

Species Dossier

State of New York

Common Name: Longtail Salamander

Endangered Species Working Group Scientific Name: *Eurycea longicauda*

Date compiled: Family: Plethodontidae

I. General Status

Current New York Status: Unlisted

Current Federal Status: Unlisted

Recommended New York Status:

Current status in surrounding states/provinces:

Connecticut: out of range

Massachusetts: out of range

New Jersey: state threatened

Ohio:

Ontario: out of range

Pennsylvania:

Quebec: out of range

Vermont: out of range

Current Natural Heritage rank (TNC): G5 (N) S4
global state

Global and North American Ranges:

Southern New York to northern Alabama and southeast Missouri.

New York's position within global range:

central x peripheral disjunct

II. Historic New York Status and Distribution (>25 years ago)

Provide numbers and/or percent of state occupied and/or number of regions occupied (and basis for estimates), narratives, maps (if available and appropriate), and references/documentation:

Albany County northern limit, as well as the southern tier (Chemung, Cattaraugus, Schuyler, Tioga and Ulster Counties).

III. Current New York Status and Distribution

Provide numbers and/or percent of state occupied and/or number of regions occupied (and basis for estimates), narratives, maps (if available and appropriate), and references/documentation:

Formerly occurring north to Albany, now generally south of the Adirondack Mountains (southern tier of New York) and possibly southeastern New York.

IV. Author's Current Estimate of Population/Habitat Trends

Population Trend _____ Essential Habitat Trend

Declining	Declining
Stable	Stable
Increasing	Increasing
Unknown	Unknown

V. Biological Description

1. Reproductive information:

Breeds in New York: yes
Confirmed in last 2 years yes
Confirmed in last 10 years yes
Confirmed in last 25 years yes
Confirmed prior to 25 years ago yes
Unconfirmed

OR

2. Does not breed in New York; is migrating or seasonal?

OR

3. Species periodically expands or contracts into or out of New York?

Age to sexual maturity Females 46-52 SVL at 3 years of age; Males 43-45mm SVL (end of second summer).

Number of breeding attempts per year 1 attempt.
Average number of young per breeding attempt 100 eggs (several dozen in small clusters)

Estimated number of reproductive years per female 8-10 yrs.

Other narrative on species biology:

Detailed life history studies on the longtail salamander, *Eurycea longicauda* are lacking. Emergence of the longtail salamander from their winter breeding/hibernation grounds occurs during April. Adults are terrestrial nocturnal creatures that maintain some distance from water (except during the breeding season), generally taking refuge beneath some shelter such as under stones, beneath rotting logs or in crevices and feeding on spiders, mites and a variety of insects. As the activity season progresses into May (in New Jersey), adults have moved closer to the water source with the greatest concentration of individuals found 1-6 meters from the edge.

The breeding season occurs during autumn and eggs are laid from late fall (October) through early March in underground crevices associated with springs or other water sources. The eggs incubate for approximately 6-8 weeks. Newly hatched larvae are about 19mm in length (10mm snout vent length), they are uniformly pigmented above and on the sides but the throat, belly, lower surface of limbs and some of the tail is immaculate. The tail is broadly keeled with short bushy pigmented gills. Larval period has been estimated to be 90-100 days with a transformation size of 24-29mm snout vent length. Length at metamorphosis highly variable and fully grown larvae may exceed in length some already metamorphosed individuals (length at metamorphosis approx. 44-45mm). Transformation begins in mid-June.

VI. Habitat

(describe type, vulnerability, distribution and trend in amount overtime, also estimate future trends -- do you expect habitat to be lost in future? Amount, location, type?)

The Longtail Salamander is associated with rocky streams and seeps in moist forested areas under and in decaying wood, under stones near a stream margin, along shale banks, talus slopes, rocky outcroppings and shaded rocky road cuts. When caves are available within the salamander's range, they will occupy the twilight zone of these areas. Nest sites include underground crevices associated with springs, temporary pools and streams under rocks or some other sheltering object as well as attached to objects in or above water in caves.

Individuals of *Eurycea longicauda* have been found hibernating within rotten logs.

VII. Discussion of Problems/Threats/Limiting/Overall Vulnerability (of both individuals and essential habitat):

1. Wet spot excavation and wetland filling pose serious problems for longtail salamander

breeding habitat due to the lack of protection for these wetland sites.

2. Lack of protection for the adult's woodland nonbreeding habitat.
3. Acid rain has been shown to cause egg and larval salamander developmental problems and even death.
4. Water manipulation of wetland sites via dams.
5. Caving enthusiasts unwittingly destroying cave breeding and nest site habitat.
6. Overcollecting.
7. Pesticide/herbicide contamination.

VIII. Additional Study, Documentation, Research or Management Needed:

1. Detailed life history and ecological studies on this species is essential due to the lack of basic information.
2. Population densities and long term trend studies are needed.
3. Field surveys to investigate historical and potential longtail salamander habitat and presence.
4. Population age and sex structure as well as age specific survivorship, animal movements and habitat use.

IX. Prognosis for Recovery:

X. Documentation/References:
(also list or attach pertinent references, survey documents, studies, etc.)

1. Behler, J.L., F.W. King 1979. The Audubon Society Field Guide to North American Reptiles and Amphibians. Alfred A. Knopf, New York.

2. Bishop, S.C. 1941. the Salamanders of New York. New York State Museum Bulletin No. 324. Albany, New York.
3. Bishop, S.C. 1969. Handboook of Salamanders - The Salamanders of the United States, of canada and of lower California. Comstock Publishing Associates of Cornell University Press.
4. Collins, J.T. 1990. Standard common and Current Scientific Names for North American Amphibians and Reptiles. Society for the Study of Amphibians and reptiles, Herp. Circular No. 19.
5. Conant, R.C., J.T. Collins 1991. Peterson Field Guide to Reptiles and Amphibians of Eastern/Central North America. Houghton Mifflin Co., Boston.
6. Degraaf, R.M., D.D. Rudis 1981. Forest Habitat for Reptiles and Amphibians of the Northeast States. U.S. Government Printing Office, Forest Service and U.S. Department of Agriculture Eastern Region.
7. French, T., D. Pence 1991. Legal Categories of Rare Species in the Northeastern States. Northeast Nongame Technical Committee.
8. Green, N.B., T.K. Pauley 1987. Amphibians and Reptiles in West Virginia. University of Pittsburgh Press, West Virginia Department of Natural Resources Nongame Wildlife Program.
9. Pfingsten, R.A., F.L. Downs 1989. Salamanders of Ohio. the College of Biological Sciences The Ohio State University, Ohio Department of Natural Resources, Division of Wildlife.
10. Pleuthner, R. 1981. Summation of Natural Heritage Ranks (for Amphibians and Reptiles).
11. Checklist of the Amphibians, Reptiles, Birds and Mammals of New York State, Including Their Protective Status 1987. N.Y.S. Department of Environmental Conservation Division of Fish and Wildlife Nongame Unit.

XI. Experts Consulted/Reviewers of Dossier:

1. Terry Moore, NYS-DEC, Olean Sub-Office, 128 South Street, Olean, NY 14760.

Prepared By:

Preparer's Status Recommendation:

Endangered
Threatened
Special Concern
Status Unknown
Status Secure
(no listing)