



## *Somatogyrus virginicus* Walker 1904 panhandle pebblesnail



**Taxonomy & Systematics.** The Hydrobiidae is a diverse group in the worldwide Superfamily Rissoacea - prosobranch gastropods typically small in body size, shallow or even amphibious in their habit, bearing cusps around the base of their median radular tooth. Sexes are separate in almost all cases, eggs being laid singly and attached in a spare capsule to solid substrates. The penis arises from the neck. Hydrobiids are distinguished from their two sister groups in freshwater, the Bithyniidae and the Pomatiopsidae, by the calcareous operculum

of the former and the amphibious life habit of the latter.

*Somatogyrus* may be confused with several other taxa of plainly-shelled hydrobiids inhabiting southern Atlantic drainages, including *Amnicola*, *Lyogyrus*, and *Gillia*. Penial morphology in the subfamily Amnicolinae is doubly-ducted. Of the three amnicoline genera inhabiting the study area, *Somatogyrus* is distinguished by its relatively heavy, robust shell. Burch divided *Somatogyrus* into two subgenera (*Walkerilla* and *Somatogyrus s.s.*) but later opinions suggest little basis for the distinction. The adult shell length ranges from 3 - 5 mm.

*Somatogyrus virginicus* was originally described from the Rapidan River in Virginia, and for many years believed endemic to that particular river system. It has recently become clear, however, that *S. virginicus* ranges through southern Atlantic drainages into Georgia, but that it has been confused with other hydrobiid genera and repeatedly redescribed under other specific nomina. Synonyms include *tenax*, and *alcoviensis*, and perhaps *georgianus*, *pennsylvanicus*, and *rheophilus*.

**Habitat & Distribution.** *Somatogyrus* populations are widespread in rivers and streams of good flow throughout the Piedmont, extending from the base of the Blue Ridge to the edge of the Coastal Plain. Their patchy distribution, especially in Virginia and South Carolina, suggests however that their range may have been impacted by siltation from historic agricultural practices.

**Ecology & Life History.** Rocky substrate seems to be a key habitat requirement. *Somatogyrus* populations are typically found in rapids and riffles with good flow, often associated with the macrophyte *Podostemum*.

**Conservation Status.** Federal Species of Concern  
VA Wildlife Action Plan Tier II - Very High Conservation Need.  
NatureServe G2G3/S1S2 - Imperiled/Critically Imperiled.

