

# Aquatic Invasive Species (AIS) of the Great Lakes Region

## Aquatic Invasives in the Great Lakes Region

Aquatic invasive species in the Great Lakes Region include both plants and animals which are mostly spread through human activities such as boating and fishing. Once introduced to bodies of water these species proliferate, disrupting the food chain and damaging native fish populations.

## Aquatic Invasive Plants



Reed Canary Grass  
Leslie Mehrhoff, University of Connecticut



Phragmites  
Leslie Mehrhoff, University of Connecticut



Purple Loosestrife  
Linda Wilson, University of Idaho



Eurasian Watermilfoil  
Alison Fox, University of Florida

Phragmites and Reed Canary Grass  
The Eurasian varieties of both these grasses are more aggressive, crowding out native wetland plant species. These sod-forming perennial wetland grasses are very difficult to eradicate. They reproduce by seed or creeping rhizomes (roots). A large part of the Lake Michigan shoreline from Escanaba to Green Bay is infested with phragmites.

Purple Loosestrife is a plant brought by settlers to the United States in the 1800's. Where rooted, it rapidly overtakes native wetland vegetation, decreasing plant diversity and negatively impacting wildlife habitat. It has an extensive root system that makes controlling this invasive difficult.

Eurasian Watermilfoil (EWM) is spread by boats moving from infested to non-infested waters. EWM reproduces from stem fragments and underwater runners. EWM crowds out native plants needed to support a lake fishery. The plant grows in mats clogging waterways; limiting recreation uses such as swimming and fishing.

## What can you do to Reduce the Spread of Aquatic Invasive Species?

### STOP AQUATIC HITCHHIKERS!

Prevention by Michigan boaters (by cleaning their boats, trailers and fishing equipment when leaving the water and inspecting and removing mud and other debris before launching) can go along way toward keeping our Michigan waters free of aquatic invasive species.

**PREVENT** transport of aquatic invasive species.

**CLEAN** all recreational equipment

**INSPECT** watercraft, trailer , and equipment.

**REMOVE** visible aquatic plants, zebra mussels, other animals and mud before leaving any water access.

**DRAIN** water from boat, bilge, and livewell by removing drain plug and opening all water draining devices. REgulations require this when leaving any body of water in Michigan

**DISPOSE** of unwanted worms, minnows, fish parts and roe in the trash.

**SPRAY/WASH** recreational equipment with high pressure and/or hot water (120 degrees or higher)

OR

**DRY** everything at least five days before going to other waters.

## Aquatic Invasive Animals



Zebra Mussels  
Randy Westbrooks, U.S. Geological

Zebra and Quagga Mussels  
These prolific invaders were introduced into the Great Lakes in ballast water of transoceanic ships in the 1980s. While known for clogging water intake pipes, the Zebra mussel is similar to the Quagga mussel in that they are both filter feeders. They have the ability to remove large amounts of phytoplankton, negatively affecting the basis of the food chain for sports fish.



Round Goby  
This bottom-dwelling fish reduces native fish populations by taking over spawning habitat, reproducing several times a season, and consuming native fish eggs and young.



Asian Carp  
Two species of Asian carp, the silver carp and the bighead carp, are considered invasive. They both escaped aquaculture and may pose a serious threat to the Great Lakes commercial fishery.



Eurasian Ruffe  
Pronounced "rough", this fish aggressively competes with native fish for food and habitat.



Rusty Crayfish  
Used for bait, they were introduced into the Great Lakes streams by fisherman disposing of them inappropriately. This crayfish competes with other native species for food and space.



Spiny and fishhook water flea  
Both water fleas arrived in ship ballast water from Eurasia in the 1980s. Both are predacious crustaceans disrupting the food chain.