

## It's Back!

by Mike Golas

The Annual Membership Meeting and Social will be held at Buck Lake Park on Sunday, June 25 starting at 11:30 AM. We hope you can join us. Details below.

After lunch and a short business meeting you may want to join us for an informal, but educational, tour of the lake on pontoon boats graciously provided by Buck Lake property owners and lead by an expert in lake science. You will find this informal tour, like we have provided on many local lakes over the years, enjoyable. Our brief business meeting, which allows us to conform to our bylaws as a charitable, non-profit 501c3 Michigan corporation, will have election of directors and any other business brought before the members.

As we enter our tenth year of operations and with well over 200 paid-up memberships **we thank you** for your support and participation as we work together to prevent and control aquatic invasive species while assuring overall lake health for generations to come. And check out our list of upcoming events.

### *PLEASE CONSIDER JOINING OUR BOARD OF DIRECTORS*

Your all volunteer board, which includes one high school student nominated by the high school principal for a term covering the student's junior and senior years in high school, offer their time and talents for many reasons; making a long term difference in the community, matching hobbies, interests or passions, and making new friends through the people they meet.

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## Annual Membership Meeting & Social Event

Date: June 25—Sunday

Time: 11:30 AM

Location: Buck Lake Park

—Pot Luck Lunch at noon with chicken  
Bring a side dish/dessert to pass

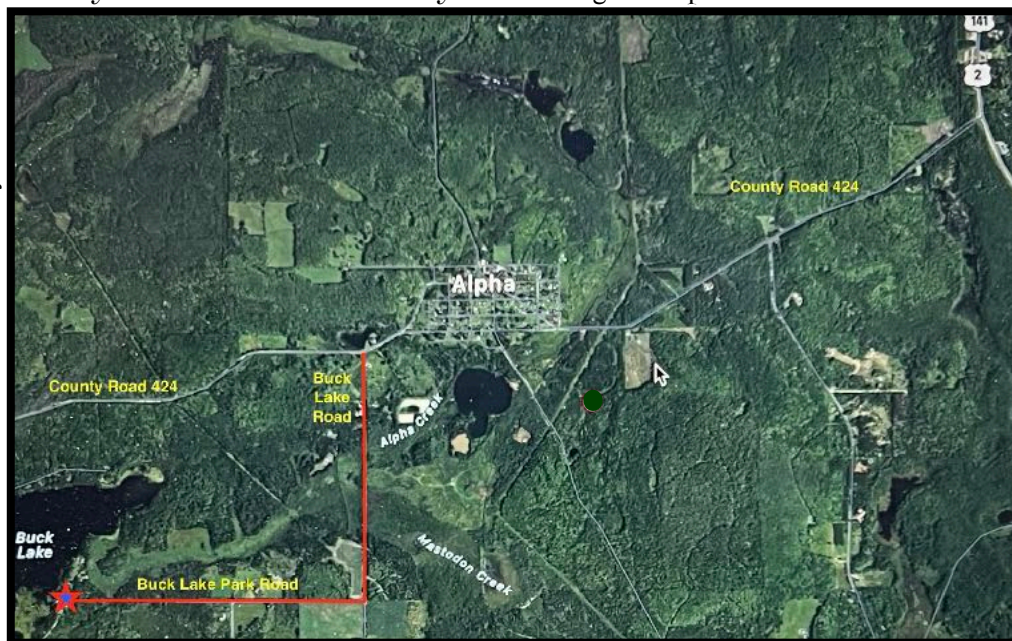
—Brief business meeting including  
election of directors

—Educational/Social Tour via  
pontoon boats with a lake expert

After the meeting is over, the Alpha Brewing Company has invited everyone to enjoy the rest of the afternoon at their family friendly environment 2.5 miles away in the Village of Alpha

### **Directions to Buck Lake Park**

About 1/2 mile west of the roundabout in the village of Alpha on County Road 424, turn south onto Buck Lake Road. Go south 0.9 of a mile to Buck Lake Park Road and turn west (right). Continue straight west 1.1 miles to the park where there will be plenty of parking.



## How do we carefully respect, guard and utilize time, talents and interests of our board members?

### Through mutual respect!

Time is precious to all of us. We highly respect your time. Members mutually take special care to work with the unique situation of each of us and respect our time limitations. Over the years this mutual respect has attracted to us and helped us retain a large number of board members who bring the Partnership a diversity of views and interests. It's a great team! An efficient but effective team!

Do you have interests that would help the Partnership while giving you a chance to let your interests blossom? I know I can speak for our board members as well as our general membership when I say I have seen many connections made between the work of the Partnership and personal interests and talents. We don't see our participation as "work" but rather as enjoyable fulfillment and growth of our interests

### Our Current Directors

Many have been directors for years. Jim Novitski is the founding father of the Partnership who first recognized the need for wide-spread sharing of resources and cooperation across the large community of stakeholders in our local lakes.

Callista Bartolomeoli – Graduating in May from  
West Iron High School

Vicki Browne – Year-round resident of Chicaugon Lake

Mike Bukovitz – Part-time resident of Hagerman Lake  
Sally Davis – Part-time resident of Fortune Lake  
Mike Golas – Year-round resident of Sunset Lake  
Diane Kut – Year-round resident of Fortune Lake  
Tom Madden – Part-time resident of Stager Lake  
Laurie Netzow – Part-time resident of Lake Ellen  
Jim Novitski – Part-time resident of Perch Lake  
Deb Twardowski – Year-round resident of Stanley Lake

Of our part-time directors, one lives in Illinois, one in Marquette MI, and three in Wisconsin. We use Zoom Meetings so that in-person presence is not required. Curious about possibly joining the board? Or just want to get more active on your favorite lake as a general member? Contact Mike Golas at 801-870-9863, or any board member, with your questions/concerns.

## Have you been following the lakes and streams articles in the Iron County Reporter?

Our very own Vicki Browne has published a long series of articles in the Iron County Reporter on a variety of topics that all relate to the health of our local lakes and streams. The articles suggest best practices to assure that "health" for generations to come. The theme of all of these articles is "awareness, education, technology and cooperation". Below is a sampling of Vicki's articles. Entire articles may be found on our website

<https://www.iclakesandstreamspartnership.com/>

## Excerpts from Vicki Browne's **Iron County Reporter** Articles

### From: "Citizen Scientists"

Michigan Corps Cooperative Lakes Monitor Program (CLMP) trains volunteers who gather data on their favorite lake to establish a baseline and track lake health.

Now is a great time to learn about our lakes, especially what we can do to keep them healthy. (There) are many opportunities to learn both online and from

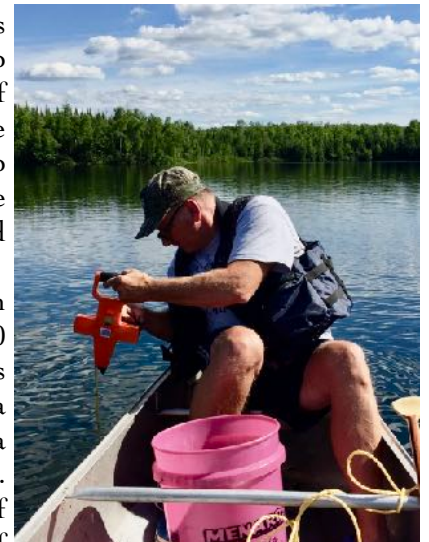


folks who have formally or informally studied lakes for a long time. In a series of articles, we will explore a variety of topics that will hopefully broaden our knowledge of and appreciation for the lakes we share.

Paul Dalpra has been gathering data about water clarity, phosphorus and chlorophyll-A longer than any volunteer in Iron County. He was pleased to report that Lake Mary has been very consistent with respect to

these three parameters of lake health. He also stated that because of the monitoring on Lake Mary, they were able to identify an invasive plant species early and hopefully eradicate it.

Jim Novitski on Perch Lake (1,030 acres) in Bates Township said: "It's a good idea to collect data on lakes in the area. How do you realize if something isn't right, if you don't know what right looks like? It's an early warning system if something is wrong, if there are changes in the area lakes. It makes sense to have eyes on the lakes."



To measure water clarity, a secchi disk is lowered into the lake at precise locations and repeated several times during the year.

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### From: “Lake Productivity”

The trophic state of a lake is a measure of its biological productivity — in other words, the lake’s ability to support plant and animal life. Being able to support plant and animal life sounds like a good thing, and it is, but too much of a good thing can make a lake inhospitable. Eutrophic lakes (high nutrient content) often lack the dissolved oxygen fish need. They tend to have too many aquatic plants and an abundance of algae, which make recreational activities uncomfortable or impossible.

As lakes age, they do tend to progress from oligotrophic (low nutrient content) to eutrophic, but this process is very slow since it results from sediment, nutrients and ‘muck’ filling the basin of a lake gradually. Human activity, however, can speed up this process. The more phosphorus and nitrogen that get introduced into a lake, the faster aquatic plants and algae can grow. The name for this is ‘cultural eutrophication’, and it’s not a good thing.

### From: “Under the Stairs”

Jen Ricker-Feak is the district manager of the Iron Baraga Conservation District. She is also the co-coordinator of the Western Peninsula Invasives Coalition along with Mike Zukowski. Ricker-Feak says she works to keep the funding flowing and Zukowski manages efforts in the field.

Ricker-Feak had lots of practical advice about preserving the natural beauty of Iron County.

- Leave the natural landscape as close to what it originally was as possible.
- Choose native plants.
- To support fish habitats, allow trees that fall into the water to become natural fish cribs.
- Cooperate with friends and neighbors to follow best practices and effective ways to manage invasive species.
- Boats and gear must be disinfected after visiting a lake. Since 2019, the law requires boaters to clean and drain their watercraft and equipment. If no boat wash is available, plan to use a car wash, disinfectant solution or a hose at home. Never travel with a muck or plant covered boat or trailer.
- Don’t dump or discard things onto the ground or into the water. Throw unused bait in the trash.

**“And here’s a good rule of thumb,”**

**Ricker-Freak said.**

**“Just because you can, doesn’t mean you should.”**

### From: “Phacts about Phosphorus”

A phosphorus sample is gathered as part of CLMP twice during the year –within two weeks of ice out and then again during late summer. Monitoring phosphorus is important because phosphorus is an essential nutrient for algae and aquatic plants which are the start of the food web. Phosphorus is a ‘limiting factor’ meaning that even if there are other nutrients, the amount of phosphorus will determine productivity.

The phosphorus in a lake comes from many sources. Sedimentary rocks made of calcium phosphate leach phosphorus. Sediment on the lake bottom holds and releases phosphorus under various conditions. When aquatic plants die and decompose, nutrients are released back into the lake. These are natural sources.

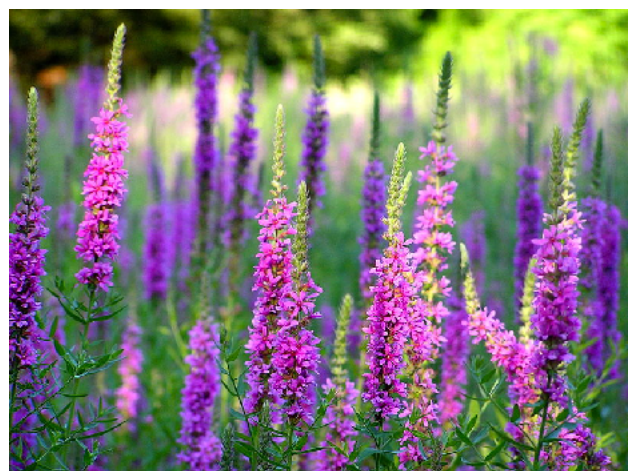
Other sources are man made. As soil erodes from runoff or landscape alterations, phosphorus washes into lakes. Livestock manure, wastewater, bone meal and some fertilizers contain phosphorus. Improperly maintained septic systems can be culprits. Laundry detergents, dish soaps and other cleaning products often contain phosphates which are anions of phosphorus combined with oxygen. These are sources to watch for and prevent.

Anyone can help monitor Iron County lakes. So if your interest has been piqued, consider joining the intrepid CLMP volunteers who venture onto lakes in Iron County to gather data. For more information, contact Iron County Lakes & Streams Partnership by email: [ICLakesandStreamsPartnership@Gmail.com](mailto:ICLakesandStreamsPartnership@Gmail.com) or visit the CLMP website:

<https://micorps.net/lake-monitoring/>

### From: “Invasion of the Water Plants”

Some of the invasive species that are here in some Iron County lakes include purple loosestrife, curly leaf pondweed, and eurasian watermilfoil.



**Purple Loosestrife**

Although purple loosestrife looks pretty, it poses a serious threat. It grows in wetlands, along the shoreline, and can occasionally be found on partially submerged logs, or vegetative mats floating in the lake. Purple loosestrife outcompetes native plants because of its fast reproduction rates. Birds, fish and other small mammals cannot penetrate the dense canopies it creates in wetlands.



### Curly Leaf Pondweed

Curly Leaf Pondweed, or sometimes just curly pondweed is a rooted, submersed plant. “Wavy, lasagna-like leaves grow approximately a half-inch wide and two to three inches long. Curly leaf pondweed grows from the shoreline to about 15-foot water depths and creates dense mats at the water’s surface.



### Eurasian Watermilfoil

Eurasian watermilfoil (EWM) is the aquatic invasive species with which most people are familiar and is present in approximately 15% of Iron County lakes. The costs to contain and control EWM once it is established in a lake make it a top priority for early detection and eradication.

“Learn about invasive species and the best practices to disinfect your equipment,” Jen Ricker-Feak advised. “Know what a plant is before you move it.”

### From: “Invasive Mussels”

Research into invasive mussels, specifically zebra mussels and quagga mussels, revealed a lot of helpful information, many unintended consequences, and some outcomes that could be good or bad — depending on how the story unfolds.

Zebra mussels and quagga mussels are both freshwater mollusks that reproduce with alarming frequency and firmly affix themselves to surfaces in alarming quantities.

Neither mussel is native to the U.S. They have made their way into innumerable lakes and streams by attaching themselves to boats and equipment that aren’t properly cleaned, drained and dried, or as microscopic larvae (called veligers) in bilges, ballast tanks and live wells. This is why it is vitally important to always clean, drain and dry watercraft and equipment. It is also recommended that, once dry, watercraft and equipment not be transported to another water body for five days. This ensures any missed zebra or quagga mussels die from lack of moisture.



Zebra and quagga mussels are ‘filter feeders’. This means they suck in lake or stream water — up to one quart per day — and eat all the algae and phytoplankton before releasing particle-free water back to the lake or stream. The water is clearer and more transparent, but vital food for larger organisms isn’t available, because the invasive mussels have consumed it.

Clearer lake water can increase property values, but it also allows sunlight to penetrate deeper into lakes which can encourage algal blooms that are definitely undesirable, and sometimes toxic.

Eradicating zebra and quagga mussels is not easy. The consequences of their presence and rapid proliferation in the Great Lakes and local lakes is a continuing story.

### From: “Planting a Seed”

Before a lake is populated and developed, the shoreline has a tree canopy, abundant shrubs, and plants that transition from the land into the lake. The plants support fish and wildlife by providing food and sites for nesting and raising young.



When people move in it is often the case that trees are removed, roads are built and paths are paved.



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Sometimes artificial retaining walls are installed and 'weeds' on the land and in the lake are banished.



When lake property resembles a suburban lawn, wildlife is lost. This isn't the only unfortunate consequence. Without native shoreline vegetation, grass alone is unable to slow and filter stormwater runoff and it does not protect the lake's edge from wave and ice erosion.

Lake property owners can restore any shore that has lost its natural beauty with native plants. Finding plants, shrubs and trees that are native can be challenging.

For plants: Designs by Nature/UP Native Plants,

<https://www.upnativeplants.com/>

For trees and shrubs: EverGreen Nursery,

<https://www.evergreennurserymi.net/native-shrubs>

For Wisconsinites, here is a helpful link:

<https://widnr.widen.net/s/rfsbfc22w6/nh0698>

Discovering that long-held beliefs about shoreline landscaping might actually be unhealthy for the lake can be surprising and unsettling. Several organizations offer inspiration and encouragement for making better choices.

The Midwest Glacial Lakes Partnership just published the second volume of a booklet they call 'Shoreline Living'. Each volume contains stories about real lake property owners. Visit their website at

<http://midwestglaciallakes.org/resources/shorelineliving/>

The Michigan Natural Shoreline Partnership at <https://www.shorelinepartnership.org/> is a rich resource for learning about shorelines. Their site contains a link to an interactive conservation tool that allows the user to find information about shoreline and watershed disturbance on specific lakes.



Natural Shoreline

## From: "Dissolved Oxygen"

As phosphorus is to growth, oxygen is to life itself. Almost all living things need oxygen. For fish, invertebrates, bacteria and aquatic plants this means dissolved oxygen in the water. Knowing what we can do through home maintenance, controlling run-off and addressing invasive species is important to maintaining DO levels and keeping our lakes healthy.

Photosynthesis and reaeration are two ways oxygen dissolves into water. Aquatic plants turn carbon dioxide and water into stored energy and release oxygen. Turbulence on the surface like water tumbling over rocks, waterfalls and waves allow surface water to capture and dissolve oxygen.

This means DO enters a lake near the surface and in the relatively shallow water where sunlight can reach growing aquatic plants.

Bacteria consume a lot of the DO in lakes. Bacteria break down dead and dying organisms. They also break down human and animal waste. As bacteria do their decomposition work, they use DO.

The more decomposition work to be done, the more bacteria are needed and the less DO is available for live plants and fish. This is why good septic maintenance, controlling agricultural and landscaping runoff, and minimizing the conditions for invasive aquatic species and large algal blooms are vital for maintaining healthy DO levels in lakes.

**Vicki Browne's articles can be found in the**

**Iron County Reporter**

**and on our website**

[www.iclakesandstreamspartnership.com/](http://www.iclakesandstreamspartnership.com/)

**on the NEWS tab.**





# Upcoming Events

Upcoming Events: Check our [Facebook](#) page and our [website](#) for these and other interesting events.

## June 25—*Annual Membership Meeting and Social*

Starting at 11:30 at Buck Lake Park, with pot luck lunch and lake tours

July 10 and August 9 — Lake tours specially arranged for residents of the Iron County Medicare facility.

## July 26 – 29—*Help from our friends at Michigan State University*



Jo Latimore and Erick Elgin will once again join us for various tours and presentations at local lakes (Chicaugon, Buck, Mary, Ellen, Smoky, Iron, Fortune & possibly the Michigamme Reservoir). They will share their expert knowledge of lakes on the water as well as an evening session at the Crystal Falls Library (July 27 at 7 pm) Watch for details. Contact us if you would like us to come to your lake next year.

## August 2—*Lakes and Their Relationship to Native American Culture*

Our friends at the Invasive Species Control Coalition of Watersmeet have invited us to join them at Lac Vieux Desert as local and visiting Native Americans present a program which defines the presence of local lakes in local Native American culture and which might help you understand your “sense of place” as you appreciate the great north woods and your favorite lakes. Details forthcoming.

September 30—Anyone interested in a road tour/color tour to local lakes, maybe followed by dinner? Let us know of your interest or if you can help. From that we will decide if we should proceed with this potential event.

## *FOR FURTHER INFORMATION about Iron County Lakes & Streams Partnership*

- Use our email [iclakesandstreamspartnership@gmail.com](mailto:iclakesandstreamspartnership@gmail.com) to get in touch
- Follow us on [Facebook](#)
- Visit our website for more information <https://www.iclakesandstreamspartnership.com/>



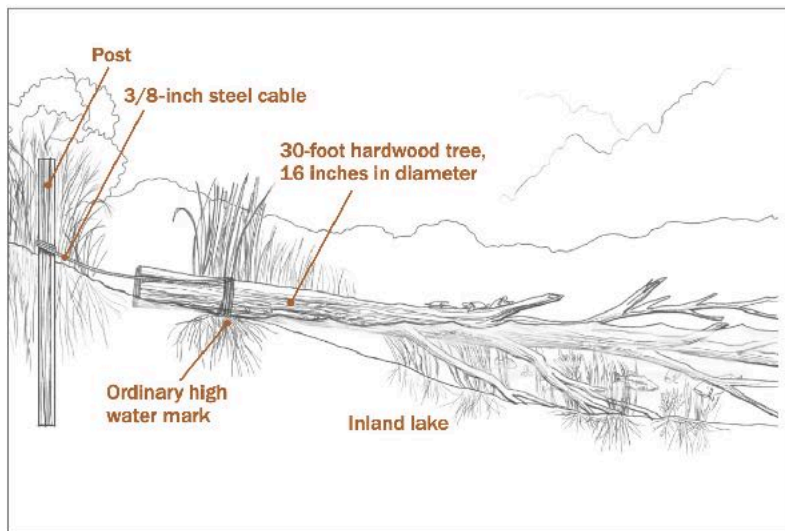
# Woody Structures

Paraphrased from  
*Inland Lake Fact Sheet Series on Shoreline Woody Structure*  
by EGLE

Woody structure refers to partially or fully submerged trees and branches in nearshore areas that serve many functions. They can stabilize the shoreline and possibly prevent sediment suspension. They improve fishing by attracting fish and increasing the number of fish in an area. They also provide cover, feeding, nesting and basking habitat for birds, turtles and other wildlife.

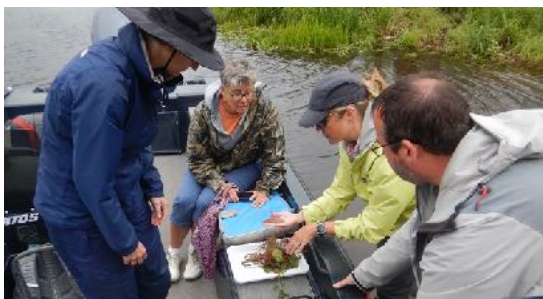
On Michigan lakes in forested landscapes, we would expect one log approximately every eight feet but on many lakes the ratio is more like one log every 80 feet. Forty percent of Michigan's inland lakes have poor lakeshore habitat.

Protect the trees and branches that naturally fall into the lake. Woody structure can be a critical part of an "aquatic garden" of native aquatic plants and habitat features within your riparian area. Minimize shoreline development and impacts. Restore shoreline woody structure to the nearshore area of your lake. Root wads, logs, and whole trees can be installed as shoreline woody structure, but don't use trees that are currently growing near the shoreline, because they are stabilizing it from erosion. It is best to use recently live trees. The structure must be securely anchored. EGLE recommends placing woody structure 100 feet away from docks, boat ramps, and designated swimming areas.



*Inland Lake Fact Sheet Series—Shoreline Woody Structure*

## Parting Shots...







A healthy Iron County lake shoreline