

Triangle Floater (*Alasmidonta undulata*)

Freshwater Mussel Species of Concern

State Rank: S3S4 (vulnerable/apparently secure), Global Rank: G4 (apparently secure)

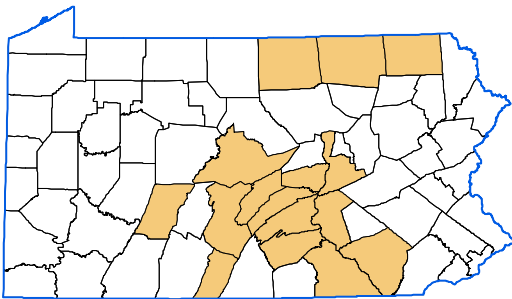
Identification

The triangle floater (*Alasmidonta undulata*) is a small mussel, usually less than 60 mm in length, with a somewhat triangular appearance. The shell is subtriangular to subovate and inflated, giving the mussel a swollen appearance. The anterior end is thicker and rounded, with a rounded ventral margin. The beaks are prominent and rise above the hinge line (Bogan 2002; Connecticut DEP 2003; Nedeau 2000). The posterior ridge is poorly defined and rounded with a compressed posterior slope. The periostracum (outer covering) is smooth and coloration can vary from yellowish-green (juveniles) to nearly black (adults). Rays are typically dark green and radiate from the beaks but can be obscured in older, darker adult shells. Lateral teeth are vestigial, appearing only as indistinct bumps parallel to the hinge line (Bogan 2002; Nedeau 2000; NatureServe 2005).



Photo:
http://www.eman-rese.ca/eman/reports/newsletters/monitor/vol_3_num_1/page2.html

Pennsylvania Distribution by County



Pennsylvania Natural Heritage Program data 2007

Habitat

The triangle floater is frequently found in streams and rivers in sand and gravel substrates. It is the only *Alasmidonta* species that can tolerate standing water typical of ponds, lakes, and canals (Bogan 2002; Connecticut DEP 2003; Nedeau 2000).

Host Fish

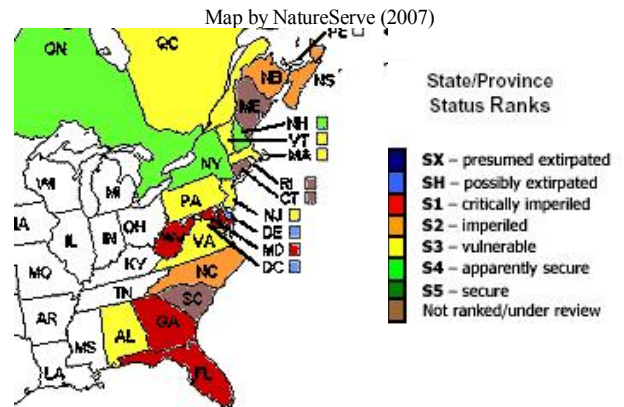
Confirmed host fishes for the triangle floater include the blacknose dace, common shiner, fallfish, largemouth bass, longnose dace, pumpkinseed, slimy sculpin, white sucker, central stoneroller, fantail darter, northern hogsucker, and rosyface shiner (Corderio, Bogan 2002; Nedeau 2000).

Status

Alasmidonta undulata is found from Nova Scotia west to the St. Lawrence River drainage, and south to Florida. It has a more widespread distribution than other *Alasmidonta* species (Bogan 2002). The triangle floater is found in the Susquehanna drainage in Pennsylvania. The state status of the triangle floater is vulnerable/secure (S3S4) (PNHP), indicating that the species is secure at some sites within Pennsylvania boundaries. However, more surveys are required to determine the status of this species in order to assign it to a single category.

Alasmidonta undulata may be experiencing population declines throughout the southern portion of its range, where states are reviewing protection measures. More populations exist in New England than anywhere else throughout its known range along the Atlantic coast. The triangle floater seems to be affected less by habitat degradation than some other mussel species, and it is thought to use a greater diversity of fish hosts than most other mussels found in similar ecosystems (Connecticut DEP 2003; Nedeau 2000).

North American State/Province Conservation Status



References

- Bogan, A.E. 2002. Workbook and Key to the Freshwater Bivalves of North Carolina. North Carolina Freshwater Mussel Conservation Partnership, Raleigh, NC. 101 pp and plates.
- Connecticut DEP. 2003. A Field Guide to the Freshwater Mussels of Connecticut. Hartford, CT Nedeau, E.J, M.A. McCollough, and B.I. Swartz. 2000. The Freshwater Mussels of Maine. Maine Dept. of Inland Fisheries and Wildlife, Augusta, ME.
- Cordeiro, J. New York Metropolitan Region and New Jersey Freshwater Mussel Identification Handbook. Website: research.amnh.org/biodiversity/mussel/lampsilistgenustext.html
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: September 4, 2007).
- North Carolina Mussel Atlas, Species Information and Status. Website: www.ncwildlife.org/pg07_WildlifeSpeciesCon/pg7b1a1_1.htm
- Pennsylvania Natural Heritage Program. Biota of Concern In Pennsylvania (BOCIP) Lists. Website: www.naturalheritage.state.pa.us/invertebrates.aspx

