

Lac Courte Oreilles Aquatic Invasive Species Lake Monitoring Training

Wisconsin is truly a land of waters, boasting more than 15,000 lakes and 5.3 million acres of wetlands. But these precious resources are under attack by exotic species; non-native plants, animals, and pathogens that spread rapidly and out-compete native species. When exotic species take over a new location and alter its ecosystem, they are called **invasive species**.

[So, why should we care?](#) Invasive species are so successful because they lack predators and competitors found in their native ecosystems. This allows them to become prolific breeders and out-compete native species.

Aquatic invasive species (AIS) can severely degrade ecosystem function, economic value of ecosystems, economics, aesthetics, human health, and recreational opportunities.

Some AIS reached Wisconsin's waters a long time ago (**curly-leaf pondweed**) while others are relatively new (**red swamp crayfish**); some are huge (**Asian carp**) while others are small (**viral hemorrhagic septicemia**); some are rooted (**Eurasian watermilfoil**) and some are able to swim (**ruffe**). Regardless of their characteristics, it is critical that we all work together to prevent, contain, and control aquatic invasive species.

The goals of our lake monitoring:

LOCATE, IDENTIFY and MAP LOCATION of **Curly Leaf Pondweed** and **Eurasian Water Milfoil** and communicate your finding to the lake coordinator.

RECORD DATE, TIME and EQUIPMENT USED monitoring AIS on the designated Wisconsin DNR time sheets.

Assist in developing neighborhood groups to assist in local plant removal.

We are focused on two weed species Curly Leaf Pond Weed and Eurasian Milfoil primarily as these species have been identified as invasive in LCO.

Curly-Leaf Pondweed (CLP)

Where does CLP grow naturally, and how did it get here?

CLP is native to Europe and Asia. It spread to North America through boats and the aquarium trade. It moves from lake to lake in Wisconsin via boaters, especially through its overwintering buds, called turions.

An interesting life history.

CLP is usually the first plant in lakes to appear in the spring. This is because it starts growing during the winter under the ice! CLP matures by early summer, and begins to produce ***turions***, which are the overwintering buds CLP uses to reproduce.

The turions fall off the plant around July 4th, sinking into the sediment below. These turions sprout into new plants during the winter. Turions may sprout later that same year, or they may sit in the sediment for up to 7 years before sprouting. This makes treating CLP particularly difficult, as we can never be sure of the turion seedbank within the sediment. CLP treatment must be a vigilant, multi-year approach.



Curly Leaf Pondweed



CLP life cycle



CLP turions

How do I identify CLP?

The leaves of CLP are finely serrated, giving it a jagged, tooth-like appearance. This also causes the plant to feel more coarse. When you hold a single leaf of CLP, it looks similar to a lasagna noodle (hence “curly leaf” pondweed).

CLP is most often confused with clasp leaf pondweed, which does not have serrated leaf edges, and also has leaves that “clasp” around the stem.

If you suspect you have found CLP in your lake, please [contact](#) our Lake Monitor Coordinator for verification.



Identify CLP based on its “lasagna noodle” leaves
and serrated leaf edges



CLP up close - note the serrated leaf edges

How does CLP impact a Wisconsin lake?

CLP out-competes native plants in water bodies, and can grow so quickly that it can cause surface matting. This interferes with recreational usage of lakes. The matted CLP also blocks sunlight from native plants. Once the CLP dies off in mid-summer, little vegetation is left where CLP was growing, thereby removing habitat for other critters that live in the lake.

What can be done once CLP enters a water body?

Because CLP has a unique life history, and can potentially build up a large “seed bank” of turions, treatment of CLP is often a multi-year process. Some chemicals, such as endothall, have successfully depleted CLP populations. However, these chemicals require a permit, can be expensive, and are non-selective (meaning they can potentially kill any plant that comes in contact with the chemical).

If CLP populations are smaller, [hand-harvesting of CLP](#) has shown

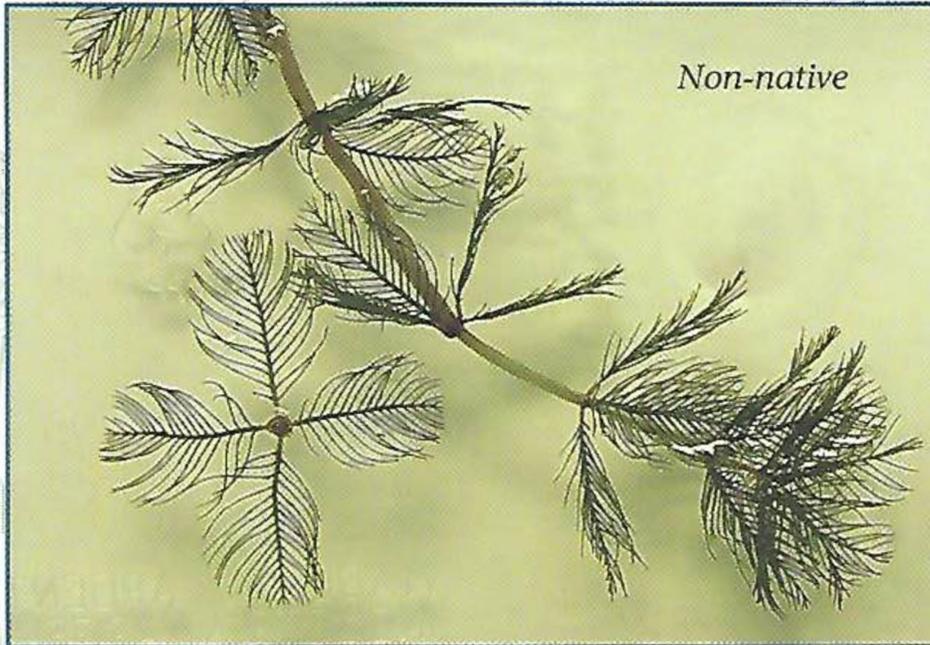
promising potential. Please contact the Lake Monitor Coordinator if you have any questions about CLP hand removal.

Google images has hundreds of pictures of CLP to assist in identification. If you are unsure of a plants identity feel free to contact any of the individuals listed at the end of this document.



Eurasian Water-Milfoil

(*Myriophyllum spicatum*)



Non-native

Highly invasive plant, able to form dense mats near the surface that entangle motor boat propellers and interfere with swimming. Spread by watercraft and trailers.

- Delicate feather-like leaves. Leaflets are mostly the same length.
- Leaves are usually limp when out of water.
- Leaves arranged in whorls (circles) of 3 to 5 around stem.
- Usually 12 to 21 leaflet pairs per leaf.
- Long spaghetti-like stems.



If you suspect a new infestation, report it to your local DNR service center.

Northern Water-Milfoil

(*Myriophyllum sibiricum*)



One of the seven native milfoils found in Wisconsin.
A valuable plant that offers shade, shelter and foraging opportunities for fish.

- Rigid feather-like leaves forming a Christmas tree shape. The lower leaflets are usually quite long.
- Leaves usually stiff when out of water.
- Leaves arranged in whorls (circles) of 4 to 6 around stem.
- Usually 7 to 10 leaflet pairs per leaf.
- Stem is usually whitish or whitish green in color.



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STOP AQUATIC HITCHHIKERS!
Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

Recognizing Eurasian Water-milfoil and Native Look-a-Likes

Eurasian water milfoil is one of eight water-milfoil species found in Wisconsin and the only one that is not native. The most common native water-milfoil in Wisconsin lakes is northern water-milfoil. It bears a strong resemblance to Eurasian water-milfoil and identification between the two plants can be difficult. Using this guide helps to distinguish Eurasian water-milfoil from similar native aquatic plants.



Eurasian Water-milfoil (*Myriophyllum spicatum*)

- Delicate feather-like leaves. Leaflets are mostly the same length.
- Leaves are usually limp when out of the water.
- Leaves arranged in whorls (circles) of three to five around the stem.
- Usually twelve to twenty-one leaflet pairs per leaf.
- Long spaghetti-like stems.



Northern Water-milfoil (*Myriophyllum sibiricum*)

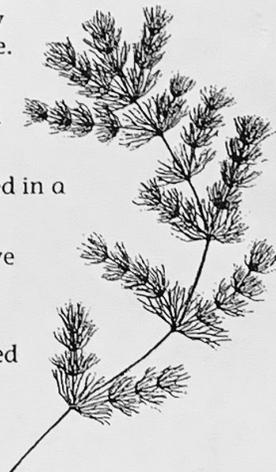
- Rigid feather-like leaves forming a christmas tree shape. The lower leaflets are usually quite long.
- Leaves usually stiff when out of water.
- Leaves arranged in whorls (circles) of four to six around stem.
- Usually seven to ten leaflet pairs per leaf.
- Stem is usually whitish or whitish green in color.



Coontail (*Ceratophyllum demersum*)

Coontail is a free-floating aquatic plant without roots. It may be completely submersed or partially floating on the surface.

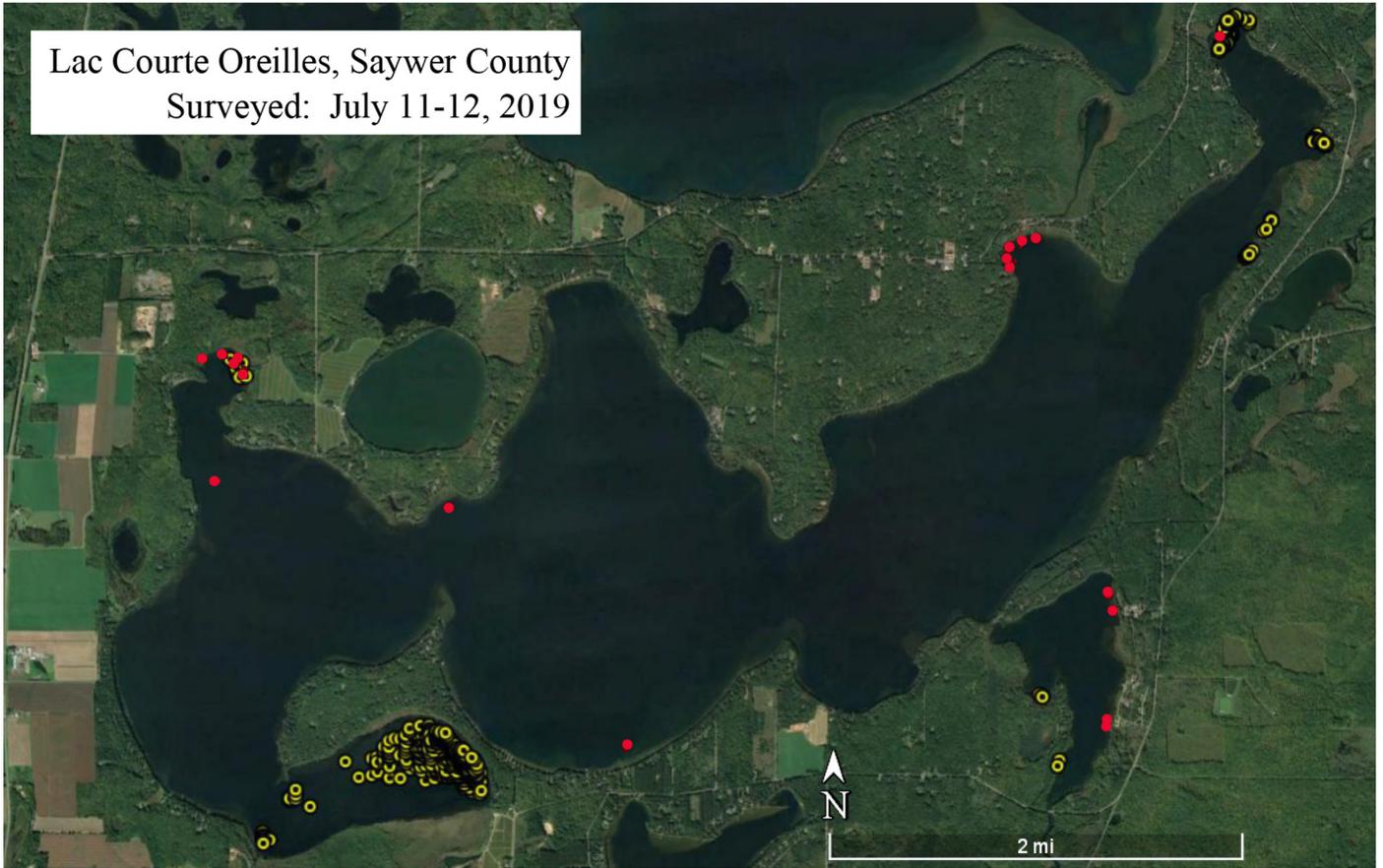
- The leaves are stiff and arranged in whorls.
- Each leaf is divided in a forked pattern.
- Leaf divisions have teeth along one margin.
- Leaves are crowded toward the tip of the stem creating the "coontail" appearance.



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This publication is available in alternative format (large print, Braille, audiotape, etc.) upon request. Please call 608/267-7694 for more information.

Lac Courte Oreilles, Sawyer County
Surveyed: July 11-12, 2019



Eurasian Water-lilfoil ●

Curly-leaf Pondweed ●

The State of Wisconsin reimburses COLA for the time monitors spend looking for and documenting invasive species. The State also reimburses for equipment used such as a boat or kayak. The process is called “time-in-kind”, the reimbursement rates are following.

Allowable Rates for Time-In-Kind:

Volunteer time on allowed work: \$ 12.00 per hour

Equipment use, motor boat: \$ 10.00 per hour / \$80/day

Equipment use, non-motor boat: \$17.36 per day ... no hourly rate

I cannot stress strongly enough the importance of monitors participation in the program, as the funds generated help to offset our expenses used to control invasive species which are substantial.

If you are unable to print the following forms reach me, I'll mail them to you, my information is at the end of this presentation.

Step 1. “time-in-kind” tracking by the individual volunteers

Form 8700-349B Volunteer Labor Worksheet Used as Grant Match

Each lake monitor should use this form (8700-3498) to track their work hours and total. It must be either signed by the volunteer or their name written (typed) in. If not actually signed by the volunteer, either a telephone number or e-mail must be provided.

Form 8700-362 Donated Equipment or Equipment Usage Worksheet

Each volunteer or Board Member should use this form to track their use of boats for Monitoring, hand pulling AIS, or related work. This must be signed by the volunteer. If not actually signed by the volunteer, either a telephone number or e-mail must be provided. The type of boat must be noted, and the rates shown above used.

All completed forms are to be forwarded to the LCO Lake Monitor Coordinator, Richard Laumer.

For additional resources visit COLA web site,
Google...

UW-extensions clean boats clean water
or visit

dnr.wi.gov/topic/invasives/what.html

Lake Monitors Coordinator:

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