



The Asian Clam in New Hampshire: It Was Not Supposed to Thrive Here



Biologists with the New Hampshire Department of Environmental Services have confirmed Asian clams in a handful of New Hampshire waterbodies but suspect that they are in several more.

The Asian Clam (*Corbicula fluminea*) is a freshwater bivalve that is native to parts of Asia, Australia, and Africa. It is considered to be an aquatic invasive species (AIS) in the United States. First introduced intentionally to the United States as a food source, and accidentally through ballast water from international trade ships, the Asian clam has spread throughout nearly all fifty states, including New Hampshire, primarily as a result of transient boating activities moving adults and larvae between waterbodies.

Why are they so good at spreading? The Asian clam is an effective colonizer with a prolific expansion rate. The clam can reach maturity in just a few months, and it is hermaphroditic, meaning that just one introduced clam can produce a colony in a waterbody. Larvae and juveniles are microscopic, and are easily transported by water currents further extending colonization capability, and in drops of water attached to boat hulls, carpeted bunks on trailers, in live wells, bait buckets, fishing gear, damp materials and other gear that has come into contact with infested waters.

Why we don't want them in our waters. The Asian clam can negatively affect the quality of surface waters. Large populations of Asian clams may severely alter lake or riverine food webs by directly competing with existing native fish and shellfish species for food and space. Raw water intakes such as those at drinking

water, electric generation, and industrial facilities become impaired or clogged by clam shells or by juveniles that are sucked into the intake and that grow in the system. The clams release phosphorus into the water through burrowing, feeding from the sediment and their excreta. Phosphorus feeds plant and algal growth, and makes potentially hazardous cyanobacteria blooms more likely to occur. Impacts on boating and navigation include larval clams drawn into boat engine cooling water intakes may occlude the cooling system, leading to overheating and damaging the engine. If shells are drawn into the engine, abrasion of cooling system parts, especially impellers, could result.

What do you mean, they weren't supposed to thrive here? Data from a number of studies show that the Asian clam can survive in a range of temperatures, from as low of 36 degrees Fahrenheit to a high of 86 degrees Fahrenheit; however, the Asian clam was not originally thought to be able to overwinter in the northern tier of the United States due to colder conditions and longer ice-covered conditions on surface waters. Contrary to that belief, assessments of populations in New Hampshire, and further north in the St. Lawrence River, suggest that the clams survive prolonged exposure to cold water temperatures without die off.

Where are they in New Hampshire? As of 2018, New Hampshire has seven confirmed infestations of the Asian clam in the southern portion of the state: Beaver Lake in Derry, Canobie Lake in Salem, Cobbetts Pond in Windham, Great Pond in Kingston, Long Pond in Pelham, the Merrimack River from (Concord south), and Wash Pond in Sandown. There are likely more populations that have yet to be documented.

You can help prevent the spread. The harder we all work together to prevent the spread of Asian clams, and other aquatic invasive species, into New Hampshire, the better off the lakes, the economy, and we will all be.

- Always remember to clean, drain, and dry your boat, trailer, and gear between waterbodies. Remind your friends, guests, and renters to do so, too.
- If you have used your boat in an Asian clam infested waterbody, be sure to rinse the hull, all storage compartments, and flush bilges, live wells, motors, and ballast tanks/bags, and recreational gear with clean water. Generally, the hotter and higher temperature of the water the better, but consult the manufacturer information for your vessel and gear first.
- Be on the look-out for Asian clam colonies in waterbodies. Report suspicious infestations to the New Hampshire Department of Environmental Services at (603) 271-2248.

NH LAKES is the only statewide, member-supported nonprofit organization working to keep New Hampshire's lakes clean and healthy, now and in the future. The organization works with partners, promotes clean water policies and responsible use, and inspires the public to care for our lakes. For information, visit www.nhlakes.org, email info@nhlakes.org, or call 603.226.0299.

We hope that you will share this article with others—we just ask that you include the following: This article was originally published by NH LAKES. Thank you!