

Yellow Lampmussel

Lampsilis cariosa

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DESCRIPTION

Taxonomy and Basic Description

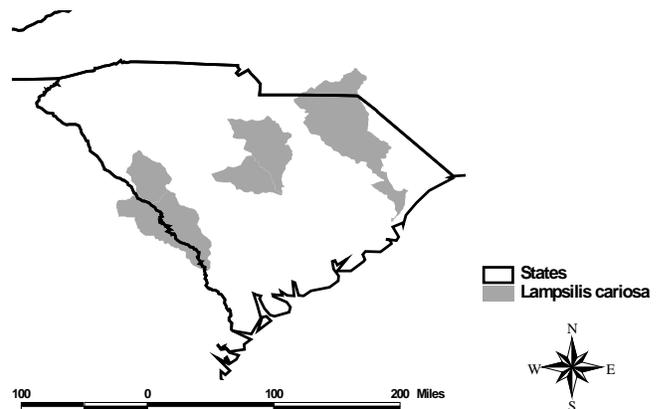
The shell of the Yellow Lampmussel is obovate (egg-shaped) in shape and moderately inflated with the anterior margin rounded, the ventral margin slightly curved, and the posterior margin bluntly rounded. The posterior ridge is poorly developed and rounded. The outer surface of the shell is waxy, shiny, and yellow, sometimes with a trace of green. Thin dark rays are absent from the shell or restricted to the posterior slope. Older specimens are brownish and not as shiny. The inner surface of the shell is bluish-white and may be tinged with cream or salmon. The shell length is approximately 120 mm (4.8 in.) (Bogan and Alderman 2004, 2008).

Status

The Yellow Lampmussel is currently identified as globally vulnerable to apparently stable (G3/G4) by NatureServe (2011). It is ranked as critically imperiled (S1) in North Carolina and imperiled (S2) in Georgia and South Carolina and possibly extirpated or presumed extirpated in several northeastern states. It is considered a species of special concern in South Carolina as well as a species of federal concern.

POPULATION SIZE AND DISTRIBUTION

The Yellow Lampmussel ranges from the Ogeechee River Basin in Georgia to Nova Scotia. In South Carolina, it is found in the Steven's Creek sub-basin, and the Savannah, Wateree, Congaree, and Pee Dee River Basins (Bogan and Alderman 2004, 2008). The Congaree and Pee Dee Rivers may contain the best populations in the State. Comparison of historic and current records indicate that Yellow Lampmussel populations have declined in the Savannah River. Juvenile Yellow Lampmussels are not usually found during surveys; this indicates that the species may not be reproducing there. However, juveniles of this species were recently found in the Great Pee Dee River (Taxonomic Expertise Committee 2004).



HABITAT AND NATURAL COMMUNITY REQUIREMENTS

The Yellow Lampmussel can be found in gravel bars, margins of the flowing portions of water bodies, and in cracks in bedrock in both large rivers and small streams.

CHALLENGES

In particular, the Yellow Lampmussel is adversely affected by variations in the volume of flow through inhabited rivers and streams (Taxonomic Expertise Committee 2004). It also appears to be sensitive to sedimentation, pollution, and other general challenges to mussels. However, the specific threats to this species are not well understood (Taxonomic Expertise Committee 2004).

CONSERVATION ACCOMPLISHMENTS

There are no significant conservation accomplishments specifically for the Yellow Lampmussel at this time.

CONSERVATION RECOMMENDATIONS

- Conduct surveys to monitor existing populations of the Yellow Lampmussel and to look for new populations outside of its known range.
- Explore the need to upgrade the listing of the Yellow Lampmussel in South Carolina, based on survey results.
- Protect critical habitats for the Yellow Lampmussel from future development and further habitat degradation by following Best Management Practices and protecting and purchasing riparian areas.
- Promote land stewardship practices through educational programs both within critical habitats with healthy populations and in other areas that contain available habitat for the Yellow Lampmussel.
- Encourage responsible land use planning.
- Consider this species' needs when participating in the environmental permit review process.
- Educate off-road motor vehicle operators of the negative effects of crossing streams at multiple locations and using stream bottoms as trails.
- Conduct further research to determine the degree of sensitivity of the Yellow Lampmussel to various point and non-point source pollution sources and land use impacts.

MEASURES OF SUCCESS

Persistence of identified populations of the Yellow Lampmussel and an increase in populations where they are currently very rare will be considered indicative of success.

LITERATURE CITED

Bogan, A.E. and J.M. Alderman. 2004. Workbook and key to the freshwater bivalves of South Carolina. i-ii + 1-64 pp. + 5 pls.

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