This publication is a handbook for volunteers participating in the Wisconsin Citizen Lake Monitoring Network or Water Action Volunteers stream monitoring program.

NOTES

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AIS EARLY DETECTORS

Early detection of aquatic invasive species (AIS) can be the difference between long-term management and potential eradication—the difference between $$$ and $. Once they become well-established, invasive species can be very difficult to control, and may be impossible to eradicate. Early detection and rapid response to new AIS populations in Wisconsin has resulted in some populations being eradicated from entire waterbodies, including notable invaders like Eurasian watermilfoil, flowering rush, and yellow floating heart (cover photo). The best possible option for a waterbody is to have trained eyes on the water often, so that a suspicious plant or animal can be detected early and quickly responded to.

Your local lake and river monitoring staff and Aquatic Invasive Species Coordinators are ready to help you! They can provide hands-on training, assist with identification, suggest locations to monitor on your lake or river, and more. This is a team effort to stop invasive species from spreading to our favorite fishing spots, our cherished swimming holes, and the peaceful places where we love to observe native plants and animals. We can all do our part. Thank you for being a partner to protect the amazing waters of Wisconsin.

This booklet is adapted from Aquatic Invasive Species Early Detectors: A How-to Guide, produced by the Minnehaha Creek Watershed District, Minnetonka, Minnesota, used with permission.

Produced by the Wisconsin Citizen Lake Monitoring Network, UW-Stevens Point - Extension Lakes Program.
Photos by Paul Skawinski except the following:
Jeff Gunderson, Minnesota Sea Grant (top photo, p. 45);
Jeffrey Thompson, Minnesota Public Radio; (p. 3)
Minnehaha Creek Watershed District; (pp. 8, 12)
Tina Fitzgerald, Minnesota Department of Natural Resources (top photo, p. 38)
Jeff Jackson (top photo, p. 25)
Katy Chayka, Minnesotawildflowers.info (lower photos, p. 25)
Updated April 2023
Know which invasive species are already present in the lake you are monitoring. Lists of invasive species in each waterbody can be found on the Wisconsin Department of Natural Resources website: dnr.wi.gov/lakes/invasives/AISbywaterbody.aspx. Also, you may want to watch our Aquatic Invasive Species Monitoring video that reviews the methods explained in this handbook. Go to Youtube.com and search for Extension Lakes to find our channel, or type in this direct link to the video: https://youtu.be/Yz2AWgsgoAk (case-sensitive)

Determine several locations to sample. Be sure to target boat landings, inlets/outlets, public parks, developed shorelines, and a variety of sediment types (mucky, sandy, etc.). Your own shoreline is also a great place to keep an eye on. Mark these sampling locations on a map so that you can show others where you sampled or found a suspicious species.

Refer to the Assembling a Monitoring Kit section on page 6 to prepare for monitoring. If any of your gear has been used in another waterbody, be sure that it doesn’t contain any plants, animals, or debris that could be holding invasive species.

Inspect your equipment before and after monitoring for any attached plants, animals, or mud.

Remove all attached debris.

Drain water from your boat, motor, live wells, bait buckets, and any other location that holds water.

Lake maps can be found for public lakes across the state by searching for “lake maps” at dnr.wi.gov.
HOW TO PREPARE FOR RIVER OR STREAM MONITORING

1. Know which invasive species are already present in the river or stream you are monitoring. Lists of invasive species in each waterbody can be found on the Wisconsin Department of Natural Resources website: dnr.wi.gov/lakes/invasives/AISbywaterbody.aspx

2. As you float or walk down the river or stream, determine several locations to sample. Be sure to target boat landings, public parks, urban areas, bridges, and a variety of sediment types (mucky, sandy, etc.). Mark these sampling locations on a map so that you can show others where you sampled and found a suspicious species.

3. Refer to the Assembling a Monitoring Kit section on page 6 to prepare for monitoring. If any of your gear has been used in another waterbody, be sure that it doesn’t contain any plants, animals, or debris that could be holding invasive species.

- Inspect your equipment before and after monitoring for any attached plants, animals, or mud
- Remove all attached debris
- Drain water from your boat, motor, live wells, bait buckets, and any other location that holds water
ASSEMBLING A MONITORING KIT

Use the checklist below to assemble an AIS monitoring kit. Items marked with an asterisk (*) can be provided by your Regional Citizen Lake Monitoring Network Coordinator, Project Riverine Early Detectors (RED) Coordinator, or local Aquatic Invasive Species Coordinator.

1) Aquatic plant sampling rake*
2) Waterproof labels*
3) Ziploc bags*
4) Hand lens*
5) Pencil*
6) AIS monitoring forms*
7) Polarized sunglasses
8) Towel to dry your hands and equipment
9) Underwater viewing tube or bucket

A steel rake head (usually with at least 30 feet of rope attached to it) is a very effective aquatic plant sampling tool. You can buy a rake head by itself, or simply cut the handle off of a rake and tie the rope to the head. If desired, a double-sided rake can be made by attaching two rake heads together with cable ties, stainless steel hose clamps, or welding. Double-sided is better, since there will always be rake tines pointed down into the sediment to snag plants.

Waders (10), and snorkeling gear (11) can also be very useful tools for AIS monitoring, but are not required. Volunteers wishing to do a very thorough check of an area may choose to use these items.

Polarized sunglasses reduce glare and allow a person to see much more clearly into the water.

A towel is useful to wipe your hands and your gear!
HOW TO SURVEY FOR AQUATIC INVASIVE SPECIES FROM SHORE

Identify the public boundaries of the site. Beginning at one of the boundaries, conduct the sampling steps outlined below, and repeat these steps at five points spaced about equally between the site boundaries. If your site is less than 20 feet wide, use three sampling points - one on each side, and one in the middle.

1. **Scan** the area for at least 30 seconds, examining plants and animals in the water and any plant fragments/shells that are washed up on shore.

2. **Toss** your sampling rake from shore into the water, aiming for concentrations of plants or anything suspicious that you noticed during your scan. Be sure to hang on to the end of your rope!

If there is a dock or pier, use it as one of your sampling locations. You can sample off of any side of the dock. If you are able to see or touch the legs of the dock, this is a good way to look for zebra mussels.

3. **Retrieve** the rake and examine the attached vegetation and animals. Snails, mussels, and other creatures will often be attached to the vegetation or stuck on the rake itself. Toss the rake 2 times per site, unless you need to toss it again to sample a suspected AIS. Use this handbook to help you identify suspicious plants and animals.

If you find a suspected invasive species on a lake, please record that on your *Aquatic Invasives Surveillance Monitoring* form. If you find a suspected invasive species in a river or stream, please record that on your *Project RED Field Data Collection Sheet*. Then take digital photographs of the invasive species (please include the waterproof label in the photos) and email the photos to your local AIS Coordinator (DNR or county). Please save all suspicious plants and animals in the refrigerator or in a cooler until you hear back. Your AIS Coordinator may ask to see the actual specimen to confirm its identification.

Place a sample of any invasive species in a plastic bag with a waterproof label. Bags, labels, and pencils are included in your monitoring kit. Seal the bag tightly and place it somewhere secure until you can get it into a refrigerator or deliver it to an expert.

4. **Report** what you found. If you did not find any suspected invasive species, that’s great! We want to know the good news! Please enter this information into the Surface Water Integrated Monitoring System (SWIMS) database, or email the *Aquatic Invasives Surveillance Monitoring* form or *Project RED Field Data Collection Sheet* to your local Aquatic Invasive Species Coordinator. Please enter or mail your results by November 1st so we can compile information from across the state.

Who is my local AIS Coordinator? Visit the Wisconsin DNR website at dnr.wi.gov and type “AIS Coordinator” into the search box. Then click on your county to find contact information for AIS staff that cover your area.

If you need help finding this information, please contact:

Paul Skawinski  
(Citizen Lake Monitoring)  
Pskawins@uwsp.edu

Emily Heald  
(Citizen Stream Monitoring)  
Emily.Heald@wisc.edu
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  Emily.Heald@wisc.edu
PHOTOGRAPHING AQUATIC INVASIVE SPECIES

Most aquatic invasive species can be readily identified from a good photograph. Here are some tips to make your specimen easy for your local AIS Coordinator to identify.

**Light it up!** Have the sun or other light source behind you, not behind the object. Shadows make it difficult to see colors and patterns.

**Show scale.** Some species can be differentiated based on size. Use the provided waterproof labels to demonstrate size, or include the ruler at the front of this handbook.

**Have a contrasting background.** Important features of plants and animals can be tough to see against backgrounds that are busy or contain similar colors/textures.
<table>
<thead>
<tr>
<th>INVASIVE</th>
<th>NATIVE</th>
<th>INVASIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazilian waterweed</td>
<td>Common waterweed</td>
<td>Hydrilla</td>
</tr>
<tr>
<td><em>(Egeria densa)</em></td>
<td><em>(Elodea canadensis)</em></td>
<td><em>(Hydrilla verticillata)</em></td>
</tr>
<tr>
<td>• Rings (whorls) of 4-8</td>
<td>• Rings (whorls) of 3</td>
<td>• Rings (whorls) of 4-8</td>
</tr>
<tr>
<td>leaves around the stem</td>
<td>leaves around the stem</td>
<td>leaves around the stem</td>
</tr>
<tr>
<td>• Fine teeth on leaf</td>
<td>• Smooth leaf edges</td>
<td>• Fine teeth on leaf edges</td>
</tr>
<tr>
<td>edges. This usually</td>
<td>• No teeth underneath the</td>
<td>• Teeth are also produced</td>
</tr>
<tr>
<td>requires a hand lens to</td>
<td>leaves</td>
<td>underneath the leaf, along the</td>
</tr>
<tr>
<td>see</td>
<td></td>
<td>centerline</td>
</tr>
<tr>
<td>• No teeth underneath the</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### BRITTLE NAIAD

**Plant type:** Submergent  
**Status:** Prohibited  
**Native look-alike:** Slender naiad  

- Teeth obvious with light magnification  
- Readily breaks into small fragments  
- Leaves curve strongly downward

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### NATIVE

**Slender naiad**  
*Najas flexilis*

- Teeth on edge of leaf require strong magnification to view  
- Flexible  
- Leaves straight or slightly curving

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### INVASIVE

**Brittle naiad**  
*Najas minor*

**Invasive**

**Carolina fanwort**  
*Cabomba caroliniana*

- Leaves on short stalks, attaching on opposite sides of the stem  
- Flower white with a yellow center  
- May have tiny, floating leaves

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### NATIVE

**Water marigold**  
*Bidens beckii*

- Ring/whorl of leaves around the stem  
- Leaves do not have stalks  
- Yellow, daisy-like flower
### CURLY-LEAF PONDWEED

- **Plant type:** Submergent
- **Status:** Restricted
- **Native look-alike:** Clasping-leaf pondweed

### EURASIAN WATERMILFOIL

- **Plant type:** Submergent
- **Status:** Restricted
- **Native look-alikes:** Other watermilfoils, common bladderwort

<table>
<thead>
<tr>
<th>INVASIVE</th>
<th>NATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Curly-leaf pondweed</strong> <em>(Potamogeton crispus)</em></td>
<td><strong>Clasping-leaf pondweed</strong> <em>(Potamogeton richardsonii)</em></td>
</tr>
<tr>
<td>- Leaves are usually very wavy</td>
<td>- Leaves are gently wavy</td>
</tr>
<tr>
<td>- Finely toothed leaf edges</td>
<td>- Leaf edges smooth, no teeth</td>
</tr>
<tr>
<td>- Leaf tips are blunt</td>
<td>- Leaf tips are pointed</td>
</tr>
<tr>
<td>- Leaf base not wrapped around stem</td>
<td>- Leaf base wraps around stem</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INVASIVE</th>
<th>NATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eurasian watermilfoil</strong> <em>(Myriophyllum spicatum)</em></td>
<td><strong>Northern watermilfoil</strong> <em>(Myriophyllum sibiricum)</em></td>
</tr>
<tr>
<td>- 12+ pairs of leaflets per leaf</td>
<td>- 5-10 pairs of leaflets per leaf</td>
</tr>
<tr>
<td>- Stems usually weak and limp, reddish-brown to pink</td>
<td>- Stems tan to green, usually stiff, holding shape out of water</td>
</tr>
<tr>
<td>- Leaves at tip of branches often red</td>
<td>- Leaves at tips of branches usually green</td>
</tr>
</tbody>
</table>
### Invasive

**European frog-bit**

- Plant type: Floating
- Status: Prohibited
- Native look-alike: White water lily

**Common bladderwort**

- Leaves contain many small sacs (bladders) that trap invertebrates
- Stems are unrooted, usually tangled on other vegetation

<table>
<thead>
<tr>
<th>Native Look-Alike</th>
<th>Invasive Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White water lily</strong> (Nymphaea odorata)</td>
<td><strong>European frog-bit</strong> (Hydrocharis morsus-ranae)</td>
</tr>
<tr>
<td><em>Rooted to the bottom</em></td>
<td><em>Free-floating, roots hang below</em></td>
</tr>
<tr>
<td><em>Round leaves with a slit/notch</em></td>
<td><em>Small, heart-shaped leaves (2-3”)</em></td>
</tr>
<tr>
<td><em>Large leaves up to 12” diameter</em></td>
<td><em>Small, white flower, 3 petals</em></td>
</tr>
</tbody>
</table>

### Native

**Whorled watermilfoil**

- 8-17 pairs of leaflets per leaf
- Stems brown or dark green
- Rings (whorls) of leaves packed closely together along the stem

**Common bladderwort**

- Leaves contain many small sacs (bladders) that trap invertebrates
- Stems are unrooted, usually tangled on other vegetation

<table>
<thead>
<tr>
<th>Native Plant</th>
<th>Invasive Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Whorled watermilfoil</strong> (Myriophyllum verticillatum)</td>
<td><strong>Common bladderwort</strong> (Utricularia macrorhiza)</td>
</tr>
<tr>
<td><em>8-17 pairs of leaflets per leaf</em></td>
<td><em>Leaves contain many small sacs (bladders) that trap invertebrates</em></td>
</tr>
<tr>
<td><em>Stems brown or dark green</em></td>
<td><em>Stems are unrooted, usually tangled on other vegetation</em></td>
</tr>
<tr>
<td><em>Rings (whorls) of leaves packed closely together along the stem</em></td>
<td></td>
</tr>
</tbody>
</table>

**Common bladderwort**

- Leaves contain many small sacs (bladders) that trap invertebrates
- Stems are unrooted, usually tangled on other vegetation

**Whorled watermilfoil**

- 8-17 pairs of leaflets per leaf
- Stems brown or dark green
- Rings (whorls) of leaves packed closely together along the stem
FLOWERING RUSH

Plant type: Emergent/submergent
Status: Restricted
Native look-alike: Bur-reeds

FLOWERING RUSH

Flowering rush (Butomus umbellatus)
- Cluster of pink/red flowers held above the plant
- Can be emergent or submergent
- Tall, dark green leaves are triangular in cross-section and often twisted near the top
- Produces small, onion-like growths on the roots called bulbils
- Usually 3-6 feet tall

INVASIVE

Japanese hops (Humulus japonicus)
- Annual, climbing vine
- Opposite leaves, most w/ 5-7 lobes
- Downward-pointing, prickly hairs on stems
- Petiole longer than the leaf

INVASIVE

Japanese hops (Humulus japonicus)
- Annual, climbing vine
- Opposite leaves, mostly w/ 3 lobes
- Nearly hairless stems
- Petiole shorter than leaf

NATIVE

American hops (Humulus lupulus)
- Perennial, climbing vine
- Opposite leaves, mostly w/ 3 lobes
- Nearly hairless stems
- Petiole shorter than leaf
JAPANESE KNOTWEED
Plant type: Shoreline/terrestrial
Status: Restricted

Japanese knotweed
(*Fallopia japonica*)
- Alternate, spade-shaped to heart-shaped leaves
- Thick, hollow, jointed stems
- Creamy white to greenish flowers clustered above the leaves
- Usually 4-10 feet tall, forming large patches or hedges
- One of several large, invasive knotweed species

NARROW-LEAF CATTAIL
Plant type: Emergent
Status: Restricted

Narrow-leaf cattail
(*Typha angustifolia*)
- Leaves 4-10mm wide
- Male and female flowerheads separated by 1” or more
- Pollen is shed as single grains

Notes: Narrow-leaf and broad-leaf cattails can hybridize. Hybrid cattail (*Typha x glauca*) typically has a gap of 1/4” to 1” between the male and female flowerheads, sheds pollen mostly in single grains but also as clusters of two, three, and four, and grows in very dense stands.

BROAD-LEAF CATTAIL
Plant type: Emergent
Status: Restricted

Broad-leaf cattail
(*Typha latifolia*)
- Leaves >12mm (1/2”) wide
- Male and female flowerheads touching, or nearly touching
- Pollen is shed in clusters of four grains

Note: Narrow-leaf and broad-leaf cattails can hybridize. Hybrid cattail (*Typha x glauca*) typically has a gap of 1/4” to 1” between the male and female flowerheads, sheds pollen mostly in single grains but also as clusters of two, three, and four, and grows in very dense stands.
**Parrot feather**

*Myriophyllum aquaticum*

- 6-30 pairs of short leaflets
- Rings/whorls of 4-6 widely spaced leaves
- Can emerge up to 8” from the water

**Phragmites**

*Phragmites australis (ssp. australis)*

- Often more than 10 feet tall
- Large, feathery seedheads
- Dark green to blue-green leaves
- Dull, ridged stem

**Native Phragmites**

*Phragmites australis (ssp. americanus)*

- Usually less than 8 feet tall
- Sparse seedheads
- Bright green leaves
- Smooth, glossy stem, often reddish
<table>
<thead>
<tr>
<th>INVASIVE</th>
<th>NATIVE</th>
<th>INVASIVE</th>
<th>NATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purple loosestrife</strong></td>
<td><strong>Blue vervain</strong></td>
<td><strong>Starry stonewort</strong></td>
<td><strong>Slender stonewort</strong></td>
</tr>
<tr>
<td><em>(Lythrum salicaria)</em></td>
<td><em>(Verbena hastata)</em></td>
<td><em>(Nitellopsis obtusa)</em></td>
<td><em>(Nitella flexilis)</em></td>
</tr>
<tr>
<td>- Flowers pink-purple, with 6 petals, blooming in a tall spike</td>
<td>- Flowers blue, with 5 petals, blooming one ring/whorl at a time</td>
<td>- Rings/whorls of 4-6 branchlets</td>
<td>- Rings/whorls of 4-6 branchlets</td>
</tr>
<tr>
<td>- Leaves have smooth edges and are opposite or in rings/whorls of 3</td>
<td>- Leaves opposite with toothed edges</td>
<td>- Smooth stem</td>
<td>- Smooth stem</td>
</tr>
<tr>
<td>- Square or 6-sided stem</td>
<td>- Square stem</td>
<td>- Uneven forking near end of branchlets</td>
<td>- Symmetrical forking near end of branchlets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Produces 4-8mm, star-shaped bulbils in sediments</td>
<td>- Does not produce bulbils in sediments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Stiff; holds shape out of water</td>
<td>- Delicate; collapses out of water</td>
</tr>
</tbody>
</table>
INVASIVE

Water chestnut
(Trapa natans)
• Triangular, toothed leaves
• Leaf bases are inflated
• Mostly free-floating but with long, feathery leaves dangling below
• Fruits with sharp spines formed underneath the leaves
• Entire plant may be over 1 foot in diameter

INVASIVE

Water hyacinth
(Eichhornia crassipes)
• Leaves are waxy and very shiny
• Leaf base is inflated
• Lavender flower with a purple/yellow spot
• Roots hang below the plant
• Forms interconnected colonies
**WATER LETTUCE**

Plant type: Floating  
Status: Prohibited  
Native look-alike: None

Water lettuce  
(*Pistia stratiotes*)

- Free-floating  
- Roots hang below the plant  
- Leaves are thick, ridged, fuzzy, and light green

**YELLOW FLOATING HEART**

Plant type: Floating  
Status: Prohibited  
Native look-alike: Bullhead pond lily

Yellow floating heart  
(*Nymphoides peltata*)

- Heart-shaped leaves up to 4 inches long  
- Leaves have wavy edges  
- Yellow flowers have five fringed petals  
- Plant is rooted to the bottom

**NATIVE**

Bullhead pond lily  
(*Nuphar variegata*)

- Heart-shaped leaves up to 15 inches long  
- Leaves do not have wavy edges  
- Yellow flower is cup-shaped  
- Plant is rooted to the bottom
### Yellow Iris

*Plant type: Emergent*

*Status: Restricted*

*Native look-alike: Blue-flag Iris*

**Invasive**

Yellow Iris

*Iris pseudacorus*

- 3-5 feet tall
- Leaves are dark green or blue-green
- Flower is yellow
- Center of leaf is sharply thickened

**Native**

Blue-flag Iris

*Iris versicolor & Iris virginica*

- 2-4 feet tall
- Leaves light green
- Flower is blue
- Center of leaf gradually thickened
**INVASIVE**
Asian clam / freshwater golden clam *(Corbicula fluminea)*
- Distinctly raised rings on shell
- Up to 2 inches across
- Shell yellow-brown, often blue inside, solid and thick
- Three large hinge teeth on each shell

**INVASIVE**
Chinese mystery snail *(Cipangopaludina chinensis)*
- Up to 3 inches tall
- Dark brown shell, often with short ridges near the shell opening

**NATIVE**
Fingernail clams *(multiple species)*
- Rings of shell not distinctly raised
- Under 1 inch across
- Shell light to dark brown and white inside
- Shell translucent and thin
- 1 or 2 teeth at the hinge

**INVASIVE**
Banded mystery snail *(Viviparus georgianus)*
- 1-1.5 inches tall
- Horizontal brown bands on shell
- Bands may be hidden by algae or sediment

**NATIVE**
Native look-alike: Fingernail clams

**INVASIVE**
Asian clam / freshwater golden clam

**INVASIVE**
Chinese mystery snail

**NATIVE**
Fingernail clams

**NATIVE**
Native look-alike: Brown mystery snail
INVASIVE

NEW ZEALAND MUDSNAIL
Status: Prohibited
Native look-alike: Several other small snails. Consult an expert for verification.

Faucet snail
(Bithynia tentaculata)
- Small, 12-15mm long (1/2 inch)
- Light brown to black
- 5-6 spirals
- Shell opening is on right side and teardrop-shaped

INVASIVE

New Zealand mudsnail
(Potamopyrgus antipodarum)
- Very small, 4-6mm long (1/8-1/4 inch)
- 7-8 spirals separated by deep grooves
- Gray to brown
- Shell opening is on right side
- Typically found in cold streams

FAUCET SNAIL
Status: Prohibited
Native look-alike: Several other small snails. Consult an expert for verification.
### INVASIVE

<table>
<thead>
<tr>
<th>Red swamp crayfish (Procambarus clarkii)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Very large, to 5 inches+</td>
</tr>
<tr>
<td>- Red color with raised spots</td>
</tr>
<tr>
<td>- Plates of carapace touch along the center of the back (lower photo)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>White river crayfish (Procambarus acutus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Very large, to 5 inches+</td>
</tr>
<tr>
<td>- Red color with raised spots</td>
</tr>
<tr>
<td>- Plates of carapace DO NOT touch along the center of the back (lower photo)</td>
</tr>
</tbody>
</table>

### NATIVE

<table>
<thead>
<tr>
<th>Round goby (Neogobius melanostomus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Commonly 3-6 inches long</td>
</tr>
<tr>
<td>- Round head with bulging eyes</td>
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<td>- Pelvic fins on underside are fused into one circular fin</td>
</tr>
<tr>
<td>- Dark spot on back of dorsal fin</td>
</tr>
</tbody>
</table>

### INVASIVE

<table>
<thead>
<tr>
<th>Round goby (Neogobius melanostomus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Commonly 3-6 inches long</td>
</tr>
<tr>
<td>- Round head with bulging eyes</td>
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</tr>
</tbody>
</table>

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**RED SWAMP CRAYFISH**

Status: Prohibited  
Native look-alike: White River crayfish

**ROUND GOBY**

Status: Restricted  
Native look-alike: Sculpins
INVASIVE

SPINY WATER FLEA
Status: Prohibited
Native look-alike: none

RUSTY CRAYFISH
Status: Restricted
Native look-alike: Several native crayfishes

Rusty crayfish
(Orconectes rusticus a.k.a. Faxonius rusticus)
- Rusty brown spot on each side
- Body is mostly light brown
- Up to 5 inches long
- Claws have black and orange bands

INVASIVE

Spiny waterflea
(Bythotrephes longimanus)
- About 1cm (3/8”) in length
- Very long tail spine
- Often seen as clumps on fishing line, anchor lines, downriggers

INVASIVE
Wisconsin's Citizen Lake Monitoring Network and the Water Action Volunteers stream monitoring program support more than a thousand volunteers like you as they monitor the health of Wisconsin's lakes and streams. This information is used to assess the health of our waters, develop management plans and invasive species management strategies, identify long-term trends, evaluate effects of land use practices, and more.

Visit these websites to learn more!
uwsp.edu/uwexlakes
www.wateractionvolunteers.org