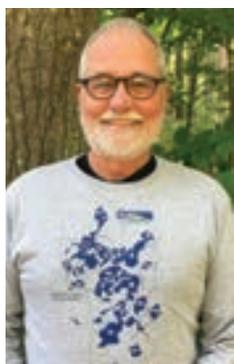


**Making Waves: Spring 2022  
SPECIAL GEOLOGY EDITION**

## President's Forum

by Fred Knoch



**Greetings from the frozen North Woods which are known to you as Three Lakes, Wisconsin.**

As I sit in front of the flat screen and sneak a look out my window, I see sunlight which portends the coming of warm summer days. Again, the TLWA begins to plan the assault on A.I.S. this season, an all too familiar ritual. Again, we call upon the membership to pitch in to be part of the solution, since if you don't, you are part of the problem. As is common in these newsletters, the TLWA reaches out to the membership to support us in our mission, and in all its programs. However, we recognize that the

newsletter is sent primarily to our members, which comprise only about 40% of all the riparian owners of the Three Lakes area. Two members of the board of directors, Gerald Oehmen and John Ray, have compiled a table of membership percentages for the riparian owners of each lake in the Three Lakes region. Please refer to the article to see the data and compare how your lake relates to others. Noticeable about this table is the number of riparian owners who are not members of the Association, over 1,000. This raises the possibility that these owners may be uninformed of our mission, programs, and herculean efforts to protect the quality of the lakes and waters which they enjoy.

To reach the population in question, the TLWA has chosen to initiate a presence on

Facebook. This action will allow information about the Three Lakes Waterfront Association to be available to a wide audience, some of whom may not be familiar with the Association or its purposes. As the TLWA stumbles into the realm of social media, we hope that we can include relevant information to pique the interests of riparian

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owners, seasonal residents, visitors, and area residents so as to stimulate participation. Our desire is to recruit members to the TLWA, encourage people to be aware of the fragile ecosystem we use for our enjoyment, volunteer to help in our diverse programs, become active board members, in short, to become part of the solution.

The Facebook page will undergo a gradual development, from formation to information, so be patient, and visit the page often. As the page develops, we hope to have links to our website, workshops about shoreline restoration, descriptions



Zoom attendees were in plain view to all board members attending the January TLWA meeting at the Demmer Library. (Not pictured, Lynn Zibell)



Head librarian, Erica Brewster, explains to board members what she can do to initiate a Facebook page for TLWA.

of our various programs, volunteer opportunities, lake captain openings, Clean Boats Clean Waters Inspector positions, just to name some topics. It's easy to become involved, just search for Three Lakes Waterfront Association on Facebook.

As always, I'll see you on the water!



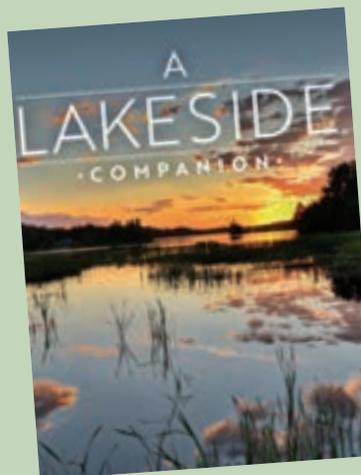
## 2022 TLWA ANNUAL MEETING – SAVE THE DATE! WEDNESDAY, JULY 6TH, 3 P.M. AT THE REITER CENTER

This year's TLWA guest speaker, Ted Rulseh, will share a "deep dive" into some of the various threats to our lakes: defective septic systems, wakeboats, holes in the AIS safety net, stresses on loons, and others. He'll also offer ideas on how we can influence the ways people think about their lake properties, and help instill an ethic of lake stewardship that can encourage healthy lakefront lifestyles and the advancement of natural shorelines.



Ted is the author of the upcoming book from The University of Wisconsin Press, "Ripple Effects:

How We're Loving Our Lakes to Death." His previous book, "A Lakeside Companion," was published by UW Press in 2019. He is a member of the Oneida County Lakes and Rivers



Association Board of Directors, a member of Wisconsin Lakes, a graduate of the Wisconsin Lake Leaders Institute, education coordinator for Friends of Birch Lake, and author of the weekly *Lakeland Times* column, "The Lake Where You Live."

# Shoreline Restoration

by Ceci Kiefer



## Shoreline Restoration Resources

The owners of the historic Jollywood property, the winner of the 2021 Your Shore – Your Lake Contest, have been hard at work since last fall preparing to dig in on their shoreline restoration project this summer. After consulting with a landscape designer, they have selected a list of native species to be planted in the buffer zone along their shore.

Included in the list is a mix of flowers, grasses and low growing woody species intended to help stabilize the shore, filter pollutants and create beneficial shoreline habitat. Especially for properties that have been converted to a traditional lawn, adding a buffer strip along a portion of your shore can offer great benefits. Shoreline restoration projects look beautiful and can increase property values.

Find out how you can restore your own shoreline with the information in the links below. There is also a link to the workshop TLWA hosted last year with shoreline restoration, other helpful practices and potential funding opportunities. This information can also be found on the TLWA website, TLWA.org under the Shoreline Resources tab.

### **Oneida County Land And Water Conservation – Protecting your shoreline:**

<https://www.oclw.org/protecting-your-shoreline.html>

### **OCW Healthy Lakes and Rivers - Grant program for smaller projects:**

<https://www.oclw.org/healthy-lakes-and-rivers-grant-program.html>

### **Oneida County Cost Share - Grant program for larger projects:**

<https://www.oclw.org/cost-share-grant-program.html>

### **Wisconsin DNR – Resources on shoreland restoration:**

<https://dnr.wisconsin.gov/topic/ShorelandZoning/Care/restoration.html>

### **Minnesota DNR - Maintaining and restoring natural shorelines:**

<https://www.dnr.state.mn.us/lakescaping/maintaining-and-restoring-natural-shorelines.html>

### **TLWA Shoreline Restoration workshop February 2021**

<https://drive.google.com/file/d/1KPZoPR9Mu4iltawu8TELjO-iXpWQ-iKP/view?usp=sharing>

The waterfront association maintains a helpful reference area in the Three Lakes Demmer Library where you can find a book with helpful shoreline information, Landscaping for Wildlife and Water Quality that is available to borrow. For questions about your shore contact Ceci Kiefer at [cckiefer@gmail.com](mailto:cckiefer@gmail.com).



# Clean Boats Clean Waters

by Bob Agen

## The 2022 Spring Report



The Zebra Mussel incident of last summer proved the need for the Clean Boats Clean Waters program. With that in mind, we will hire three inspectors this summer each working 40 hours a week. Our busiest landings, Townline, Big Stone next to the

Sunset Grill restaurant and the Burnt Rollways Lift will be their focus.

I will welcome back our volunteers and hope to add a few more. Volunteers are needed to work the landing on Big Lake near CW Smith Road,

Medicine Lake off Highway X and the landing located at the Laurel Lake campground. Hours are also available at our busy landings on the slow days of Monday and Tuesday.

For more information, email [agenrobert@gmail.com](mailto:agenrobert@gmail.com)

# What Is So Bad About Yellow Iris?

By Ceci Kiefer

It's that time of year when we all start to think about Spring returning to the Northwoods. Visions of sunny lake views, opening day for fishing, and the return of migrating birds and blooming flowers. Among those blooming flowers is one that doesn't belong. While its cheery, yellow blossoms are loved by many of us, we now know how harmful yellow iris is for the lakes. Yellow iris has spread like wildfire along the shores of several lakes on the chain and is beginning to show up in more places every year. Once it gets started it is a challenge to eradicate with its knobby roots sandwiched between the rocks in the soil. In just a few years one plant turns into a wall of iris, crowding out any and all other species. Keep in mind that those lost species make up the breeding habitat for many critters in water and on land, the very fish and wildlife that most of us are here to enjoy!

**"...80% of all lake life is born, raised and/or fed where land and water meet..."**

***Patrick Goggin, UW Extension Lakes/ Healthy Lakes & Rivers***

## ***How to know if you have iris on your property? And if you have some, what should you do?***

It is difficult to know if you have Yellow Iris for many of us who return to the area after the iris blooms in May or June. The remaining green leaves can look a bit like cat tails or simply blend in with the other grasses on the shore. Watch for the distinctive

green seed pods to develop in mid to late summer. They resemble a jalapeno pepper in shape and size. Once mature, they split open with over 100 disk-like seeds that fall onto the water's surface floating to spread to a new location.

## ***How to manage yellow iris on your shore?***

The first and easiest thing to do it to pick the flowers. Put them in a vase and enjoy them if you like. Picking the flowers will prevent them from going to seed. Removing the seed pods is very helpful as well. Be sure to discard them in the trash and not in a compost pile where they can sprout. The best thing to do it to eliminate the plant itself either by digging it or killing it with water safe herbicide. A tool called a soil knife can be most effective at removing the roots between the rocks. Water safe herbicide is also an option for careful use. Round up or similar products should never be used near water. A natural herbicide can be made by mixing 1 cup salt and ½ cup white vinegar with a gallon of water. Add 1 to 2 tablespoons of Dawn and apply with a spray bottle. It helps to cut back the leaves of the plant to expose cut edges before

applying herbicides. Repeated applications may be necessary. TLWA maintains a tool library with a choice of tools and water safe herbicide to check out for your use. There will also be a limited supply of tools at 745 Reed Rd. Please call or text 920-621-7688 to arrange to pick up supplies there. Please share this information with your friends and neighbors. Consider offering to help those who may not be able to work on their own shore. With a coordinated effort we can manage this invasive plant that threatens our lakes! Let's do it!



CLOCKWISE: Wall of Iris along shore, soil knife and open seed pod.



# TLWA Membership

by John Ray and Jerry Oehmen

## Increase Your Lake's Percentage of Members

TLWA sends an enthusiastic "Thank You" to all of our lakefront property and local business members. This support is greatly appreciated. Your hard-earned cash is supporting the efforts of hundreds of volunteers working countless hours to insure the quality of our lakes is preserved. It also helps to provide funding for Clean Boats Clean Waters, Three Lakes High School Aquatic Education Elective, the Rapid Response Dive Team, monitoring and eradication of invasive species, increasing fish habitat (Fish Sticks), Shoreline Restoration, Youth Scholarship Program, TLWA Website, Summer Youth Interns, Adopt-Your-Shoreline.

Membership growth has been excellent over the past ten years. Paid up memberships grew from 657 in 2012 to 931 today. However, our growth rate has leveled off and actually decreased from a high of 1032 in 2019. In 2020 we instituted a pay ahead fee schedule to make it easier on our members and reduce administration. Many have opted for signing on in 4-year stints for \$100 for the convenience and to save a few bucks.

We continue to search for ways to increase our membership. Our first goal is to track down previous members and remind them why they joined in the first place and encourage them to renew. This group is a staggering 270 members who need to step back up to the plate. Our second is this

request for current members to talk to their neighbors about joining up.

A glance at the membership by lake chart below, shows the growth potential of other stakeholders within earshot of your pier. This category includes over seven hundred potential "new friends of TLWA." If you see a TLWA plaque at your neighbor's

driveway, take the time to thank them. If a plaque is not in sight, suggest they join our quest for healthy lakes.

Our third aim is to broaden the base of our membership to include all residents of Three Lakes. The value of a healthy lake system in our community brings in tens of millions in tax revenue and tourist dollars every year.

LAKE	NON-		TOTAL	% MEMBERSHIP
	MEMBERS	MEMBERS		
	2022	2022		
BIG FORK	71	45	116	61
BIG LAKE	69	78	147	47
BIG STONE	55	72	127	43
CRYSTAL	18	35	53	34
DEER	49	81	130	38
DOG	21	36	57	37
FOUR MILE	13	12	25	52
ISLAND	45	46	91	49
JULIA	13	23	36	36
LAUREL	49	45	94	52
LITTLE FORK	41	30	71	58
LONE STONE	4	35	39	10
LONG	73	57	130	56
MAPLE	13	29	42	31
MEDICINE	39	51	90	43
META	1	19	20	5
MOCCASIN	9	7	16	56
OFF WATER	29	NA		
PLANTING GROUND	105	133	238	44
RANGE LINE	18	30	48	38
ROUND	22	22	44	50
SEVEN MILE	2	2	59	3
SPIRIT	11	12	23	48
THOROUGHFARE	15	45	60	25
TOWN LINE	31	26	57	54
VIRGIN	62	45	107	58
WHITEFISH	28	24	52	54
CHAINWIDE BUSINESSES	25			
<b>TOTALS</b>	<b>931</b>	<b>1040</b>	<b>1972</b>	<b>47</b>

# A Message to Lake Property Owners

From Oneida County Lakes and Rivers Association



Perhaps you have rented your cabin or home to tourists, or may decide to do so in the future. To help ensure a safe and positive rental experience for yourself and your guests, to help protect our precious water resources, and to help you stay in compliance, we offer this practical advice. Under Oneida County regulations:

## ***Under Oneida County regulations:***

1. Rentals by the day are not allowed; the minimum term is one week (there are some exceptions).
2. You must have a Lodging Establishment Health Inspection performed by the county Health Department and obtain a tourist rooming house license.
3. In zoned townships, an administrative review permit from the county Planning and Zoning Department is required.
4. The health department must inspect and certify your septic system.
5. There are occupancy limits based upon number of bedrooms, the septic system size, and cubic feet of air space
6. A qualified person must perform a fire safety inspection; safety equipment such as smoke and carbon monoxide detectors must be in place.
7. You must obtain a Wisconsin Department of Revenue Sales Tax Number (seller's permit) and, if applicable, a room tax permit from your municipality.
8. It is strongly advisable to carry adequate personal injury and property damage insurance.
9. A resident agent must be available to deal with issues or complaints; the agent's contact information must be prominently posted.
10. Adequate parking must be available; spaces may be limited based on the number of bedrooms.
11. Sealable trash and recycling containers must be available to renters.
12. Local noise ordinances must be observed.



Your lake association might have other useful materials and advice that relate to your lake specifically. Please joining and supporting your association if you have not already done so.

We offer this advice in keeping with OCLRA's Mission: To protect and preserve Oneida County's inland waters through education, collaboration and advocacy.

**For more information about renting your property, please contact the Oneida County Planning and Development Office at <http://www.oclra.org>**

## A MESSAGE TO OUR VALUED GUESTS

Thank you for visiting our lakeside retreat. As you enjoy your stay, we ask that you show due respect for this property, the lake, and our neighbors. Please:

- Be considerate of neighbors' desire for peace and quiet, especially in the early and late hours.
- Before launching a boat, inspect for and remove any plants, weeds or other "aquatic hitchhikers" – it's the law!
- Consider launching your water vehicles at a launch staffed by CB/CW inspectors. On the Three Lakes Chain these include the Townline Landing, the Burnt Rollways Lift and Launch, and the Sunset Grill Launch. Other landings have volunteer inspectors depending on availability.
- When boating, obey state safety rules, observe no-wake areas, and be courteous to anglers, paddlers, and others. Minimize wakes near shore to prevent erosion.
- Place trash and recyclables in the containers provided, and keep the lids secured.
- Keep pets on a leash; pick up their waste to keep the grounds and the lake clean.
- Park vehicles and trailers only in designated areas.
- Confine campfires to the rings provided; handle fuel and other combustibles with care.
- To help share the beauty of the night sky, keep outdoor lights off when not needed.

*Above all, remember that the lake belongs to everyone.  
Respect it as if it were your own.*

# Adopt Your Shoreline

by Dave Wheeler



## The Importance of Volunteers

On behalf of the Three Lakes Waterfront Association, I would like to thank all of our Adopt Your Shoreline (AYS) volunteers for their dedication in monitoring and helping to control the spread of aquatic invasive species (AIS) on the Three Lakes Chain of Lakes last year. I would also like to thank our divers and the assistants who helped remove Eurasian watermilfoil infestations on Virgin and Long Lakes.

Last year, the AYS volunteer program reported the following volunteer hours:

Number of AYS volunteer reporting: 111

### Adopt Your Shoreline (AYS):

Volunteer Hours	818.8
Motorized Boat Hours	400.3
Non-motorized Boat Hours	292.8

### Rapid Response Dive Team – removal of Eurasian Water Milfoil on Long and Virgin Lakes:

Diver Hours	164.2
Assist Team Hours	206.0
Motorized Boat Hours	112.0

Non-motorized Boat Hours 67.0

### Grand Total Hours:

AYS Volunteer, Divers, Team Assistants	1189.0
Motorized Boat Hours	512.3
Non-motorized Boat Hours	359.8

Last year's volunteer hours were up 7.5% from the hours reported in 2020.

If you are interested in getting involved in the AYS program, please contact your Lake Captain. It does not take a lot of time; it is for a very worthwhile cause. The more volunteers we have on the Chain monitoring AIS conditions; we are more likely to identify a small problem before it becomes a larger problem.

We are looking for volunteers to monitor AIS on Crystal Lake. You do not need to have a place on the Crystal Lake, but if you frequent the lake and you are interested and/or have questions, please email me at [darkhorse53@gmail.com](mailto:darkhorse53@gmail.com) and enter "Crystal Lake" for the subject line.

## LAKE CAPTAINS

BIG	<b>Steve Laszewski</b>	920-562-0321	<a href="mailto:steve.laszewski@foth.com">steve.laszewski@foth.com</a>
BIG FORK	<b>Kathy Olkowski</b>	715-891-0367	<a href="mailto:kathleenrunner@yahoo.com">kathleenrunner@yahoo.com</a>
BIG STONE	<b>Rob Jahnke</b>	602-460-5362	<a href="mailto:r26jahnke@gmail.com">r26jahnke@gmail.com</a>
CRYSTAL	<b>OPEN</b>		
DEER	<b>Jay Teagle</b>	630-460-5362	<a href="mailto:jay.teagle@yahoo.com">jay.teagle@yahoo.com</a>
DOG	<b>Gene Baltz</b>	715-546-8109	<a href="mailto:gfbaltz@att.net">gfbaltz@att.net</a>
FOUR MILE	<b>Mike Gray</b>	920-540-6027	<a href="mailto:mike.gray@valmet.com">mike.gray@valmet.com</a>
	<b>Lori Gray</b>	920-540-6027	<a href="mailto:lagray1520@gmail.com">lagray1520@gmail.com</a>
ISLAND	<b>Doug Scheffen</b>	715-546-2732	<a href="mailto:dougscheffen@aol.com">dougscheffen@aol.com</a>
JULIA	<b>David Mitzner</b>	715-546-2583	<a href="mailto:david.mitzner165@gmail.com">david.mitzner165@gmail.com</a>
LAUREL	<b>Mark Wallesverd</b>	920-344-0698	<a href="mailto:walsvrd@gmail.com">walsvrd@gmail.com</a>
	<b>Charles Brady</b>	651-408-2505	<a href="mailto:bradycharles@msn.com">bradycharles@msn.com</a>
LITTLE FORK	<b>Mary O'Hara</b>	715-546-8107	<a href="mailto:mcohara@att.com">mcohara@att.com</a>
LONG	<b>Gary White</b>	920-251-7388	<a href="mailto:garykarenwhite@charter.net">garykarenwhite@charter.net</a>
MAPLE	<b>Ron Bennett</b>	815-351-7573	<a href="mailto:rjbennett247@gmail.com">rjbennett247@gmail.com</a>
MEDICINE	<b>Bruce Renquist</b>	715-546-2401	<a href="mailto:bruce.renquist@gmail.com">bruce.renquist@gmail.com</a>
MOCCASIN	<b>Ryan Lamon</b>	715-546-3351	<a href="mailto:ryan@watercraftsales.com">ryan@watercraftsales.com</a>
PLANTING GROUND	<b>Norris Ross</b>	715-546-2250	<a href="mailto:norrisross@frontier.com">norrisross@frontier.com</a>
RANGE LINE	<b>John Folaron</b>	414-687-5900	<a href="mailto:john@air-instruments.com">john@air-instruments.com</a>
ROUND	<b>Gwen Hutchins</b>	608-556-1234	<a href="mailto:hutchinsfoundation@gmail.com">hutchinsfoundation@gmail.com</a>
SPIRIT	<b>John Lake</b>	715-546-2117	<a href="mailto:jrlncal@sbcglobal.net">jrlncal@sbcglobal.net</a>
THOROUGHFARE	<b>Paul Matthiae</b>	715-891-6154	<a href="mailto:pjmatthiae@gmail.com">pjmatthiae@gmail.com</a>
TOWNLIN	<b>Lou Bruckmoser</b>	715-546-3083	<a href="mailto:annlou@frontier.com">annlou@frontier.com</a>
VIRGIN	<b>Bob Borek</b>	715-546-3457	<a href="mailto:bobborek18@gmail.com">bobborek18@gmail.com</a>
WHITEFISH	<b>Dave Wheeler</b>	309-696-9855	<a href="mailto:darkhorse53@gmail.com">darkhorse53@gmail.com</a>

# WHO VOLUNTEERS? Charles Brady and Mark Wallesverd

Laurel Lake is somewhat deceptive in that it doesn't have a large surface area but does have quite a bit of shoreline that varies dramatically from large areas that remain relatively undeveloped to other areas that are very densely built up. It also includes a national forest campground with a boat landing.

The Adopt-Your-Shoreline program on Laurel Lake is led by co-captains, Charles Brady and Mark Wallesverd. Both individuals have a longtime history on Laurel Lake that began spending summers on the lake during their childhoods, well over 50 years ago. As the years have passed, Mark and Charlie have developed a strong connection with the chain of lakes and have seen many changes in the lakes and waterfront. A few things that have been noticed over time are a greater number of year-round homes that have replaced seasonal cottages, increase in outdoor lighting and manicured lawns on the chain. Over time, they've also seen resorts sold off as condominiums, private homes marketed as rental units, large areas dedicated to boat slip rentals as well as frequent fishing tournaments. These have all led to an increased number of boats using landings and are an important reason to take precautions to limit the spread of the many invasive species that exist. In recent years, Mark and Charlie have also noticed a severe reduction in bat numbers and wonder if use of chemical spraying to eliminate mosquitos and ticks

from yards is a possible cause.

Mark and his wife, Patty now call Laurel Lake home and Charlie and his wife, Liz are able to spend a large portion of the year on the lake. Both men feel fortunate to continue to have the ability to continue their history on the lakes. Neither had previous experience with aquatic vegetation and at one time called anything growing in the water a weed. After attending educational sessions sponsored by TLWFA on identification of various species native as well as invasive, they now know better.

Before becoming lake captains, both Charlie and Mark volunteered time to monitor the lake and watch boat landings. When approached by Bruce Renquist after Laurel Lake lost its previous captain, the two said that they'd be willing to take the spot together so that the lake would not go without being monitored. Both enjoy kayaking around the lake while checking for invasive species. Along with several other volunteers, (Jennifer McElmeel, Nancy Ladd, Angie Payseur, Liz Brady) they've spent a good deal of time dealing with yellow iris along the shoreline. Many of the plants are relatively scarce and most property owners that have been approached have

been very willing to address the yellow iris on their own or have given permission allowing the volunteers to take steps to remove the plants. One large area of the yellow iris that has been difficult to access because of its bog-like makeup has been located near the Laurel Lake Campground and boat landing. A second large infestation on private property was also spotted and permission has been granted allowing the Laurel Lake crew to work on removing and reducing the vast number of



AYS volunteer, Nancy Ladd, works along with Charlie and Mark as they deal with the invasive Yellow Iris along shoreline areas of Laurel Lake.

plants there. Along with periodic checks of the lake for other invasive species, the Laurel Lake crew has spent a good deal of time working to reduce the yellow iris plant numbers in both of these areas.



Question answered by Alex Selle, DNR Water Resources Management Specialist

Last summer the TLWA intern found a boat at a Chain landing with zebra mussels on its motor. **What are zebra mussels and what are their effects on a lake?**

Zebra mussels are an invasive species that are present in some Wisconsin waters and are displacing native species, disrupting ecosystems, and affecting citizens' livelihoods and quality of life. They hamper boating, swimming, fishing, hunting, hiking, and other recreation, and take an economic toll on commercial, agricultural, forestry, and aquacultural resources. The zebra mussel (*Dreissena polymorpha*) is a tiny bottom-dwelling clam native to Europe and Asia. Zebra mussels were introduced into the Great Lakes in 1985 or 1986 and have been spreading throughout them since that time. They were most likely brought to North America as larvae in the ballast water of ships that traveled from fresh-water Eurasian ports to the Great Lakes and then inland lakes and rivers within Wisconsin.

Zebra mussels look like small clams with a yellowish or brownish D-shaped shell, usually with alternating dark- and light-colored stripes. They can be up to two inches long, but most are under an inch. Zebra mussels usually grow in clusters containing numerous individuals.

Little more nuanced aspect of ecological threat... Zebra mussels feed by drawing water into their bodies and filtering out most of the suspended microscopic plants, animals and debris for food. This process can lead to increased water clarity and a depleted food supply for other aquatic organisms, including fish. The higher amount of light penetration fosters the growth of rooted aquatic plants which, although creating more habitat for small fish, may inhibit the larger, predatory fish from finding their food. This thicker plant growth can also interfere with boaters, anglers and swimmers. Zebra mussel infestations may also promote the growth of blue-green algae since they avoid consuming this type of algae but not others.



Zebra mussels attached to boat motor – Ca.gov



A cluster of zebra mussels – Umn.extension.edu

## TLWA T-SHIRTS & HATS

A reminder to all members and non-members alike. Three Lakes Waterfront Association T-shirts and hats are being offered at the Northland Clothing Company in downtown Three Lakes.

The shirts depict the Three Lakes Chain of Lakes and the logo of the TLWA. The shirts are available in long and short sleeve versions, and are available in all colors as long as one wants grey. The \$25 cost for either hat or shirt is a donation supporting the mission of the TLWA.

*Go ahead, make Eagle River jealous!*



# How Wetlands Manage Water

Adapted by Jim Ruwaldt, Wisconsin Wetlands Association Board Member and Planting Ground Lake property owner, from an article by the Wisconsin Wetlands Association (WWA). WWA works statewide to protect, restore, and manage wetlands. More information about WWA is available at [wisconsinwetlands.org](http://wisconsinwetlands.org)

Wetlands occur between the places that are always wet and the places that are always dry. They protect the health and safety of our communities. They reduce flood damages, help keep our waters clean, and ensure we have water to drink and use in our businesses.

But the ability of wetlands to provide these benefits depends on how we use and manage our land and water. Across much of the country, the changes we have made to our landscape have disrupted this ability. And as a result, we're seeing more flood damages and water quality problems.

The good news is that wetlands can be an important part of the solutions to these problems.

Because water flows downhill, we can't fix issues downstream if we don't fix problems upstream. So starting at the top, we can see how it's all connected ... *the watershed*.

A watershed is an area where all surface waters—lakes, rivers, streams, *and* wetlands—drain to a shared body of water. The Three Lakes Chain watershed is a maze of all of these aspects of the landscape. But wetlands in different parts of a watershed manage water in different ways.



ABOVE: An aerial view of one kind of wetlands.  
BELOW: Wetlands look different at different times of the year



Wetlands in the upper parts of a watershed form in low spots on the land. These wetlands capture, store, and slowly release runoff from rain and snowmelt. They may not always look like wetlands—they're wet in the spring and dry by latter summer— and often they don't even appear to be connected to streams or rivers, *but they are critical*.

Individually, these wetlands may be small, but they can be locally abundant. Together, they hold and manage a lot of water and *literally slow the flow*, allowing the water to soak into the ground.

This reduces erosion and flood peaks and helps protect downstream roads and neighborhoods, and improve water quality.

Wetlands in the middle part of a watershed form along rivers and creeks, giving them room to swell during high water. They are most commonly known as *floodplain wetlands*.

When floodwaters spread out across a floodplain they slow down and spread out. Slower-moving water has less erosion-causing energy. And water that can spread out means lower flood peaks downstream.

Wetlands in the lower parts of a watershed form where rivers empty into larger bodies of water, especially lakes. Where rivers flatten out, the current disperses and the river drops its load of sediments and other material. This makes the water that enters the lake cleaner and clearer, which means better fishing, swimming, and boating.

The watershed of the Three Lakes Chain contains a large amount of wetlands, all of which contribute to the Chain's good water quality and great recreational opportunities

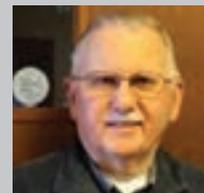


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# Aquatic Education

by Paul Matthiae



## Global Science and Aquatic Education

*Photos courtesy of Jennifer West*

Fall of 2021 found the Global Science students once again on Virgin Lake conducting a survey



of the physical, chemical and biotic environments. Twenty four students participated in this survey, a big jump from the eight students in the spring of 2021.

Logistics became an issue, we needed more boats! And, once again Virgin Lake volunteers quickly stepped forward with three more pontoon boats.



In last Fall's newsletter, we explained our objectives, the equipment and procedures the students used, and the methods used to analyze bottom samples, plankton tows, and conduct water chemistry analysis. Until now, we haven't addressed the aquatic plants essential to this aquatic ecosystem.

We were fortunate to have Stephanie Boismenu, the Oneida County Aquatic Invasive Species Coordinator spend the



morning with the students. Outfitted with her waders and a variety of specialized rakes, drags, preserved plant samples, and aquatic plant keys, Stephanie got her group into action. Working from shore, students used rakes and throwable drags to collect submerged plants. Stephanie, wearing waders, was able to collect floating and emergent plants in deeper water.

Together on shore, all plants were identified by comparing them to keys and pressed plant samples. This method of sampling whether conducted



from shore or boat, if repeated by randomly sampling the lake's shoreline, can yield species lists and qualitative estimates of plant species frequency and relative abundance. Special attention was given to Eurasian Water Milfoil (EWM), a prolific aquatic invasive that has

established in Virgin Lake.

EWM acquired during sampling was compared to native northern milfoil and identifying characteristics of each plant pointed out to all of the students. More eyes on the water! In addition, students were made aware of the several control methods that have been or are currently being used to eliminate or reduce EWM presence to a more manageable level.



These experiences give the students exposure to using scientific methods involved in quantitative analysis of water resources. Using the observations they are making and data they collected the students are constructing a long term data base that will allow them to determine seasonal and long term changes in the physical, chemical and biotic structure of Virgin Lake.



# Glacial Erratics of the Three Lakes Region

by John Ray



EXTRA. EXTRA. READ ALL ABOUT IT! The headline of the local *Gazette* 10,000 years ago might have proclaimed: “Three Lakes Invaded by Giant Rocks.” No doubt, a “blast from the past.” Indeed, our area lay under thousands of feet of glacial ice back then and when it all melted away, the countryside was strewn with erratic rocks of all compositions, shapes and sizes. Disorder in the house!

A glacial erratic is a rock that was picked up, carried away, and deposited elsewhere by a glacier (Fyon, 1970). Indeed, the name is derived from the Latin “errare,” to wander. It can be noticeably peculiar like a lone boulder sitting in an otherwise soil covered field or poking its head above water level in a lake. Some have attained namesake status for local lakes (Rock, Little Rock, Stone, Little Stone, Big Stone, Lone Stone, Stepping Stone etc.) and they even adorn top-notch destination resorts (Big Stone Golf Course). It is no surprise that the “Rocks for Fun Pasty Shop” emerged from extensive boulder fields along Highway 45 just north of Tigerton, WI. Elsewhere, one may have spotted cultivated fields lined with rock walls and thought, “How quaint” only to later realize that “the boulder is the bane to the plow,” and then upon reflection, how they toiled to clear these once untillable fields.



Figure 1. Larry (The Godfather of Big Rocks in Three Lakes) Zibell stands guard at the base of this beauty on private land near Stormy Lake.

Glacial erratics are easily identified if they differ from other rocks in the immediate area. They just look out of place. They tend to have a smooth surface with rounded edges honed by tumbling along during transport. However, the raw power of ice with 10,000 years of freezing and thawing in northern Wisconsin winters can easily bust open existing fractures and produce sharp edges (Figure 1).

When “strangers” show up in the neighborhood it is always interesting to find out from whence they came and if they might have “News of the World.” Although rocks are generally not audibly conversant, much can be

determined about their origin or provenance by inspection. Rarely erratics have a uniqueness that allows a homeland to be accurately determined. For example, gem quality diamonds found in glacial deposits in northern Ohio led to the back-tracing and discovery of a diamond deposit in Ontario. In another case, the “Holstein” erratic from Baldwin, WI (Figure 2) has generated quite the dialog from professional geologists speculating on similar “Leopardite” rocks they have seen around the world such as in Wausau, the Beartooth Mountains, Montana and even Namibia, South Africa.

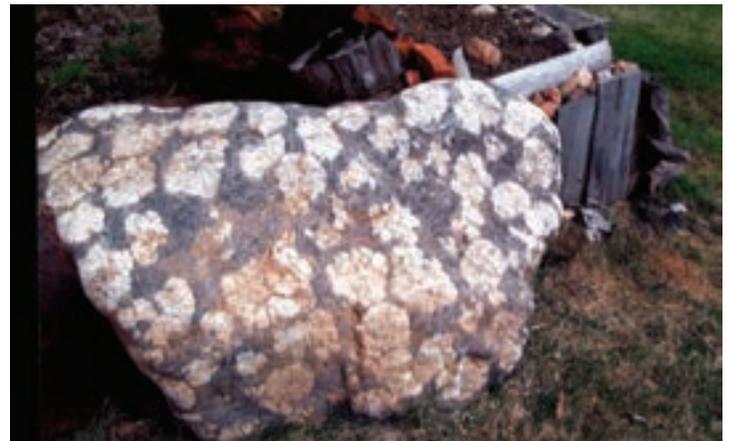


Figure 2. Holstein erratic (Leopardite) with large plagioclase feldspar crystal “spherulites” near Baldwin, WI.

Why even bother? The presence of an alien rock leads to head scratching and might nudge the curious mind to play detective. For example, meteorites are an extreme type of erratic in that they have an extraterrestrial

origin. The majority of meteorites in collections are very dense iron and nickel masses that date back to the formation of our solar system, 4.5 billion years ago. Closer to home, the “Okotok” is an office building-sized glacial erratic composed of quartzite that is believed to have traveled on the back of a glacier 580 miles southward from Jasper National Park, Alberta to rest near Calgary (Figure 3). “Okotok” is the indigenous Blackfoot word for, you guessed it, “big rock.” My guess is these nomadic people knew exactly where Okotok originated and had a spiritual tale of how it got there. It is a fact that erratic rocks provide evidence of a “higher power,” in this case “five thousand feet of glacial ice.” These wandering stones directly led to the concept of climate change, continental glaciation and as such, an important advancement in our knowledge of the geological history of the earth.

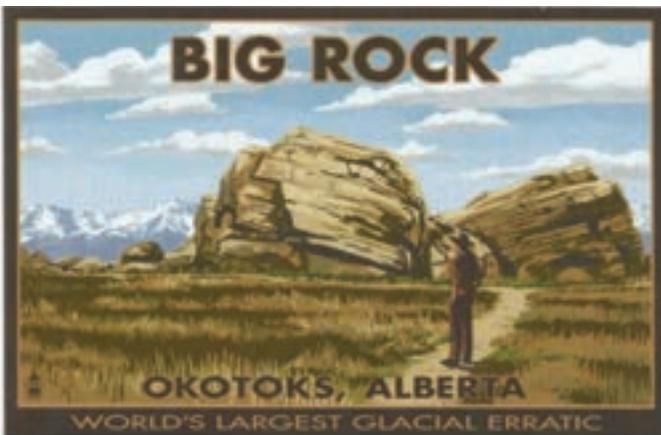


Figure 3. Okotoks erratic, Alberta Canada is 30 feet tall, 60 feet wide and 130 feet long. (Lantern Press)

The distribution of glacial erratics ranges from happenstance to orderly concentration in glacial deposits called moraines. The journey of a glacier is a round trip of

advance and retreat, but it is wrought with many false starts and fits and delays. When a glacier decides to park for a while, the conveyor belt keeps churning and rocks tumble down off the front end and sides creating great accumulations of end and lateral moraines. The west side of Medicine Lake and continuing west along Highway X has an abundance of large boulders that may be part of a moraine deposit.

My interest in erratics was awakened by Larry Zibell, a local retired mathematics and computer science teacher who has taken great interest in hunting large rocks. Some famous explorers gain notoriety by tracking big game, Larry goes after big rocks. I met him soon after permanently moving here and



Figure 4. Larry at the USFS gravel pit on Shelter Valley Road, Three Lakes, WI.

learning of my geological background, he asked if I wanted to go see a big rock. “Heck yah, I’m in!” You see, I spent my career in the mountains mapping rocks all over the western US, and in Three Lakes at times I

miss the energizing effect of staring at a giant mass of rock right between the eyes. Within minutes we are in his Wrangler heading south to one of Larry’s favorite sites and after a short hike in the woods, a giant rock as big as a barn appears to spring out of the ground. It is so

massive that it appears to have generated its own gravitational field. His enthusiasm about this behemoth arises from an infatuation kindled in early childhood, the joy of his original discovery and sharing this treasure with other geologists and rock enthusiasts... I believe he said I was the seventeenth one to visit. This particular gentle giant hiding out in the woods is a Precambrian granite

that one of Larry’s esteemed visitors believes traveled southwesterly from up to a hundred or more miles from near Marquette Bay on Lake Superior. I favor an origin closer to home due to the divined presence of this very rock beneath 0-100’ of glacial sediment... right underfoot (Ray, 2021).

Larry and I are both interested in visiting and cataloging these local treasures. If anyone has spotted an “Okotok” (or for that matter, a Hodag) we at the TLWA would appreciate hearing from you.

*Fyon, Andy (1970). Canada (Ontario) Beneath Our Feet...Erratics.*

*Ray, John (2021) Geology of the Three Lakes Chain TLWA Spring Newsletter*

# Changes to TLWA Board

## BOARD MEMBER BRUCE RENQUIST STEPS BACK

How do we fill the huge void created now that long time TLWA Board member Bruce Renquist has decided to retire? Well, the answer is obvious – it will be very difficult to find a single person with all the skills, work ethic, intelligence and positive attitude that Bruce possesses. Bruce’s contribution during his Board tenure has been huge and long lasting. He has set the bar very high for those to follow.

When you admire your membership plaque at the end of your driveway, think of Bruce, the designer (and probably installer). When you launch your boat at a boat landing, think of Bruce who has checked boats for invasives for years. When you pick up our recent publications like *A Moment in Time*, *Our Lakes*, or our full color TLWA *Making Waves* newsletter, think of the standard Bruce has set. The list goes on and on with Bruce’s design standards.

Beyond all the specific artistic designs, what the Board will equally miss is Bruce’s clear thinking, calm disposition, analytical skills and ability to think through issues clearly. As a Board member, his skills were invaluable to all aspects of TLWA’s work and mission.



Fortunately for TLWA, Bruce will continue to be active in many of the projects he has chaired or in which he participated in the past. You might say “Hi” to him at the Big Stone boat landing, at a CBCW workshop, on Medicine Lake as the lake captain and certainly at an annual meeting.

The TLWA Board can confidently say that we will all really miss Bruce and his valuable input to the decisions of the Board. Working with Bruce has been our great pleasure!

## WELCOME BACK TO ED COTTINGHAM

It has been a couple of years since Ed Cottingham has been a board member of our association.

Well, the drought is over, Ed is back as a board member. No longer will we have unanimous agreement on motions or total consensus in discussion matters, the game has changed. Ed argues as the “devil’s advocate” on almost every initiative we propose which is good on any board. After his 9 years of board experience and two years of absence we



welcome Ed back with open arms.

As a director Ed has spearheaded no less than three major initiatives and facilitated two others. He handled much of the leg work on the membership plaque program, producing over 1,000 of the plaques and installing many of them. He has handled the operation of our scholarship program even during the time he was not on the board. When our board was asked to donate to the program to upgrade the

damaged and missing safety buoys on the chain, Ed spearheaded that program and has assisted ever since. Since we were donating over \$24,000 to the restoration project, Ed wanted to see that our money was well spent, which he did. Ed is there to assist with every project this association undertakes.

After working with Ed for 9+ years we all will be better off with him participating as a board member of the Three Lakes Waterfront Association. I am happy to say ...  
HEEES BAAACK!

## LORETTA GRIFFIN JOINS THE BOARD

The Griffin Asylum on Medicine Lake has offered refuge and respite to the Griffin clan since 1969. Loretta Griffin and her husband branched out and purchased an old Minne Wonka Camp building on Little Fork Lake in 2006. After 38 years as a Chicago based litigation attorney, Loretta is a permanent resident of Three Lakes as of 2021. Loretta views the lakes as a binding element of her

extended family, as so many moved multi-directionally beyond their Chicago roots to all parts of the United States and Europe. The water beckons them back, uniting next generations. Preserving the lakes, their shorelines and the refuge and respite they offer is an honorable task for Loretta, and she hopes her skill set can aid the TLWA in its overall mission.



## RETIRING FROM THE TLWA BOARD

Board member, Steve Laszewski, decided to retire from his TLWA board position this past January. With his background in environmental toxicology, his input at monthly meetings was quite informative. Steve was instrumental in connecting TLWA with the DNR Director, James Yach. As a result,

he helped to develop the DNR Q & A feature in the TLWA *Making Waves* newsletter.

The TLWA Board thanks Steve for all his efforts towards making the Three Lakes Chain of Lakes the best they can be environmentally.



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For information regarding important issues impacting our lakes and Your own lake property, visit the TLWA website at: [www.TLWA.org](http://www.TLWA.org) or contact TLWA by emailing [jaketheoilguy@yahoo.com](mailto:jaketheoilguy@yahoo.com)