

Freshwater Snails

Introduction

Mollusks of the class Gastropoda, commonly known as snails and slugs, are found in freshwater, terrestrial and marine habitats. Terrestrial snails are not being included at this time because little is known about the distribution and status of these organisms. Further, we have been unable to identify any regional experts who can provide substantial information about South Carolina's land snails. As with all invertebrate groups, snails and other gastropods are in need of taxonomic and genetic work. Knowledge of gastropods has suffered due to the scarcity of taxonomic experts in this area.

A fairly extensive survey for freshwater snails has been conducted across South Carolina (Dillon 2004a). Specimens for this study were obtained both through stream collections and by identifying snails from previous aquatic invertebrate samples collected by South Carolina Department of Health and Environmental Control (SC DHEC) for water quality assessment. We have little information on other aspects of the natural history of freshwater snails. Basic studies on their taxonomy, habitat requirements and response to potential threats should be encouraged.

Summary

Freshwater snails are a poorly understood group of organisms and we have little information on their sensitivity to particular threats. There are also taxonomic questions surrounding the classification of freshwater snails. The three snail species addressed in this section are classified below based on our level of conservation concern.

Highest Priority

Somatogyrus sp.: In addition to the fact that there are taxonomic questions regarding this species, it and its congeners are rare in South Carolina and throughout their ranges. This species may be sensitive to siltation and water quality degradation and its habitat is threatened by increasing development. Therefore, *Somatogyrus* sp. is considered the freshwater aquatic snail species most in need of conservation.

High Priority

Buffalo Pebblesnail and Ridged Lioplax: Both of these species appear to be very rare in South Carolina, but may be somewhat more abundant globally. Therefore, these species are considered to be high conservation priorities.

Moderate Priority

Physa sp. nov "A": This undescribed snail species is included because we lack sufficient information to adequately determine its status within South Carolina. Therefore, it is considered a moderate conservation priority.

Literature Cited

- Benson, A. 2005. *Gillia altilis*. Nonindigenous Aquatic Species Database, Gainesville, FL. <http://fgywdmz014.er.usgs.gov/queries/FactSheet.asp?SpeciesID=1007>. Revision Date: 4/21/2004.
- Dillon, R.T. 2004a. Accessed from the World Wide Web on July 26, 2004. <http://www.cofc.edu/%7Edillonr/FWGSC/>.
- Dillon, R.T. 2004b. Accessed from the World Wide Web on July 26, 2004. <http://www.cofc.edu/%7Edillonr/26May04.html>
- Lea, I. 1841. New fresh water and land snails. Proceedings of the American Philosophical Society. 2(16):11-15.
- Moglen, G.E. 2000. Urbanization, stream buffers, and stewardship in Maryland. Pp. 234-238. *In*: T.R. Schueler and H. K. Holland, eds. The practice of watershed protection. The Center for Watershed Protection, T.R. Schueler and H. K. Holland, eds. Ellicott City, Maryland.
- NatureServe. 2004. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.0. NatureServe, Arlington, Virginia. Accessed from the World Wide Web on July 26, 2004. <http://www.natureserve.org/explorer>.
- NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.0. NatureServe, Arlington, Virginia. Accessed from the World Wide Web on March 3, 2005. <http://www.natureserve.org/explorer>.
- North Carolina Wildlife Resources Commission (NCWRC). 2002. Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife and Water Quality. http://www.ncwildlife.org/pg07_WildlifeSpeciesCon/pg7c3_impacts.pdf. Accessed August 21, 2004.
- Wethington, A.R. and R.T. Dillon. 2005 (in preparation). A new species of *Physa*, *P. carolinae*, from South Carolina with notes on its biology.