

2001

Eurycea Cirrigera (Southern Two-lined Salamander). Larval Habitat

Timothy R. Brophy

Liberty University, tbrophy@liberty.edu

Thomas K. Pauley

Follow this and additional works at: http://digitalcommons.liberty.edu/bio_chem_fac_pubs

Recommended Citation

Brophy, Timothy R. and Pauley, Thomas K., "Eurycea Cirrigera (Southern Two-lined Salamander). Larval Habitat" (2001). *Faculty Publications and Presentations*. 48.

http://digitalcommons.liberty.edu/bio_chem_fac_pubs/48

This Article is brought to you for free and open access by the Department of Biology and Chemistry at DigitalCommons@Liberty University. It has been accepted for inclusion in Faculty Publications and Presentations by an authorized administrator of DigitalCommons@Liberty University. For more information, please contact scholarlycommunication@liberty.edu.

EURYCEA CIRRIGERA (Southern Two-lined Salamander). **LARVAL HABITAT.** Larval two-lined salamanders typically inhabit lotic environments (Petranka 1998. Salamanders of the United States and Canada. Smithsonian Inst. Press. Washington, D.C. 587 pp.). Larval *Eurycea bislineata* from New York (Bahret 1996. J. Herpetol. 30:399–401) and larval *E. wilderae* from North Carolina (Bruce 1982. Copeia 1982:117–127), however, have been reported from lentic environments. We found larval *E. cirrigera* inhabiting a small farm pond (surface area 177 m², max. depth 1.5 m) 2.5 km NNW of Hinton, West Virginia, USA, at 812 m elevation. The pond was located in mesic woods and supported populations of several amphibian species. This note represents the first report of larval *E. cirrigera* inhabiting a lentic environment and the first to provide size at metamorphosis from West Virginia.

Snout-vent lengths (SVL) of larvae were measured to the nearest 0.1 mm and are reported here as means \pm 1 SD (range): 11 August 1994 (N = 103) 12.35 \pm 1.93 mm (9.8–20.0 mm); 30 October 1994 (N = 51) 20.01 \pm 1.61 mm (17.0–23.7 mm); 17 January 1995 (N = 85) 20.05 \pm 1.72 mm (16.4–26.0 mm); 19 March 1995 (N = 51) 20.95 \pm 2.16 mm (17.6–27.4 mm). Average growth rate for this 220-day period was 0.039 mm/day, however larvae grew very little during the winter months.

Sixty *E. cirrigera* metamorphs were collected in pitfall traps on the banks of the pond between 20 July and 3 August 1993. These recently transformed juveniles were apparently leaving the aquatic environment to inhabit the surrounding forest. Metamorphs measured (SVL) 22.31 \pm 1.94 mm (18.3–27.0 mm).

Over 15,000 man-made farm ponds exist in West Virginia (Core 1966. Vegetation of West Virginia. McClain Printing Co. Parsons, West Virginia. 217 pp.), many of which play important roles in the ecology of aquatic and semi-aquatic amphibians (Lively and Bayless 1972. Proc. West Virginia Acad. Sci. 44:89–92). Our observations suggest that farm ponds may play a more important role in the ecology of *E. cirrigera* than previously recognized.

We thank Michele L. Brophy, Peter A. Kramer, and James W. Barron for their assistance in the field and laboratory, and Joseph C. Mitchell for reviewing the manuscript. Voucher specimens were deposited in the West Virginia Biological Survey collection at Marshall University (WVBS 6902–6906). Specimens were collected under WVDNR permit numbers 33-1993, 19-1994, and 52-1995.

Submitted by **TIMOTHY R. BROPHY*** and **THOMAS K. PAULEY**, Department of Biological Sciences, Marshall University, Huntington, West Virginia 25755-2510, USA. *Present address: Department of Biology, George Mason University, Fairfax, Virginia 22030-4444, USA.