

NAS - Nonindigenous Aquatic Species



Lasmigona subviridis (green floater) Mollusks-Bivalves Native Transplant



Michelle Brown - Smithsonian Institution, National Museum of Natural History ©

Lasmigona subviridis Conrad, 1835

Common name: green floater

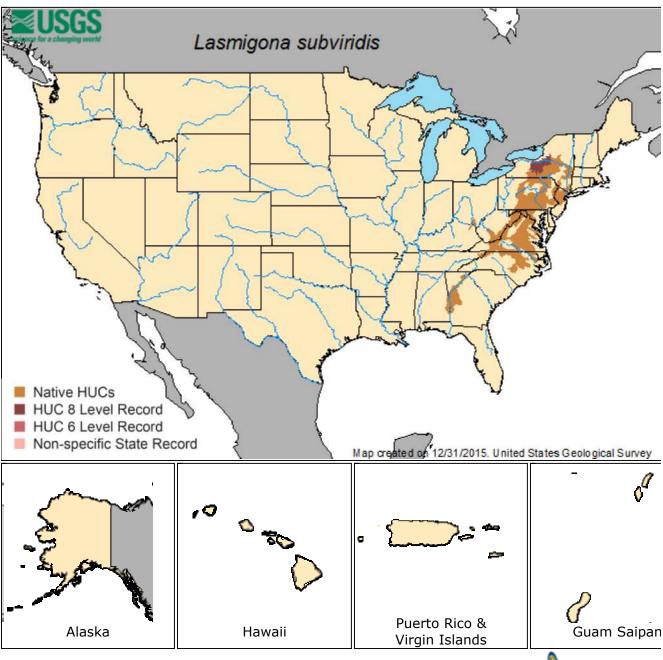
Taxonomy: available through www.itis.gov

Identification: This freshwater bivalve exhibits a somewhat compressed to slightly inflated thin shell that is subrhomboid to subovate in shape. The periostracum is yellow, tan, dark green, or brown with dark green rays, and the nacre is white or light blue and sometimes pink near the beaks. The height to width ratio is greater than 0.48 and the beaks are low compared to the line

of the hinge. There are two true lamellate pseudocardinal teeth and one relatively small interdental tooth in the left valve, as well as one long and thin lateral tooth in the right valve (Burch 1975, Peckarsky et al. 1993, Bogan 2002). *Lasmigona subviridis* can grow to 60–65 mm in length (Peckarsky et al. 1993, Bogan 2002).

Size: can reach 65 mm

Native Range: Lasmigona subviridis was historically found throughout the Atlantic slope drainages in the Hudson, Susquehanna, Potomac, upper Savannah, Kanawha-New, and Cape Fear rivers. However, its range has retracted and it now occurs as disjunct populations in headwaters of coastal and inland rivers and streams of these drainages (Burch 1975, Mills et al. 1993, King et al. 1999, Clayton et al. 2001).



Native range data for this species provided in part by NatureServe

Nonindigenous Occurrences: Lasmigona subviridis was recorded for the first time in the Lake Ontario drainage around 1959 in the Erie Barge Canal at Syracuse and in Chitenango Creek at Kirkville, **New York**. Around 1980 it was also found in the Finger Lakes area in New York State, part of the Lake Ontario drainage (Clark and Berg 1959, Johnson 1980, Mills et al. 1993).

Ecology: Lasmigona subviridis usually occurs in streams, small rivers, and canals of low to medium gradient with slow pools and eddies, fine gravel and sand bottom, and mid-range calcium concentrations. It cannot tolerate either flooding or droughts. In general, freshwater mussels (unionids) are filter feeders and remove particulate organic matter from the water column (Bogan 2002, Harman 1970, Howard and Cuffey 2006, Strayer 1993).

Unionids require fish hosts for glochidial (larval) dispersal and transformation to the juvenile stage. The host species for *L. subviridis* is unknown, although evidence indicates that it may: a) rely on different fish species depending on different localities; or b) may not require a host fish, which is rare in North American unionids. *Lasmigona subviridis* is usually a simultaneous hermaphrodite and is bradytictic, or a long term brooder (Bogan 2002, King et al. 1999, Van der Schalie 1966).

Means of Introduction: Lasmigona subviridis very likely dispersed into the Lake Ontario drainage from its native range or migrated via the Erie Canal but it could have been intentionally introduced.

Status: Established where recorded.

Impact of Introduction: Unknown.

Remarks: Found in small to medium-sized streams with sand and gravel bottoms and low current. Spawns in August and releases glochidia the following June. *Lasmigona subviridis* is considered a species of concern, rare, imperiled, or critically imperiled in different parts of the United States. Populations in the Susquehanna and Potomac Rivers are genetically distinct from populations found further south due to reproductive isolation, and thus the two groups should be managed as two separate conservation units (Bogan 2002, Clayton et al. 2001, King et al. 1999, New York State Department of Environmental Conservation 2005).

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Other Resources:

Great Lakes Water Life

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