



Fontigens orolibas Hubricht 1957

Blue Ridge springsnail



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.

Like other members of the hydrobiid subfamily Fontigentinae, *F. orolibas* bears a rather striking triply-ducted penis. *Fontigens orolibas* is the second-most widespread of the nine species monographed by Hershler and colleagues. Its shell (adult length 3 - 4 mm) is relatively tall by comparison with *F. bottimeri* and *F. morrisoni*, and the animal paler.

Habitat & Distribution. *Fontigens orolibas* inhabits springs and cave streams from the Potomac River basin of southern Pennsylvania southwest to the Clinch and Holston Rivers of southwestern Virginia, including parts of the New and Roanoke River basins. Populations are commonly encountered in springs and wet seeps at the crest of the Blue Ridge along the Skyline Drive in Shenandoah National Park. The animals themselves seem to shun the light, being found underneath stones and leaves very near their springhead. Population densities become rapidly attenuated downstream, as though dependent on constant temperature or some other unique aspect of the spring environment.

Ecology & Life History. The cryptic habit of *F. orolibas* seems to suggest a diet that does not ordinarily include algae, but rather very fine organic matter or bacteria. We are not aware of any good study on the life history of *Fontigens*, but populations typically seem to maintain high densities year round, as though reproduction might be continuous. The springs at the crest of the Blue Ridge inhabited by *F. orolibas* populations are quite soft, but elsewhere the species seems to inhabit harder waters.

Conservation Status. NatureServe G3/S3 - Vulnerable.

