



STOP AQUATIC HITCHHIKERS

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

Accidental transport of introduced plants and animals is a major threat to B.C.'s lakes and streams. Many species of these unintended aquatic hitchhikers can be transported with your boat or trailer, or even on your fishing gear, without you noticing. One particular concern is the continuing spread of zebra and quagga mussels, two freshwater species that were introduced to the Great Lakes in the 1980s, became widespread in eastern Canada and the United States, and recently arrived in the western US. While not currently present in British Columbia, they pose a major threat to B.C.'s natural environment and could have serious economic impacts. Zebra and quagga mussels replace native mussels and can fundamentally change the food web within lakes, resulting in less food available for native fish populations. For more information, please go to: www.100thmeridian.org.

Freshwater mussels can be moved between watersheds while attached to boats and trailers. They can survive for extended periods out of the water, and juveniles can be easily overlooked when attached to boats or gear. Once introduced to a watershed they can spread rapidly via their free swimming larval stages.

New Zealand mudsnails were recently accidentally introduced to the Alberni Inlet on Vancouver Island, most likely attached to a boat or fishing gear. Newly hatched New Zealand mudsnails are only the size of a large sand grain and are easily overlooked. Only one individual transported to a new lake or stream can be enough to start a new population.

To minimize the risk of introduction and spread of invasive species like zebra mussels or New Zealand mudsnails, we ask you to follow some simple steps outlined below. **Make sure your boat, trailer, and fishing gear are clean when you visit different waters in the province, particularly if you have been boating or fishing outside the province.**

When leaving a body of water:

- Remove any visible mud, plant parts, or other aquatic organisms
- Drain water from equipment before transporting (motors, bilges, and transom wells)
- Clean and dry anything that comes into contact with water (boats, trailers, anchors, fishing gear, boots (particularly felt soles), waders, jet-skis, kayaks, and even dogs)
- Never release plants, fish, or animals into a body of water unless they came out of that same body of water
- Do not use fish parts as bait (this is illegal in B.C. - see page 9 for details and a few exceptions)
- Remove organisms you can't see by:
 - Rinsing with hot water
 - Spraying with high-pressure water
 - Drying in the sun for 5 days

Chlorine (regular household) bleach is a very effective disinfectant. Use either:

- 50% solution (1 part chlorine to 1 part water) – dip equipment into the solution or wipe or spray it on, OR
- 10% solution (1 part chlorine to 9 parts water) and soak your equipment for 10 minutes, and then rinse thoroughly to avoid damaging gear

For gear and waders exposed to waters containing New Zealand mudsnails (in Alberni Inlet/Somass River; Washington, Idaho, and Montana), freezing for eight hours or soaking for 24 hours in 1% salt water solution is also effective. As a general practice, organize your schedule so that your time spent in infested waters is always your last stop before disinfecting your rig/gear and heading home.



Bullfrogs

W. Stephen Price

Report illegal activities – If you see any activities associated with the intentional or accidental movement of live fish and other aquatic organisms, please report these activities to **1-877-952-RAPP (7277)**.

Note: It is illegal to possess or move live fish (including invertebrate) without a permit. It is also illegal to use live fish for bait or hold live fish in a "live well" in your boat.

Examples of harmful alien species threatening B.C.'s aquatic ecosystems -

Our newest arrival:

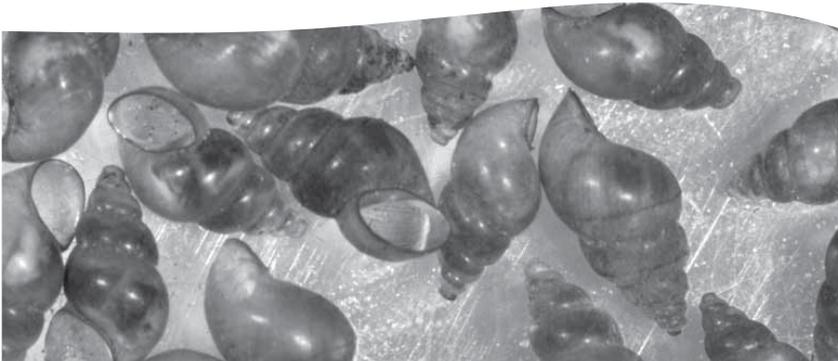
- New Zealand mudsnails

Already here:

- Yellow perch, bass, and other introduced sport fish
- Carp, bullhead, and other exotic fish
- Eurasian water milfoil
- Bullfrogs
- Didymo ("rock snot"), an algae transported on the soles of waders
www.apbbc.bc.ca/files/Didymo.pdf

On their way:

- Whirling disease
- Zebra and quagga mussels
- Spiny water fleas



New Zealand Mudsnails

Matthias Herborg