

Golden Mussel (*Limnoperna fortunei*)

What Ontario is Doing

To prevent this unwanted invader from coming into the province, Ontario has regulated Golden Mussel as **prohibited** under the Invasive Species Act. For more information on the Invasive Species Act and Regulations visit www.ontario.ca/invasionON.

Background

Golden Mussel is a freshwater mussel that has become invasive in temperate and sub-tropical parts of Asia and South America, where it appears to have impacts similar to those described for Zebra and Quagga Mussels. It shares attributes of other successful invasive species including rapid growth, short life span, adaptability to new environments, and high reproductive capacity. This species inhabits fresh and brackish waters in lakes, rivers, wetlands and bays with temperatures ranging from 8-35°C.

Range

The Golden Mussel is native to China and southeastern Asia, although it has been introduced to Hong Kong, Japan, Taiwan and South America. It has not yet been found in North America. Potential pathways of introduction and spread for this species could include transportation by ballast water of ships, contamination of bait buckets, live wells, bilge water, aquarium plants or aquaculture products, and through attachment to boating, fishing and scuba gear.

Impacts of Golden Mussel in Ontario

Like Zebra and Quagga Mussel, Golden Mussel attaches to available surfaces, forming dense colonies. This species also exhibits high filtration (feeding) rates, which cause negative environmental impacts by changing ecological conditions in colonized areas, for example, by reducing populations of phytoplankton and zooplankton, which form the base of aquatic food webs. The Golden Mussel can modify fish diets as well as the presence of native invertebrate species. It may compete with other species for habitat and food and disrupt the reproduction of native mussels. Like Zebra Mussels, their shells are sharp and due to dense colonization, they may cause injury, thereby restricting the use of beaches and other public water areas. Additionally, they can also damage infrastructure by fouling water intakes and cooling systems, which can be very expensive to clear and maintain.

How to Identify Golden Mussel

Larvae of Golden Mussels are microscopic making them invisible to the naked eye until they are grown. Adults can be identified by observing these key attributes:

- Average length of about 2-3 cm (approximately 1 inch), but can reach a length of 4.5 cm (approximately 2 inches)
- Shell is attached to substrate with byssal threads
- Left and right valves are slightly asymmetrical with a slightly curved to straight mid-ventral line (the line formed when the shell is closed)
- Outside of the shell is yellow-brown in colour
- Interior of the shell is white to purple

What You Can Do

- Learn how to identify Golden Mussel and how to prevent the introduction or spread of this unwanted species.
- Never buy or keep Golden Mussels. It is against the law to possess or use Golden Mussel for bait or other purposes.
- Inspect your boat, trailer and equipment after each use. Remove all plants, animals and mud before moving to a new water body.
- Drain water from the motor, live well, bilge and transom wells while on land.
- Rinse all recreational equipment with high pressure (>250 psi) or hot (> 50°C) water; OR let it dry in the sun for at least five days.
- If you have any information about the illegal importing, distribution or sale of Golden Mussel, report it immediately to the MNRF TIPS line at 1-877-TIPS-MNR (847-7667) toll-free anytime. You can also call Crime Stoppers anonymously at 1-800-222-TIPS (8477).
- If you've seen a Golden Mussel or other invasive species in the wild, please contact the toll free Invading Species Hotline at 1-800-563-7711, or visit [EDDMapS Ontario website](#) to report a sighting.

Other Resources

[Ontario Ministry of Natural Resources and Forestry](#)

[Ontario Invading Species Awareness Program](#)

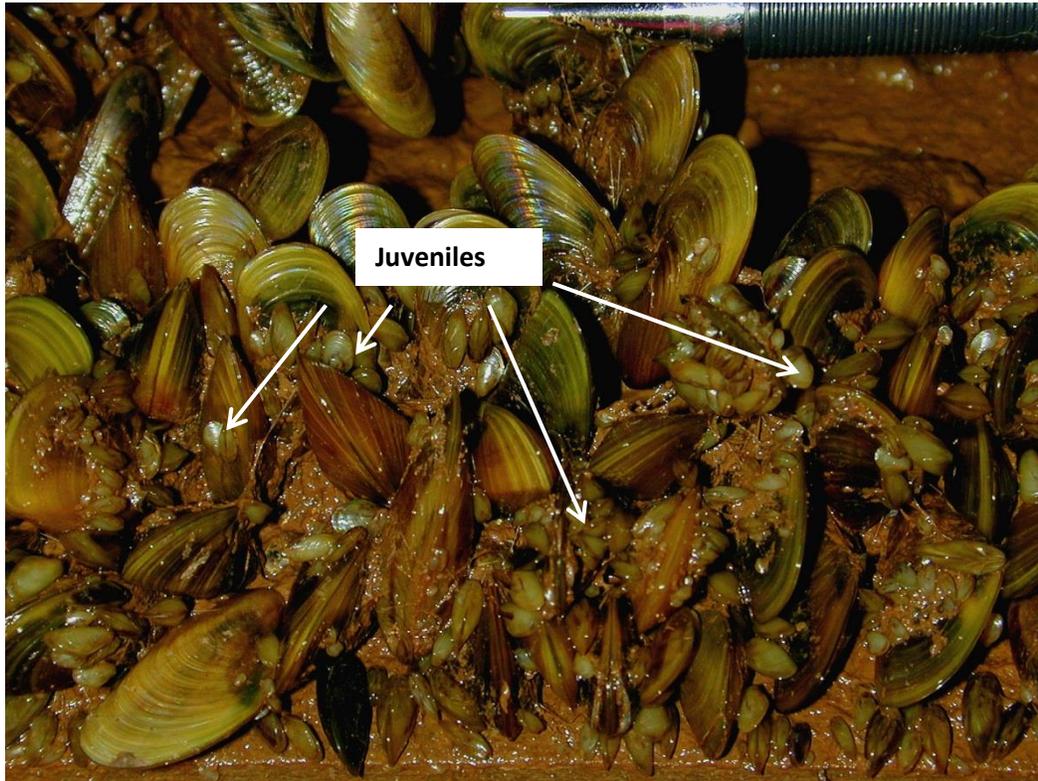
[Invasive Species Centre](#)

For More Information

Contact the Invading Species hotline at 1-800-563-7711.

Golden Mussel Photos





By Dr. Gustavo Darrigran, Professor Universidad Nacional de La Plata, Argentina, for providing and permitting use of *L. fortunei* photos.

Below is Zebra Mussels for comparison



By GerardM [GFDL (<http://www.gnu.org/copyleft/fdl.html>) or CC-BY-SA-3.0 (<http://creativecommons.org/licenses/by-sa/3.0/>)], via Wikimedia Commons

Below is a Quagga Mussel for comparison



By Motte123 (Own work) [CC0], via Wikimedia Commons

<https://commons.wikimedia.org/wiki/File%3AQuagga-Dreikantmuschel.jpg>