

Zebra mussel

Dreissena polymorpha

Description

Introduced to the Great Lakes in 1988 through ballast water from a transatlantic freighter. Colonized part of Lake St. Clair and within 10 years spread to all five Great Lakes and the Mississippi, Tennessee, Hudson and Ohio River basins.

Identification

Typically 1 to 2 inches long. Color patterns vary, ranging from striped shells to dark or light shells with no stripes. Flattened underside, making them very stable.

Habitat

Native to the Black and Caspian Seas. Bodies of fresh water, typically attached to an object (pipe, boat, etc.).

Reproduction

Zebra mussels are dioecious, and females can produce more than 1 million eggs in a year. A few days after fertilization, pelagic microscopic larvae





develop and soon acquire minute bivalve shells.

During this stage they swim freely with water currents and try to locate suitable substrate to settle on. Mortality during this transitional stage is very high and may exceed 99 percent.

Impact

Create protein strands that can attach to any surface, causing major damage as colonies can block pipes, affecting power plants and water-treatment facilities. Additionally, they impact water quality by their decomposing bodies, waste and filter-feeding ability. This disrupts fish spawning habitats and can cause water to have a foul odor or taste. Very tolerant and prolific species, making it very easy for them to quickly spread to new environments and making it difficult for us to control.

Similar

Quagga mussel (*Dreissena bugensis*) and the Bullhead Mussel (*Plethobasus cyphus*).

Monitoring and Rapid Response

Boaters and anglers are urged to clean the motors and exteriors of boats, empty the bilges on boats and clean aquatic equipment to help control the zebra mussel population. Other methods include chemical molluscicides, dewatering/desiccation, steam injection, acoustical vibration, electrical current, filters and screens, coatings, toxic-constructed piping, CO₂ injection, ultraviolet light, anoxia/hypoxia, flushing, and predators, parasites and disease. Awareness and education on prevention are also important to the control of zebra mussels; encouraging boaters and divers to thoroughly clean their equipment can help prevent their spread.

Credits

The information contained in this factsheet was provided by the Shedd Aquarium. Photos (T-B) courtesy of the U.S. Geological Survey, the Lake George Association, and the TownPost Network.