

# “Least wanted” AIS list

GREAT LAKES  
ST. LAWRENCE  
GOVERNORS  
& PREMIERS



The Great Lakes and St. Lawrence Governors and Premiers have identified the “least wanted” aquatic invasive species (AIS) that present an imminent threat to the Great Lakes-St. Lawrence River region. In 2013, the Governors and Premiers committed to take priority action on the transfer of these species to and within the region. Since then, the states and provinces have taken more than 90 separate actions to restrict these high-risk AIS, and the US federal government has similarly restricted four of the species. The list includes:



## Bighead carp

*Hypophthalmichthys nobilis*

Bighead carp feed on plankton, a primary food for many native fish including walleye, yellow perch, lake whitefish and all juvenile fish. They pose a risk to the \$7 billion fishing industry in the Great Lakes.



## Silver carp

*Hypophthalmichthys molitrix*

Similar to bighead carp in their feeding habits, silver carp pose additional threats to boating and tourism throughout the Great Lakes. The fish also are prone to leap out of the water, posing a threat to boaters and the region's \$16 billion dollar boating industry.



## Grass carp

*Ctenopharyngodon idella*

Grass carp eat aquatic vegetation and degrade aquatic habitats. They contribute to algal blooms, damage wetland ecosystems, and jeopardize waterfowl habitat.



## Black Carp

*Mylopharyngodon piceus*

Black carp consume up to 20% of their body weight per day eating mussels and snails. If they become established in the Great Lakes, black carp could pose a major threat to native mussels and snails, and compete with native fish.



## Northern snakehead

*Channa argus*

Northern snakehead may compete with and consume native fish species. They can survive in waters with low oxygen levels, giving them a competitive advantage over native species.



## Stone moroko

*Pseudorasbora parva*

Stone moroko, one of Europe's most invasive species, compete with fish species for food, consume native juvenile fishes, act as a vector for infectious fish diseases, and contribute to eutrophic conditions.



## Zander

*Sander lucioperca*

Zander can force native fish, including perch, out of its preferred habitat. Direct competition with native walleye, one of the prized species in the Great Lakes, would be likely. The high climate match of this species in the Great Lakes indicates the potential risk of invasion.



## Wels catfish

*Silurus glanis*

Wels catfish is a very large, voracious predator and a serious threat to the populations of native fish and other vertebrates. They can transmit parasites and pathogens, and can negatively impact water quality.



## Tench

*Tinca tinca*

Tench have been documented in 38 states. They can survive in low oxygen, degraded waters, but it is unclear whether they cause these conditions or are simply filling a niche that native species cannot.



### Killer shrimp

*Dikerogammarus villosus*

Killer shrimp is capable of consuming a variety of prey and outcompeting other species. Shortly after invading a new area, it can eliminate a wide range of species from the ecosystem. Killer shrimp have the potential to be transported to the Great Lakes via untreated ballast water discharges.



### Yabby (crayfish)

*Cherax destructor*

Yabby has a rapid growth rate, high spawning frequency, extended breeding period with multiple spawning events. They reach maturity at age one, which helps facilitate rapid establishment in and destruction of a new habitat.



### Golden mussel

*Limnoperna fortunei*

Golden mussel has the potential to affect the diversity of native mollusk communities and disrupt food webs through prolific colonization and extremely high filter feeding rates. Dead mussels clog small water pipes at industrial facilities.



### Marmorokreb (marbled crayfish)

*Procambarus fallax forma virginalis*

Marmorokreb are reported to tolerate a broad range of environmental conditions. As an omnivore, it can use a diverse range of food sources, and native predators are unlikely to be able to control their rapidly-reproducing populations.



### New Zealand mud snail

*Potamopyrgus antipodarum*

The New Zealand mud snail can reproduce rapidly and create massive colonies. It may outcompete or displace native snails, mussels, and aquatic insects which native fish species depend on for food.



### Hydrilla

*Hydrilla verticillata*

Hydrilla is perhaps the worst aquatic weed in the United States. Plants form large, dense populations which displace native species, restrict flow, and impair small boat navigation and other recreational uses. Hydrilla can be transported to new waters by recreational boats and is already present in the Midwest.



### Brazilian elodea

*Egeria densa*

Populations of Brazilian elodea dominate the environment by vigorous growth. The spread of this plant is most likely the result of human activity since it is perhaps the most universally available aquarium plant.



### Water soldier

*Stratiotes aloides*

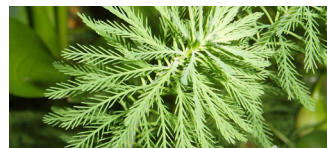
Water soldier crowds out native vegetation resulting in decreased plant biodiversity. Dense floating mats hinder boating, angling and swimming, and sharp serrated leaf edges can cut swimmers.



### European water chestnut

*Trapa natans*

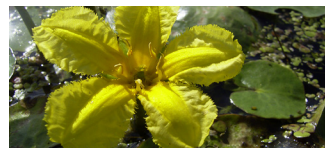
Water chestnut forms dense floating mats that severely limit light, reduce oxygen levels, and compete with native species. Water chestnut also limits recreational activities and, if stepped on, can cause painful wounds.



### Parrot feather

*Myriophyllum aquaticum*

Parrot feather is dense and can completely colonize small ponds and impede water flow in drainage ditches and irrigation canals. It may also outcompete and replace native species that are more important to fish and wildlife. Parrot feather poses a threat through water garden or aquarium trade, and may be dumped into local waters.



### Yellow floating heart

*Nymphoides peltata*

Yellow floating heart can create dense mats that shade out native aquatic plants, decrease oxygen levels, increase mosquito breeding habitat, and impede boating activity, fishing, and swimming.



### European frogbit

*Hydrocharis morsus-ranae*

Mats of European frogbit can grow so thick that they impede boat traffic and movement of large fish and diving ducks. Large mats prevent nutrients and light from reaching submerged vegetation.