

SEND A SALAMANDER TO THE STATE HOUSE

# LONG-TAILED SALAMANDER



Few people realize how consequential amphibians are to the ecosystem, with salamanders often being the most common terrestrial vertebrates in the forest. They are such voracious predators, gobbling up spiders, ticks, worms, small insects, and other invertebrates. Legislation would highlight both the significance and charm of amphibians.

Here's why we feel the long-tailed salamander proudly reflects many of Maryland's best attributes and values.

## REASON 1: It's a Native Marylander

This species is native to the Appalachian Highlands and the Piedmont. *Eurycea longicauda* can be found throughout western Maryland and in parts of central Maryland. Because longtails are lungless and breathe through moist skin, they are found only in damp areas. Larvae grow in aquatic environments, such as streams, ponds, or cave pools. Adults are typically terrestrial, found beneath rocks and rotting logs, in stone crevices, mostly in streamside communities, but also in caves.

## REASON 2: They're Captivating

These salamanders are adorable with their big eyes, slender bodies, stout limbs, and a tail that makes up nearly two-thirds of total adult body length. They are sure to captivate both school children and Maryland's adult citizenry. The picture below shows a full-grown adult. Their average length as adults is 4-6 ¼ in (10-15.9 cm)

### REASON 3: It Complements Maryland's Existing Suite of State Symbols

As the list below shows, current Maryland natural symbols are clustered around the Chesapeake Bay and Baltimore:

- Baltimore Oriole
- Baltimore Checkerspot Butterfly
- Diamond Back Terrapin
- Chesapeake Bay Retriever
- Rockfish
- Blue Crab

The Smithsonian notes that Appalachia's cool forests and plentiful rivers provide a home to *more species of salamanders than anywhere else in the world*. This is quite a distinction. All ecological regions and habitats of Maryland should be showcased for their important contribution to our natural history. Indeed, the uplands, springs, and headwater streams are key to the health and survival of the Chesapeake Bay, as this is its birthplace! Selecting an amphibian whose range is the Piedmont into the mountains of western Maryland provides an opportunity for celebrating our connectedness.

### REASON 4: It Resonates Symbolically

The long-tailed salamander's coloration, which varies from yellow to deep orange-red with black spots, connotes the Maryland state flag—as does our state bird (Baltimore Oriole), insect (Baltimore Checkerspot Butterfly), and reptile (Diamond Back Terrapin). So symbolically, this choice adheres to that powerful tradition.



### REASON 5: Its Regenerative Power Inspires

When threatened, the long-tailed salamander has a stunning defense tactic. Its tail can detach and wriggle, giving the salamander time to bolt and evade its attacker. Then it fully regenerates its very long tail—muscle, cartilage, spinal cord, and skin. That's a compelling story!!

As humans, we tend to think of ourselves as the superior species. But the way we heal our bodies is rather rudimentary. Lose a limb, damage our spinal cord, suffer degenerating cartilage in joints and we are out of luck. When a long-tailed salamander loses a limb or a tail, it just grows a new one. Our ultimate hope is to be able to learn from salamanders, such as the longtail, to achieve similar marvelous regenerative repairs.

### REASON 6: Private Sector Appeal

Maryland biotech firms are pursuing regenerative research. Maryland is distinguished by our vital biotechnology industry sector—a sector that is critical to our state's economic future. According to Maryland's Department of Commerce: "Biotech discoveries are in our DNA." Our state has more than 500 biotech firms and 2,000 life science companies. John Hopkins University and the University of Maryland are world leaders in biotech research and education. Amphibians have a long history of making significant contributions to the medical field. The National Institutes of Health (NIH) has funded research on salamander tail regeneration for possible human application.

### REASON 7: Uniqueness

No other state has adopted the long-tailed salamander as its state symbol.