















## **ROUND GOBY**

Neogobius melanostomus

## WHAT IS IT?

The 3-6" long goby has a single suction-cup shaped pelvic fin (bottom fin in front of belly). It came from Europe and Asia to the U.S. in water carried in the bottom of sea-going ships.

## WHAT'S THE PROBLEM?

The goby pushes native fish from their habitat, eats their eggs and young, survives in poor water quality and spawns several times a year. It's tough competition for our native fish!

## WHAT CAN I DO?

- Learn how to identify round gobies.
- If you catch a goby, kill it.
- Don't throw it back into the water alive!

## WILD!

A round goby's eyes bulge like a frog's eyes! http://dnr.wi.gov/invasives

WT-734 2005

Photo: © David Jude

Recycled paper





## **CURLY-LEAF PONDWEED**

Potamogeton crispus

## WHAT IS IT?

This underwater plant usually grows in lake water 3 to 10 feet deep. Its wavy leaves with fine-toothed edges make it appear "crispy." It was accidentally introduced when common carp were stocked in North America.

## WHAT'S THE PROBLEM?

This invader grows well in cold temperatures, even under ice. It begins early in the spring, and shades out native plants, forming dense mats that make it tough to boat or swim. When curly-leaf pondweed dies back in mid-summer it releases nutrients, which can cause algal blooms and other problems. It's easily spread by boats and trailers.

## MANAGEMENT

- Physical removal (DNR permit required except for raking and hand-cutting)
- Aquatic herbicides (with DNR permit only)

This plant peaks by Memorial Day, often dying back by the 4th of July!

http://dnr.wi.gov/invasives

Main photo: V. Ramey, Center for Aquatic and Invasive Plants, University of Florida

Inset photo: F. Koshere, WI DNR

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## THREE SPINE STICKLEBACK

Gasterosteus aculeatus

## WHAT IS IT?

These 2½" long fish have three stiff spines on their back in front of their top fin (dorsal fin). Native to the Atlantic coast, sticklebacks probably swam here through the St. Lawrence Seaway and the Welland Canal that bypasses Niagara Falls.

## WHAT'S THE PROBLEM?

These fish cause a problem for our native fish because they like to eat the same food as they do.

## WHAT CAN I DO?

- Learn how to identify three spine sticklebacks.
- If you catch a stickleback, kill it.
- . Don't throw it back into the water alive!

Sticklebacks can lock their spines in the upright position to repel predators.

http://dnr.wi.gov/invasives

WT-735 2005

Painting: John Lyons, WI DNR

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## SEA LAMPREY

Petromyzon marinus

## WHAT IS IT?

These eel-like fish, up to 36" long, have round sucking mouths. They invaded the Great Lakes from the Atlantic Ocean through the Welland Canal that bypasses Niagara Falls.

# WHAT'S THE PROBLEM?

They are parasites! They attach to the sides of fish, suck out their blood and body fluids and can cause the fish to die. Once they get into an area it is very hard to get rid of them. It costs taxpayers about \$15 million each year to control lampreys.

## WHAT CAN I DO?

- · Learn how to identify lampreys.
- · If you catch a lamprey, kill it.
- · Don't throw it back into the water alive!

A single lamprey can kill up to 40 lbs. of fish in its lifetime. http://dnr.wi.gov/invasives WT-737 2005

Photo: Great Lakes Sea Grant Network Exotic Species Graphics Library Recycled paper

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## RUSTY CRAYFISH

Orconectes rusticus

## WHAT IS IT?

Rusty crayfish have larger claws than most other native crayfish species with dark, rusty spots on each side of their carapace (middle part of their outer body.)

## WHAT'S THE PROBLEM?

Rusty crayfish feed very aggressively on aquatic plants reducing the abundance of vegetation in many northern Wisconsin lakes. They also are very prolific and reduce native crayfish populations

## WHAT CAN I DO?

- Learn how to identify rusty crayfish.
- · Don't transport them from lake to lake by using them as fishing bait.

## WILD!

Female rusty crayfish can lay from 80-575 eggs! http://dnr.wi.gov/invasives

Photo: WI DNR

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# RUFFE (RHYMES WITH TOUGH)

Gymnocephalus cernuus

## WHAT IS IT?

The ruffe has a perch-like body shape with spots on the dorsal fin; it is usually less than 6" long. It is native to Europe and Asia and was introduced to the United States in water carried in the bottom of sea-going ships.

## WHAT'S THE PROBLEM?

Ruffe cause problems for our native fish because they like to live in the same habitat and eat the same food as our native fish. The ruffe is a tough competitor that can displace our native fish.

## WHAT CAN I DO?

- · Learn how to identify ruffe.
- If you catch a ruffe, kill it.
- · Don't throw it back into the water alive!

## WIID

It's very SLIMY!

http://dnr.wi.gov/invasives

Painting: Gary Cholwek

**EXTENSION** 



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# can reproduce without males, and resting female can survive for weeks out of water Clean waterfleas from your fishing line, and drain all wa (livewells, bilges) before going to another waterbody Extension

WHITE PERCH

ih look similar to native yellow perch and except they don't have distinctive stripes on Native to the Atlantic Coast, they invaded the Welland Canal that by passes hisgara falls. They are a popular sport fish and are commercially harvested in the fastern United States. white bass, except they don't he their sides. Native to the Atlant Great Lakes through the St. Lav Welland Canal that bypasses Ni WHAT IS IT?
White perch look similar WHAT

HAT'S THE PROBLEM?
eat the eggs of native game fish like walleye and
mouth bass and compete with the adults for food WHAT'S

CANI They eat the small mouth band habitat. WHAT

**DO**3

Learn to identify white perch If you catch a white perch, kill it, and dispose of it in the trash

WILD

It is not really a perch, but actu white, yellow and striped bass!

but actually a relative of the

www.dnr.state.wi.us/org/caer/ce/invasives

WISCONSIN CONSTAL MANAGEMENT PROCRAM

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Photo: John Lyons, WI DNR Recycled paper PINY AND FISHHOOK WATERFLEA

Main photo shows view of fishhook (top) and spiny (bottom) waterfleas. Inset shows mass of waterfleas on a fishing line. w AR

They are tiny (< ½ inch) crustacean predators that have long, spiny tails. They are native to Europe and Asia and were brought to the Great Lakes in water carried in the bottom of sea-going ships. WHAT

WHAT'S THE PROBLEM?
They compete with small fish for food. Young fish have difficulty eating these waterfleas due to their long spiny tails. They collect in masses and foul fishing lines and equipment.

WHAT CAN I

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Learn to look for waterflea masses

WILD!

www.dnr.state.wi.us/org/caer/ce/invasives Some females c eggs in a dead fe

WISCONSIN CONSTR.
MANAGEMENT PROCESSAM photo: Minnesota Sea Grant

Lakes

Main photo, Hank Vanderploeg, NOAA Great Environmental Research Laboratory