



Louisiana Department of Wildlife and Fisheries Natural Heritage Program

Plethodon serratus Southern Redback Salamander



Identification: A slender, dark gray to almost black salamander. An orange or reddish saw-toothed stripe extends almost to end of tail. The lower sides and belly are mottled with light and dark pigments.

Measurements: Adult: total length 3-4 inches.

Taxonomic comments: It was considered a subspecies of the Redback Salamander, *Plethodon cinereus*, until 1976.

Status: Global rank is **G5** and state rank is **S1**.

Habitat: A terrestrial salamander found in moist forested habitats, particularly where there are stone outcroppings or abundant leaf litter and logs for shelter.

Range: Four separate populations; mountains of west central Arkansas and Oklahoma; central and southeastern Missouri, central Louisiana, northeast Georgia and adjacent Alabama, Tennessee, and North Carolina.

Food habits: they consume virtually any prey that is available and small enough to be captured, including termites, ants, flies, mites, springtails, spiders, earthworms, snails, slugs, centipedes, millipedes, and even the eggs and small juveniles of their own species.

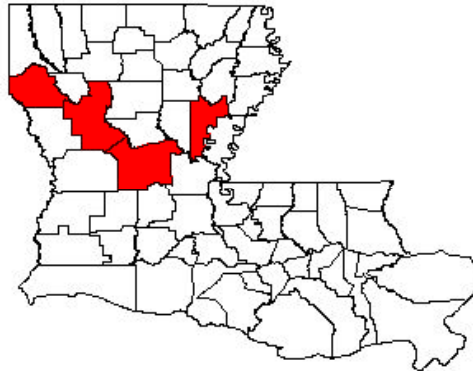
Life expectancy: Best estimate is 3 years but life span is largely unknown.

Reproduction: Individuals reach sexual maturity at 2 years. Mating occurs during the fall and females lay clusters of 5-6 eggs underground during early summer. Females attend to the eggs until they hatch 7-8 weeks later. The hatchlings then continue to remain underground until the following year.

Reason for decline: Small, disjointed populations throughout its range make each population of *Plethodon serratus* more vulnerable to local extinction. This species is vulnerable to changes in habitat caused by deforestation and logging and it recovers slowly from population declines.

Interesting facts: Southern redback salamanders are completely terrestrial and unlike many amphibians, the young have direct development (no aquatic phase).

Known distribution in Louisiana:



Dates of documented observations are: 1969, 1981, and 1995

References

- Camp, C.D. 1988. Aspects of the life history of the southern red-backed salamander *Plethodon serratus* Grobman in the southeastern United States. *The American Midland Naturalist* 119:93-100.
- Conant, R. and J. T. Collins. 1991. *A Field Guide to Reptiles and Amphibians: Eastern and Central North America*. Houghton Mifflin Company, Boston, Massachusetts.
- Dundee, H. A., and D. A. Rossman. 1989. *The Amphibians and Reptiles of Louisiana*. Louisiana State University Press, Baton Rouge, Louisiana.
- Herbeck, L.A. and R.D. Semlitsch. 2000. Life history and ecology of the Southern Redback Salamander, *Plethodon serratus*, in Missouri. *Journal of Herpetology* 34:341-347.
- Larson, D. L. 1998. Tiger salamander life history in relation to agriculture in the northern Great Plains: A hypothesis. *In* *Status and Conservation of Midwestern Amphibians*. Lannoo, E. J. ed. University of Iowa Press, Iowa City, Iowa.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2002. Version 1.6 . Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: January 2, 2003).
- Wilson, L. A. 1995. *Land Manager's Guide to the Amphibians and Reptiles of the South*. Nature Conservancy, Chapel Hill, North Carolina