



FALL/WINTER 2023

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RALALA LAKES ASSOCIATION

MESSAGE FROM BOB EDDY, RALALA ASSOCIATION PRESIDENT

As most of you are aware, the 2023 season was a very complex and challenging year for our lake association. I felt that recapping our 2023 Annual Meeting would be a great way to bring everyone up to speed with our accomplishments and the challenges we ALL face.

RALALA's mission is to preserve and protect the lakes and watershed by designing, organizing and funding volunteer projects, initiatives and educational programs for our members and the community. We collaborate with state and local resources to accomplish these goals.

2023 EFFORTS AND ACCOMPLISHMENTS

Managing Aquatic Invasive Species (AIS)

Since 2016 our member lakes have been systematically surveyed for Eurasian water milfoil (EMW). We had significant impacts this year. The identified patches of EMW on Roosevelt Lake were more numerous than previously and EMW was discovered, and treated on Lawrence Lake for the first time.

Managing AIS through Prevention

Research shows AIS is typically introduced to lakes at boat launch sites, so we expanded prevention efforts there. We increased funding for additional inspector hours at both Roosevelt and Lawrence Lakes, and placed additional AIS information on the newly constructed kiosk at the Roosevelt site.

Managing AIS through Early Detection

For the first time, we hired trained divers to inspect the high usage Roosevelt and Lawrence launch sites to detect the presence of starry stonewort and/or zebra mussels. Early detection and removal provides the only chance of elimination, there are no treatments available at this time. The good news is neither were found.

Managing the Land to Improve Water Quality

Our Lake Steward program encourages lakeshore owners to establish, or restore, natural shorelines preventing contamination from entering the lake, and preventing shoreline erosion. We now have 13 residents who have obtained Lake Steward status and another 16 people in the process of qualifying for this award.

Managing Water Quality

Each month May through September, volunteers collect water samples from our member lakes that are professionally analyzed and results are recorded in a state database. In addition, RALALA implemented year round, monthly, professional collection and analysis of water to monitor early signs of a leak from the Enbridge Pipeline. (Water Quality see page 14, Enbridge Update see pages 10-11)

CHALLENGES GOING FORWARD

It is critical RALALA stays on top of these rapidly changing challenges including:

- Research revealing new AIS prevention and treatment information
- Urgency to protect water quality through appropriate shoreline and land management techniques
- Understanding impacts of changing climate and weather events
- Effects of development, including Enbridge Line 93

Continued on page 15

BUILDING AWARENESS • ENCOURAGING ACTION



MAISCR Director was Keynote Speaker at RALALA Annual Meeting

Nick Phelps, Ph.D., Director of the Minnesota Aquatic Invasive Species Research Center (MAIS-CR), founded in 2012, was the keynote speaker at the RALALA Annual meeting August 8, 2023.

MAISCR is dedicated to fighting the spread and impact of aquatic invasive species on Minnesota's beloved lakes and rivers. Phelps' family has owned property on Leech Lake since the 1930's and he grew up in Brainerd, so has deep roots in Minnesota lake country and grave concerns about combatting the spread of Aquatic Invasive Species (AIS). "This is personal for me."

He emphasized AIS is a growing problem in Minnesota, stating in 2023, zebra mussels have been identified in 400 Minnesota lakes, half of them in the last few years. Starry Stonewort is more prevalent and this algae grows deeper and denser than milfoil so is even more detrimental to lake ecology and recreation.

The following summary of the important information Dr. Phelps shared will inform data based decision making by the RALALA Board.

SCIENCE BATTLES BACK

Attempts are being made to innovate our way out of the problem. MAISRC is working to fill knowledge gaps to understand the impact of various interventions with a staff of 40 Ph.D. scientists and 20 grad students.

It has been allocated funds by the State Legislature until 2027, from the Environmental Natural Resources Trust Fund supported by Lottery proceeds. MAISCR research improves the ability to find invasive species earlier, better respond to new infestations, and develop new tools to control established populations. "Managers have few, if any options to control established populations of AIS and MAISCR exists to help find solutions" Dr. Phelps stated.

The past approach used to be "Spray and Pray" according to Phelps, but much has been learned to understand timing and treating. Native Northern milfoil is hybridizing with Eurasian watermilfoil, and this hybrid is much more resistant to herbicides.

Milfoil samples can be sent to MAISRC which will determine, through genetic testing, if it is the hybrid. Based upon genetic make up it can be determined which waterbody the plant came from, very much like ancestry.com.

ZEBRA MUSSELS

Once established, there are few treatment options because to kill zebra mussels, other desirable aquatic life is eliminated, potentially doing more harm than good. MAISRC is conducting controlled





experiments to determine what works best—which chemical, and what temperatures are most effective treatment. **Early detection is the best hope.**

The zebra mussel genome has been decoded and it has been discovered how to turn off certain genes via RNA interference. For example, there is the ability to interrupt shell formation which would kill the mussel.

BUILDING AWARENESS • ENCOURAGING ACTION

AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE

Studies have shown zebra mussels survived on boats, in live wells and in the ballast of wake boats. In August juvenile zebra mussels attach to plants so they can also be introduced to waterways from weed fragments on boats.

It is imperative to CLEAN, DRAIN, DRY.

A environmentally friendly paint has been developed to which zebra mussels cannot adhere, and it will potentially become a future strategy to paint all boats with it.

STARRY STONEWORT

Starry stonewart is an invasive algae that creates very dense mats. It has star-like bulbils that sprout like potato buds. It is tenacious and remains viable for 72 hours in damp areas of boats.



SPINY WATERFLEA

Spiny waterfleas have now been identified in 40 to 50 lakes, mainly in northeast Minnesota, but also in nearby Mille Lacs Lake. Anglers are spreading it on their fishing gear. The use of live bait for fishing is a pathway to infestation,



also, because 30% of anglers release their minnows into the lake.

PREVENTION CAN WORK!

In many places prevention should be prioritized. Data driven prevention tools are available at www.alsexplorer.umn.edu

The interactive map shows likelihood of infestation risk scores.

Roosevelt Lake has a 39.5 % probability that in 5 years it will have zebra mussels. Data provided from inspectors found 22% of boats coming into Roosevelt are from infested waters. It ranks number seven on the list of Cass County lakes most likely to become contaminated with zebra mussels. The risk is from BOAT MOVEMENT between lakes.

HOW DO WE PREVENT INTRODUCTION? RESEARCH SHOWS APPLYING INTERVENTIONS WILL CHANGE RISK

MAISRC studied prevention strategies to reduce infestation risk including:

- inspections
- hot water decontamination
- boater education

In their studies a control boat was presented with zebra mussels, starry stonewort, milfoil and spiny waterfleas to see which variable was most effective.

Results

- Regular boaters removed 56% of AIS on boats (Metro areas, where there are more inspectors and greater education exposure, scored higher)
- Inspectors removed 80% of AIS
- Hot water decontamination removed 84.4% of AIS
- Especially with spiny waterfleas, the better the education of inspectors the higher their success rate
- Zebra Mussels hiding in the motor mount were often missed by boaters and inspectors, so an important strategy is to clean and dry that area
- · Very few found the spiny waterfleas
- The longer any group checked the boat the more successful they were

Phelps encouraged reminding boaters and inspectors to SLOW DOWN, CHECK AGAIN to ensure better results.

Conclusions:

- Hot water decontamination using 140 degree water for 10 seconds is the most successful intervention. That will kill tough, resilient adult zebra mussels and should kill all other AIS.
- Sixteen lakes in Cass County will become infested with zebra mussels
- Boater education is the biggest driver of successful intervention

MAISRC has analyzed data and made it available to counties to guide decision making for allocation of funds. RALALA is using this data, committing their own funds, and advocating for financial support for prevention efforts.

WHAT CAN BE DONE?

- Join and support RALALA
- Become an AIS detector (U of M extension offers training programs)
- Create resilient ecosystems that resist infestation, become a Lake Steward and maintain or restore naturalized shorelines
- Support MAISRC <u>maiscr.umn.edu</u>

MAISCR continuing research studies:

- Efficacy of CD3 stations at launch sites
- In partnership with the University of Minnesota,

Duluth, testing boater reaction to signs including messaging and visual appeal by a social science team

Dr. Phelps answered attendees questions after completing his presentation making these recommendations:

- MAISRC recommends treating the smaller patches of milfoil before they become bigger patches
- DASH (Diver Assisted Suction Harvest) is much more effective than hand pulling individual Eurasian watermilfoil plants

When asked suggestions for monitoring at launch sites, he recommended:

continued from page 3

- AIS Detector Program which teaches how and when to look for AIS and provides annual training in April or May
- Check launch sites in July, a good time to find adult zebra mussels
- Add a fall assessment of launch sites to find juvenile zebra mussels and starry stonewort
- Organize zebra mussels safaris, an coordinated hunt for them
- Everyone should vigilantly check boat lifts and docks for zebra mussels, and utilize MAISCR detection devices
- Add additional AIS informational signage at launch sites

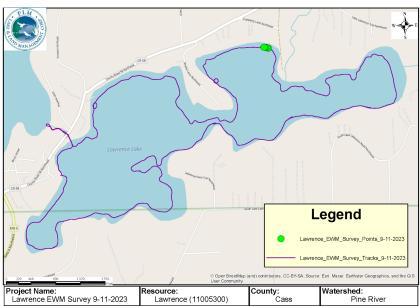
EURASIAN WATER MILFOIL FOUND AND TREATED ON LAWRENCE LAKE

A small patch of Eurasian watermilfoil (EMW), approximately 10-12 plants under and around a dock and boat lift, was discovered on September 11, 2023 by aquatic plants experts from PLM Lake and Land Management during a RALALA sponsored survey. It was confirmed by the Minnesota Department of Natural Resources (MNDNR), and on September 25th, a permit was issued for treatment. Treatment with the herbicide, ProcellaCOR, was administered on September 27th by PLM funded by RALALA.

In commenting about the discovery, Nicole Kovar MN DNR, Invasive Species Specialist stated, "Thank you for the heads up! RALALA has been wonderfully preemptive in contracting this survey. I am glad it was found at such a low level."

Leavitt and Smokey Hollow lakes were also surveyed on September 11th. PLM reported, "We did not find any EMW on Leavitt or Smokey Hollow."

Green overlapping circles indicate location of EMW on Lawrence Lake











WATERCRAFT DECONTAMINATION UNIT PLANNED FOR ROOSEVELT LAKE PUBLIC LAUNCH SITE IN 2024

By Gary Langer

Since 2016, a Watercraft Decontamination Unit has been stationed near the Crooked Lake Township Town Hall and available most weekends, Friday through Sunday, during the months of May through September. Cass County Aquatic Invasive Species (AIS) Department provided 600 hours of level II AIS inspectors on these weekends for the purpose of decontaminating watercraft arriving from possible AIS infested lakes before they entered lakes Roosevelt, Lawrence, Washburn and others in our area.

Unfortunately, the decontamination unit at the Crooked Lake Township location has received little activity in recent years. Only 33 watercraft were decontaminated in 2022 and 30 watercraft in 2023, due primarily to its off-site location.

Dr. Nick Phelps, Director of Minnesota Aquatic Invasive Species Research Center (MAISCR), notes that without prevention, Roosevelt Lake has a 39% chance of acquiring zebra mussels, starry stonewort, or both, in the next five years. Prevention is the only deterrent. **AIS PREVENTION has the best chance of occurring at lakes' public water accesses.**

Sometimes the STARS JUST ALIGN! We are pleased to announce a wonderful moment in our AIS prevention fight. RALALA, Crooked Lake Township and Cass County Soil and Water Conservation District have entered into a partnership agreement to purchase, maintain and staff a Landa ECOS Mobile Wash and Reclaim Decontamination System at the Roosevelt Lake launch site weekly during the boating season, May-September in 2024.

These three groups share the same goals to protect the lakes and natural resources, including limiting the spread of AIS. By combining resources, experience, and educational efforts we will better achieve these goals.

The following are the **agreed upon responsibilities** starting in Spring of 2024:

Crooked Lake Township

- Storage of the decontamination unit
- Filling of the water tanks, and fuel for the unit's operation
- Transporting the unit to the Roosevelt Lake Public Water Access on Wednesday or Thursday morning, returning it to storage on Mondays





Cass County Soil and Water Conservation District

- Provide a Landa ECOS Mobile Wash and Reclaim Decontamination unit with a vacuum reclaim system for use at the Roosevelt Lake Public Water Access
- Purchase the existing decontamination unit from Crooked Lake Township if the Township desires to sell it
- Schedule and provide trained operators with a target goal of 40 hours per week for 16+ weeks per boating season
- Signage to inform and direct the public to the wash station
- Assist with operation and maintenance of the unit as needed

Roosevelt and Lawrence Area Lakes Association

• Assist with the cost of operation and maintenance of the unit to include start up and shut down maintenance

In closing, this partnership between Crooked Lake Township, Cass County Soil and Water Conservation District and Roosevelt and Lawrence Area Lakes Association is an unbelievable opportunity in our AIS prevention fight.

It is the responsibility of the RALALA membership to provide support and promote the use of the Landa ECOS Mobile Wash and Reclaim Decontamination System, starting with your own watercraft and that of your visitors.

BEAVER ACTIVITY ON CROOKED CREEK RAISED WATER LEVEL ON ROOSEVELT AND LAWRENCE LAKES

In the fall, many concerns were expressed to RALALA asking if anything could be done to address the rising water level on Roosevelt Lake. It was discovered that beaver activity, including one large dam, downstream on Crooked Creek, the outlet of Roosevelt Lake, had interrupted the flow of water over the DNR weir (often called a "dam", but technically it is a "weir", since it has no water release nor water bypass options). That obstruction caused the water flow to become about 8 to 10 inches over the level of the weir by mid-October. The DNR hydrologist examined and cleared a large brush tangle at the weir, but the major water flow issues were caused by beaver dams further downstream.

In November, the RALALA board allocated \$500 to hire Brian Olds and his crew to remove the largest beaver dam. Brian Olds generously donated an additional \$500 value of his services and his crew removed three beaver dams between the weir and the bridge on Roosevelt Drive. All of us living on, or enjoying Roosevelt and Lawrence Lakes are very grateful to Brian and his crew!

The nearly completed beaver dam (visible in the aerial photo) was causing the unsustainable rising lake levels on north and south Roosevelt Lake and Lawrence Lake. If the lake level was not allowed to return to the level of control determined by the weir, the spring runoff would likely create very severe shoreline damage around these lakes.

Another beaver dam further downstream was under construction. That dam was not yet significantly restricting water flow, but needed to be removed before it did.

RALALA has followed the DNR-approved process to remove four beavers from this area. Likely, there are active beavers remaining, that will return after the dam is disturbed. Beaver management experts will return and evaluate the options to resume their removal efforts. RALALA will continue to monitor beaver activity.



Above: Tangled brush on the weir Below: Beaver had established a lodge in the pool behind their dam by late October





Aerial photo showing locations of beaver dam construction, causing water rapids, in the creek between the weir and the bridge on Blue Lake Road/Roosevelt Drive

2023 LAKE STEWARDS RECOGNIZED



Peggy Parks and Milt Spieler have been long time Roosevelt Lake summer residents and actively involved in many lake protecting projects for several years. Milt, originally from New York City, purchased two lots for sale in 1969 and never returned to live in the "big city". In 1994 he and Peggy, who grew up on the northern Minnesota iron range, built their house to enjoy with the four boys in their blended family.

There were originally no trees on their property. Peggy loaded their car with "maples the size of large pencils" that now majestically tower, scattered around their wooded lot. Shaded, mown pathways weave through their yard outlining spaces with hostas, daylilies and sedum adjacent to wider, undisturbed areas, home to trees and shrubs and treasured native plants trillium, wood anemonies, white turtlehead and pink lady slippers, to name a few.

Over the years, moving spring ice has built an ice berm adjacent to the lake where Peggy and Milt have allowed plants to grow and flourish. They have been awarded with a lovely, lake protecting buffer of native plants, simply following No Mow, Let it Grow advice.

Peggy attended RALALA's Parade of Shores and was especially interested in the stop on the tour featuring rain gardens and their effective control of run off, which has a negative impact on the lake. She decided to construct one herself. She paid special attention how the water gushed down their road, curved and flowed toward the lake. In the lowest lying area, adjacent to their neighbor's large gutterless garage, she began planting several perennials she moved from other areas of her yard. They were enhanced by the growth of natives such as butterfly weed and trillium that became established.

It worked beautifully! They no longer refer to their yard as "A river runs through it!" There are no longer pools of stagnant, muddy water nor the flow of contaminants into the lake.

Milt and Peggy have now officially qualified as Lake Stewards. Congratulations and thank you for your efforts to protect the water quality of our lakes we all love and enjoy.







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Endangered native Rusty Patched Bumble Bee on the Joe Pyeweed in their shoreline buffer zone.



RALALA Membership Summary

Thanks to so many friends of the lake, who have joined RALALA. In 2023 we have 304 members, more that in any previous single year, surpassing last year's record 302. Twenty-four local businesses have also joined this year. Please notice their advertisements in our newsletters and support them with your business.

For all of you who might not have joined or renewed your memberships in 2023, please send your checks for the \$25 membership fee and any additional designated donations to RALALA at P.O. Box 139, Outing, MN 56662

WE THANK ALL OF YOU FOR YOUR ENGAGEMENT, SUPPORT AND ACTIONS!

If you have any questions, please send an email to <u>ralalalakes.org</u>



EMILY FIRST RESPONDERS GRATEFUL FOR RALALA MEMBER DONATIONS

Thank you, everyone, who included an additional donation earmarked for the Emily First Responders along with your annual RALALA dues. The \$1,568 from generous contributors will be placed in the First Response Unit Equipment Fund for equipment, supplies, training, or fuel for the rig.

OPPORTUNITIES TO PURCHASE NATIVE PLANTS AND TREES

Crow Wing Soil and Water Conservation District Annual Sale

Pre-order Trees and Plants Order: January 2 to February 20, 2024

(or until products are sold out)

Pick Up: May 16 and 17, 2024, from 8am to 4:30pm at the Civic Center (Essentia Sports Center) 502 Jackson St, Brainerd.

Returns: Returns are accepted before 4pm 2/23/2024 with a \$25 stocking fee. No returns will be accepted after 4pm on 2/23/2024.

Visit **CWSWCD.org**

DNR Tree Sale

The Minnesota Department of Natural Resources State Forest Nursery is accepting orders for spring 2024 seedlings beginning Oct. 25, 2023. With approximately 3 million seedlings available for the spring planting season, this is a great opportunity for landowners to reforest their property to create wildlife habitat, shelterbelts, or a woodland oasis.

The State Forest Nursery offers 26 species of native bareroot trees and shrubs.

Visit <u>dnr.state.mn.us/forest-ry/nursery/index.html</u>

to view the available species and access the tree seedling order form.

A minimum order of 500 seedlings is required when purchasing from the State Forest Nursery, which is roughly the number of seedlings needed to plant one acre of bare land. Orders can be tailored in increments of 100 for



each species. Landowners can receive assistance identifying the trees and shrubs best suited to their property and woodland management goals by reaching out to a local DNR Forester www.dnr.state.mn.us/woodlands/cfm-map.html

Seedlings must be planted within Minnesota. The last day to order seedlings is Friday, March 29, 2024.



Lloyd Thyen, Minnesota's first statewide Lake Steward designated by Minnesota Lakes and Rivers Advocates program in partnership with lake associations, received a free consultation from Prairie Restorations, Inc, (PRI) in June which had been offered to RALALA members. PRI proposed enhancement of his No Mow Let It Grow lake bufferzone to increase its biodiversity and add more color that Lloyd requested. A variety of colorful native flowering plants that bloom throughout the season, and shrubs (seen in the wire cages) were planted, as well as a lush fern bed near the house.

Lloyd requested and qualified for RALALA's \$500 Bennie, awarded to qualifying projects that benefit the lake and enhance water quality.

Lloyd is a dedicated environmentalist who has been actively involved in preserving our lakes and watershed for many years. He generously donated the \$500 back to RALALA.

Thank you, Lloyd, for your dedication and generosity.

ICE IS NEVER 100% SAFE

Before you go out, check the ice thickness chart below as a guide, to determine if it's safe! **New ice is usually stronger than old ice.** Four inches of clear, newly-formed ice may support one person on foot, while a foot or more of old, partially-thawed ice may not.

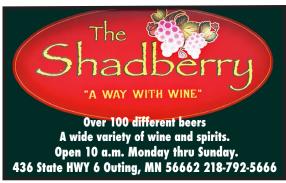
Ice seldom freezes uniformly. Ice formed over flowing water and currents is dangerous.

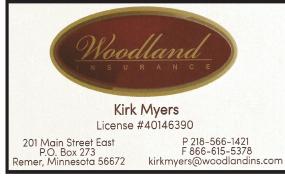
The insulating effect of snow slows down freezing.

Schools of fish or flocks of waterfowl can also adversely affect the relative safety of ice.











ENBRIDGE PIPELINE NOVEMBER UPDATE by Bob Eddy

As many of you know, the Enbridge replacement pipeline 3, now line 93, has been in production since late 2021. Line 93 carries about 844,000 barrels of petroleum based products every day and there are 42 gallons in one barrel. This pipeline runs just 600 feet from the north end of Roosevelt Lake and directly under the creek that feeds the lake. The impact of a significant breach would be catastrophic for the local community.

Enbridge has had a number of significant releases from their pipelines, most notable is the Kalamazoo River Pipeline rupture near Marshall, Michigan in 2010, where an estimated 834,000 gallons of tar sand oil was pumped into the Kalamazoo River. This took years to clean up, displaced hundreds of people and significantly impacted the community. The largest Enbridge pipeline release in Minnesota was in 2002 in a marsh area near Cohasset. This release was about 252,000 gallons of petroleum products. Most recently there have been a number of aquifer breaches with the installation of the line 93 pipeline. The DNR and other agencies continue to assess the impact of these.

Enbridge has taken many positive steps to ensure these types of problems do not occur again. While we believe these steps are very positive, we feel that it's important that we take steps to safe guard our environment.

RALALA Involvement

First, I want to reinforce the fact that RALALA is not anti-pipeline or anti-petroleum, however, we are very concerned about any contaminants entering the lake. This includes fertilizer, contaminants contained in surface water run-off and many other sources.

Since the lake association's mission is to "Preserve and Protect the Lakes and Watershed", we felt an obligation to reach out and try to work in partnership with Enbridge. During 2022 through early 2023, we met with Enbridge personnel on many occasions. These meetings covered a wide range of topics including:

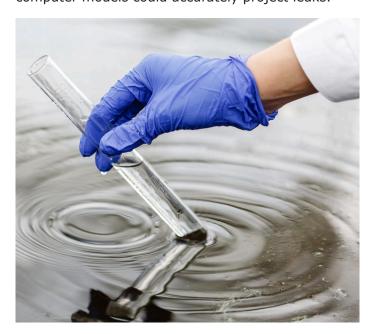
- Pipeline Integrity
- History of leaks and large releases at other locations
- Actions that Enbridge has taken to ensure we never have a large release
- Regular, planned, maintenance procedures
- Disaster Recovery

In each of our meetings we found the Enbridge representatives willing to share information about their procedures and guidelines. They expressed their confidence in their internal maintenance procedures and felt that these procedures were sufficient in preventing any major release of their products.

We consistently expressed RALALA's primary concern to ensure that we are able to protect the lake and watershed from any release of petroleum

products. Enbridge suggested that we put together a mitigation plan and submit it to them. Our RALA-LA team was made up of a number of experts, such as an enginer, with pipeline experience and disaster recovery expertise with a Fortune 500 company, as well as those with local township and city council backgrounds. We produced a mitigation plan, with multiple options, which was formally submitted to Enbridge.

We had a formal meeting with Enbridge at their Hill City maintenance facility to discuss the Mitigation Plan. They responded the plan was professional and did provide options. However, they said that they were not going to move forward with any of them, since they had a high degree of confidence that their computer models could accurately project leaks.



Water Testing to Monitor the Line 93

Since Enbridge made it clear that they were not going to support any of the options in the mitigation plan, the issue was presented to the RALALA board who unanimously approved a monthly water testing program.

RALALA hired AW Labs in Baxter, a certified laboratory, that is familiar with Roosevelt and the area lakes, and provides the analysis of monthly (May through September) water quality sampling conducted on our lakes.

Testing began in September 2023, with the samples collected from the creek feeding Roosevelt. This site was selected because:

- Enbridge engineering reports conclude the most probable entry point into Roosevelt Lake is via the creek feeding the north end of the lake
- The creek stays open year round, allowing monthly sampling

Enbridge Pipeline November Update continued next page

ENBRIDGE PIPELINE NOVEMBER UPDATE CONTINUED

• The owner of the property on both sides of the creek has given permission to access the creek for the sampling activities.

The first round of testing of water collected from the creek occurred in September. The analysis, which can identify approximately 100 different chemical compounds that may be present in the petroleum being pumped through the pipeline, **showed**NO signs of any leak or contamination from the pipeline.

RALALA will continue funding the testing on a monthly basis. As you can probably guess, testing for so many different compounds is expensive; our budget for the first year is \$7,000 per location. Right now we are testing in just one location. We are looking for financial help to support this critical activity. We have approached Crooked Lake Township and the City of Emily for financial help. We are waiting for a response from them, which is tied to their budget and annual meeting cycles.

GETTING NEWS YOU CAN USE

One of the main functions of a lake association is to share important information with its members. Over the years we have tried many formats to accomplish this goal, including newspaper articles, website content, email blasts as well as printed and virtual newsletters. Based on feedback, people are still not receiving essential news about the activities and efforts of RALALA.

As a result, we have now have a Facebook page in hopes of reaching more of our members with beneficial news as well as links to learn more about specific subjects.



However, as most people know, a Facebook page is only as effective as its users. Early on, RALALA had a presence on Facebook, but later abandoned it due to lack of participation. This time we hope it will be different, but need your help for it to succeed.



Please navigate to https://www.facebook.com/ralalalakes or scan the QR code and "Like Us". Next, we are asking you to share this Facebook page with the rest of your lake family and neighbors as well as anyone interested in preserving and protecting our lakes. RALALA emails and newsletters typically just go to the named person on the membership form, so a Facebook option is a great way for more people to gain easy access to useful lake information.



Please help make this a success as well as guarantee you get the "news you can use".



north of Emily on both sides of Highway 6. Many volunteers joined the effort and we offer a big THANK YOU to them for helping us keep our community beautiful.

Volunteers are always welcome, watch for spring and fall 2024 clean-up dates in our newsletter, and on our website and facebook page. <u>ralalalakes.org</u>







2023 LOON SURVEY SUMMARY By Sheila Langer

My role as the loon liaison for the MN DNR and RALALA is to collect critical long-term data about loons on Roosevelt, Lawrence, Leavitt and Smokey Hollow lakes. I work to help protect loons by encouraging other lake users to steer clear of loons on nests and in the water. Loss of habitat, declining water quality and increased recreational use of the lakes all play a part in loon presence and survival. With threats such as lead poisoning and habitat loss, long term monitoring is important to detect changes in our loon population. That information helps to develop management strategies.

Throughout the summer, I watched loons on Roosevelt and Lawrence Lakes. I kept a journal with me to record when the loons arrived, if they nested, how many chicks were produced and any threats to the nest sites. Every fall, my data is sent to the DNR where it is entered into their database. This summer I found two nesting loon pairs on north Roosevelt Lake, each with one chick. Unfortunately, one of these chicks was lost around June 30. There was also a loon pair with one chick near the loon island on southwest Roosevelt Lake. At the end of September two juvenile chicks remained. They were maturing and independent and getting ready for fall migration. There were no nesting loons on Leavitt or Smokey Hollow Lakes.

In June I was alerted that a loon family was spotted on Lawrence Lake so I added that lake to my survey area. I found one loon pair with a chick. I made several trips back to the lake and followed this loon family. I believe that this chick also reached maturity and is part of this year's fall migration south. This loon pair and their single chick were the only loons I spotted on Lawrence Lake.

RALALA and I extend a special THANK YOU to those who helped with loon monitoring this summer: Bonnie McGowan, north Roosevelt Lake, Deb Nicholson and Roger Brekken, south Roosevelt Lake, and Melissa Anderson, Smokey Hollow Lake.

Adult Loon Pair



If you would like to volunteer to help monitor the loons on Roosevelt, Lawrence, Leavitt or Smokey Hollow lakes next summer, I would love to hear from you. sheilalanger22@gmail.com



Molting adult loon

In late summer, loons begin to molt their attractive checkered black and white summer plumage before their southern migration in October and November. They keep flight feathers but all others are molted. After arriving in wintering grounds, they continue to undergo a compete basic plumage molt to a gray/brown color that happens in January and lasts until early March. The adult wintering coloration is very much like the juvenile feather coloring. In fall, many people believe all loons they see are juvenile loons, but both are still present and look much the same. In late winter and just before northern migration, the summer breeding plumage molt begins. Adult loons are flightless during the winter.

Roughly 80% of all upper midwestern loons winter along Florida's Gulf Coast. The remainder winter along the Atlantic Coast, predominantly between Vero Beach, Florida and the Carolinas. Loons from the two best studied state populations (Wisconsin and Minnesota) winter side by side, each state sending the bulk of its breeding loons to the Florida Gulf Coast and along the Atlantic Coast. Minnesota and Wisconsin loons are studied closely because together they make up 75% of the US loon population.

The distance between breeding and wintering grounds of the loons monitored in Minnesota ranged from 1,170 to 1,570 miles.

Loons that are only 5-6 months old and migrating south for the first time commonly overshoot the main wintering ground along the Florida Gulf Coast, which extends from the Pensacola to Fort Myers. These youngsters often end up in the Florida Keys or off of Fort Lauderdale. Most likely many of these first-winter loons adjust their later migrations so that they winter near the rest of the population in their second and later years.

Most loons too young to return to the summer breeding grounds migrate a short distance north along the Atlantic coast to spend their summers. A few stragglers travel further north, reaching New Jersey, Massachusetts, and even Labrador.

Studying migration is important because our loons must survive through all seasons for several years to become successful breeders. Extensive banding and observation of marked loons has shown their return to breeding grounds at age 2-5 years with males tending to return nearer to their natural territory than females. Both sexes tend to wander and use many different lakes as "floaters" for 3-5 years before settling. When 4-5 years old males and females both usually settle in a vacant territory with a mate.







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WATER QUALITY TESTING

For more than 20 years, volunteers and the Minnesota Department of Natural Resources (MN DNR) and the Minnesota Pollution Control Agency (MPCA) have collaborated via various programs to monitor the quality of water in our lakes. Some of the testing is more technical and completed less frequently, other simpler testing is completed by volunteers and done throughout the summer.

The results indicate that our water this year has tested better than previous years for a variety of reasons including efforts by property owners to manage their land to preserve our waters:

- Implementing shoreline protection and restoration measures
- Improving management of surface water run-off
- Reducing the amount of impervious surfaces on properties surrounding the lakes
- Preventing phosphorus from entering the lake from sources such as lawn fertilizer use



Natural factors such as fewer rain deluges has an impact, as well.

Summer water sampling is a joint volunteer effort by RALALA and the Whitefish Area Property Owners Association (WAPOA). WAPOA lakes are downstream from our RALALA lakes, so they are concerned and very supportive of our efforts to monitor and manage our water.

The summer water monitoring is conducted monthly, May through September.

Samples are collected on each of our five lakes and three of our streams. They are sampled the weekend before the third Monday of each month. The sample for each lake site includes one bottle of water "as collected", and one bottle of water with acid added for preservation.

The bottles are placed in a cooler with an ice pack and then held overnight locally. Up until this past summer, the samples were held at the Crooked Creek Café's cooler. With business hours changing, and owner, Brian, having to make special accommodations to receive and forward samples outside of normal business hours, this is now being managed by My Store Outing.

Tremendous thanks are to both businesses!

The coolers are kept cool until Monday morning, and then transported to Cross Lake for WAPOA consolidation and eventual transportation to AWLabs in Brainerd.

This past year, the samples were collected by Bob Eddy, Mark Mosman, Lloyd Thyen, Larry Zdenek, Dave Bonnerup, Ron Graf, and Chad Shilson. Without them, our data continuity would have gaps that would be a major loss of information.

The sampling provides the clarity depth, or SECCHI reading, the reading for PHOSPHORUS, which enhances algae growth, and CHLOROPHYL-A, a measure of phytoplankton biomass, which is commonly employed as an indicator of eutrophication



(the overabundance of nutrients which promotes the growth of algae and others plants and depletes oxygen in the lake needed for fish survival).

Thank you, volunteers, and thank you, Darril Wegscheid, who coordinates the entire process!

WELL WATER SAFETY

Safe drinking water is essential to our health and well-being, yet it is something that we often take for granted. There are several contaminants that can affect the safety of drinking water. Some such as bacteria or parasites can make us sick right away while others such as arsenic or manganese cause more chronic health problems over a long period of time.

Contaminants in water can be especially harmful to **young children and infants**. The Minnesota Department of Health recommends having your water checked for safety at least once every year.

Our goal is to develop programs and share information to keep you educated and engaged.

PLANNING AHEAD FOR 2024 CRITICAL CHALLENGES

AIS Prevention

- Conduct annual surveys and treatment of EWM
- Deploy decontamination unit at Roosevelt Lake launch site in partnership with Crooked Lake Township and Cass County Soil and Water Conservation District
- Fund additional inspector hours at launch sites
- Contract diver surveys for zebra mussels and starry stonewort and potentially, EMW management

Shoreline Management

- Educate property owners of the urgency of shoreline buffers to protect water quality
- Support property owner's restoration projects
- Continue collaboration with Minnesota Lakes and Rivers Advocates Lake Steward Program

Water Quality Monitoring

- Collect monthly (May-September) water samples and clarity data
- Fund professional monthly collection and analysis of stream water samples for early detection of Enbridge Pipeline leakage

Funding

Costs of managing these programs and initiatives have changed significantly:

Enbridge Water Testing \$ 7,000 increase

Additional Launch Site Inspector Hours \$ 9,900 increase

ILIDs (electronic launch site monitors) \$ 1,600 decrease

Launch Site Kiosk Signage \$ 1,443 increase

Milfoil Treatment \$ 14,700 increase

Total Increase in Costs \$ 31,443 INCREASE

Member Input

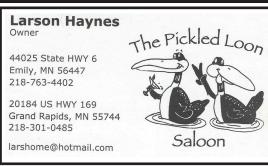
We asked members attending our August 5, 2023 Annual Meeting for suggestions to address funding sources. Their suggestions:

- Increase \$25 per year membership fee (It has not been previously increased)
- Request additional funding from Crooked Lake Township and City of Emily
- Reguest additional donations from RALALA members
- Contact Chamber of Commerce for other funding suggestions
- Apply for Grants
- Explore other funding sources

We are exploring all these options and will keep you informed. We have been able to respond quickly in the past to events that threaten our lakes due to the commitment and generosity of many of you. THANK YOU!

We ask all of you to consider making additional donations to RALALA to support our important work protecting our lakes for ourselves and future generations.













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Roosevelt and Lawrence Area Lakes Association P.O. Box 139 Outing, MN 56662-0139

FORWARDING SERVICE REQUESTED





We all have our favorite lake stories, like the time Aunt Esther fell in the lake while landing that big Northern, or the proud look on your kid's face the first time they got up on skis, or the incredible thrill of seeing "your" loons floating around with fuzzy chicks perched on their backs. Sadly, these special memories may not continue without your help.

With the increase in contaminants and encroaching Aquatic Invasive Species, we are under a constant threat of losing what we cherish. Since 2016, RALALA has spent over \$98,000 on AIS surveys, prevention and treatment alone, as well as water quality testing, and monitoring of the Enbridge Pipeline. Our modest dues don't even come close to covering these escalating costs! This is where you can help.

Please give some thought to the following ways **YOU** can leave your lake legacy.

- 1. Make a year end (or any time) tax deductible contribution. RALALA is recognized by the IRS as a Tax Deductible 501 (c) (3) Public Charity. You can still show people your lake passion by making donations even if you don't itemize!
- 2. When suggesting memorial donations for a loved one, or directed by a family to donate to a charity of your choice, don't forget to add RALALA as a recipient. We will make sure each donor receives a thank you note along with the tax information.
- 3. Lastly, consider RALALA when you do your own estate planning. It was such a bequest that allowed us to take a more aggressive stance on AIS and Enbridge Pipeline monitoring this past year. Leaving an unpolluted healthy fishing and recreation lake to your heirs is just as important, if not more so, than leaving them your cabin.

Help fund the many important projects of **RALALA**, because you care about **preserving** and **protecting** our lakes for future generations and the many memories to come.