

Lymnaea (Fossaria) humilis Say 1822

marsh fossaria



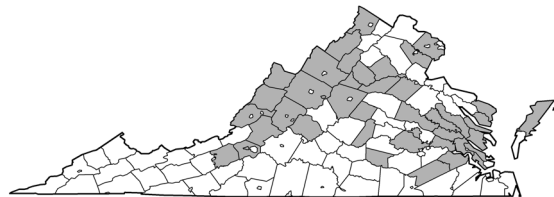
Taxonomy & Systematics. Among the families of strictly freshwater basommatophoran pulmonates, the worldwide Lymnaeidae is generally held to have retained the greatest fraction of ancestral characters. They are anatomically conservative, most species being assigned to the typical genus *Lymnaea* by Hubendick. Lymnaeids may, however, display great interpopulation diversity in life history and various aspects of external morphology, especially shell, which has led to a proliferation of specific nomina.

The gill has been lost, leaving respiration to occur across the entire mantle cavity, as is true for pulmonates in general. This can be seen as an adaptation to the colonization of warm or stagnant freshwaters, where the concentration of oxygen may be reduced. All of the lymnaeid species of southern Atlantic drainages are to some extent amphibious, often being observed above the water line. They are hermaphroditic, as is also true for pulmonates in general, typically capable of self-fertilization and laying eggs in gelatinous, sausage-shaped masses with a tough covering.

Some authors have gathered *humilis* together with other nominal species and subspecies of small, amphibious lymnaeids into the genus *Fossaria*, a convention which VDGIF follows. We prefer Hubendick's two-genus classification, however, *Fossaria* being at most a subgenus. VDGIF Junior synonyms include *cyclostoma*, *dalli*, *exigua*, *galbana*, *modicella*, *neopalustris*, *obrussa*, *parva*, *peninsulae*, *rustica*, and *tazewelliana*.

Habitat & Distribution. *Lymnaea humilis* is widespread in Atlantic drainages of Virginia and in the northern and central regions of North Carolina, but becomes less common in the south. We are aware of only a few populations in South Carolina and Georgia, entirely in the upper Piedmont and west. Elsewhere *L. humilis* ranges throughout North America, from Alaska to Florida. Populations are typically semiaquatic, inhabiting moist areas at or above the water line near streams, lakes, ponds, and marshes. *Lymnaea humilis* can inhabit oligotrophic, mesotrophic, or eutrophic water bodies, and is an excellent colonizer of new habitats, readily invading young ponds devoid of vegetation and other species of gastropods.

Ecology & Life History. Although *L. humilis* can thrive in waters with low oxygen levels, some Canadian populations seem to have disappeared in areas affected by intensive agriculture and logging. Population size frequency distributions suggest an annual life cycle for *L. humilis*, with a maximum lifespan of 16 months.



Lymnaea humilis is one of many amphibious lymnaeid taxa capable of serving as an intermediate host for trematodes causing fascioliasis in livestock, and rarely humans.

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