



DESMOINES LAKE MEETING 3 (AIS)

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WHAT ARE AQUATIC INVASIVE SPECIES (AIS)?

AIS are aquatic plants, animals, algae, or viruses that are not native to the region they were transplanted to.

AIS could have been intentionally introduced to a nonnative environment or transported unintentionally through various ways.

Top to bottom: Water Hyacinth, Giant Knotweed, Curly Leaf Pondweed



HOW DID AIS ARRIVE HERE?



The most common transportation vectors of AIS are through the shipping industry, aquaculture trade, recreational boater movements, hunters and anglers, and the pet trade.

The Clean Boats, Clean Waters (CBCW) program in Wisconsin helps to target recreational boaters, anglers, and hunters. The other mechanisms of spread often have specialized programs developed by the Wisconsin Department of Natural Resources (WDNR).

Burnett County is often referred to as “Wisconsin’s premier northwest,” and to keep this slogan relevant, AIS must be slowed or prevented from invading the County’s water resources.

WHY ARE AIS A PROBLEM?

No matter how they arrived to an area, AIS have a significant impact on the natural environment, the economy, and culturally significant resources.

Each species poses a unique risk – some species having a higher impact than others.

WHAT AIS DOES DESMOINES LAKE HAVE?



Banded Mystery Snail

Photo by Paul Skawinski



Purple Loosestrife

Photo by Paul Skawinski



Chinese Mystery Snail

Photo by Tom Boisvert

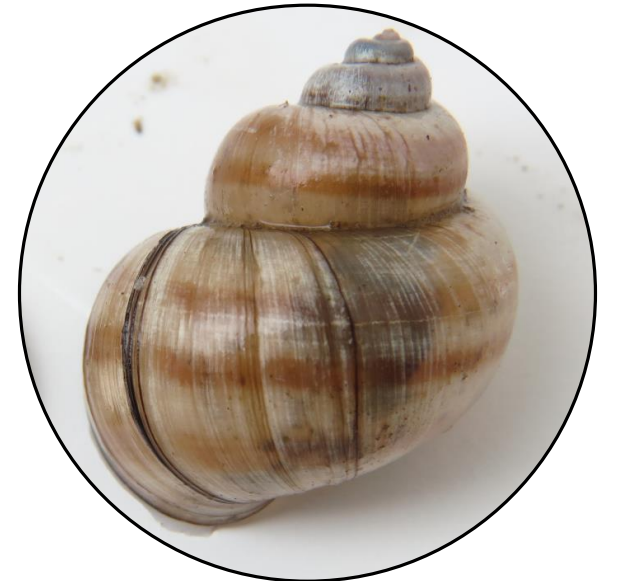
BANDED MYSTERY SNAIL

Up to 1.5" tall, dark brown horizontal bands. The rest of the shell may be white due to sun bleaching.

Impacts are poorly understood, but they do tend to outcompete our native brown mystery snails.

Simply more numerous and aggressive than our native snails.

No effective control.



PURPLE LOOSESTRIFE

Imported from Europe for gardens (late 1800's), and seeds were accidentally brought here through soil ballasts.

Crowds out native wetland/shoreland species, and is know to form a monoculture (the only plant species growing in an area).

Spread rapidly – each plant can produce 1 million seeds annually. Beyond this, fragmentation of the plant can sprout new colonies.

Controlled by manual removal, herbicide, or biocontrol methods.



CHINESE MYSTERY SNAIL

Up to 3" tall, uniform in brown color. Sometimes covered in algae.

Impacts are poorly understood, but they do tend to outcompete our native brown mystery snails.

Simply more numerous and aggressive than our native snails.

Populations of these snails tend to be very cyclic, and at the peak of the cycle their numbers may become a nuisance.

No effective control.



ZEBRA MUSSELS

Ballast water introduction to the Great Lakes in the 1980's. Spread by recreational boaters in inland lakes by incidental water transport.

Attach to any firm or semi-firm surface – their numbers may reach tens of thousands per square meter!

Are microscopic in early life stages (veligers). One zebra mussel can produce 1 million eggs each season.

One zebra mussel filters a liter of water every day! This can cause clearer water, but that water often becomes “sterile”.

No effective control.



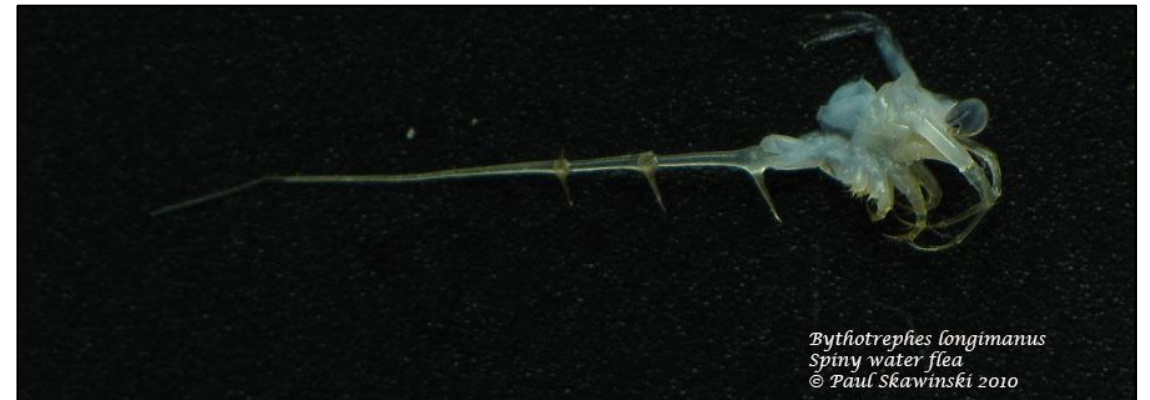
SPINY WATERFLEA

Ballast water introduction into the Great Lakes in 1980's. Spread by recreational boaters in inland lakes by incidental water transport.

Eat zooplankton and harm native fish. Their spines get caught in gills, and when swallowed may cause internal bleeding.

Cause an effect on the bottom of the food web, and may lead to diminished food abundance for young fish. Fishing line tends to “snag” SWF and can lead to fishing gear failure.

No effective control.



YELLOW IRIS

Imported from Eurasia for ornamental purposes.

Crowds out native wetland/shoreland species, and is known to form a monoculture (the only plant species growing in an area).

Spread rapidly – each plant produces seeds and spreads by rhizome yearly. Beyond this, fragmentation of the plant can sprout new colonies.

Controlled by manual removal or herbicide.



EURASIAN WATER-MILFOIL

First found in Wisconsin during the 1960's, and since then has spread to hundreds of lakes throughout the state.

Can form dense mats that change aquatic habitats, can slow water flow, and impede recreation.

Spreads through fragmentation. Only 1" of this plant is needed to create a whole colony. Many infestations are clones from an original plant fragment introduced to a waterbody.

Controlled by careful manual removal (hand, DASH harvesting), weevil biocontrol, herbicide application, and sunlight depravation.



CURLY LEAF PONDWEED

Introduced through ballast water, aquarium dumping, and/or common carp stocking programs.

Typically grows from October to June. This can cause problems as the plant dies mid summer leaving lots of decaying plant matter potentially causing algae blooms.

Spreads by turions (a condensed plant fragment).

Very common in Burnett County.

Controlled primarily by herbicides.



TOO MANY SPECIES OF AIS...

We have discussed some of the “common” and “high profile” AIS during this presentation.

There are dozens more species of AIS that could be discussed.

If we did not cover a species that you would like to know more about please contact Tom Boisvert at tboisvert@burnettcounty.org

REGULATIONS IN PLACE TO SLOW AIS SPREAD

WDNR Regulations:

- **Inspect** boats, trailers, and equipment.
- **Remove** all attached aquatic plants and animals.
- **Drain** all water from boats, vehicles, and equipment.
- **Never Move** plants or live fish away from a waterbody.



Burnett County “Decontamination Ordinance”. Chapter 18 (Environment), Article 5 (Aquatic Plant and Invasive Animals).

“If a decontamination station is available for use at a public or private access, the boater shall decontaminate per posted directions using the decontamination station provided.”

BURNETT COUNTY AIS MONITORING ON DESMOINES LAKE

Aquatic Invasive Species (AIS) Monitoring:

- AIS Early Detection surveys around the perimeter of the lake (2020 most recent)
- Boat landing AIS inspections (yearly)
- Zebra Mussel Monitoring (2020 most recent)
- Purple Loosestrife Control via beetles and manual removal (2020 most recent)



WHAT YOU CAN DO

Follow the State and County regulations that were previously mentioned.

Never release pets or animals into the wild.

Know what plants you are buying – research them before hand to make sure they are not an invasive species. Buying native plants is the safest and best option.

Volunteer!

Research!

<https://www.uwsp.edu/cnr-ap/UWEXLakes/Documents/programs/CLMN/AISfactsheets/ALL%20species.pdf>

CLEAN BOATS, CLEAN WATERS (CBCW)

The Clean Boats, Clean Waters watercraft inspection program is an opportunity to take a front line defense against the spread of aquatic invasive species.

Through the Clean Boats, Clean Waters program, inspectors are trained to organize and conduct a boater education program in their community.

Inspectors perform boat and trailer checks for invasive species, distribute informational brochures and collect and report any new water body infestations.



CITIZEN LAKE MONITORING NETWORK (CLMN)

The Citizen Lake Monitoring Network (CLMN) creates a bond between 1000+ citizen volunteers statewide and the Wisconsin Lakes Partnership. The CLMN goal is to collect high-quality lake monitoring data, educate and empower our volunteers, and share our data to inform lake management.

Volunteers monitor have the option to monitor the following:

- Water clarity
- Water chemistry
- Ice on/off data
- Aquatic Invasive Species
- Native Aquatic Plants



TRAININGS

Burnett County can offer trainings to individuals interested in joining the CBCW and CLMN programs.

Burnett County can also offer additional AIS and native plant identification trainings.

It is best if the lake association gathers enough interest before a training is pursued.

REPORT POSSIBLE NEW AIS FINDINGS

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