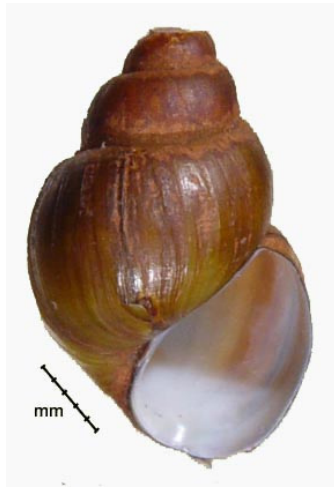




Campeloma decisum (Say 1816)

pointed campeloma

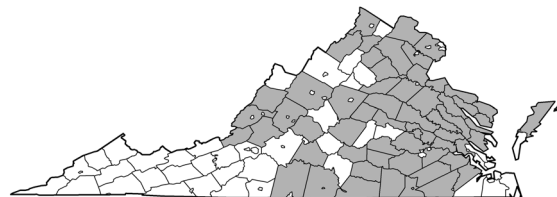
Taxonomy & Systematics. *Campeloma* is a North American genus in the worldwide family Viviparidae, a strictly freshwater family of relatively large-bodied prosobranch gastropods, bearing concentric opercula. Viviparids have evolved specializations of the gill and mantle cavity allowing them to filter feed as well as graze. They are also distinguished by their ovoviviparity. Females brood eggs after fertilization in a "uterus," releasing young as crawling juveniles. The penis arises as a modified right tentacle.

The widespread occurrence of parthenogenesis in this group voids the biological species concept and necessitates a retreat to the morphological. In his extensive surveys of genetic divergence among southern *Campeloma* populations, S. G. Johnson has applied both the nomina "*decisum*" and "*limum*" to samples from Atlantic drainages. But the shell morphological traits by which Johnson has distinguished these two taxa are generally weak and variable. We are entirely unable to distinguish *Campeloma* populations throughout Virginia Atlantic drainages from typical *C. decisum*.

A partial list of synonyms would include: *brevispirum*, *coarctata*, *cornea*, *dissimilis*, *exilis*, *gibba*, *heros*, *integra*, *leptum*, *lewisi*, *limosa*, *milesii*, and *tannum*.

Habitat & Distribution. Populations of *C. decisum* are widespread in Atlantic drainages throughout the Piedmont and Coastal Plain of the American South. In Virginia, the animals are most commonly found burrowing in sandy substrate, in rivers and streams where the current is sufficient to oxygenate the entire water column. They are not common in swampy, muddy, or lentic environments, or in the rocky streams that become more common in the upper Piedmont and Blue Ridge provinces.

Ecology & Life History. Little is known regarding the diet of *Campeloma*. The burrowing habit and peculiar radular morphology displayed by these snails imply an ability to filter feed, as has been documented for *Viviparus*. But the snails have almost certainly retained the ability to graze or harvest deposits on soft sediments as well. There are anecdotal reports that *Campeloma* can be baited with carrion.



Some populations of *Campeloma* appear composed entirely of parthenogenic females, others appear to reproduce entirely by outcrossing, and some populations display a mixture of the two modes. Only a single year is required for maturation in some populations, two in others, and both semelparous and iteroparous reproduction have been reported.

Conservation Status. NatureServe G5/S5 - Secure.