

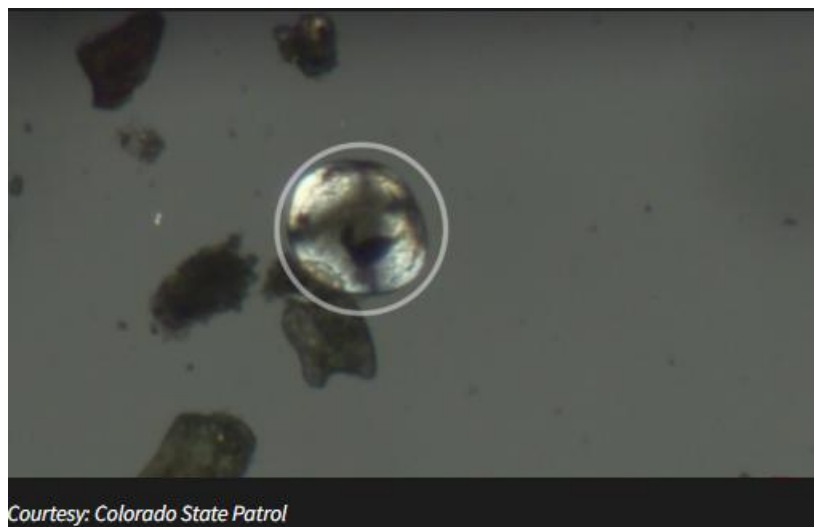


ZEBRA AND QUAGGA MUSSELS: VELIGER ALERT

Protecting the Assiniboine Watershed from Aquatic Invasive Species

Pronunciation: Veliger (VEL-ih-ger) – rhymes with **villager**.

Veligers are the microscopic, free-swimming larval stage of invasive mussels. These tiny larvae (often smaller than 0.2 mm) drift with water currents and are nearly invisible to the naked eye, allowing rapid spread across rivers, lakes, and connected waterways.



(Veliger larva under microscope. Photo sourced from Fox21news.com)

The Threat: Zebra Mussels and Quagga Mussels

Zebra mussels (*Dreissena polymorpha*) and **quagga mussels** (*Dreissena bugensis*) are both highly invasive species from Eurasia. They look similar but quagga mussels are typically larger, rounder, and can tolerate a wider range of conditions, including deeper, colder waters.

Zebra Mussels:

Distinctive black and white (or tan) striped shells. They attach to hard surfaces in dense clusters.



(Photo sourced from dfo-mpo.gc.ca/species)

Quagga Mussels: Similar attachment behaviour but often darker and more rounded. They are increasingly widespread and can survive in lower-food environments.



(Quagga Mussel. Photo credit: Dave Brenner, Michigan Sea Grant sourced from dfo-mpo.gc.ca/species)

Both species produce millions of veligers per spawning season. Once established, adult mussels:

- Clog water intake pipes and infrastructure
- Outcompete native mussels and other aquatic life
- Alter water quality by filtering large volumes of plankton
- Accumulate toxins and affect the entire food chain

Recent detections of zebra mussel veligers in the Assiniboine River system and shared waterbodies such as Lake of the Prairies underscore the real and growing risk to Saskatchewan and Manitoba waters. Quagga mussels are also a major concern in neighbouring jurisdictions and could follow similar pathways.

Reproductive Power

A single female zebra or quagga mussel can produce **30,000 to 1 million** eggs per spawning season. These eggs develop quickly into tiny veligers. Because one mussel can release **hundreds of thousands to over a million** veligers in a season, the species can spread rapidly once introduced. This high reproductive rate makes early detection through monitoring essential.

Why This Matters for the Assiniboine Watershed

Our watershed supplies drinking water for thousands of people and supports agriculture, wildlife, and recreation. Invasive mussels threaten water quality, infrastructure costs, and the ecological balance we work hard to protect.

How to Report a Sighting:

- In Saskatchewan: Call the SK Ministry of Environment toll-free at **1-800-667-2757** or contact AWSA at **(306)783-1696**.
- In Manitoba: Call the toll-free AIS hotline at **1-877-867-2470**.

- Online: Visit the official **Manitoba Aquatic Invasive Species (AIS)** program for more resources:
<https://www.gov.mb.ca/stopais/index.html>

How You Can Help Stop the Spread

- **Clean, Drain, Dry:** Thoroughly clean boats, trailers, livewells, and all water-related equipment. Drain all water and allow everything to dry completely for at least 5 days (or wipe with a 10% bleach solution or hot water >60°C / 140°F).
- **Inspect:** Look for any mussels or unusual aquatic organisms.
- **Dispose Properly:** Never release bait, fish, or water from one waterbody into another.
- **Report Sightings:** As advised above.

At the **Assiniboine Watershed Stewardship Association (AWSA)**, we collaborate with communities and partners across borders to monitor, prevent, and respond to these threats. Early detection and responsible water use are our best defences.

Stay informed. Stay vigilant. Protect our shared waters.