

**First Sighting – Date:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Redbacks (2”-5”) can be red, orange or black



Slimies (4”-8”) are black with white spots



## Redback (*Plethodon cinereus*) & Slimy (*Plethodon glutinosus*) Salamanders

These two Target Species are members of the largest salamander family in North America, Plethodontidae – the Lungless Salamanders. These small and silent amphibians live their hidden and unusual lives underfoot, and leaf, in many of our local woodlands. As their family name implies, they are indeed *without lungs* and breathe through their thin, moist skin. To keep that skin moist, these two species spend the day under logs, rocks, thick leaf litter and low, loose tree bark. On moist nights, or rainy days, they emerge and prowl the forest floor for small invertebrates – they use smell, sight and feel to find their tiny prey and have even been seen climbing 3’ shrubs to track particularly tasty insects. A vital player in the forest ecosystem, lungless salamanders eat countless insects and are themselves an important prey item for shrews, snakes, screech owls and songbirds, *especially thrushes*. Like skinks, these species can detach their tails when threatened by predators and grow them back. The larger threats to these amphibians are pesticides (absorbed thru their skin), clearing of forests and possibly climate change.

### What Lungless Salamanders Need

**Food:** Insects (including roaches, fly and beetle larvae, caterpillars, etc.), worms, slugs, spiders and centipedes. Leaf litter, top soil, fallen trees & branches, rocks and standing dead trees all provide habitat for their prey.

**Breeding:** Entirely terrestrial, females lay 6-12 hanging eggs in rotting logs or under bark after a *fascinating courtship* with much tail-waiving, chin-rubbing and body snapping. The female guards her eggs until they hatch – miniature versions of their parents since the entire larval stage is spent *inside* the egg, unlike many amphibians that have aquatic, gill-breathing larvae.

### How You Can Help

- Line your garden paths with logs, branches and flat rocks.
- Reduce or eliminate your use of pesticides.
- Plant native flowering shrubs and/or wildflowers to attract their insect prey.
- Compost! It reduces trash, creates soil and salamanders love it.
- Provide or leave old logs, tree stumps and standing dead trees.
- Create small piles of flat stones.
- Allow corners of your yard to keep their fallen leaf litter and build up established, rich soil layers.
- Keep cats indoors, *at least from dinner to breakfast* – they will catch and eat salamanders any time, but salamanders are especially vulnerable at night.



## Audubon at Home in Northern Virginia

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**Shelter:** Thick native forest groundcovers such as ferns, club moss (lycopodium), phlox, ginger, green and gold, heuchera, trout lilies, spring beauty and other shade-tolerant, low-growing native plants combined with lots of down woody debris, tree stumps, rocky outcroppings and standing dead trees provide the moist shelter these lungless salamanders require.

**Other:** Because they can regenerate their tails and even their toes, scientists and medical researchers are studying these little amphibians for possible human health applications. In addition, Redbacks are one of the few amphibians that can be found in the far north, well into the coniferous forests of Canada – they have been found frozen solid and then thawed back to life. This ability to freeze into a mini block of ice for long periods and then re-animate with no apparent cellular damage is another reason medical researchers are studying salamanders. The secrets of these leaf-crawlers may save a human life one day.

- Plant stands of some of the native, shade-tolerant species just listed and add a few logs, small rock piles or branches.
- Use compost and mulch. It creates soil and these guys love them both.
- Allow leaf litter and healthy soil layers to develop under several of your trees and shrubs.



photo by John White

- Another family of salamanders with 3 representatives in Northern VA are the Mole Salamanders, Ambystomidae. Named because of their habit of spending most of the year in underground burrows, they emerge for just a few weeks in April to mate and lay eggs on rainy nights in shallow woodland puddles, called Vernal Pools. Below are both Spotted and Marbled Salamanders. In western areas of N. VA you can also find Jefferson Salamanders.



Kevin Munroe

### Resources:

Native plants—available at DeBaggio Herbs, Nature by Design, Merrifield Garden Centers and other nurseries  
Composting materials – [www.Composters.com](http://www.Composters.com) , [www.planetnatural.com](http://www.planetnatural.com)

### Model Habitat & Observation Sites:

Reston Parkland – [www.reston.org](http://www.reston.org)

Prince William Forest Park – [www.nps.gov/prwi/](http://www.nps.gov/prwi/)

Ellanor C. Lawrence Park - [www.fairfaxcounty.gov/parks/ecl/](http://www.fairfaxcounty.gov/parks/ecl/)

Mason Neck National Wildlife Refuge - <http://www.fws.gov/refuges/profiles/index.cfm?id=51610>

Scott's Run Nature Preserve - [www.hikingupward.com/OVH/ScottsRun](http://www.hikingupward.com/OVH/ScottsRun)

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