

OTHER SALAMANDERS



1. Northern Red Salamander (*Pseudotriton ruber*)

A medium (4-7 in.) lungless salamander with an orange body and random black spots. Native to the eastern U.S., it can be found in damp areas, in forests or fields. They lose their coloration as they age, becoming more gray with less patterning.

2. Spring Salamander (*Gyrionophilus porphyriticus*)

A somewhat large (5-9 in.) lungless salamander with a pale orange/brownish body and dark flecks. It has a limited range in the eastern U.S. and thrive in wet forested environments in the mountains.

3. Four-Toed Salamander (*Hemidactylium scutatum*)

A small (up to 4 in.) lungless salamander similar to a redback salamander, but with more abundant black markings on its underbelly and with four toes on its hind feet. Native to eastern North America, they prefer forests and bogs with pools.



4. N. Two-Lined Salamander (*Eurycea bislineata*)

A small (2.5-4.5 in.) lungless salamander with a yellowish body and two distinctive black stripes on its back. Native to eastern North America, it prefers rocky streams and damp areas in forests.

5. N. Dusky Salamander (*Desmognathus fuscus*)

A small (up to 4 in.) lungless salamander with a body that can range from reddish to olive, with a white/grey underside. They are native to the eastern U.S., they can be found in forests with wet soil, typically near natural springs or streams.

6. Allegheny Dusky Salamander (*D. ochrophaeus*)

A small (up to 4 in.) lungless salamander with a brownish body, a light stripe down its back, and dark spots in the center of its back. Found in the Allegheny Mountains, it prefers forests near streams or springs.

IS THIS SALAMANDER HERE?

Blue-Spotted Salamander (*A. laterale*)



This small mole salamander (4-5.5" long) is blue-black with blue/white side flecks. It is found in the NE U.S. and Canada, it lives deciduous, coniferous forests, and vernal pools within those habitats. On rare occasions,

some populations are all-female while in others, it can hybridize with related species. While never found at West Point, suitable habitat exists here as may the salamander.

Q&A: SALAMANDERS & NEWTS, ETC.

Q: How are salamanders different from newts? A: Newts are a group of salamanders. Non-newt salamanders have smooth, moist skin and a simpler two stage life cycle. Newts have rougher skin and a more complex three stage life cycle.

Q: Are salamanders lizards? A. No. Lizards are reptiles. Salamanders are amphibians. Amphibians rely on water for breeding and undergo metamorphosis to become semiterrestrial. Lizards and salamanders are only superficially similar.

MORE ON THE AMPHIBIAN LIFECYCLE



1. Aquatic Larva



2. Terrestrial juvenile



3. Aquatic Adult

Amphibians, like salamanders usually undergo a metamorphosis, changing from aquatic larvae to terrestrial adults. They lay eggs in water, that hatch into aquatic tadpoles that have gills and fins instead of lungs and fins and lack eyelids. In metamorphosis, gills and fins are lost and lung, limbs and eyelids develop. and they move to land in a two stage life cycle (see diagram on page 1 of this brochure). Newts, have three stages including an aquatic larval, a terrestrial "eft" juvenile phase, and aquatic adult stage (see diagram here to the left). Some salamanders (although none here) like the axolotl (*A. mexicanum*) stay aquatic. The retention of larval traits like gills as adults is a distinct phenomenon called paedomorphism.

CHYTRID FUNGAL DISEASE

What it is: Chytridiomycosis also known as chytrid is an often fatal amphibian skin infection caused by the fungus *Batrachochytrium dendrobatidis* and spread by spores in water or physical contact that. The infected skin loses its ability to regulate water and ions properly. It is of no harm to people but is a major threat to amphibians worldwide.

How To Help: Help stop its spread by always cleaning boats, gear and never moving animals.

Handling: It is best not to handle amphibians, which can absorb oils, chemicals via their skin and transmit germs or toxins to you. If you must handle one, use wet nitrile gloves if you can and be sure to wash your hands afterwards.

BEST PRACTICES REVIEW

Help Keep People, Pets and Amphibians Safe

In addition to practices already mentioned like **LIMITING HANDLING, NOT RELEASING PETS, ALWAYS CLEANING EQUIPMENT** and **NOT HARVESTING AMPHIBIANS:**

- **LIMIT PESTICIDE USE** - Use pesticides sparingly, in accordance with label and away from aquatic habitats.
- **KEEP PETS AWAY** - Pets can harm wildlife and vice versa. Keep cats indoors. Keep dogs leashed.
- **REPORT POLLUTION ISSUES** - Report oil or chemical you see, esp near waters or shore/bank erosion issues.

SALAMANDERS & NEWTS OF THE WEST POINT MILITARY RESERVATION



U.S. ARMY GARRISON - WEST POINT
DPW - NATURAL RESOURCES SECTION

FORESTRY, FISH & WILDLIFE & PEST MANAGEMENT

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WEST POINT SALAMANDERS & NEWTS

The West Point Military Reservation is home to a unique array of salamanders and newts, having thirteen native species. Though all of these species are listed as Least Concern on the IUCN Red List, which determines which species are endangered, they all are rapidly losing habitat. All species rely upon specific habitats called vernal pools for breeding, and, due to habitat loss and urbanization, these are at risk.

It is our goal, in putting out this brochure, to help its readers correctly identify any salamanders or newts they may encounter. This, we hope, will turn to more people having a greater understanding of these amazing creatures. What follows here is a list and short description of each of the thirteen different salamander species, including pictures and brief summaries of physical description, life history, habitat, and other relevant facts. While we hope the material included proves useful in identifying and explaining some things about these animals, it is by no means a comprehensive guide. For more visit the NYSDEC website at: www.dec.ny.gov.

AN AMPHIBIAN PRIMER

Salamanders and newts are amphibians, cold-blooded (ectothermic) animals also including frogs, toads, and limbless tropical animals called caecilians.

Amphibians have certain traits including thin, moist skin they use to breath and absorb water and it lays soft jelly-like eggs in water or damp areas.

Their namesake trait is a two-life metamorphosis they undergo to shift from a limbless, gilled aquatic tadpole stage to a limbed, lunged terrestrial or semi-aquatic adult.



1. Aquatic larva



2. Terrestrial adult



AMPHIBIANS IN PERIL

Amphibians as a group are facing number of existential threats including many driven by human activities, resulting in severe global population declines and even extinction.

Causes for this alarming trend include habitat loss and degradation, pollution, overharvesting, invasive species, microplastics and fungal disease (more on this later).

HARVESTING: Per New York State regulations, the harvest, taking, or possession of any native snakes, lizards, salamanders and newts is prohibited at any time. For both human, animal safety, let these animals be.

NEVER RELEASE PETS INCL. SALAMANDERS: The release of salamanders or other pets - native or exotic can harm both the animal and environment. It is against NY and West Point regulations to release animals at West Point.

Spotted Salamanders (*Ambystoma maculatum*)



The spotted salamander is a larger (6-10 in.) mole salamander, having a dark colored body with two rows of yellow spots on its head and back. Native to the eastern U.S. and Canada, it is typically found at mature forests and vernal, or temporary, pools, the latter used as a breeding habitat. It is usually only found above ground for breeding habitat. It is usually only time underground (called a fossorial lifestyle). Interestingly, their embryos have been found with a symbiotic algae

Marbled Salamander (*A. opacum*)



A smaller (up to 5 in.) mole salamander with distinctive black and white bands on its back and head, with the females having grey bands. They are found in the eastern U.S in forests and vernal pools, but, unlike most salamanders, are terrestrial and only depend on water for breeding. It is a species of special concern in NYS.

Eastern Newt (*Notophthalmus viridescens*)



A smaller (up to 5 in.) newt with a darker greenish body, lighter yellow underbelly, and orange spots. The juvenile stage, called an eft, is bright orange-red with spots outlined in black. Found in the eastern U.S, they thrive in muddy, wet environments in woodlands. The efts often travel large distances and are a common sight during the warmer months. Like most salamanders, they are able to regenerate limbs and even their organs!

Life & Limb: Salamanders & newts have an incredible ability to regenerate lost body parts, incl. tails and limbs. This remarkable skill helps them escape from predators and recover from those close encounters.

Jefferson Salamander (*A. jeffersonianum*)



A medium (4-7 in. long) mole salamander with a dark back and grey underside, with silver/blue specks on the sides. Found in the northeast U.S., they are found in deciduous forests and vernal pools, typically under leaf litter, and are nocturnal. They are often the first salamander to emerge for breeding in the spring.

Redbacked Salamander (*Plethodon cinereus*)



A small (2-4 in.) salamander with two primary color morphs, being the red-backed (left) and lead-backed (right). Native to the NE U.S., it is found near water in forests under debris. It appears in different color morphs in a population. These morphs have different responses to predators.

Northern slimy salamander (*Plethodon glutinosus*)



A medium (5-8 in.) salamander with a black body and silvery/golden spots across the back and face. Native to the eastern U.S., it can be found in moist woodlands, ravines, and caves. It is terrestrial, and breeding can occur on land, unlike most salamanders, with their offspring having no aquatic stage.