## How Do You Control EWM?

Early detection of EWM growth is critical in stopping the plant from becoming a widespread problem. The best chance to halt these non-native invaders is when they first appear on the scene.



EWM often appears near boat landings and at disturbed sites.

New colonies are best removed before they expand. Hand pulling and removal from the water is a simple and effective control method for small areas. Harvesting, raking or screening the bottom also works well. Milfoil can be effectively treated with selected chemicals early in the summer before plants flower. A permit is required from the DNR for chemical treatment or bottom screening. Whole-lake herbicide treatment is not generally permitted because of the potential to disrupt lake ecosystems by eliminating both invasive and beneficial native plants.

For lakes dominated with beds of milfoil, control efforts must be focused on reducing its spread. **Mechanical harvesting** can open areas for boating and swimming and cut fish cruising lanes. Harvesting encourages growth of native plants while removing milfoil canopies that limit native plant growth.

Biological control of EWM is still uncertain. A small aquatic weevil (*Euhrychiopsis lecontei*) feeds on milfoil and actually prefers EWM. Weevils are found in many Wisconsin lakes. To

locate a weevil. look in milfoil stems for signs of damage. There are often small holes or weak spots in the stems that point to weevil damage. These holes allow water to enter the stem, expose the plant to bacterial infection and decrease the plant's buoyancy. The plant will drop lower into the water column and will not canopy out on the surface. Over time, weevils can impact the populations of EWM, but complete eradication is unlikely. Additional research and development is needed before biological control with weevils can be considered an effective management tool.

### How Can You Help?

EWM is moved between water bodies by small fragments transported on recreational equipment. Commonly it is transported by boats, trailers, bait buckets, live wells and fishing equipment. To help prevent the spread of EWM and other invasive species, please take the following steps:

- Inspect and remove any visible mud, plants, fish or animals before transporting.
- **Drain** water from equipment (boat, motor, trailer, live wells) before transporting.
- **Dispose** of unwanted live bait in the trash.

Wisconsin laws prohibit launching a boat or placing a trailer or boat equipment in navigable waters if it has aquatic plants or zebra mussels attached.

### The Clean Boats, Clean Waters Program Builds Awareness About

Learn to recognize EWM.

Start a volunteer watercraft inspection program to help educate boaters on how and where EWM and other invasives are most likely to hitch a ride into water bodies.

Begin monitoring boat landings, marinas and inlets for the first sign of invasion.

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

Remember, our waterways are the pride of Wisconsin and belong to all of us.



For more information about the "Clean Boats, Clean Waters" program call 715/346-3366.

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240.

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# The Facts . . .

**Eurasian** 

Water-Milfoil

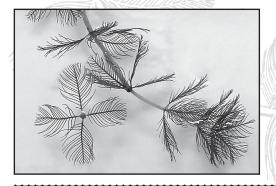
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### What is Eurasian Water-Milfoil (EWM)?

Invasive species disrupt the stability of natural ecosystems and threaten biodiversity. One invasive species of special concern is Eurasian watermilfoil. EWM was introduced into North America and has spread to numerous water bodies across the nation. During the 1960's this aggressive submersed plant found its way into Wisconsin waters. For a current list of EWM-infested water bodies visit www.dnr.wi.gov/org/ water/wm/GLWSP/exotics/ milfoil.html

Eurosian water-milfoil threatens native aquatic plant communities and forms thick underwater beds of tanaled stems and vast mats of vegetation at the water's surface. These dense beds cause loss of plant diversity, degrade water quality, and may reduce habitat for fish, invertebrates and wildlife. They also hinder boating, swimming and fishing. Many lake organizations and local governments devote much of their management budgets to control this invasive plant. EWM is an affliction that costs citizens of Wisconsin millions of dollars in plant control and lost tourism revenue annually.



#### How Does It Spread?

This prolific plant does not spread well by seeds. It spreads by shoots and runners that creep along the beds of lakes and rivers. New plants also grow from small fragments

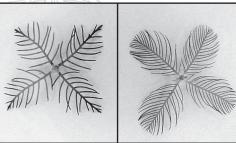
transported from one water body to another. Commonly it's transported by boats and trailers but could also be transported on SCUBA gear, water skis or waterfowl. EWM has become a successful invader primarily by means of its stem fragments. A single fragment can take root and form a new colony.

EWM is most successful in water disturbed by cultural developments such as shoreline construction, watershed runoff, aquatic invasive species control or heavy boat traffic.

EWM also has a competitive advantage in waters that are stressed by pollution. It has difficulty becoming established in waters with healthy populations of native plants. A healthy ecosystem and preservation of native plants is protection against an EWM invasion.



# What Does Eurasian Water-Milfoil (*Myriophyllum spicatum*) Look Like?



Northern water-milfoil (Myriophyllum sibericum)

l Eurasian water-milfoil n) *(Myriophyllum spicatum)* 

EWM 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 (*Myriophyllum sibericum*). It bears a strong resemblance to EWM but it is not prone to the rapid growth and canopy formation that make EWM a nuisance. It is important to be able to distinguish EWM from similar aquatic plants.

- EWM is a submersed aquatic plant with feather-like leaves arranged in whorls (circles) on the stem.
- There are usually 12 to 21 pairs of leaflets per leaf.
- The leaves have a distinct featherlike appearance, with the lower leaflet pairs about half the length of the midrib.
- Stem tips are tassel-like.Branching is abundant

in water 3 to 10 feet deep.