# VISIT OUR RALALA WEBSITE ralalalakes.org TO BE MORE INFORMED



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#### RALALA LAKES ASSOCIATION

MESSAGE FROM BOB EDDY, RALALA ASSOCIATION PRESIDENT

My message for this newsletter relates to the some of the new realities we have all been experiencing over the past few years.

As a lake association, we have been able to manage the majority of our yearly costs through membership fees, generous contributions over and above the membership fees, some grants and yearly contributions from the City of Emily and Crooked Lake Township, to help offset Eurasian watermilfoil surveys and treatments.

### Over the last few years, we have seen many new complex issues confront us:

- 1. We have the Enbridge pipeline traveling near the north end of Roosevelt, just 600 feet away from the lake and passing under the creek that feeds the lake. Enbridge's own engineering study showed that Roosevelt was considered a high-risk zone if a leak occurs.
- 2. We have new infestations of aquatic invasive species (AIS) in a neighboring lake less then 10 miles from our lakes. Close proximity is a major risk for contamination of our lakes.
- **3.** We have been promoting programs to reestablish natural shoreline buffers to help sustain and improve the quality of our lake water, thus preserving and protecting our lakes and watershed for future generations.
- **4.** We have the continued need to aggressively manage invasive Eurasian watermilfoil. This year the costs will be very high.

### RALALA has moved forward with programs to address these issues:

- 1. We have started testing the water from the creek running into the north end of Roosevelt, checking for the petroleum-based products that flow through the pipeline. The concept is to find a leak before a break occurs. This costs us about \$7,000 per year. To date, no grants are available.
- 2. Our close proximity to lakes infested with zebra mussels and starry stonewort has caused us to add additional launch site inspector hours, additional lake surveys and improved signage at the launch sites. These additional actions have added significant costs. Additional launch site inspector hours will cost us \$3,700; the additional lake surveys have cost us \$800 and the new signage cost approximately \$500.
- **3.** Protecting Our Lakes, Shoreline Initiative has been largely funded by grants in the past. This year \$8,000 is budgeted for maintenance of the buffer zone at the Outing public dock, educational programs and materials, and reimbursements for property owners' lake enhancing shoreline restorations.

Continued on page 5

# **BUILDING AWARENESS • ENCOURAGING ACTION**

### LAKE SEASON LAUNCH

#### Photos by Sheila Langer

RALALA hosted its Lake Season Launch on June 17, 2023 at the Crooked Lake Township Town Hall. Participants gathered to learn important information and ask questions on topics impacting Roosevelt, Lawrence, Leavitt and Smokey Hollow Lakes and our Pine River Watershed.

Featured guests gave presentations and were available to discuss and answer questions and distribute informational materials at their display tables.

#### **HIGHLIGHTS INCLUDED:**

- Cass County Sheriff, **Bryan Welk**, shared information about the department's staffing and scope of duties in a large county with many lakes. Questions were asked and answered about regulations and enforcement on RALALA lakes. Topics discussed included no wake zones, personal watercraft operation, buoy installation, wake boat operations and shoreline damage. Concerns about ATV operation and safety were also discussed.
- Spencer Rettler, Grand Rapids DNR Loon Specialist, shared valuable information about Minnesota loons and the Loon Restoration Program funded by money from the British Petroleum (BP) Deepwater Horizon Disaster settlement. The DNR's loon liaison program gathers important data about loon numbers and assists lake associations with loon-centric lake management plans. Sheila Langer is the RALALA designated Loon Liaison.

RIGHT: Spencer Rettler, Grand Rapids DNR Loon Specialist



ABOVE: Anne Bonnerup introducing Cass County Sheriff Bryan Welk

• Gary Langer, RALALA Vice President and chair of the Aquatic Invasive Species (AIS) Initiative, reviewed the RALALA 2023 response to increased threats to our lakes since zebra mussels and starry stonewort were found in nearby Thunder Lake. There is no treatment for either of those infestations, PREVENTION is of paramount importance. RALALA has funded additional hours for inspectors on duty at the Roosevelt and Lawrence Lake boat launch sites.



ABOVE: Gary Langer, Chair of RALALA AIS Initiative



## **BUILDING AWARENESS • ENCOURAGING ACTION**

RALALA will continue to promote CLEAN, DRAIN, DRY and DECONTAMINATION of boats and trailers and DISPOSAL of unwanted bait in the trash NOT the lakes.



A kiosk has been installed at the Roosevelt Lake Launch site with informational signage including loon awareness, controlling your wake, AIS prevention, and RALALA programs and projects.

• **Steve Hardy**, the new Cass County AIS Lake Technician, was introduced. He presented an update on Aquatic Invasive Species in our area as well as sharing information about the Cass Soil and Water Conservation District.



ABOVE: Cass County AIS Specialist, Steve Harvey

• Anne Bonnerup, Protecting Our Lakes Initiative Chair, shared an update on RALALA programs supporting lake enhancing shoreland restoration projects. An excellent DNR video highlighting how management of our land impacts the quality of our lakes was shown. Everyone is encouraged to watch it:

https://www.youtube.com/ watch?v=dwjAoRwLrmM

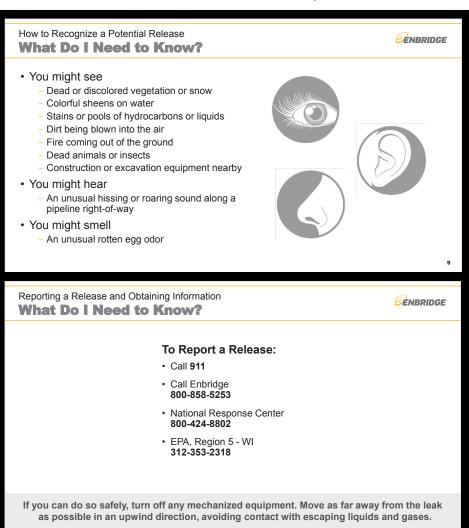
• **Jan Mossman** shared information about the proposed Emily Manganese mine.

Follow Emily Mine Information Group on Facebook posted on the Outing Area FB site. • **Bob Eddy**, RALALA President and member of RALALA/ Enbridge Working Group, spoke about communications with Enbridge Pipeline Company regarding Line 93 which runs approximately 600 feet north of Roosevelt Lake. RALALA applied for an Enbridge grant to finance water testing which would identify contaminants indicating a pipeline leak or break. RALALA was not awarded the funds.

#### **To Obtain Information:**

enbridge.com facebook.com/enbridge Twitter: @Enbridge

<u>epa.gov/emergency-response/</u> <u>emergency-response-my-</u> <u>community</u>





**Dave Steiner** visited his brother at his cabin on Roosevelt Lake in 1999 and fell in love with his surroundings. After a successful day fishing in his "old fashioned boat with a little motor," as he returned from the boat launch he saw a two soggy walkers along the road. He stopped to see if they needed help and learned their boat motor quit, so he gave them a ride. Being the "Good Samaritan" was rewarded. Dave learned his passengers' mother was planning to sell her property, and at that time, few properties were on the market. Dave and his family became the proud owners of their cabin, "Even if it meant we had to eat nothing but cheap hotdogs for a long time!" They recently purchased additional acreage behind their lakefront property that is preserved in its natural state and has become their snowshoeing sanctuary.







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They have witnessed the many changes on the lake with more development, larger and more numerous watercraft, and decided to do everything in their power to protect these precious waters. Dave took the Lake Steward Quiz, welcomed a site visit, and embraced the recommendation to increase the depth of the buffer zone along part of their property following the NO MOW, LET IT GROW approach. The majority of their 130' lakeshore was undisturbed natural foliage—trees, shrubs and plants.

A year later Dave was rewarded with new and diverse plant growth protecting the shoreline, filtering any runoff, feeding pollinators, and adding beauty. He plans to incrementally add purchased native plants along the embankment to the lake to further enhance the shoreline.

When asked about further goals, Dave commented, "I hope others will see the Lake Steward sign and be curious to learn what it means. It would be amazing if more lake people, who enjoy God's gift of Roosevelt, would consider becoming stewards."

Thank you, Dave, for managing your land to protect our waters and congratulations for becoming a recognized LAKE STEWARD.



**Start by taking the quiz** and listing RALALA as your lake association:

https://mnlakesandrivers.org/lake-associations/lake-association-programs/lake-steward/

#### SHORELINE CONSULTATIONS

**Prairie Restorations** Inc (PRI) is a company specializing in producing seed and utilizing native plants in shoreline restoration projects. The deep rooted native plants are essential for shoreline stabilization, controlling runoff and keeping contaminants such as nitrogen and phosphorus out of our lakes, which helps reduce the growth of algae. PRI reached out to lake associations to offer free consultations for potential shoreline restoration projects. RALALA had experience partnering with PRI installing the buffer zone at the public dock on Roosevelt Lake in Outing, and advertised the consultation opportunity and assisted with logistics.



Evaluating eroding shoreline and proposed stabilization

**Troy Olson** visited ten properties on Roosevelt and Lawrence Lakes on June 2 and 3, 2023, providing free consultations about their individual needs and projects. Property owners later received specific proposals and cost estimates.

Other vendors also provide restoration services in our area and you can find information at:

https://www.dnr.state.mn.us/gardens/nativeplants/suppliers.html



Shoreline loss caused by wave action needing remediation

MESSAGE FROM BOB EDDY, RALALA ASSOCIATION PRESIDENT CONTINUED



4. The AIS survey conducted in July, revealed a significant increase in areas of Eurasian watermilfoil that need to be treated. (Read full report on pages 16-18). The treatment costs for 2023 are about \$16,000 more than last year.

RALALA is only successful with the participation of our members. You have stepped up in the past and we're asking you to help us out again.

- If you have not returned your 2023 memberships, please do so.
- Please consider an additional contribution to RALALA to help offset these additional costs.
- Plan to attend our annual meeting on August 5th at 9 am at the Crooked Lake Township Townhall.
   We will be discussing each of these areas in detail and your input would be valuable.

# ROOSEVELT LAKE AQUATIC MANAGEMENT AREA GROWS THROUGH A LAND DONATION

The Roosevelt Lake Aquatic Management Area (AMA) is a protected area in Cass and Crow Wing Counties, established in 2016 and expanded through a land donation on Woods Bay. The addition of this donation increased the AMA's size to approximately 111 acres, including over 5,900 feet of forested shoreland.

The 5.5-acre peninsula on Woods Bay was generously donated by Lois and Bill Stevens to Northern Waters Land Trust (NWLT) specifically for the Roosevelt Lake AMA. The property was transferred to the Minnesota Department of Natural Resources (DNR) for long-term management. The Stevens decided to make this donation after learning about the creation of the AMA and the previous donation by the Eggers Family.

Roosevelt Lake is a 1,585-acre deep cold-water lake that supports the survival of cisco (tullibee). Protecting the lake is crucial because it is predicted to serve as a refuge for these temperature-sensitive cold-water fish if 75% of the land draining into the lake can be safeguarded from land conversion.

The Stevens' land donation was accepted for the Reinvest in Minnesota Critical Habitat Match Program, which aims to protect critical fish, wildlife, and native plant habitat by acquiring and improving land for various conservation purposes. The conservation goals of the Stevens' donated parcel align with the RIM funds, maximizing the impact of protecting the lands and waters of north-central Minnesota.

Outdoor Heritage Funds were also used for this project.

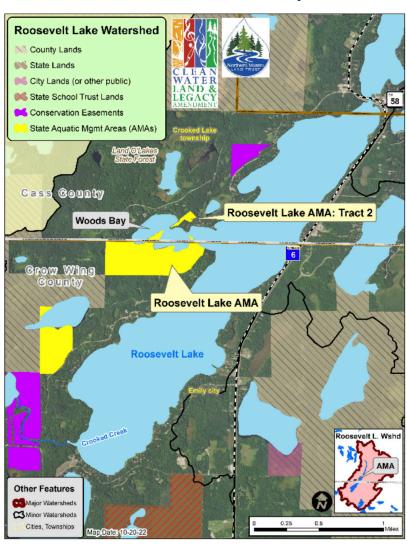
All of the shoreline in Woods Bay, including the newly donated tract, has been designated as "sensitive shoreland" by the Minnesota DNR.

"Sensitive shoreland" refers to areas with crucial aquatic and wildlife features that would be significantly impacted by shoreland development. The Woods Bay shoreland holds high biological significance and retains an intact old-growth forest canopy.

Aquatic Management Areas (AMAs) serve as access points for anglers and management activities, protect critical shoreland habitat, and provide spaces for research and education.



Newly acquired land includes a peninsula on the north shore of Woods Bay



Roosevelt Lake Aquatic Management Area



# **DNR Offers Tips on How** to Catch and Release Fish

Anglers who intend to release any of the fish they catch can boost the chances those fish will survive by following best practices for catch and release:

Plan fishing trips around the weather and the species, keeping in mind that cold and cool water fish such as walleye and northern pike, might experience more stress during hot weather. Then choose the right tackle for the job and avoid "playing" a fish too long. Land it quickly to reduce the buildup of lactic acid in the body.

Set the hook quickly to avoid hooking a fish in the stomach or gills. Before handling the fish, anglers should wet their hands to prevent removal of the fish's protective slime coating. If possible, unhook and release the fish while it is still in the water. If a hook is deep in the fish, cut the line and leave the hook in the fish.

When holding the fish out of the water, support it with both hands using a firm, gentle grip. It is OK to measure the fish and take a photo. However, minimize the time the fish is out of the water. Anglers intending to release a fish should not place it on a stringer or in a live well.

To release a fish, hold it horizontally in the water by cradling it under its belly. If needed, revive the fish by slowly moving it forward in the water until it swims away. An alternative to this method is cupping your hand and splashing water into the fish's mouth and out the gills while holding the fish on the surface of the water. Harvest a fish that can be legally kept if it is bleeding extensively or cannot right itself in the water.

Walleye and crappie caught in deeper than 30 feet of water might not survive if released, so avoid these depths if planning to practice catch and release.

Find other catch and release tips related to fishing equipment, and a video of how to handle large fish at <a href="mailto:mndnr.gov/fish/catchandrelease.html">mndnr.gov/fish/catchandrelease.html</a>

#### When sorting your tackle box,

remember to remove the lead-based tackle, especially split shot sinkers which are particularly deadly for loons. Drop it off at the Crooked Lake Township canister station during hours that an attendant is present.

Non-toxic
tackle is available from local
sports shops like
My Store in Outing and Redding's
Bait in Emily, at a
reasonable price
and has shown to
perform as well as
toxic lead tackle.













#### THE CASPIAN TERN

Terns! Don't confuse these birds with the typical variety of gulls we see on our RALALA lakes and shores. The images you see here are specifically the Caspian Tern, and they are incredibly aerodynamic flyers, precise divers, and efficient fishers. Skimming the water or submerging themselves entirely to catch fish, terns make it look easy. Their maneuverability as they dive for their prey is guite astounding - almost like you're watching an Olympic athlete perform for an audience. The Caspian Tern is the world's largest tern, and you can differentiate them from the common gulls when you see them execute daredevil stunts as they pierce the water for a tasty meal. They are part of the gull, tern, and skimmer family, but you will not find this bird leaving a mess on your boat lift cover or floating in the middle of the lake; they prefer to congregate and rest on islands and shorelines. The best way to distinguish terns from gulls is by their bright red bill, black cap, black legs, and raspy call.

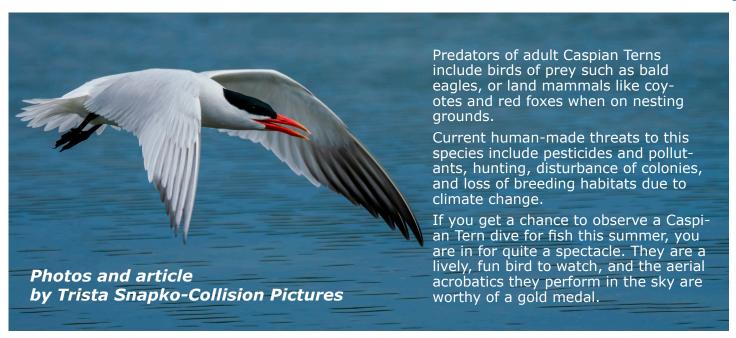




While they are not the most common bird to visit our area, Caspian Terns are seen throughout the world, nesting on five continents. Their population is listed as "somewhat stable" in the US. That said, their nests are difficult to count due to their remote or inaccessible locations. They are classified as "vulnerable" in Canada but fortunately they breed in a wide range of habitats, including ocean coasts, interior lakes, and rivers. They nest in colonies or solitarily - the largest colony is located on an artificial island in the Columbia River, with over 6,000 pairs in that location alone.

On Lake Roosevelt, the Caspian Terns usually appear as soon as the ice-out occurs, and they tend to mingle with the gulls on the protected islands on the south end of Roosevelt. Their diet is mostly small fish; however, they will also eat crayfish and large insects. They have a wingspan of about 50 inches and a lifespan of up to 12 years. The oldest being recorded at 32 years old. We've seen adult terns with their chicks on the islands on the south end of Roosevelt Lake and observing them together is an absolute treat to witness.

Like a lot of other species of birds, Caspian Terns are kleptoparasites, or pirates, which means they steal food from other terns or other bird species. They are quite territorial and are known to be aggressive to anyone or anything that gets too close to their nests. Sometimes you can get a sense of their ornery "attitude" as they vocalize on their way past searching for food. The terns seen in the RALALA area get the name "Caspian" from ornithologists associating them with the Caspian Sea, where they are still present. Populations up north are considered medium-distance migraters, but do travel as far as northern South America.





RALALA hosted the second annual Youth Operators' Water Training on June 15, 2023 at the Channel Bar and Grill in Outing. The free training was designed for 12 to 17 year olds, but any aged individuals were welcome. This year two adults attended. Lunch was provided by RALALA. Crow Wing County Sheriff's Department personnel supplied materials and classroom training. Students completed a test after instruction and certificates were distributed. Students file their certificates with the state and will be awarded ID cards allowing them to operate boats. The class concluded with on-the-water training in Sheriff's boats with students behind the wheel.

Dave Johnson, a RALALA volunteer, who coordinated the training stated, "I have been boating for many years and attended the training for the last two years and I pick up something new, or that I have forgotten each year. It is a really good program."

Thank you to Dave Johnson for organizing the training, Crow Wing County Sheriff's Department for excellent instruction, and to the Channel Bar and Grill for providing the meeting room and preparing the delicious lunch.



#### PICK UP PET WASTE

Pet waste left on the ground washes bacteria, viruses and parasites into lakes and ponds which can threaten the health of humans and animals. Pet waste also contains nutrients that promote weed and algae growth that can turn waterbodies into murky, smelly messes. Picking up pet waste helps keep our recreation areas clean, safe and beautiful.







# TIRED OF ALGAE IN THE LAKE? THEN LOWER THE PHOSPHORUS LEVELS WITH LAKE STEWARD

By Jeff Forester

These hot and muggy dog days are perfect lake weather, perfect for swimming in the lake, waterskiing and other water sports. Unfortunately, it is also becoming primetime for the algae blooms that can spread across the lakes we love and make swimming, skiing and watersports impossible. There are many different types of algae, from the beneficial to the toxic blue green, and while contact with blue green algae can result in rashes, illness or even death, particularly for pets, even benign algae makes swimming unpleasant.

Data supports what many longtime lake residents suspect; algae blooms are starting earlier in the summer, growing larger and lasting later into the year. Toxic blue green algae blooms are also on the rise in our lakes.

Shoreline property owners do have some level of control. By bringing together local partners, organizing the larger community and taking direct action on their own shorelines, lakeshore owners can reduce runoff pollution into the lake and limit the growth of algae.

Minnesota's lakes are fertile and have most of the nutrients plants and algae need to thrive. The exception is phosphorus. Phosphorus is a "limiting nutrient" in Minnesota. Reduce phosphorus levels in a lake, and you will reduce algae in that lake.

Back in the 1970s, after passage of the Clean Water Act, most of the large and specific sources of pollution were shut down. Factories and slaughterhouses stopped dumping waste into our rivers and lakes. Towns no longer dumped raw sewage into the nearest waterbody.

Continued on next page



May 20 RALALA volunteers cleaned two miles of ditches along Highway 6 north of Emily. **Please join us September 16** for our fall clean-up to help maintain our wonderful community.



Tired of Algae in the Lake? continued

This is known as "point source" pollution. For decades after passage of the clean water act, water quality improved across the country.

Then, after decades of improvement, water quality began to decline again. Today 56% of Minnesota's surface waters are listed as impaired. Pollution no longer comes from a single source, but myriad sources, small, discrete and dispersed. This is called "nonpoint source" pollution, and it comes in varying degrees from many of the properties in a watershed as rainwater and snowmelt flows over farm fields, pavement, roofs and lawns and winds its way to the nearest lake or a river without soaking into the ground. To prevent this dispersed pollution, landowners must keep water where it lands and not let it run off their properties. In order to save our lakes each of us must get the rainwater and snowmelt that falls on our land to infiltrate instead of running off. Our gutters and pavement and lawns all prevent infiltration and allow water to flow across the landscape, picking up phosphorus and other chemicals as it travels, and carrying it to our lakes and rivers. The need to prevent runoff is particularly acute on lakeshore properties.

Soils in Minnesota contain phosphorus as does the atmosphere. Rain and snow collects atmospheric phosphorus as it falls and picks up more as it moves across the land-scape. On a natural shoreline, where rainfall can soak into the ground, the phosphorus-starved roots of native plants, trees and shrubs take up most of this phosphorus before it enters the lake.

Minnesota's changing climate makes the problem worse. Minnesota is getting more rain than in the past, and it is coming in larger and more intense rain events.

RALALA partners with Minnesota Lakes and Rivers Advocate's Lake Steward Program which supports shoreline owners to better manage rain and snowmelt so that they can help restore water quality in the lakes they love. A shoreline managed using Lake Steward strategies contributes seven to nine times less runoff pollution than a "lawn to lake" shoreline without Lake Steward mitigations.



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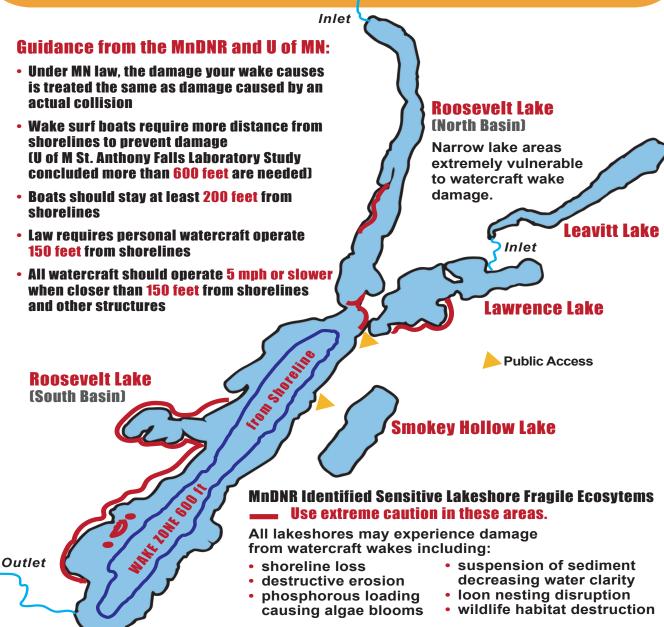




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## Roosevelt and Lawrence Area Lakes Association ralalalakes.org

**RALALA** designed and distributes this OWN YOUR WAKE flyer to educate boaters. Shoreline recession, erosion damage and destruction, as well as wildlife habitat disturbance caused by wave action have increased significantly as greater numbers of boats, many with increased horsepower, cruise the lakes. As a result, the lake association has received many requests to intervene. RALALA has no jurisdiction or authority to patrol or control the lakes or watercraft operator's behavior. Contact Cass or Crow Wing County Sheriff's Departments to report concerns or complaints.

WE STRIVE TO ENCOURAGE SAFE, RESPECTFUL WATERCRAFT OPERATION.

JO ELLEN BATTY-GEORGE BEQUEST

Jo Ellen Batty-George, of Minneapolis, passed away on January 9, 2022. Jo grew up in Rockford, Iowa. She spent her entire career in health care, first as a registered nurse and then as a nurse practitioner. Jo brought enthusiasm and joy to whatever she did, as a youth tennis coach, volunteer gardener, artist and crafter, lover of the outdoors and animals.



She traveled around the world, but there was no place she loved more than the cabin she and her husband Bill built "up north" on Roosevelt Lake in Woods Bay.

Jo Ellen and her husband, Bill, who died recently, were active RALALA members for many years. RALALA is extremely grateful for the generous bequest from the Jo Ellen Batty Trust. It will be used to protect and preserve the lakes she loved.



We have had loon chick sightings on Roosevelt, Smokey Hollow and Lawrence Lake. PLEASE SLOW DOWN! As the chicks mature, the parents move out of the secluded areas to chick rearing areas. Unfortunately, this often puts the chicks in the pathways of boats. The chick rearing areas are close to islands and quiet bays as well as in open water before or after the no wake zones.



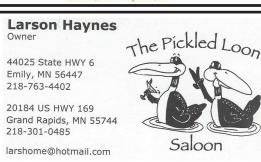
#### Financial Support for Shoreline Restoration

RALALA offers **\$100** reimbursements for Soil and Water Conservation District site visits and a limited number of **\$500** reimbursements for completed eligible projects.

For more information email:

bonnerupanne@gmail.com Subject: BENNIES













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# ARTIFICIAL LOON NESTING PLATFORM (ANP) ON LAKE ROOSEVELT 2023

#### **By Sheila Langer**

The primary goal of the Minnesota Loon Restoration project is to increase reproductive success and reduce mortality of Minnesota loons. To achieve this goal the MN DNR conducts loon nesting surveys each summer to identify where loon conservation activities are most likely to improve loons' ability to successfully hatch and raise their young. One of these conservation activities is the use of an Artificial Nesting Platform (ANP). Artificial platforms do not ensure nesting success but they have had a positive effect on loon productivity.

Last fall, as part of my Loon Liaison responsibilities, I completed a Loon Friendly Lake Management Plan for Lake Roosevelt. Included in that report were my loon monitoring results from the past few years. In January, Spencer Rettler (Natural Resource Specialist with MnDNR Loon Restoration Project) offered to run my findings through the DNR's internal ANP scoring criteria. I had mentioned a location where loon nesting had consistently failed in past years, thinking it might be a good spot for an ANP. As a result, early this spring I was asked to be an Artificial Nesting Platform Sponsor. As an ANP sponsor, I would be responsible for the construction, deployment, removal and maintenance of the ANP for a minimum of three years.

Studies have shown that the very best way to maintain loons in Minnesota is to protect and enhance natural nesting sites.

But an ANP works best when:

- Water levels fluctuate during nesting season
- There is a significant and reoccurring predation problem





 There are loons present, but there are no or limited opportunities to protect and enhance natural nesting habitat

Data collected from the ANP is part of a scientific study so it was important that we followed the DNR's design and deployment directions to keep the study standardized, ensuring all loons experience the same quality nesting platforms. In April, my husband, Gary, and I partnered with David and Gail Lawson to construct the ANP. David bought our supplies, funded by the DNR, and built and painted the PVC frame. The four of us used DNR written instructions and video tutorial to complete the platform.

We were required to get permission from RALALA, and purchase a permit from the Cass County Sheriff's Department, specifying the ANP location and displaying permit numbers and reflectors on the platform.

The DNR required ANP deployment within two weeks after ice out, when loons usually return to their nesting territory. We found a suitable location to anchor our platform and deployed it on May 2 where it will remain until after August 1. We are responsible for maintenance and care of the raft along with storage until deployment again early next spring.

We have seen loon pairs express an interest near the ANP. Time will tell if the loons will decide to give it a try. I am very thankful for the learning experience being an ANP sponsor has provided and for the expertise David and Gale Lawson have added to this project.

# SPINY WATER FLEAS AIS ALERT

Spiny water fleas are an aquatic invasive species, though tiny (roughly the size of a grain of rice) they can pose a serious threat to the ecology and recreational value of Minnesota's waters.

Spiny water flea is native to Europe and Asia, and was brought to North America in the 1980s in ballast water from ocean-going ships that traveled into the Great Lakes. It was established in Lake Superior by 1987 and first identified in Minnesota's inland waters in 1990 at Island Lake near Duluth. Since then, they've been found in Voyageurs National Park and several lakes in northeastern Minnesota. Studies have shown that over 40% of northern Minnesota lakes provide suitable habitat for spiny water fleas. **Human recreational activity is the primary cause of their spread.** 

The tiny organisms can cause big problems. The primary threat is to lake ecology, as the water fleas outcompete native species for food, disrupting the bottom of the food chain. At the same time, the tough and sharp creatures are not a good fish food themselves. Research by Dr. Gretchen Hanson of the Minnesota Aquatic Invasive Species Research Center (MAISRC) has shown that young walleye grow more slowly in lakes infested with the pest and are less abundant than those in non-infested lakes.

MAISRC researchers, Drs. Valerie Brady and Donn Branstrator outfitted two research vessels with fishing equipment to run real-world simulations on spiny water flea-infested lakes in Minnesota. The findings showed that fishing lines were most likely to entangle spiny water fleas, but they also get caught on downrigger cables and retained in bait buckets and livewells.

#### **RECOMMENDATIONS:**

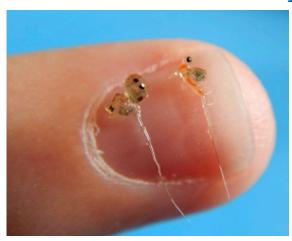


Wipe fishing lines, reels and downrigger lines and cables

Wipe drained livewells

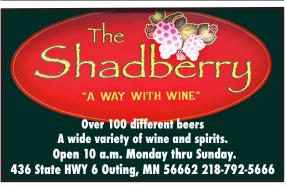
### Wipe drained bait buckets

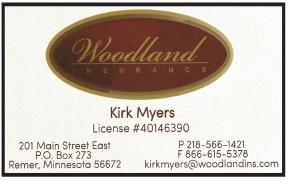
Researchers found that spiny water fleas and their eggs cannot survive being completely dry for longer than 6 hours. Therefore, they recommend boats and all gear be dried in the sun until everything has been completely dry for more than 6 hours before moving to another water body.











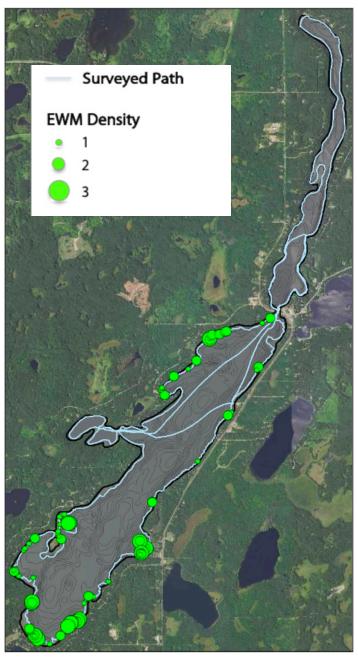
#### 2023 EURASIAN WATERMILFOIL REPORT

Freshwater Scientific services, LLC completed a search for Eurasian watermilfoil (EWM) in Roosevelt Lake on July 11, 2023. The vegetated portions of the lake were surveyed using a combination of surface observations, sonar readings, and rake tosses to locate and delineate areas of EWM growth. GPS coordinates and water depth of any located EWM were recorded, and its density was rated on a scale of 1 to 3.

#### **EWM DENSITY KEY**

SCORE	VISUAL	RAKE
1	Light / Solitary Plants	1 to 2 stems
2	Moderate / Dense Patches	3 to 9 stems
3	Dense / Uniform matted EWM	10 or more stems

# MAP 1 Roosevelt Lake (#11-0043) Eurasian Watermilfoil Delineation: 2023



Water clarity and overall visibility at the time of the survey were excellent, and much better than during past surveys. This allowed them to conduct an intensive visual survey that was much more likely to locate smaller patches of EWM growth than a rake or sonar survey alone.

#### See Map 1

Freshwater Scientific services recommends applying herbicide to 20 treatment plots totaling 14.96 acres.

#### See Map 2 on page 17

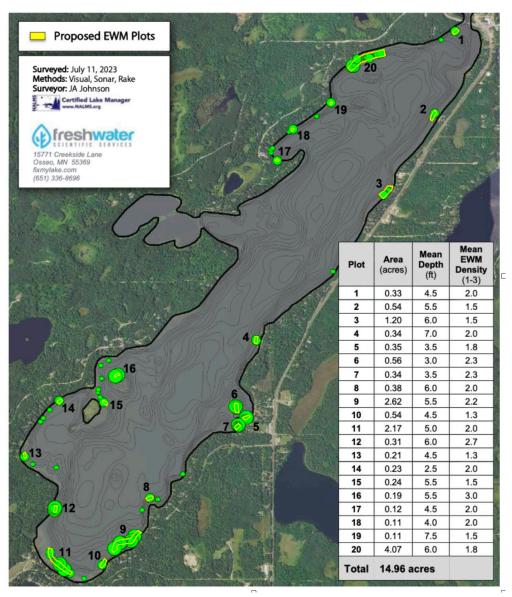
The RALALA board decided to include diver inspection of the boat launch sites on Roosevelt and Lawrence Lakes in the 2023 AIS surveillance to search for starry stonewort and zebra mussels. Our close proximity to Thunder Lake, which is infested with both, creates a greater risk of spread into our member lakes. Early detection is critical and almost all infestations begin with introduction at boat ramps.

The searches of the areas included thorough inspections of docks, concrete ramps, edges of prop scoured areas (where starry stonewort first becomes established) as well as rocks in the immediate area (zebra mussel habitat). No evidence of either starry stonewort or zebra mussels was found.



Banded mystery snails (see photo) were found in Roosevelt Lake. "These are technically invasive, but very common, and not thought to be destructive to most lakes. The main concerns are an increased likelihood of swimmer's itch and a nuisance if stepped on by swimmers," according to the Freshwater Scientific report. The snails have most likely been present in the lake for a long time and no management was recommended.

#### Roosevelt Lake (#11-0043) Eurasian Watermilfoil Management Plots: 2023



#### Survey expenses totaled \$2,650.

Survey results were forwarded to PLM Lake and Management Corp. for treatment proposals and cost estimates. The necessary DNR permits have been secured for herbicide treatment of up to 14.96 acres to be completed by September 30, 2023.

#### PLM estimate for treatment is \$21,920.

ProcellaCOR, a highly effective, fast acting herbicide, is the recommended treatment. Upon surface contact, it enters the plant, works its way to the roots and kills the EWM. Leaflets fall off, the stem curls and drops, becoming organic material at the bottom of the lake, rather than drifting to shore. Within 2 to 3 weeks, post treatment, results should be observed. James Johnson, Aquatic Ecologist for Freshwater Scientific, who

conducted the surveys, and David Hillstrom, who manages the treatment for PLM, met with the RALALA Board on July 19 at their regularly scheduled Webex meeting to discuss survey results and proposed treatment. Most importantly, the discussion addressed concerns that there seems to have been a very large increase in EWM since 2022.

Johnson provided several explanations. Survey conditions this year were ideal—a sunny day, calm waters and excellent visibility—allowing for sightings of individual plants. Weather conditions this year—very warm, dry, June weather—contributed to rapid plant growth, making them more visible.

"We were encouraged by a few years of smaller treatment areas and hoped we could eradicate EWM. That was unrealistic. The pattern we now see emerging is typical in other lakes with similar infestations," commented Johnson.

He continued explaining that large patches of EWM are more easily identifiable and can be managed, but plant reproduction will still occur. **EWM plants are tenacious survivalists**.

They reproduce by self-fragmentation. These 2-inch segments have developed roots that take hold when they fall to the lake bottom, establishing another plant. The plants also produce seeds that may rest in the sediment, unaffected by the herbicidal treatment and can later sprout into plants.

The DNR controls permitting for herbicidal treatment and typically denies permission for use on single plants. Their rationale is the herbicide will also destroy beneficial native vegetation, creating a barren landscape that may actually increase the likelihood of EWM fragments becoming established.

Eurasian watermilfoil must be considered endemic in Roosevelt Lake. There are many patches and scattered single plants. It is widespread, but not growing densely in south Roosevelt.



2023 EURASIAN WATERMILFOIL REPORT continued

# There is no cure, but with effort and financial support, the infestation can be managed.

James Johnson explained, "Aggressively hit the big patches that are producing fragments. It will be like whack-a-mole for the next 5 to 10 years. There are always going to be fragments producing single plants. Those will turn into patches. Then hit those patches hard with herbicide."

Johnson recommended the use of divers to hand harvest individual plants as a containment strategy—helping prevent single plants from becoming established beds of EWM. He emphasized it is impossible to eliminate all plants. RALALA is soliciting bids for that service. The Board will consider options and their financial feasibility.

Johnson explained the acreage recommended for treatment is greater than the size of the EWM patches. To ensure there is the right concentration of the herbicide, that it covers the plants long enough for it to be absorbed, and it is dispersed widely enough to account for water movement, the zone of treatment is broad. "You can't micro-dose it," he stated.

Without constant surveillance and aggressive treatment of Aquatic Invasive Species, we run the risk of new infestations. Potentially massive, dense, beds of EWM could become established, disrupting navigation and recreation on the lake, and spreading beyond south Roosevelt.

	EWM Cost	
Year	<b>Acres Treated</b>	Cost
2016	12.1	\$22,497
2017	11.2	\$14,524
2018	3.7	\$8,866
2019	3.3	\$6,601
2020	8.1	\$15,891
2021	4.6	\$6,965
2022	3.3	\$7,007
2023	14.96	\$21,920

### **DONATE GENEROUSLY**

to RALALA Environmental Quality Projects & Initiatives HELP FIGHT AQUATIC INVASIVE SPECIES

ralalalakes.org

Send checks to RALALA, P.O. Box 139, Outing, MN 56662

### **RALALA**

# ANNUAL MEETING AUGUST 5 9 AM to NOON

CROOKED LAKE TOWNSHIP
TOWN HALL

HEAR UPDATES on 2023 RALALA PROJECTS

LEARN ABOUT & SHARE YOUR INPUT on the CONTINUING CRITICAL CHALLENGES of 2024

## PROTECTION from Aquatic Invasive Species (AIS)

- Additional launch site inspections
- Launch site decontamination station
- Expanded surveys for starry stonewort & zebra mussels

#### **PRESERVATION of Water Quality**

 Monthly water testing for Enbridge Pipeline leaks

Your ATTENDANCE and SUPPORT are ESSENTIAL to PROTECT and PRESERVE OUR LAKES and the WATERSHED

#### PLEASE JOIN US!



#### **Event Details**



#### **Event Date**

August 19 Noon - 4:00 PM



#### Location

Pickled Loon Saloon 44025 Hwy. 6 Emily, MN



### What to Bring Bring any lead

fishing tackle

#### **Great Activities**

Free Youth T-shirts · Color your design Youth Water Safety information Army Corp of Engineers · Watershed Demo Aquatic Invasive Species · Education RALALA & LWA · Protect & Preserve Water Quality

#### Tackle Exchange

#### Free Tackle Packets

Bring us your safely wrapped lead tackle for a chance to win prizes.

#### **Great Prizes**

#### **Chance to Win**

Raffle winners will be announced at 3:00 PM. Winners need not be present to win.

#### PRIZES

5 - \$50 Land O'Lakes gift certificates 10 - Combo fishing rods and reels

Help rid our lakes of this poisonous material that kills loons and other wildlife.



As a young girl Therese fell in love with the woods and it was her dream to become an artist and live amongst the trees. She had originally planned to purchase an acreage closer to the metro area. A forester friend, from whom she learned much about the flora and fauna of the central lakes region of Minnesota, learned of the available property on Lake Roosevelt and Therese was one of the first to purchase a lot in Woods Bay, thirty-five years ago, and began to live her dream.

At first she lived in a little cabin with electricity, but without running water. In April 1995 she designed her house, plotting it out on graph paper and studied books to learn about construction. In July of that year, after "professionals" had laid the footings and poured a concrete floor, two girlfriends (with no building experience) helped frame the first floor under Therese's guidance. That Fall she moved into the newly constructed walkout basement and completed the house in stages as she could afford. Never taking out a mortgage ensured she could continue to be an artist and painter. In the Fall of 2000 she moved upstairs. Soon after, she met and married her husband, Kirk, a retired educator turned local insurance agent. Therese recently retired after starting and running a non-profit community arts organization for 22 years and continues to be free to explore her artwork in her wooded paradise. Together they preserve the property in a beautiful, natural state. Therese maintains a small area around the house which includes a family memorial garden and flowers. Kirk maintains the paths and boardwalks to the lake which crosses a bog with large cedar trees. The woods, from the elevation of the house descending to the lake, have been left to mature naturally, allowing plants and animals to thrive. Their floating dock leaves an array of aquatic plants undisturbed, protecting the shoreline and providing excellent habitat for birds, fish, turtles and frogs.

Their property is an excellent example of managing the land to protect our waters. When asked what her goal was in becoming an official Lake Steward Therese said, "I hope to be a part of the cultural change, talking to people and spreading the word to make changes to maintain natural properties."



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

FORWARDING SERVICE REQUESTED

#### 2023 UPCOMING EVENTS

**AUGUST 5: RALALA Annual Meeting: CROOKED LAKE TOWNSHIP TOWN HALL AUGUST 16: CONSERVING MINNESOTA'S LOONS WORKSHOP** NEED ERS Crosslake 9 am-11 am

**AUGUST 19: Lions Corn Feed at the Pickled Loon Saloon** 

**SEPTEMBER 16: RALALA Hwy 6 Adopt a Highway** 







The RALALA booth at the Emily Day **Celebration** on June 15 attracted many visitors who gathered information, received lead free tackle samples, and registered to win the giant Larry the Loon floatie provided for the free drawing by Tremelo Communications.