



Aquatic Invasive Species Quick Guide



Golden Sands
Resource Conservation
& Development Council, Inc.

Asian Clam (*Corbicula fluminea* O.F. Müller)

Description: The shell of the Asian clam is yellowish brown or black, with a polished white or light blue interior. The size of the shell averages about one inch across, but may be over two inches. Ridges on the shell are very pronounced and evenly spaced. Inside each half (valve) of the shell is a serrated lateral tooth and three large teeth at the hinge (see lower photo). Asian clams prefer sandy habitats of lakes and streams, and may be burrowed several inches into the sediment. They require well-oxygenated water with minimal pollution, and consume plankton through filter-feeding.

North American Distribution: Found in at least 43 U.S. states and the District of Columbia. Occurs in Lake Superior and Lake Michigan.



Asian clams are usually less than 1 inch across, but can be up to 2.5 inches.



Asian clams have a yellowish-brown to black shell, with well-defined ridges.

Dispersal Vectors: Native to China, Korea, and southeastern Russia, Asian clams probably arrived in the United States as juveniles in ballast water discharge, or as adults through importation as a food item. They could potentially be spread by anything that has sediment attached, such as boat anchors. Asian clams have also been sold through the aquarium trade. Densities of up to 20,000 per square meter have been observed. Asian clams can self-fertilize, and each individual can release up to 70,000 juveniles in one year.

Ecological Impacts: Asian clams are very successful at outcompeting native mollusks. In areas with very dense populations of Asian clams, fish spawning habitat and aquatic insect populations can also decrease. Costs of repairing Asian clam damage to water intake systems in the United States is estimated at nearly \$1 billion per year.

Control Options: In small systems like power plant water intake systems, Asian clams can be controlled by chlorine injection, screening, or a temporary increase in temperature beyond 37 degrees Celsius.

In natural systems, an effective method of control is not yet known. Manual removal of Asian clams is possible, but labor-intensive. Prevention of spread is crucial to minimizing the impact of Asian clams on our native ecosystems. Asian clams and other aquarium pets should never be released into natural waters.

Note: Native fingernail clams look similar, but they are smaller, and lack the well-defined shell ridges and serrated lateral teeth.

Additional Information:

Global Invasive Species Database. *Corbicula fluminea*. <http://www.issg.org/database/species/ecology.asp?si=537&fr=1&sts=sss&lang=EN>
Foster, A.M., P. Fuller, A. Benson, S. Constant, D. Raikow, J. Larson, and A. Fusaro. 2013. *Corbicula fluminea*. USGS Nonindigenous Aquatic Species Database, Gainesville, FL. <http://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=92>

Photo credit: Paul Skawinski



Each side of the shell has a serrated lateral tooth (upper arrow), and three large hinge teeth (lower arrow).

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