Zebra Mussels

Julia Romero / Jim LeVoir / Amanda Willingham / Jack Wall

Origin

Zebra mussels are native to Eastern Europe and Western Russia. They have spread throughout much of Europe and Asia over the past 200 years. They were likely brought to North America in the ballast water of ships and were discovered in Lake Erie in 1988. By 1990, they had spread to all the Great Lakes.

Species

Zebra mussels, or *Dreissena polymorpha*, 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, often with alternating yellow and brownish colored stripes.

Female zebra mussels can produce 100,000 to 500,000 eggs per year. These develop into microscopic, free-living larvae (called "veligers") that begin to form shells.

After two to three weeks, the microscopic veligers settle and attach to any firm surface using tiny fibers called "byssal threads."

Impacts

Zebra mussels 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.

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 their feet on the mussel shells, and
- clog irrigation intakes and other pipes.

In Minnesota…

Zebra mussels have spread throughout the Great Lakes, parts of the Mississippi River, and other rivers and inland lakes. They are established in Minnesota and were first found in the Duluth/Superior Harbor in 1989.

Methods of removing Zebra Mussels...

Zebra mussels can be killed off using aquatic biopesticides like Zequanox, which was approved for use about two years ago. It has low (if any) impact on other aquatic life in the lake ecosystem, and is efficient in removing the invasive zebra mussel species while not affecting other species. The testing for it is still very experimental, so make sure to give your local DNR office a call first before using it.

Controlling the population

Zebra Mussels have grown exponentially in Lake Minnetonka, and a lot of research is being done. Zebra Mussel monitors are available where you can check to see the level of zebra mussels after a certain treatment.

Preventing the spread

Zebra Mussels grow very easily in a variety of climates, so if you bring them to a body of water, they will most likely take over that area. Check your boats and watercrafts for zebra mussels. The DNR offers cleanings at several different boat landings on some days or use a pressure/chemical washer to clean your boats before transporting them.