TAMARACK WATER ALLIANCE

Tamarack Water Alliance Community Zoom Meeting
Wednesday, November 5, 2025 10am CT

TOPIC: Minnesota Loons And The Need For A Fresh Water Ecosystem
PRESENTER: Maddi Nistler, Education & Outreach Manager National Loon Center

We're all a little loony for Minnesota's state bird! Whether you only know Common Loons by their iconic calls, or you are a long-time loon watcher, these charismatic birds will never stop surprising you. We will dive into the physical and behavioral characteristics that make Common Loons unique, the intricate freshwater ecosystems loons call home, and best practices you can adopt to better protect loons from the environmental conflicts they face today.

Maddi Nistler is the Education & Outreach Manager at National Loon Center in Crosslake, MN. Her life-long love for the outdoors and inner workings of the natural world has led her to become a MN Master Naturalist and advocate for Common Loons. Since moving here from Colorado in 2019, Maddi has continued to share her passion for wildlife with others through the Loon Center and beyond. She can often be found off the grid with a fishing rod or talking to trees and local squirrels.

Register for the meeting and receive the Zoom link here (https://tamarackwateralliance.org/php/eventreg.php?eid=16).

TWO WAYS TO DONATE TO TAMARACK WATER ALLIANCE

- **You can donate on our website at tamarackwateralliance.org/donate.html**.
- OR you can **Give to the Max** to Tamarack Water Alliance in November.

We invite your donations now and throughout the year. Tamarack Water Alliance is all volunteer Minnesota non-profit with no paid staff. Every penny you donate goes to support our hard work educating the public about the risks of sulfide mining to our water, environment, fish, wild rice, and ecosystems.

Your donation goes to support our community educational activities which include tabling at community festivals and parades, participation in other community events, targeted speaking engagements with interested local organizations, monthly informational public zoom calls and an associated email newsletter, website and social media, letter writing campaigns and articles in local news outlets, interviews with media, and other community outreach and canvasing.

Our current focus is on providing education about the risks of sulfide mining, narratives to counter the greenwashing and divisiveness that some mining companies promote, as well as forging connections to other communities concerned about sulfide mines in Minnesota, across the Midwest, and around the world. Thank you for your contributions to our work.

REQUEST Presentation On Risks of Sulfide Mining for your group, Rotary Club, church or community club. Send us an email at waters@tamarackwateralliance.org.

DOWNLOAD Tamarack Water Alliance fact sheets/flyers here (https://tamarackwateralliance.org/resources.html#flyers).

Sign-Up To Receive Updates from the DNR on Talon Metals Environmental Impact Statement here **here** (https://www.dnr.state.mn.us/input/environmentalreview/tamarack-nickel-project.html).

Volunteer with the Tamarack Water Alliance. Send us an email at waters@tamarackwateralliance.org.

Sign Up For This Newsletter: Encourage your friends, family and neighbors to sign up for the monthly Tamarack Water Alliance email newsletter at **tamarackwateralliance.org/php/articlereg.php**.

TOPIC: Minnesota's Iconic Loons- Their Need for a Freshwater Ecosystem

PRESENTER: Maddi Nistler, Education & Outreach Manager National Loon Center

A calm June evening. The smell of campfires and bug spray in the air. Life vests and water toys drying from a day on the lake. Across the glassy water, a loon call echoes among the Norway pines. The long, mournful, iconic wail of the Common Loon marks the beginning of summer and reinforces the wildness of the surrounding north woods.

The loon easily captures the hearts of lifelong Minnesotans and first-time visitors, alike. But how well do we really know our state bird? With a lineage of over 50 million years, the loon is an evolutionary marvel that never ceases to surprise and amaze us. As a keystone species with very particular habitat needs, there are a slew of challenges that loons are facing as human influence swells in northern Minnesota, presenting a growing need for stewardship among residents and visitors of loon country.

National Loon Center StewardShip Program In Crosslake, MN, the National Loon Center is a 501(c)(3) nonprofit becoming a statewide and even a national resource for loon and freshwater education, conservation, and research. Programs such as our on-the-water classroom, the StewardShip, traveling outreach programs, and the development of our brand new facility scheduled to open in 2027 are just a few of the ways the NLC brings education to the Brainerd Lakes Area, Minnesota as a whole, and beyond.

Loon Species & Habitat While there is a total of five loon species in North America, the Common Loon is the only species found in Minnesota. Minnesota's abundance of cold freshwater lakes, diverse fish species, boreal forests, and generally colder climate allow the loon to live here at the southernmost edge of its comfort zone. You'll often find Common Loons nesting during the summer months on large, deep, northern lakes with plenty of fish and natural shorelines.

The loon's nesting season is generally from May through September. With an average clutch of only two eggs each breeding season, loon parents have an increasingly difficult job rearing those chicks and ensuring they fledge their natal lake by the end of the summer. As chicks, facing naturally occurring challenges such as predation from bald eagles, northern pike, muskellunge, and snapping turtles, as well as severe summer storms can be tricky; for an adult loon navigating human caused threats such as boat strikes, lead poisoning, loss of nesting habitat, poor water quality, and more is downright unimaginable.

Mining & Sulfates from Mining Waste a Threat
An emerging threat that biologists across the country are diving deeper into is the presence of mercury in northern lakes. Lakes in northern Minnesota are impacted by heavy metal pollution from taconite mining on the Iron Range and into parts of central MN. Sulfate from mining waste can stimulate bacteria that convert naturally occurring mercury into toxic methylmercury. This form of mercury accumulates in many game fish as it travels up the trophic levels, starting with bacteria and small organisms, and eventually up to large fish, loons, and even humans.[1] In a study by the University of Minnesota, Dr. Gretchen Hansen and others have found that "lakes infested with zebra mussels had up to 72% higher mercury concentrations than in lakes without the invaders".[2]

As mercury accumulates in loons through foraging for fish, the neurological, physiological, and reproductive implications are ever-growing. Examples of mercury poisoning in loons include asymmetrical flight feather growth and underdeveloped feathers, diminished egg tissue, decreased incubation periods, and decreased activity levels, motivation to hunt, and lowered ability to thermoregulate. This requires a long term, big picture solution across Minnesota.

Five Action Items to Protect Minnesota's Loons
In the immediate situation here's what we can do. Any time you are recreating or enjoying lakes and shorelines, just follow these five action items and remember to "Share Our Shoreline" with loons and other wildlife!

1. Give wildlife space by staying at least 100 feet from loons and use binoculars to observe. Especially during nesting season, loons can become very easily stressed if they feel pressured by human activity. A nesting loon is easily spooked and will abandon their nest if approached or threatened, leaving their eggs susceptible to predation or exposure to the elements.
2. Landscape for loons by planting native plants and maintaining a natural shoreline. Loons depend on natural vegetated shorelines to build sound nests with ample protection. Rip rap boulders and sandy beaches make poor nests for our loons! Even a small space on your shoreline property dedicated to deep-growing roots can help provide habitat for wildlife and filter polluted runoff as it flows into the lake.
3. Fish loon-safe by using lead-free tackle and avoid fishing near loons or wildlife. Like all birds, loons have a muscular organ called a gizzard that breaks down food and aids in digestion – loons will dive down to the lakebed to pick up small pebbles to store in the gizzard. When lead tackle is mistaken for pebbles, or fish with tackle are ingested, lead poisoning in loons is fatal. According to the Minnesota Pollution Control Agency, lead poisoning is responsible for 25% of annual loon deaths in the United States.
4. Clean, drain, and dry your gear to prevent the spread of aquatic invasive species. AIS such as Starry Stonewort, Eurasian Watermilfoil, Zebra Mussels, and Round Goby can outcompete native freshwater plants and mussels, make recreation difficult or impossible, and spread disease to wildlife like loons.
5. Watch your wake within 200 feet of wetlands and shorelines where loons nest. Not only can boat wakes disturb nesting loons, but excessive and consistent wake can also erode essential shoreline habitat. A common misconception among boaters is that loons have the awareness and ability to dive and dodge oncoming boat traffic from a young age. Newly hatched chicks can swim within a day of leaving the nest, but they cannot dive at the duration or great depths that adults can.

For more information about loons and how to protect this iconic species, visit nationallooncenter.org, or visit our temporary location in Crosslake Town Square!

References:

1. **https://www.mprnews.org/story/2025/08/05/mercury-pollution-minnesota-lake-country,https://www.mprnews.org/story/2025/08/05/mercury-pollution-minnesota-lake-country** Across Northern Minnesota's Pristine Lake Country Mercury Contamination is Growing, Dan Kraker, MPR August 5, 2025.
2. **https://twin-cities.umn.edu/news-events/study-reveals-elevated-mercury-levels-fish-associated-zebra-mussel-invasions** Gretchen Hansen, Senior Author, Associate Professor Fisheries, Wildlife and Conservation Biology, Twin Cities, UM December 2024.

Loon Photo credit Brandi Grahl

All Mining is Not Equal - Sulfide Mining Different Than Taconite Mining
..."Unlike taconite operations, processing high-sulfide ore promises to result in a great deal of sulfur waste;potentially 98% of mined material could be waste, with a good percentage having sulfur content..."

"There are three main risks with sulfide-mining waste. One is acid mine drainage caused by sulfur in the mine waste reacting to form sulfuric acid. Two is the potential destruction of wild rice beds, as wild rice has a very low tolerance to sulfates. And three are fish-consumption limits due to methylmercury in game fish that can be caused by sulfate reducing bacteria, which could convert free mercury in the environment to highly toxic methylmercury..."

https://www.duluthnewstribune.com/opinion/columns/local-view-all-mining-is-not-equal-sulfide-different-from-taconite
Duluth News Tribune, September 25, 2025,
Lynn Anderson

Public Opinion In The Boundary Waters Being Ignored
..."Hunters, anglers, and others are concerned about the likely watershed-ruining impacts from a proposed sulfide-ore copper mine in the BWCAW watershed near Ely. In the words of former U.S. Forest Service Chief (2009-2017) Tim Tidwell: “The fact is sulfide-ore mines pollute...”

"...Although proponents of sulfide mining often refer to new mining methods, that often just means it’s commercially, not environmentally, feasible to mine these deposits. What hasn’t

changed is that sulfide mining is a filthy process. “So low is the ore’s copper/nickel content that 99 percent … will wind up as toxic tailings,” a 2020 column in Hatch magazine stated..."

www.duluthnewstribune.com/opinion/columns/local-view-public-opinion-on-boundary-waters-being-ignored
Duluth News Tribune, October 15, 2025,
David Lein, Former Chair, Minnesota Back Country Hunters & Anglers.

Who We Are

Tamarack Water Alliance is a group of local residents and landowners working together with others from across Minnesota to protect water and community health from the dangers of sulfide mining near our beloved lakes and wild rice beds, at the headwaters of the Kettle River and in the Mississippi River watershed. Visit our website **here** (https://tamarackwateralliance.org/index.html).

A proposal by a foreign owned mining company, Talon Metals/Rio Tinto to mine nickel and other metals near Tamarack in Aitkin County threatens the health of our communities. This kind of sulfide mining, especially in water-rich environments, has never been done without severe impacts to water and the health of those downstream. Mining here is also a threat to environmental justice and the long-term economic security of nearby native and rural communities.

Review our **community slide presentation** (tamarackwateralliance.org/docs/TamarackMineConcerns-Consolidated.pdf) and download **informative flyers** (tamarackwateralliance.org/resources.html):

- Talon Mine Risks,
- Geology of Aitkin County,
- Talon Dumping Toxic Drilling Waste,
- Minnesota Declares Round Lake Impaired
- High Sulfide Mines Create Acid Mine Drainage,
- Nickel Not Needed for Future EV Batteries,
- Minnesota's Prime Wild Rice Lakes Under Threat,
- Difference Between High Sulfide Mining and Taconite Mining,
- Minnesota Regulators Poor Record In Protecting The Environment,
- Eagle Mine Environmental Report & Saving Our Meager Nickel Reserves
- Is There Really A Talon Tesla Supply Agreement? (no)
- Rio Tinto: A History of Corruption
- Green Bridge Metals -Canadian proposed sulfide mine near Duluth seeks to acquire battery rich mineral assets
- Copper and The Green Economy
- Prove It First!

We will send this monthly newsletter to keep you informed about this project, to share information and opportunities to act to protect clean water and community health.