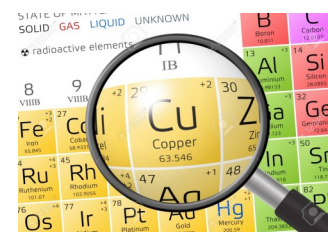
Photo Credit: Paige Filice

Search "Introduction to Lakes"
at www.msue.anr.msu.edu

MSU is an affirmative action/equal opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status, or veteran status.

Copper as an Aquatic Algaecide

The use of copper as an aquatic algaecide has been discussed for decades. Internet searches, opinions and non-scientific sources would lead many to believe that copper is a detriment to the environment. While others believe that copper is a natural element (like a rock) with no impact to the aquatic environment. Scientific research is the only way to try to answer this question. Below are some scientific publications that discuss the use of copper as an aquatic algaecide. For full publications, please click link at the bottom of each abstract.



Understanding Fate and Effects of Copper Pesticides in Aquatic Systems

Ben E. Willis, West M. Bishop

SePRO Research and Technology Campus, SePRO Corporation, Whitakers, NC, USA



Abstract

Copper sulfate and other chelated or complex copper forms are commonly used to manage nuisance and noxious algae and invasive weeds through direct application to aquatic systems. Regulatory scrutiny and perceived non-target species impacts supported the need for an accurate risk assessment of fate and effects of copper applied as a pesticide. Copper inputs to aquatic systems originate from numerous sources (e.g. natural, storm water, industrial) whereas direct pesticide applications account for approximately 13%. Following a pesticide application, copper rapidly partitions to suspended algae and particulates and the majority (>90%) of applied copper is transferred to sediments within 2 days. Copper subsequently shifts to less bioavailable forms and risks to non-target species are significantly decreased. Additionally, the copper that partitions to sediments is diluted through migration to greater sediments depths and accretion. Even when elevated sediment copper concentrations were measured following chronic applications or high treatment levels, no adverse effects to non-target species were observed with laboratory or field experiments. When used appropriately copper can be an effective tool for water resource managers with negligible environmental impact. Full Publication can be found [here](#).

The Presence of Algae Mitigates the Toxicity of Copper-Based Algaecides to a Nontarget Organism

West M. Bishop, Ben E. Willis, Robert J. Richardson and W. Gregory Cope

SePRO Research and Technology Campus, Whitakers, North Carolina, USA

Department of Crop and Soil Sciences, North Carolina State University, Raleigh, North Carolina, USA

Department of Applied Ecology, North Carolina State University, Raleigh, North Carolina, USA



SOCIETY OF ENVIRONMENTAL
TOXICOLOGY AND CHEMISTRY

Abstract

Copper-based algaecides are routinely applied to target noxious algal blooms in freshwaters. Standard toxicity testing data with copper suggest that typical concentrations used to control algae can cause deleterious acute impacts to nontarget organisms. These “clean” water experiments lack algae, which are specifically targeted in field applications of algaecides and contain competing ligands. The present research measured the influence of algae on algaecide exposure and subsequent response of the nontarget species *Daphnia magna* to copper sulfate and an ethanolamine-chelated copper algaecide (Captain®). Full Publication can be found [here](#).

SQuiRT Cards to Help Identify Potential Risks

Abstract

NOAA has developed Screening Quick Reference Tables, or SQiRTs, to help evaluate potential risks from contaminated water, sediment, or soil. This handy reference tool presents screening concentrations for inorganic and organic contaminants in various environmental media. The SQiRTs also include guidelines for preserving samples and for analytical technique options. The SQiRT cards were developed for preliminary screening. NOAA uses them to identify possible impacts to coastal resources and habitats potentially affected by hazardous waste sites. The SQiRT cards also will be helpful to anyone who is measuring the potential risk from contaminated water, sediment, or soil. To learn more about SQiRT cards and the potential use on your waterbody, click [here](#).





2019 McNALMS Membership and Donation Opportunities

Your membership renewal provides specific areas for your donations. These donations are focused on the future, the youthful college students that we desperately need to further science and sustain our society for decades to come. As an incentive, McNALMS will provide a 50% match, up to \$100 for your donation. This new donation program was implemented during the 2018 season, and we are still in need of your support and direction of our funding programs.

2019 Dues - Michigan Chapter North American Lake Management Society

Please make check payable to McNALMS

- _____ \$25 Annual Individual Membership
- _____ \$50 Lake/Watershed Associations and other Nonprofit Organizations
- _____ \$100 Corporation Membership
- _____ Annual Student Membership - Free

****Donations to provide grants to students to promote education and outreach:**

\$_____ Research Grant <http://www.mcnalms.org/grantsprogram.html>

\$_____ Travel Grant (To support students to present at a Society sponsored student research session at the Michigan Inland Lakes Convention held every two years or Michigan Lakes & Stewardship Conference or McNALMS function. The three to six presenters selected will be awarded \$250 to \$300 each to help cover convention costs).

\$_____ Student Paper Grant (To support students to present at a Society sponsored student research session at the Michigan Inland Lakes Convention held every two years or Michigan Lakes & Stewardship Conference or McNALMS function. \$300 to \$500 for the best student paper).

\$_____ Scholarships (For students to attend special education programs such as Lake and Stream Leaders Institute, and Conflict, Collaboration and Consensus. \$450)

\$_____ Sponsor Project/Contests (such as a video project to highlight a particular element of an outreach program such as Lake and Streams Leader's Institute, Shoreline Stewards or Introduction to Lakes. \$500)

\$_____ Student Appointment Fund (1 year appointment for a student to be directed by McNALMS Board of Directors to assist in operations, programs and outreach initiatives. \$500)

**** No funds donated will be used for general McNALMS operating purposes.**

Name (Please Print) _____

Organization _____

Address _____

City _____ **State** _____ **Zip** _____

Email Address* _____

***Required**

Return to McNALMS, P.O. Box 4812, East Lansing, MI 48826

-OR-

New for 2018, membership, donation and future conferences can all be paid through PayPal.

Select the link below if you feel this option is more convenient.

[Membership Application](#)

