

Zebra mussel (*Dreissena polymorpha*)

Species and Origin: Zebra mussels and a related species, the Quagga mussel, are small, fingernail-sized animals that attach to solid surfaces in water. Adults are 1/4 to 1 1/2 inches long and have D-shaped shells with alternating yellow and brownish colored stripes. Female zebra mussels can produce 100,000-500,000 eggs per year. These develop into microscopic, free-living larvae (called veligers) that begin to form shells. After two-three weeks, the microscopic veligers start to settle and attach to any firm surface using "byssal threads". It is the only freshwater mussel that can attach to objects. They are native to Eastern Europe and Western Russia and were brought over to the Great Lakes in ballast water of freighters. Populations of zebra mussels were discovered in the Great Lakes about 1988.

Impacts: Zebra mussels can cause problems for lakeshore residents and recreationists. Homeowners that take lake water to water lawns can have their intakes clogged.

Mussels may attach to motors and possibly clog cooling water areas. Shells can cause cuts and scrapes if they grow large enough on rocks, swim rafts and ladders. Anglers may lose tackle as the shells can cut fishing line. Zebra mussels can also attach to native mussels, killing them. Zebra mussels filter plankton from the surrounding water. This filtering can increase water clarity, which might cause more aquatic vegetation to grow at deeper depths and more dense stands. If a lake has high numbers of mussels over large areas, this filter feeding could impact the food chain, reducing food for larval fish.

Status: They have spread throughout the Great Lakes and the Mississippi River from Brainerd downstream, and are now in other rivers and inland lakes. They are established in Minnesota and were first found in the Duluth/Superior Harbor in 1989. The [Infested Waters PDF](#) (110kb) list provides details of current infestations. Diving ducks, freshwater drum (sheepshead), and other fish eat zebra mussels, but will not significantly control them.

Means of spread: Mussels attach to boats, nets, docks, swim platforms, boat lifts, and can be moved on any of these objects. They also can attach to aquatic plants, making it critical to remove all aquatic vegetation before leaving a lake. Microscopic larvae may be carried in water contained in bait buckets,



Zebra mussels



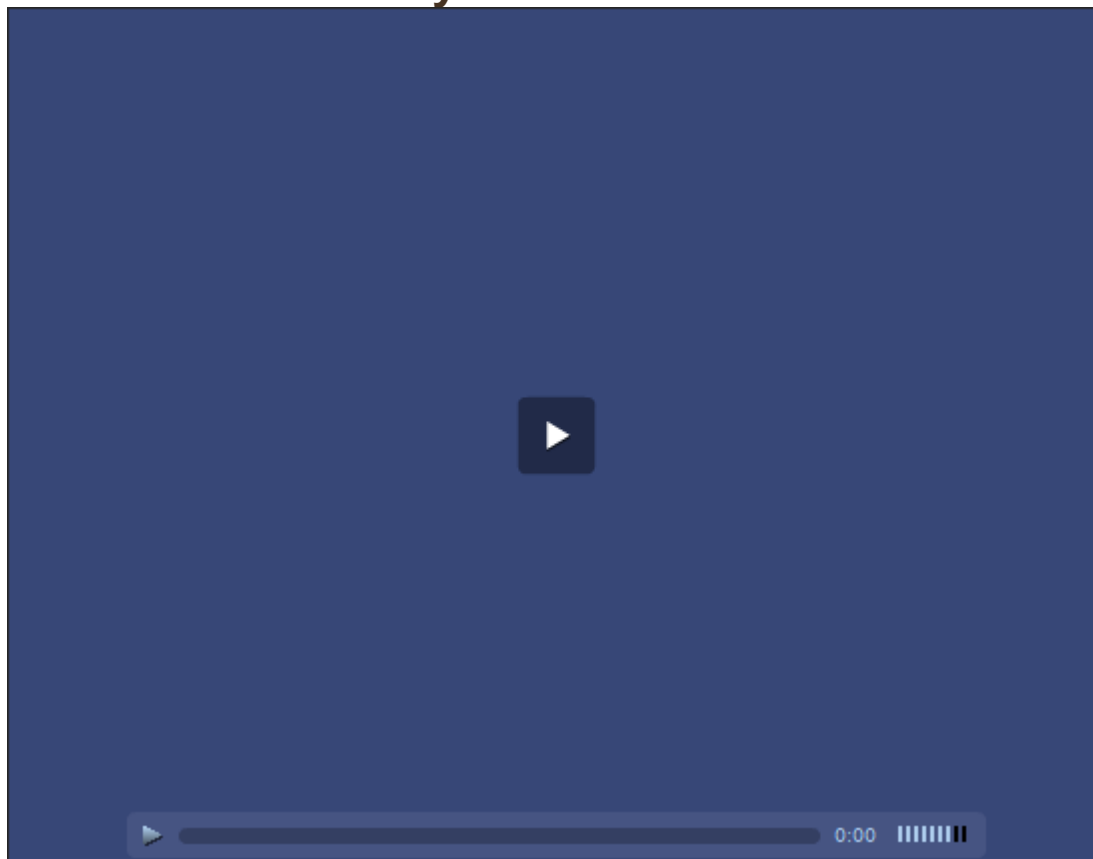
Many zebra mussels attached to a native mussel.

bilges or any other water moved from an infested lake or river.

Where to look: Examine boat hulls, swimming platforms, docks, aquatic plants, wood and other objects along shorelines of lakes and rivers. Join in the **Volunteer Zebra Mussel Monitoring Program** and report your efforts each year.

Regulatory Classification: It is a **prohibited invasive species** (DNR), which means import, possession, transport, and introduction into the wild is prohibited.

Zebra Mussel Survey in Lake Ossawinnamakee



How can you help?

- Remove visible zebra mussels and aquatic plants and drain water before transporting boats and equipment from one water body to another.
- Report suspected new infestations to the MN DNR (651/259-5100).
- Become a **volunteer zebra mussel monitor**

Further information

Zebra mussels and boating on the St. Croix River

Infested Waters List (Includes waters infested with zebra mussels) [PDF](#) (14kb)

Zebra mussel ID card (Minnesota Sea Grant) [EXT](#)

Zebra mussel information and U.S. distribution (U.S. Geological Survey) [EXT](#)

