

Zebra and Quagga Mussels

(*Dreissena polymorpha* and *D. bugensis*)

Zebra and quagga mussels are freshwater bivalves native to the Black Sea region of Eurasia. Both species were believed to have been introduced in the late 1980s by ballast water from transoceanic ships carrying veligers (larvae), juveniles, and/or adult mussels.

Masthead photo: Doug Watkinson, DFO

Range

Zebra mussels are found throughout all the Great Lakes, Lake St. Clair, and the Mississippi River watershed. Zebra mussels are found in many in-land lakes in southern Ontario, including the Trent-Severn Waterway. Unlike the zebra mussel, quagga mussels are found to be limited to the southern Great Lakes: Lake Ontario, Michigan, Huron, and Erie. Quagga mussels have also been found in the St. Lawrence River and Lake Simcoe.

To check zebra mussel's and quagga mussel's current distributions, visit the EDDMapS Ontario website.



Zebra mussels. Photo: Dave Britton, U.S. Fish & Wildlife Service.

Impacts of Zebra and Quagga Mussels

- Zebra and quagga mussels filter water to the point where food sources such as plankton are depleted, altering food webs. Their filtering creates clearer water, which allows sunlight to penetrate deeper, increasing growth of aquatic vegetation, such as invasive Eurasian watermilfoil (*Myriophyllum spicatum*).
- Impact fish and wildlife by increasing toxic algal blooms.
- Large colonies affect spawning areas, potentially impacting the survival of fish eggs.
- Affect recreational activities by cutting swimmers feet as a result of their sharp shell.
- Zebra and quagga mussels are capable of heavily colonizing hard and soft surfaces, including docks, boats, break walls, and beaches. These colonization's are also responsible for clogging intake structures in power stations and water treatment plants.



How to Identify Zebra and Quagga Mussels

Zebra Mussel (<i>Dreissena polymorpha</i>)	Quagga Mussel (<i>Dreissena bugensis</i>)
Average 2-2.5cm, reaching up to 4cm long	Average 2cm, reaching up to 3cm long
Sits flat on its underside	Does not sit flat
Triangular in shape	Round in shape
Black or brown with white to yellow zigzagged patterns	Dark concentric rings on shell
Color patterns can vary	Pale color near hinge



Zebra mussel.

Photo: Amy J. Benson, U.S. Geological Survey.



Quagga mussel.

Photo: Amy J. Benson, U.S. Geological Survey.



Zebra mussels. Photo: Dave Britton, U.S. Fish & Wildlife Service.



Zebra mussels. Photo: Randy Westbrooks, U.S. Geological Survey, Bugwood.org.

What Can I Do?

- Learn how to identify zebra and quagga mussels and how to prevent accidentally spreading invasive species.
- Inspect your boat, trailer, and equipment after each use. Remove all plants, animals, and mud before moving to a new waterbody.
- Drain water from motor, live well, bilge, and transom wells while on land and at least 30m from the shoreline.
- Clean all recreational equipment through pressure washing, hot water, or let it dry for at least 5 days.
- Report sightings to the Invading Species Hotline 1-800-563-7711 or visit www.EDDMapS.org/Ontario to report a sighting.

Other Resources:

www.invadingspecies.com
www.ontario.ca/invasivespecies
www.EDDMapS.org/Ontario

For More Information:

Please contact the Invading Species Hotline at 1-800-563-7711.

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