



Apalachicola floater (*Anodonta heardi*) 81 mm (3¼ inches). Lake Blackshear, Crisp Co., Georgia. Photo by Jason Wisniewski, GA DNR.

**Common Name:** APALACHICOLA FLOATER

**Scientific Name:** *Anodonta heardi* Gordon and Hoeh

**Other Commonly Used Names:** none

**Previously Used Scientific Names:** none

**Family:** Unionidae

**Rarity Ranks:** G1G2/S1

**State Legal Status:** Rare

**Federal Legal Status:** none

**Description:** Shell is thin and extremely inflated and rarely exceeds 110 mm (4<sup>3</sup>/<sub>8</sub> inches) in length. Umbos are slightly elevated above the hingeline and positioned near anterior third of shell. Anterior margin of shell is broadly rounded and posterior margin is bluntly pointed and terminates at or above the midline of the shell. Ventral margin broadly rounded. Hingeline is straight. Umbo is low and elevated slightly above hingeline. Posterior ridge broadly rounded. Typically with glossy, light green to light brown periostracum sometimes having fine green rays. Pseudocardinal and lateral teeth absent. Umbo cavity is wide and shallow. Nacre white.

**Similar Species:** Eastern floater (*Pyganodon cataracta*), giant floater (*P. grandis*), and paper pondshell (*Utterbackia imbecillis*). The Apalachicola floater can be distinguished from the paper

pondshell in that the umbos of the former elevate slightly above the hingeline whereas those of the paper pondshell do not elevate above the hingeline. The Apalachicola floater differs from the eastern floater and giant floater in that the umbos of *Pyganodon* are typically elevated greatly above the hingeline.

**Habitat:** Typically occupies mud, sand, or detritus substrates in lakes, oxbows, sloughs, and backwaters.

**Diet:** The diets of unionids are poorly understood but are believed to consist of algae and/or bacteria. Some studies suggest that diets may change throughout the life of a unionid with juveniles collecting organic materials from the substrate through pedal feeding and then developing the ability to filter feed during adulthood.

**Life History:** Little is known about the life history of the Apalachicola floater. The brooding period for this species is presumed to parallel that of the barrel floater (*Anodonta couperiana*), which exchanges gametes during late summer and broods until mid-November. The host fish for the Apalachicola floater is unknown.

**Survey Recommendations:** Surveyors should consider sampling during periods when female individuals are spawning or brooding as this species may have higher detection rates during this period. However, since basic life history information for many of Georgia's unionids is lacking, sampling during periods when closely related species are spawning or brooding may increase probability of detection. Surveys within the mainstem Flint River and backwater areas within the Chattahoochee River and Spring Creek are lacking and should be completed to re-assess the population of the Apalachicola floater in Georgia.

**Range:** Appears to be endemic to the lower Apalachicola, Chattahoochee, Flint Rivers basin of Florida and Georgia. One live individual has been reported from an unnamed tributary to Abrams Creek in the Flint River Basin of Georgia. This species was previously identified as the barrel floater and does not appear to be abundant throughout the basin. One live individual was collected in 2005 in an oxbow on Spring Creek, downstream of U.S. 84 near Brinson, Georgia. Additionally, one recent dead individual was collected from Lake Blackshear near the mouth of Gum Creek.

**Threats:** Habitat fragmentation may isolate populations and prevent fish movement, limiting the distribution of host fishes carrying glochidia. Additionally, construction of impoundments could further fragment populations and inundate suitable habitat. Excessive water withdrawals in the lower Flint River basin coupled with severe drought could cause this species to become extirpated from Georgia. Excess sedimentation due to inadequate riparian buffer zones and incompatible agricultural practices may also cover suitable habitat and could potentially suffocate individuals.

**Georgia Conservation Status:** The Apalachicola floater is not known from any state or federal lands in Georgia. Unlike terrestrial species, the occurrence of an aquatic species on state or federal lands may not eliminate habitat degradation due to the influences of upstream and downstream disturbances.

**Conservation and Management Recommendations:** Examination of the basic life history was identified as a top research priority needed for the conservation of this species during the 2005 Georgia Wildlife Action Plan. Understanding the basic life history of this species will provide the foundation upon which all other research and conservation actions should be built. Investigating the effects of groundwater withdrawals on the distribution and abundance of this species was also identified as a high priority research need for this species.

**Selected References:**

Brim Box, J. and J.D. Williams. 2000. Unionid mollusks of the Apalachicola Basin in Alabama, Florida, and Georgia. Alabama Museum of Natural History Bulletin 21. 143 pp.

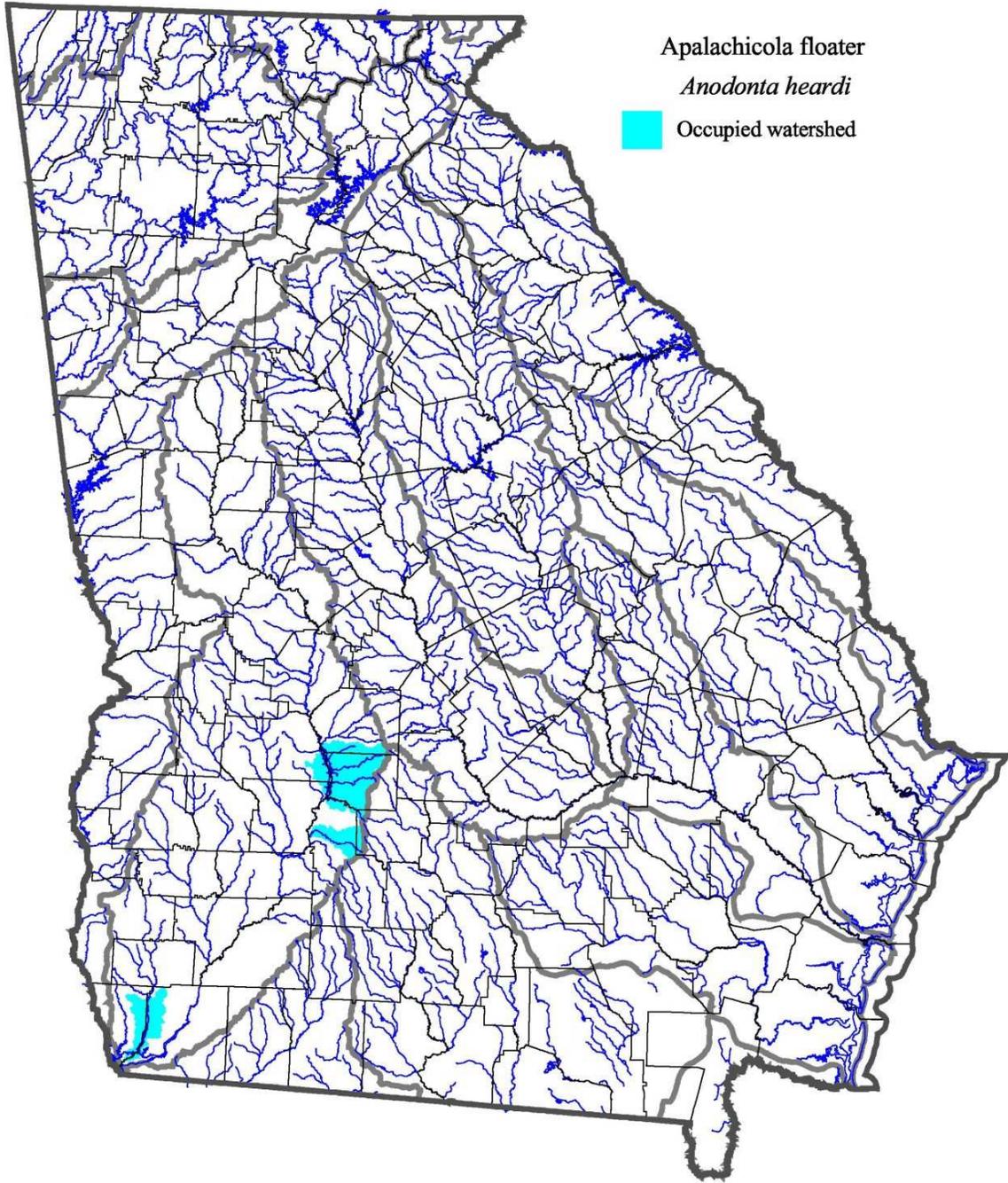
Heard, W.H. 1975. Determination of the endangered status of freshwater clams of the Gulf and Southeastern states. Terminal Report for the Office of Endangered Species, Bureau of Sport Fisheries and Wildlife, U.S. Department of the Interior. 31pp.

Vaughn C.C. and C.C. Hakenkamp. 2001. The functional role of burrowing bivalves in freshwater ecosystems. *Freshwater Biology* 46: 1431-1446.

Wisniewski, J. 2005 Field Notes. Georgia Department of Natural Resources, Wildlife Resources Division, Natural Heritage Program, Social Circle.

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Watersheds (Huc 10) with known occurrences. Streams, county lines, and major river basin boundaries are also shown. Map generated from GADNR (Nongame Conservation Section) data on January 21, 2009.