

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF FISH & WILDLIFE

ENDANGERED & NONGAME SPECIES PROGRAM

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# FIELD GUIDE TO REPTILES AND AMPHIBIANS OF NEW JERSEY

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## SALAMANDERS OF NEW JERSEY

### **Marbled Salamander (*Ambystoma opacum*)**

**Identification:** 3 1/2" - 4 1/4". The Marbled Salamander has light crossbands on a dull black body that are sometimes incomplete and sometimes run together to encircle a dark spot. Females have gray bands while males have white bands, both contrasting on the black body. Bellies are black as well. Newly transformed juveniles have scattered light flecks on a background color of dull brown to black.

**Where to find them:** This salamander can be found in moist woodlands or in the sandy areas of dry hillsides by turning over logs and rocks.

**When to find them:** Breeds in autumn, when the female deposits her eggs in a low depression to be filled by the next rain.

**Range:** Entire state.

### **Jefferson Salamander (*Ambystoma jeffersonianum*)**

**Identification:** 4 1/2" - 7". Jefferson Salamanders look very much like other related *Ambystoma* salamanders. Key field marks are the long toes, long snout, and slender shape. The belly is definitively paler than the sides of the dark brown or gray back. The limbs and lower sides of the body are usually marked by tiny flecks of blue. These blue marks are bright on young individuals, but fade with age. While they may closely resemble the Blue-spotted Salamander, Jefferson Salamanders have gray vents that are always paler than those of Blue-spotted Salamanders.

**Where to find them:** Jefferson Salamanders breed primarily in woodland vernal ponds. Terrestrial adults are found in rich woodlands.

**When to find them:** Breeds in early spring.

**Range:** Northern Region: Sussex, Warren, Hunterdon, Morris, Passaic, and Bergen Counties.

**Note:** The Jefferson and Blue-spotted Salamanders hybridize over most of the Northern Region. Within this area, colors and patterns may vary greatly among hybrids and their parents, and definite identification to either species is extremely difficult. Genetic analysis is the only definitive method of distinguishing hybrids.

### **Blue-spotted Salamander (*Ambystoma laterale*) State Endangered Species**

**Identification:** 4" - 5 1/2". The background of the Blue-spotted Salamander is a bluish black color and it is sprinkled with flecks of blue and white. Its spots are on its back, as well as its sides and tail. The area around its vent is usually black. This salamander does have relatively long toes.

**Where to find them:** Blue-spotted Salamanders breed in woodland ponds, marshes, swamps, and ditches. Terrestrial adults are found in mature woods where there are rotting logs and deep humus, slightly above swamps and marshland level.

**When to find them:** Breeds in late March and early April. Enter hibernation before freezing temperatures.

**Range:** All of Northern Region.

### **Spotted Salamander (*Ambystoma maculatum*)**

**Identification:** 4 3/8" - 7 3/4". A series of round spots, yellow or orange in color, sprinkle the back of the Spotted Salamander from its eye to the tip of its tail. Its belly is a slate color, while its back and the rest of its body varies from black to slate to a bluish black shade. Young Spotted Salamanders may have more of a brown hue. It is rare to find an unspotted individual.

**Where and when to find them:** An early spring breeder, known to make mass migrations to vernal breeding ponds. During wet weather in the autumn and spring, it is possible to find these salamanders hidden under boards and logs.

**Range:** Entire state.

## **Eastern Tiger Salamander (*Ambystoma tigrinum tigrinum*) State Endangered Species**

**Identification:** 7" - 8 1/4". The Eastern Tiger Salamander is the largest in New Jersey. Yellow spots on a dull, black background make it easily confused with the Spotted Salamander. However, the yellow spots on an Eastern Tiger Salamander are not perfectly round and typically produce more of a barring effect than a spotted one. These spots vary in color from bright yellow to olive. Its belly is olive-yellow.

**Where to find them:** A winter and very early spring breeder. These tiger salamanders breed in vernal pools in early succession or those formed in gravel pits. In June, the young metamorphose and move into the surrounding upland habitat.

**Range:** All of Southern Region.

## **Red-spotted Newt (*Notophthalmus viridescens viridescens*)**

**Identification:** 2 1/4" - 4 13/16". While the Red-spotted Newt has several different life forms, there are always red spots present on its back, up to 21 in number. The aquatic adults vary from yellowish brown to olive to greenish brown in color. The terrestrial juveniles, also known as red efts, vary from bright orange to dull red. Their bright coloration warns predators of their poisonous toxins.

**Where to find them:** Aquatic adults may be seen swimming, resting, or crawling through vegetation in ponds, marshes, small lakes, and ditches. The red efts are bold, and can often be seen walking across the forest floor in the middle of the day.

**When to find them:** Red efts are plentiful after summer showers.

**Range:** Entire state.

## **Northern Dusky Salamander (*Desmognathus fuscus fuscus*)**

**Identification:** 2 1/2" - 4 1/2". The tail of the Northern Dusky Salamander is nearly half of its total length and is keeled. As Northern Dusky Salamanders age, their patterns vary. They are gray or brown in color, and markings on their backs look like spots bordered by a wavy band.

**Where to find them:** The Northern Dusky Salamander does not wander far from water. They are locally abundant in brooks, springs, and seepage areas where there is debris that provides shelter.

**When to find them:** Active May through September.

**Range:** All of Northern Region. Southern Region: western Burlington, Camden, and Gloucester Counties.

## **Mountain Dusky Salamander (*Desmognathus ochrophaeus*)**

**Identification:** 2 3/4" - 4". Mountain Dusky Salamanders look very much like Northern Dusky Salamanders. Mountain Dusky Salamanders have a single light even stripe running down their backs and tails. Coloration is very similar to Northern Dusky Salamanders—gray or brown. The row of spots down the center of its back is shaped like chevrons.

**Where to find them:** This species of dusky salamander wanders far from water during wet weather. Usually Mountain Dusky Salamanders are found under logs and stones where the ground is saturated.

**When to find them:** Usually found at night when they are actively foraging.

**Range:** Northern Region: Sussex, Passaic, northern Warren, northwestern Morris, and western Bergen Counties.

### **Redback Salamander (*Plethodon cinereus*)**

**Identification:** 2 1/4" - 4". The Redback Salamander comes in two distinct forms: (1) redback – a straight red stripe running from base of head, down the back, to the tail and bordered by dark coloration (stripe is sometimes orange or even light gray); (2) leadback (lead phase) – uniform dark gray or black color. In both forms, the coloration looks mottled or speckled. Bellies are mottled with black and a white or yellow color. An all-red variation is found occasionally.

**Where to find them:** The Redback Salamander is quite common throughout most of its range, and is found in wooded areas under logs, bark, stones, and even trash.

**When to find them:** Most often seen on rainy nights.

**Range:** Entire state.

### **Northern Slimy Salamander (*Plethodon glutinosus*)**

**Identification:** 4 3/4" - 6 3/4". The Slimy Salamander secretes a substance that sticks to hands like glue. It is black in color with silver-white spots and/or brilliant golden flecks. Their bellies are lighter than their backs.

**Where to find them:** Moist woodland ravines or hillsides.

**When to find them:** Active April through September.

**Range:** All of Northern Region and northwestern Monmouth County in the Southern Region.

### **Four-toed Salamander (*Hemidactylium scutatum*)**

**Identification:** 2" - 3 1/2". The Four-toed Salamander has three distinct characteristics. First, its belly is white with bold black spots. Second, both the hind feet and the fore feet have four toes whereas most salamanders have five toes on each hind foot. Third, there is a marked constriction at the base of the Four-toed Salamander's tail.

**Where to find them:** Adult Four-toed Salamanders are primarily aquatic as adults, usually being found in sphagnum bogs.

**When to find them:** Active April through September.

**Range:** Entire state.

### **Northern Spring Salamander (*Gyrinophilus porphyriticus porphyriticus*)**

**Identification:** 4 3/4" - 7 1/2". The Spring Salamander has a reddish coloration—either salmon or light brown with a reddish tinge. The sides of their bodies are a darker shade that forms a netlike pattern, enclosing light spots on their bellies and throats. Spring Salamanders look slightly mottled, but the darker coloration of the mottling is not always so obvious.

**Where to find them:** Spring Salamanders are found in cool mountain streams and springs and in any wet depression covered by a log, board, or stone.

**When to find them:** Active April through September.

**Range:** Undeveloped mountainous habitat of the Northern Region, except Mercer, Monmouth, Hudson, or eastern Bergen and Essex Counties.

## **Eastern Mud Salamander (*Pseudotriton montanus montanus*) State Threatened Species**

**Identification:** 3" - 6 1/2". The Eastern Mud Salamander can be one of a variety of shades of red and has well-defined black round spots. Its eyes are brown, unlike those of the Northern Red Salamander. The young are typically brighter than older individuals and the older have larger, more numerous spots. Adults' bellies are often flecked with brown or black, whereas the bellies of the young are unmarked.

**Where to find them:** The Eastern Mud Salamander burrows into the muck of unpolluted water sources such as springs, seepage areas, and cranberry bogs.

**When to find them:** Active spring through late summer.

**Range:** Southern Region: locally in western Burlington County and southern Ocean County; required habitat only in portions of the Pine Barrens.

## **Northern Red Salamander (*Pseudotriton ruber ruber*)**

**Identification:** 4" - 6". The iris of the Northern Red Salamander is usually yellow, and not brown. The red salamander varies in color from red to reddish orange and is dotted with numerous black round spots. Older adults are usually less brilliant and more of a purplish brown color. Spots tend to run together on older individuals. Their bellies are marked with black or brown spots.

**Where to find them:** Northern Red Salamanders require cool, clean, flowing water that is not stagnant. In streams or springs, red salamanders hide under moss and stones. They favor streams with gravel, sand, or rock bottoms.

**When to find them:** Active spring through late summer.

**Range:** Entire state.

## **Northern Two-lined Salamander (*Eurycea bislineata*)**

**Identification:** 2 1/2" - 3 3/4". The Northern Two-lined Salamander is one of two yellowish salamanders in New Jersey. This species is more common. Two dark lines run the length of the salamander's body with a light middorsal stripe in between. The dark stripes tend to break up into dots or dashes at the tail. The salamander is essentially yellow, although some individuals may vary. There are typically small black spots in the light middorsal stripe. In adults, the tail can be up to almost two-thirds of their length.

**Where to find them:** Northern Two-lined Salamanders are typically found under rocks and logs at water's edge, or near springs or seepage areas, and will run or swim away vigorously if alarmed. In warm, wet weather, the Northern Two-lined Salamander may wander far from water into the woodlands.

**When to find them:** ??

**Range:** All of Northern Region. In Southern Region, western Burlington, Camden, and Gloucester Counties.

## **Long-tail Salamander (*Eurycea longicauda longicauda*) State Threatened Species**

**Identification:** 4" - 6 3/4". This yellow salamander is less common than the Northern Two-lined Salamander. Although typically yellow, the background color of this salamander can also be orange, orange-red, or even red. Vertical black markings on the tail are a key field mark, and are larger and more conspicuous on some individuals.

**Where to find them:** Long-tail Salamanders require clear, slow moving streams and are usually found under rocks and logs at the water's edge. They are also known to occur in the ponds of the limestone belt in northern New Jersey.

**When to find them:** Adults emerge from late April to early May.

**Range:** Northern Region: particularly Sussex, Warren, Hunterdon, Morris, Somerset, Passaic, and Mercer Counties.

**Marbled Salamander (*Ambystoma opacum*)**



**Jefferson Salamander (*Ambystoma jeffersonianum*)**



**Blue-spotted Salamander (*Ambystoma laterale*) State Endangered Species**



**Spotted Salamander (*Ambystoma maculatum*)**



**Eastern Tiger Salamander (*Ambystoma tigrinum tigrinum*) State Endangered Species**



**Red-spotted Newt (*Notophthalmus viridescens viridescens*)**



**Northern Dusky Salamander (*Desmognathus fuscus fuscus*)**



**Mountain Dusky Salamander (*Desmognathus ochrophaeus*)**



**Redback Salamander (*Plethedon cinereus*)**



**Northern Slimy Salamander (*Plethedon glutinosus*)**



**Four-toed Salamander (*Hemidactylum scutatum*)**



**Northern Spring Salamander (*Gyrinophilus porphyriticus porphyriticus*)**



**Eastern Mud Salamander (*Pseudotriton montanus montanus*) State Threatened Species**



**Northern Red Salamander (*Pseudotriton ruber ruber*)**



**Northern Two-lined Salamander (*Eurycea bislineata*)**





**Long-tail Salamander (*Eurycea longicauda longicauda*) State Threatened Species**

