

What is an invasive species?

An invasive species is

1. A species that is non-native to the ecosystem/region it has entered
- AND
2. Causes or is likely to cause economic or environmental harm or harm to human health

Aquatic invasive species (AIS) impede recreation (swimming, boating, fishing), reduce native biodiversity, and alter food webs. Control and eradication of AIS is difficult and can cost up to billions of dollars.

AIS have been introduced to the US from other regions of the world through pathways such as ship ballast water and aquaria trade, and have since spread between our waterways by animals, through connected waterways, **AND through over land transport by people on boats, trailers, and equipment.**

This is where you can help!



STOP AQUATIC HITCHHIKERS!

CLEAN remove any organisms found on your boat, trailer, or equipment & dispose of in the trash or an invasive disposal station and wash before going to a new waterbody (high heat and high pressure is best)

DRAIN bilge, live wells, ballast tanks and any other compartments with standing water

DRY (or disinfect) your boat, trailer, and all equipment completely before entering another waterbody

See <http://www.dec.ny.gov/animals/48221.html> for more info

Prevention is the key!

NYS Environmental Conservation Law Chapter V Part 576 effective May 25, 2016:

“no person shall launch, or attempt to launch, a watercraft or floating dock into a public waterbody unless the following reasonable precautions of (a) cleaning, (b) draining, and (c) treating have been taken”. For further info see <http://www.dec.ny.gov/regulations/regulations.html>

Applies to all boat access points on public waterbodies

- Whether a public or private launch
- Requires draining of watercraft, bilge, live wells, bait wells, ballast water, etc. prior to launching and retrieving

We're here to help you learn and comply! Look for boat stewards at public launches across the state.



Questions?

Do you think you found an invasive species?
Have an invasive species and not sure what to do?

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Aquatic Invaders of the Region



Capital/Mohawk PRISM
Partnership for
Regional Invasive
Species Management

Animals

Threat

Spiny Waterflea (*Bythotrephes longimanus*)



Type of zooplankton (microscopic animal living in the water column); Attach as clusters to fishing lines and downriggers (left); Eat large quantities of native zooplankton, which reduces predation on algae, and compete with small native fish for food; Not nutritious for larger fish.



Zebra Mussel (ZM, *Dreissena Polymorpha*)



Quagga Mussel (QM, *Dreissena bugensis*)



Filter feeders: 1 ZM can filter 1-2 liters of water a day. When feeding they can reject potentially toxic blue-green algae, eating the more beneficial algae in a lake. Larvae called 'veligers' are microscopic and planktonic, easily transported in pools of water on boats (important to drain your boat and let dry!). QM are slightly larger than ZM and can grow at deeper depths. Both can clog pipes and will cut your feet if stepped on. Identify: ZM shell will stand up on a flat surface and QM will not.

Others to look out for...

Asian Clam (*Corbicula fluminea*)



Rusty Crayfish (*Orconectes rusticus*)



Chinese & Banded Mystery Snails (*Cipangopaludina chinensis* & *Viviparus georgianus*)



Goldfish (*Carassius auratus*)



Plants

Threat

Water Chestnut (*Trapa natans*)



Very distinct!

Floating triangle-shaped leaves arranged in a rosette with air bladders built into stem, roots are not deep (easy to pull); seed pod has sharp spines that easily attach to soft parts of boats and trailers, equipment, and animals. Creates a dense floating bed with high temperature and low oxygen conditions underneath, depleting any previously available habitat for other organisms.

Eurasian Watermilfoil (*Myriophyllum spicatum*)



Cayuga County

Has been established in the US since the late 1800s, now very common in regional lakes with public access. Leaves are whorled around stem in groups of 3-5; whorls are at least an inch apart from each other on the stem. Tips of leaves look as though they have been clipped. Grows densely and can grow to the surface causing problems for boaters, swimmers, and the ecosystem.

Curly Leaf Pondweed (*Potamogeton crispus*)



The only known invasive of over 90 species of pondweeds. Turions (seed pods) can remain viable in lake bottom sediment for multiple years. Starts growing in early spring getting a head start to native plants, but dies off for the season by late June/early July; a dense bed dying back at once can cause oxygen loss in the water column. Curled 'lasagna-like' leaves make curly leaf pondweed distinct from other pondweeds.

Others to look out for...

European Frogbit (*Hydrocharis morsus-ranae*)



Brittle Naiad (*Najas minor*)



In other regions of NYS...

Help to detect these species quickly and keep them out of the Capital/Mohawk; See PRISM map on back



Hydrilla (*Hydrilla verticillata*)

Confirmed: Lower Hudson PRISM, Finger Lakes PRISM, Western NY PRISM



Round Goby (*Neogobius melanostomus*)

Confirmed: Finger Lakes PRISM, Western NY PRISM, SLELO PRISM, Lake Ontario and Lake Erie



Starry Stonewort (*Nitellopsis obtusa*)

Confirmed: Western NY PRISM, Finger Lakes PRISM, CRISP, SLELO PRISM



Variable Leaf Milfoil (*Myriophyllum heterophyllum*)

Confirmed: APIPP, SLELO PRISM, Finger Lakes PRISM, Lower Hudson PRISM, LIISMA



Fanwort (*Cabomba caroliniana*)

Confirmed: APIPP, SLELO, CRISP, Lower-Hudson PRISM, LIISMA