



Pleurocera catenaria catenaria (Say 1822)

gravel elimia

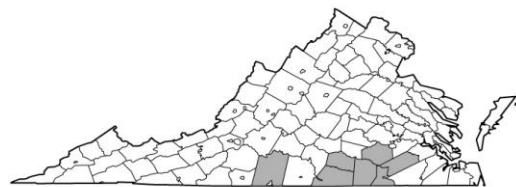
Taxonomy & Systematics. *Pleurocera* is a genus in the (primarily North American) family Pleuroceridae - prosobranch gastropods of moderate body size, generally inhabiting shallow waters, males aphyallic. Females can be distinguished by an egg laying groove on the right side of their foot. Most populations 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.

The VDGIF refers to populations of *P. catenaria catenaria* as "*Elimia catenaria*," without subspecies designation. Such populations range through southern Atlantic drainages from Virginia through Georgia, extending to drainages of Tennessee and the Gulf. Synonyms include *albanyensis*, *athearni*, *boykiniana*, *caelatura*, *catenoides*, *christyi*, *darwini*, *interrupta*, *gesnerii*, *lecontiana*, *modesta*, *mutabilis*, *papillosa*, *postelli*, *suturalis*, *viennaensis*, and *viridostriatilis*.

Dillon & Reed reported that the level of genetic divergence between a Columbia-area population and eight other *P. catenaria* populations (of both subspecies) sampled from North Carolina into Georgia was roughly comparable to the better-studied *P. proxima*. Dillon & Robinson nominated *P. catenaria* as one of the "snails the dinosaurs saw," suggesting on the basis of DNA sequence data that populations may date to the Appalachian orogeny.

Habitat & Distribution. Populations of *P. catenaria catenaria* do not inhabit acidic or nutrient-poor waters, and seems to require at least some rock substrate. Thus it is not found in the slow Coastal Plain rivers, nor in the (many) Piedmont streams with high sediment loads. In Virginia, *P. catenaria catenaria* is primarily found in the Chowan River system, with scattered populations in tributaries of the lower Roanoke.



Ecology & Life History. The spotty distribution demonstrated by *P. catenaria catenaria* through much of its extensive range may be a consequence of erosion and sedimentation from intensive row-crop agriculture in the nineteenth and early twentieth centuries.

Conservation Status. NatureServe G4/S3 - Apparently Secure/Vulnerable.
Virginia Wildlife Action Plan Tier IV - Moderate Conservation Need.