

FAT THREE RIDGE

Amblema neislerii



Order: Unionoida
Family: Unionidae
FNAI Ranks: G1/S1
U.S. Status: Endangered
FL Status: Endangered

Description: A medium-large bivalve mollusk reaching a length of 4 in. (102 mm). Valves (shell) dark brown to black, strongly sculptured with seven to nine prominent, horizontal, parallel ridges, somewhat square in outline, inflated (deep; highly so in older specimens), solid, and heavy; umbos (raised areas on valves near hinge) toward anterior end of shell. Internally, two nearly equal-sized teeth below umbo of left valve, and usually one large and one small tooth in right valve; nacre (inner lining of valves) bluish white to light purplish, very iridescent.

Similar Species: The prominent, parallel ridges and inflated shell (older specimens especially) distinguish this species from most Florida mussels. The ridges are present even in younger specimens and serve to distinguish them from other mussels such as *Glebula rotundata*, *Elliptoideus sloatianus* (see species account), and *Megaloniaias nervosa*. A very similar close relative, *A. plicata*, inhabits rivers farther west, including the Escambia and Choctawhatchee. Because many mussels are similar externally, identity should always be confirmed by an expert.

Habitat: Main channel of small to large rivers in slow to moderate current; substrates include sand, sandy mud, gravel, and rocky rubble.

Seasonal Occurrence: Present year-round.

Florida Distribution: Endemic to the Apalachicola River system; hence, in Florida, restricted to the Apalachicola and lower Chipola rivers. If the Flint River population in neighboring Georgia has been extirpated, as recent surveys suggest, then today the species may be restricted to Florida.

Range-wide Distribution: Besides Florida, formerly occurred in Flint River in Georgia, but population appears to be extirpated.

Conservation Status: Declining; much of Apalachicola River floodplain is publicly

owned, but river still faces multiple threats, including channel dredging and the exotic Asian clam (*Corbicula fluminea*).

Protection and Management: The major focuses in managing for viable populations of freshwater mussels are maintenance of high quality waters and benthic habitats, as well as ample stream and river flows (damming is strongly discouraged). Valuable tools include establishment of buffers and streamside management zones for all agricultural, silvicultural, mining, and developmental activities; and elimination or reduction of invasive species (especially other bivalves) if possible. Monitoring programs should focus on water and benthic habitat quality, as well as population sizes and population statuses of both mussels and their host fishes at all occupied sites. Additionally, it is important to promote responsible watershed land use practices by implementing aquatic habitat education programs for land use planners and resource managers, and to conduct periodic reevaluations of the effectiveness of habitat protection measures and watershed land use practices.

References: Brim Box and Williams 2000, Deyrup and Franz (eds.) 1994, Georgia DNR 1999, U.S. Fish and Wildlife Service 1998b.



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