



Pleurocera virginica (Say 1817)

Piedmont elimia

Taxonomy & Systematics. *Pleurocera* is a genus in the (primarily North American) family Pleuroceridae - prosobranch gastropods of moderate body size, generally inhabiting shallow waters, males aphyallic. Females can be distinguished by an egg laying groove on the right side of their foot. Most populations are perennial and iteroparous, typically requiring more than a year to mature and living several years. Eggs are affixed to hard substrates singly or in small clusters from spring to midsummer. Pleurocerids are generalized grazers, and where present in high density can have significant effects on energy flow in streams.

Until recently this species has been assigned either to the genus *Goniobasis* or to "*Elimia*." Both of these generic nomina were subsumed under the genus *Pleurocera* in 2011.

Pleurocera virginica populations display striking variation in shell ridging, ranging from entirely smooth to strongly mark with spiral cords. Allozyme data suggest a hybrid zone between *P. virginica* and *P. livescens* of the American interior, apparently promoted by the 1825 opening of the Erie Canal. Holznagel & Lydeard reported sequence data from the 16S rRNA gene of an individual *P. virginica* sampled from Pennsylvania.

Habitat & Distribution. Populations of *P. virginica* are widespread in Atlantic drainages from Connecticut and Massachusetts to North Carolina, and as far west as central New York State. Populations are common in rivers and streams of the Piedmont and upper Coastal Plain of Virginia. They seem to inhabit areas of softer substrate than most other pleurocerids, but can be found grazing over the entire range of bottom types, from rock and vegetation to sand and mud.

Ecology & Life History. Eggs are deposited on hard substrates from spring to mid-summer. Eggs are spirally arranged in masses of 2-15 or more, with a tough, membranous outer covering. Declines and local extinctions of stream- and lake-dwelling *P. virginica* populations in the Northeast have been attributed to habitat degradation.

Conservation Status. NatureServe G5/S4 - Secure/Apparently Secure.

