RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

FACT SHEET

Freshwater Aquatic Invasive Species in Rhode Island November 2017

Asian Clam

Empty Asian clam shells under water

Asian clam size relative to a penny

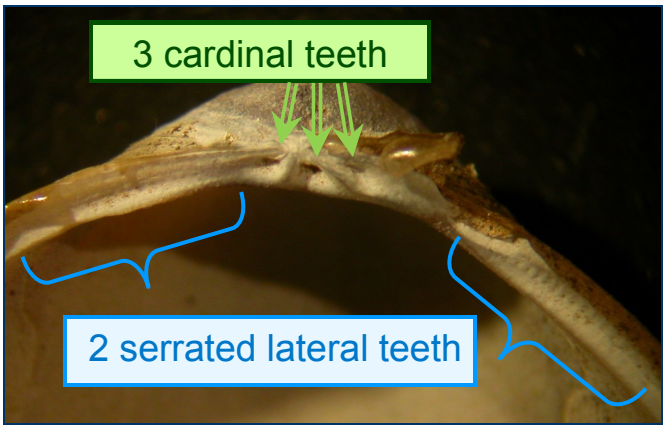
Interior of Asian clam

Species Description and General Information

Asian clam (*Corbicula fluminea*) is an invasive freshwater clam that prefers sandy lake bottoms and can be found at the sediment surface or slightly buried; Asian clams to do not attach themselves to rocks or other surfaces. The exterior of the shell ranges from yellow-green to light brown to nearly black with thick concentric rings, while the interior is white to light blue or light purple. Each valve (shell) possesses three cardinal teeth and anterior and posterior lateral teeth with fine serrations (see below). Clams reach maturity at 1/4 - 3/8 of an inch and can grow up to 2 inches in diameter. You are most likely to find the small shells of dead clams resting on the bottom in shallow, sandy areas.

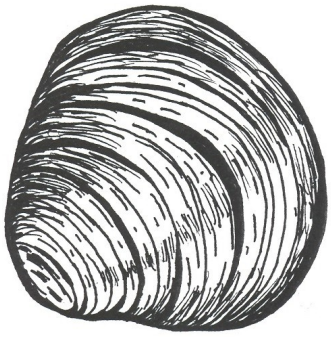
Why is Asian Clam Considered an Invasive Species?

Asian clams multiply rapidly and populations can easily reach high densities in freshwater - thousands per square meter have been recorded! The Asian Clam is hermaphroditic, which means both sexes are found in the same organism, allowing the clam to self-fertilize and reproduce quickly. Larvae grow in the gills of the parent clam and are released about 4-5 days later into the water as free-swimming, microscopic organisms called veligers (or pediveligers). A sexually mature Asian clam may release hundreds to thousands of veligers each day. These juveniles will become mature and may be capable of spawning in less than a year.



Asian clams are filter feeders, which means that they take in lake water and strain out algae. At high densities, Asian clams can out-compete other native filter feeders (such as fish, mussels and aquatic insects) for available food. Asian clams have played a role in the decline of many freshwater clams and mussels, reducing native biodiversity.

Shells of large populations may also clog the intake pipes of power and water facilities, costing an estimated $1 billion annually in the United States to manage.



How Did Asian Clam Become Established in Rhode Island?

Asian clam was likely first introduced by immigrants to the United States as a food source and has since spread across the country. Clams are sometimes used as live bait and may be introduced to new water bodies when bait buckets are dumped into the water. Asian clam is also sold as an aquarium species, usually marketed as “gold clam” or “pygmy clam”, and can be introduced when unwanted fish tanks are poured into a water body. Microscopic clam larvae may also be transported to new locations in bilge or ballast water or in bait buckets filled with lake water. Once introduced, rivers and streams may transport larvae throughout the watershed.

What Methods Can Be Used to Control Asian Clam?

Once introduced into a water body it is unlikely that Asian clam can be eradicated. No effective large-scale control options currently exist. Preventative actions are the best defense in the fight against Asian clam.

Please Help Prevent the Spread of Asian Clam in Rhode Island!

Learn to identify invasive species and be on the lookout Asian clam in your lake. Identification resources are available on the RIDEM website at http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/pdfs/identify.pdf.

Never release a plant or animal into a water body unless it came from that water body. Discard unused bait in the trash and do not dump aquarium contents into any water body. Because juveniles are free-swimming in the water and microscopic, all water should be drained from boats upon exiting the water. The flushing of engines and bilge water should be done out of and away from the water, and then given a chance to dry before putting into a new water body to prevent the release of Asian clam larvae. Report any suspected sighting of this species to RI DEM, and spread the word to fellow boaters and fishermen! See posted reminders at state boat ramps.

Be a GREAT Boater!
Check, Clean, Drain & Dry!

RIDEM encourages the use of clean boat hygiene practices. CHECK boats (trailers, gear and motors too) for plant fragments before launching in the water AND after boats have been hauled out of the water. CLEAN any plant fragments, and dispose of them away from the water, and DRAIN your motor and bilge. Allow boats to DRY overnight at least 24 hours before putting in at another lake. See posted reminders at state boat ramps.

Where is Asian clam found in Rhode Island?

As of November 2017, Asian clam has been documented in 11 lakes or ponds, and 3 river segments. The distribution map on the right shows locations where it has been found in red. A larger map can be found online @ http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aismaps/corflu.pdf