# Wavy-rayed Lampmussel (Lampsilis fasciola)

## Freshwater Mussel Species of Concern

State Rank: S4 (apparently secure) Global Rank: G5 (secure)

#### **Identification**

The overall length of the wavy-rayed lampmussel (*Lampsilis fasciola*) is usually less than 3 inches. The shells are short and rounded. The periostracum that covers the outer shell is light yellow to yellowish green in color, and marked with numerous wavy green rays (Bogan 1993; Strayer and Jirka 1997).

### **Habitat**

The wavy-rayed lampmussel lives in the riffles of medium to large sized rivers and creeks in water that is clear (NatureServe 2008).



Photo source: PNHP

#### **Host Fish**

A host for this mussel is the smallmouth bass (*Micropterus dolomieui*) (Zale and Neves 1982, Strayer and Jirka 1997; Cummings and Watters 2009). The wavy-rayed lampmussel has adapted part of its internal tissue to look like a small prey fish, probably a darter. This "lure" is used to attract its host fish, the smallmouth bass.

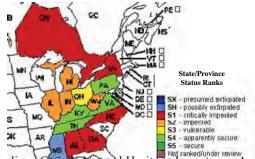


Pennsylvania Natural Heritage Program Data: January, 2009
Wavy-rayed Lampmussel (Lampsilis fasciola)

Current Records (1980 onward) Historic Records (pre-1980)

Photo source: Tamara Smith, PNHP

#### North American State/Province Conservation Status Map by NatureServe 2008



#### Status

The wavy-rayed lampmussel is found in the Great Lakes and Ohio-Mississippi drainages from Ontario, Canada south to Mississippi and eastward (NatureServe 2008). In Pennsylvania the *Lampsilis fasciola* is found in the Ohio and Lake Erie drainage basins (PNHP 2008). The Pennsylvania Biological Survey (PABS)

Indiana County Natural Heritage Inventory - Appendix V: Fact Sheets for Selected Species of Concern/ 249

has given *Lampsilis fasciola* a Condition Undetermined (CU) designation indicating that there is insufficient data to assign it to another class or category.

This species has no current legal status (N) in Pennsylvania but is under review for future listing. More studies are needed in order to determine the status of this species in the state (PNHP 2008). Threats to native freshwater mussels include dams and stream channel alteration, development, pollution and siltation due to improper agriculture and timbering practices, and invasive species such as the zebra mussel (*Dreissena polymorpha*) (Lydeard et al. 2004).

#### References

- Bogan, A.E. 1993. Workshop on Freshwater Bivalves of Pennsylvania. Sewell, N.J. pp. ii, 1-80, with 11 color plates, 65 figures. Cummings, K. and T. Watters. 2009. Mussel/Host Database. Ohio State University (OSU) Molluscs Division. <a href="http://128.146.250.235/MusselHost/">http://128.146.250.235/MusselHost/</a> (accessed March 5, 2009).
- Lydeard, C., R. H. Cowie, W. F. Ponder, A. E. Bogan, P. Bouchet, S. A. Clark, K. S. Cummings, T. J. Frest, O. Gargominy, D. G. Herbert, R. Hershler, K. E. Perez, B. Roth, M. Seddon, E. E. Strong, and F. G. Thompson. 2004. The Global Decline of Nonmarine Mollusks. *BioScience* 54(4): 321-330.
- NatureServe. 2008. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <a href="http://www.natureserve.org/explorer.">http://www.natureserve.org/explorer.</a>Strayer, D.L. and K. J. Jirka. 1997. The Pearly Mussels of New York State. The New York State Education Dept., Albany, N.Y. 113 pp and plates.
- Pennsylvania Natural Heritage Program (PNHP) files accessed December, 2008. Presence records of Lampsilis fasciola.
- Zale, A.V., and R.J. Neves. 1982. Reproductive biology of four freshwater mussesl species (Mollusca: Unionidae) in Virginia. Freshwater Invertebrate Biology 1(1):17-28.