

## Zebra mussels

### *Dreissena polymorpha*

Zebra mussels were first discovered in the United States in 1988. Brought over in the ballast water of ships, zebra mussels quickly spread from the Great Lakes to much of the Midwest. They are originally native to Eastern Europe and Western Russia.

After their invasion zebra mussels spread rapidly due to the female's ability to produce over one million eggs per year. In addition, they are efficient filter feeders and grow quickly. After their establishment they quickly cover all hard substrate in lakes including not only the lake bottom, but also docks, boats, and anything else left in the lake.

In order to limit the further spread of zebra mussels any equipment entering a lake must be free of mussels. Additionally, all water must be drained and dried to stop the spread of veligers—the microscopic larval life stage.

There are no documented cases of zebra mussels in Carlton County. Nearby lakes and other popular waterbodies infested with zebra mussels include Mille Lacs Lake, Pike Lake (St. Louis Co.), Lake Superior, the St. Louis River (downstream of White Pine River), and Lake Winnebigoosh (Cass Co.).



## Identification

Adults typically are ¼ - 1½ inches long and attach to solid surfaces with byssal threads. Their shells are often striped yellow and brown. Veligers, or zebra mussels in the larval state, are microscopic and invisible to the eye.

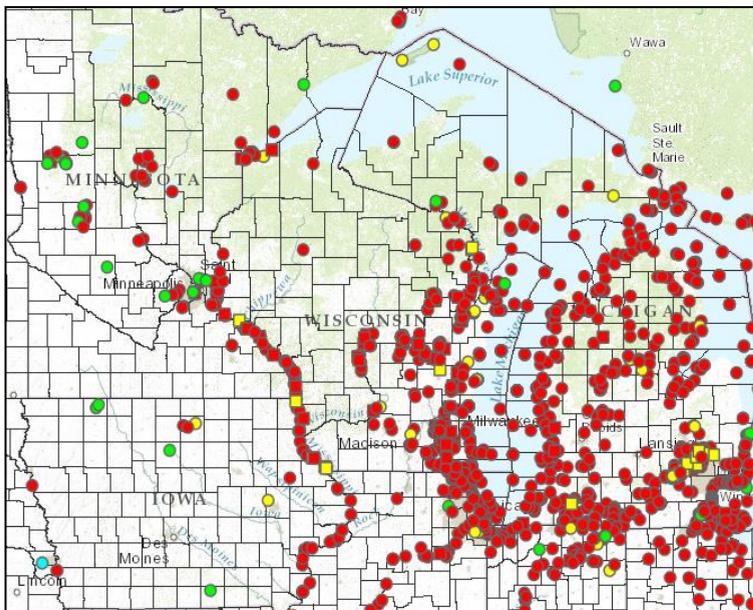


## Impacts

- Clog water intake pipes for residential and industrial uses
- Remove important nutrients from water column
- Reduce presence of important algae—a food source for many fish and essential for good water quality
- Harm native mussel populations

## Treatment

Zebra mussels are nearly impossible to eradicate once their population is established. To control populations the DNR permits the use of pesticides.



Map of zebra mussel invasion into the Midwest