

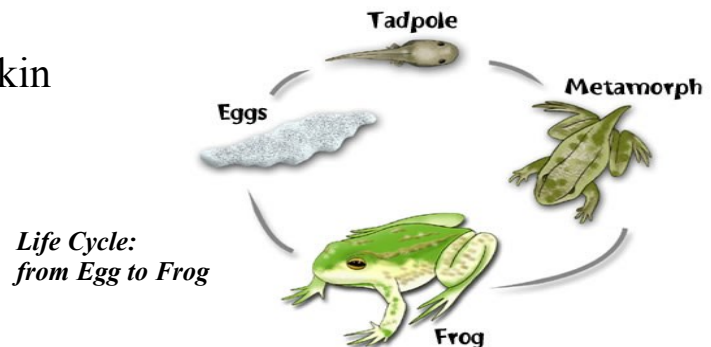
Amphibians of Southwest Virginia  
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## What are amphibians?

### Frogs & toads, Salamanders, and Caecilians

- Have semipermeable (“wet”) skin
- Complex life cycles
- Remarkable behaviors
- Voracious predators



## Why care about amphibians?

- feed on many insects that we see as pests (mosquitoes!)
- are “canaries in the coal mine” for forests and wetlands
- may point to important medical developments for human health
- one third (1/3) of the worlds amphibians are declining -- meaning they may go extinct

### Caudata (Salamanders)

Most spend large amounts of time underground  
Many are slightly toxic  
Some species lack lungs and breathe entirely through skin  
More in southwest VA (35 species) than anywhere else on Earth



# Common southwest Virginia Salamanders

## Slimy Salamander (*Plethodon glutinosus*)

- Likely the most common salamander
- Fiercely territorial – will defend burrows and fight!
- Lives in forests, caves, cliffs/bluffs
- Named for a slimy secretion made to escape from predators



## Eastern Newt (*Notophthalmus viridescens*)

- Another very common species
- Lives in almost any permanent pool of standing water
- Red coloration signals toxicity (poison)
- Has an extra stage in its life cycle

## Eastern Hellbender (*Cryptobranchus alleghaniensis*)

- Largest salamander in North America
- Lives in larger, clear rivers and streams across Appalachia
- Eats mostly crayfish and is a great indicator of water quality



## Spotted Salamander (*Ambystoma maculatum*)

- Largest land salamander in southwest Virginia
- Hides underground most of the year
- Undergoes incredible migration to wetlands in spring for breeding
- Young hatch in wetlands, develop, and return to the forest

## Green Salamander (*Aneides aeneus*)

- Only salamander in North America with green markings
- tolerates "drier" condition than any other species of salamander
- Lives in moist, shaded rock crevices
- Unusually, eggs are laid in clusters attached to the roof of the crevice



Help track salamanders by posting observations to Evolving Appalachia

< <http://www.inaturalist.org/projects/evolving-appalachia> >

-- a project of the Southwest Virginia CSI (Citizen Science Initiative) & iNaturalist.com

# Junior Garden Club (WCCS) -- 2016 Salamander Project

## Engaging with Salamanders of southwest Virginia

Funding from the "Keys to the Future" (Youth Grant) by the Virginia Federation of Garden Clubs  
Salamander expert: Dr. Wally Smith, professor of biology at the University of Virginia's College at Wise  
Wise Count Christian School, middle & high school age students  
Sponsor: Town and Country Garden Club  
Learning: classroom instruction, journaling, field trips, research  
Student outreach: blog & social media posts, broadcast radio spot, art component: sculpture

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### Field trip to High Knob & Flag Rock & Norton Reservoir (May 9, 2016)



Habitat: Green Salamanders



Green Salamander



Norton Reservoir



Slimy Salamander



Field instruction: Flag Rock



Longtailed Salamander

Field trip to the Wetlands at UVA Wise (May 11, 2016)



Classroom instruction (Uva-Wise)



Field instruction



Habitat: under logs & leaves



Collecting Slimy Salamanders (later released)



Spotted Salamander



Restoration project: American Chestnut trees



Sponsored by : Town & Country Garden Club



Dr. Smith with T&CGC members

June 2016 -- VS/SY/AV rev