Zebra Mussels

What are Zebra Mussels?

Zebra Mussels (Dreissena Polymorpha) are small, freshwater bi-valve mollusks (relatives to clams and oysters) that are triangular in shape with an obvious ridge between the side and bottom. The zebra mussel gets its name from the black (or dark brown) and white striped markings that appear on its shell.

How To Identify The Zebra Mussel

Zebra Mussels look like small clams with a yellowish or brownish "D" -shaped shell, usually with both dark and light-colored stripes.

Zebra Mussels can be up to 2 inches long, but most are under one inch in length. Zebra Mussels grow in clusters containing numerous individuals and are generally found in algae-rich, shallow water (6-30 feet).

Zebra Mussels are the ONLY freshwater mollusk that can firmly attach itself to solid objects including submerged rocks, dock pilings, boat hulls, water intake pipes, etc.

Where are Zebra Mussels From?

Zebra Mussels are native to the Caspian, Black and Aral Sea in Eastern Europe and Western Asia. The Zebra Mussel was first identified in the United States in the waters of Lake St. Clair in June of 1988. It is believed that the Zebra Mussels were introduced into North America through the emptying of ballast water from commercial transatlantic ships into the Great Lakes. Cargo ships carry significant amounts of ballast water to stabilize the vessels during transoceanic crossings. When ballast tanks are filled, many forms of aquatic life in the source water are drawn into the tanks. Once in ballast tanks, organisms can be transported to other areas and subsequently discharged into waters at foreign ports.

How Do Zebra Mussels Spread?

Female Zebra Mussels can each produce up to one million Veligers float in the water if they are unable to find a hard surface, the veligers will soon die. Veligers can be spread through a variety of methods including: water currents, bait and hatchery stocking activities, anglers' bait bucket water, recreational boat engine cooling water and even scuba gear. Adult Zebra Mussels can

spread by "hitchhiking" on organisms such as crayfish or by attaching to boat hulls trailered from one body of water to another.

Biological & Ecological Impacts

Zebra Mussels prefer water temperatures between 68 and 77 degrees Fahrenheit and have a life span of between 2-5 years. Zebra Mussels can cause a variety of problems including:

Zebra Mussels are filter feeders that consume large portions of the microscopic plants and animals that form the base of the food web. The removal of significant amounts of phytoplankton from the water can cause a shift in native species and a disruption of the ecological balance of the lake.

Increased water transparency may result in an increase in rooted aquatic vegetation, including nuisance species such as Eurasian Water milfoil.

Zebra Mussels can reduce native mussel populations by attaching to native mussels hindering movement, feeding and respiration.

Zebra Mussels also may contain high concentrations of toxic materials that will harm or kill fish and wildlife that consume them.

Decaying mussels wash ashore littering beaches and creating a noxious odor.

Residential, Industrial and Recreational Impacts

Zebra Mussels can clog large-scale raw water intake pipes such as municipal drinking water plants, and small-scale water intake pipes of private homes and cottages, causing lost pumping ability, obstructed valves, obnoxious smells from decaying mussel flesh, increased corrosion of cast iron pipes, and safety hazards if sprinkler or hydrant systems are clogged and fail to deliver fire fighting water.

Zebra Mussels can rapidly colonize and foul docks, break walls, boat bottoms, buoys and engine outdrives

Swimming areas become abandoned due to sharp-edged shells washing up on shore from storms, colonization on rocks near the shoreline, and noxious odors from decomposition of mussels.

Boats may overheat due to Zebra Mussels blocking boat's engine cooling water intake, also mussels attached to hulls can increase drag, therefore increasing fuel consumption.

What you can do to help!

Learn all you can about the Zebra Mussel! (How it spreads, how to identify it, and the threat it poses, and share this information with others.)

Drain bilge water, live wells, engine cooling systems, bait buckets, and any other water from your boat and equipment.

Inspect your boat's hull, drive unit, trim and trolling plates, prop guards, anchor, and trailer; scrape off and trash any suspected mussels, and vegetation.

Trash leftover bait at the launch site; leftover live bait should not be taken from infested to uninfected waters.

Before launching into unaffected waters, thoroughly flush the hull, drive unit, live wells, bilge, trailer, bait buckets, engine cooling water system, and other boat parts that got wet in infested waters, using a hard spray from a garden hose. Use hot water if your boat was in infested waters for a long period of time. DO NOT use chlorine bleach!

Dry the boat in sun for at least three to five days before launching.

When enjoying the lake this summer, look on rocks, dock frames, your boat hull, anchors, buoys, chains, etc. Zebra Mussels like to attach to hard surfaces