Zebra mussel (*Dreissena polymorpha*)

Locations in Beltrami County

Waterbody name	Year listed as infested	Year species was first confirmed, or connected water body	DOW number
Andrusia	2014	2016	04-0038
Bemidji (includes Stump)	2018	2018	04-0130
Big Rice	2014	2016 connected to Cass (04-0030)	04-0031
Buck	2014	2016	04-0042
Carr	2018	connected to Bemidji (04-0130)	04-0141
Cass	2014	2014	04-0030
Irving	2018	connected to Bemidji (04-0130)	04-0140
Kitchi	2014	2016 connected to Cass (04-0030)	04-0007
Little Rice	2014	connected to Cass (04-0030)	04-0015
Marquette	2018	connected to Bemidji (04-0130)	04-0142
Mississippi River from Carr (04-0141) to Wolf (04-0079)	2018	connected to Bemidji (04-0130)	NA
Pimushe	2019	2019	04-0032
Pug Hole	2014	2017	04-0003
Red (Upper and Lower)	2019	2019 (veligers)	04-0035
Unnamed stream connecting Big Rice, Little Rice and Kitchi Lakes	2014	connected to Cass (04-0030)	NA
Unnamed stream connecting Kitchi, Pug Hole and Cass Lakes	2014	connected to Cass (04-0030)	NA
Wolf	2014	2018 connected to Cass (04-0030)	04-0079

What are zebra mussels?

Zebra mussels and a related species, Quagga mussels, are small, fingernail-sized animals that attach to solid surfaces in water. They are native to Eastern Europe and Western Russia and were brought over to the Great Lakes in ballast water of freighters in 1988. Female zebra mussels can produce 100,000- 500,000 eggs per year in MN. These develop into microscopic, free-living larvae (called veligers) that begin to form shells. After two to three weeks, the microscopic veligers start to settle and attach to any firm surface using "byssal threads".

How to identify zebra mussels?

Adults are 1/4 to 1 1/2 inches long and have D-shaped shells with alternating yellow and brownish colored stripes. It is the only freshwater mussel in Minnesota that can attach to objects. Once attached, zebra mussels are very hard to remove unless frozen. You will not be able to “flick” them off of the item they are attached to.

If you suspect you have found a new infestation of zebra mussels, or any other invasive species, note the exact location, take a photo or keep the specimen, and contact Beltrami County’s AIS Lake Technician.

Why are zebra mussels a problem?

Zebra mussels can be a costly problem for cities and power plants when they clog water intakes. Zebra mussels also cause problems for lakeshore residents and recreationists; for example, they can:

- attach to boat motors and boat hulls, reducing performance and efficiency,
- attach to rocks, swim rafts, and ladders where swimmers can cut themselves on the mussel shells, and
- clog irrigation intakes and other pipes.

Zebra mussels can also impact the environment of lakes and rivers where they live. They eat tiny food particles that they filter out of the water, which can reduce available food for larval fish and other animals, and cause aquatic vegetation to grow as a result of increased water clarity. Zebra mussels can also attach to and smother native mussels.

How do zebra mussels spread?

Mussels attach to boats, nets, docks, swim platforms, boat lifts, and can be moved on any of these objects. They can also attach to aquatic plants. Attached adult mussels can survive out of water and spread from one water body to another. Microscopic larvae (veligers) can survive in water contained in bait buckets, bilges, ballast bags, or any other water moved from an infested lake or river.