

ZEBRA MUSSEL (*Dreissena polymorpha*)



Native range:

Europe and Asia

Characteristics: (Minnesota Sea Grant)

(MN Sea Grant) Zebra mussels look like small clams with a yellowish or brownish "D"-shaped shell, usually with dark and light-colored stripes (hence the name "zebra"). They can be up to two inches long, but most are under an inch. Zebra mussels usually grow in clusters containing numerous individuals and are generally found in shallow (6-30 feet), algae-rich water. Zebra mussels are the ONLY freshwater mollusk that can firmly attach itself to solid objects - submerged rocks, dock pilings, boat hulls, water intake pipes, etc.

Life cycles (Wisconsin DNR):

Zebra mussels usually reach reproductive maturity by the end of their first year. Reproduction occurs through spawning when sperm and eggs are released into the water. Spawning peaks at water temperatures of about 68 degrees F. A fertilized egg results in a free-swimming, planktonic larva called a 'veliger.' This veliger remains suspended in the water column for one to five weeks, and then begins to sink, eventually attaching to a stable surface (e.g., rocks, dock pilings, aquatic weeds, water intakes, boat hulls) on which to live, grow and reproduce. They attach to these surfaces using adhesive structures called byssal threads.

Zebra mussels feed by drawing water into their bodies and filtering out most of the suspended microscopic plants, animals and debris for food. This process can lead to increased water clarity and a depleted food supply for other aquatic organisms, including fish. The higher light

penetration fosters growth of rooted aquatic plants which, although creating more habitat for small fish, may inhibit the larger, predatory fish from finding their food. This thicker plant growth can also interfere with boaters, anglers and swimmers. Zebra mussel infestations may also promote the growth of blue-green algae, since they avoid consuming this type of algae but not others.

Zebra mussels attach to the shells of native mussels in great masses, effectively smothering them. A survey by the Corps in the East Channel of the Mississippi River at Prairie du Chien revealed a substantial reduction in the diversity and density of native mussels due to Zebra Mussel infestations. The East Channel provides habitat for one of the best mussel beds in the Upper Mississippi River. Future efforts are being considered to relocate such native mussel beds to waters that are less likely to be impacted by zebra mussels.