

Long-tailed Salamander, *Eurycea longicauda longicauda*

Status:

State: Threatened

Federal: Not listed

Identification

Well deserving of its name, the long-tailed salamander's tail accounts for nearly two-thirds of its total length. In addition to tail size, these salamanders can be recognized by their coloration and pattern. The slender, bright yellow body is unmarked below and speckled above with black spots that form a herringbone pattern on the tail. Although typically yellow, individuals may range from orange to reddish-orange and, in older specimens, brown. Speed, agility, and the ability to regenerate their tails enable long-tailed salamanders to evade potential predators. Adults measure 10 to 16 cm (4.0 to 6.25 in.) in length (Conant and Collins 1991).



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Habitat

Long-tailed salamanders inhabit clean, calcareous (limestone) spring-fed seepages, spring kettleholes, swampy floodplains, artesian wells, and ponds associated with springs. They may also reside in abandoned mines or caves that are permeated by calcareous ground water.

Aquatic habitats occupied by long-tailed salamanders often occur within upland deciduous forests that may also contain calcareous fens, limestone outcrops, or caves. Forest types typically include mature, closed canopy maple/mixed deciduous, mixed hardwood, or hemlock/mixed deciduous woodlands. Overstory vegetation may include silver maple (*Acer saccharinum*), red maple (*A. rubrum*), yellow birch (*Betula alleghaniensis*), white oak (*Quercus alba*), sugar maple (*A. saccharum*), black walnut (*Juglans nigra*), sycamore (*Platanus occidentalis*), American elm (*Ulmus americana*), tulip poplar (*Liriodendron tulipifera*), gray birch (*B. populifolia*), basswood (*Tilia americana*), slippery elm (*Ulmus rubra*), red cedar (*Juniperus virginiana*), eastern cottonwood (*Populus deltoides*), willow (*Salix spp.*), or eastern hemlock (*Tsuga canadensis*). In addition, alder (*Alnus spp.*), sumac (*Rhus spp.*), poison ivy (*Toxicodendron radicans*), spicebush (*Lindera benzoin*), sassafras (*Sassafras albidum*), wild grape (*Vitis spp.*), rhododendron (*Rhododendron spp.*), or maple-leaved viburnum (*Viburnum acerifolium*) may comprise the shrub layer.

Herbaceous species that make up the ground cover include jewelweed (*Impatiens capensis*), smartweed (*Polygonum spp.*), skunk cabbage (*Symplocarpus foetidus*), Solomon's seal (*Polygonatum biflorum*), violets (*Viola spp.*), pickerelweed (*Pontederia cordata*), sedge (*Carex spp.*), cattail (*Typha spp.*), may apple (*Podophyllum peltatum*),

columbine (*Aquilegia canadensis*), bloodroot (*Sanguinaria canadensis*), cardinal flower (*Lobelia cardinalis*), and bulrush (*Scirpus spp.*), as well as numerous grasses and ferns. Stony loam, gravelly sandy loam, silt loam, stony silt loam, and muck gravelly loam soil types may be found at long-tailed salamander sites. On the ground, rotting logs, stones, moss, and leaf litter provide cover for the salamanders.

Status and Conservation

Due to habitat loss and pollution of larval ponds, the long-tailed salamander was listed as a threatened species in New Jersey in 1979. The New Jersey Natural Heritage Program considers this species to be “demonstrably secure globally,” yet “imperiled in New Jersey because of rarity” (Office of Natural Lands Management 1992).

From the 1960s to the 1980s, biologists have conducted studies to determine the distribution, habitat use, life history, and breeding ecology of the long-tailed salamander in New Jersey. Currently, surveys are conducted to monitor known sites and locate additional populations, enabling biologists to document changes in the range of this species throughout the state. The Freshwater Wetlands Protection Act and environmental reviews of proposed development afford protection to long-tailed salamander habitats in New Jersey.