

## Salamanders

### Blue-spotted Salamander *Ambystoma laterale* (Hallowell)

This blue-black salamander has pale blue spots on its sides, tail and legs. It is found in northern Nova Scotia and occasionally in Queens Co., and Cape Breton, but not along the Atlantic coast.

Blue-spotted Salamanders lay their eggs singly, at the base of plants or stones in the water. Look for them in ponds or ditches on damp nights from April to mid-May. In summer and fall they spend the days under cover in damp forests, coming out at night to search the forest litter for food.

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

Newts live in grassy or weedy ponds. Adults are olive green with a yellow belly. Along the back are small red spots with black borders. Breeding males develop a high wavy crest on their tails. Newts lay eggs singly on the leaves and stems of pond plants. By August or September the aquatic larvae change into a juvenile stage called a red eft. This elegant little creature is bright red or red-orange, with two rows of black-bordered red spots. Though seldom seen in daytime, efts are active in the forest litter on rainy nights. After about two years living in damp woods, they return to the ponds as adult newts for the rest of their lives.

Newts are easier to hold than other salamanders because their skin is rougher and less moist. They seem to get along well with aquarium fish.

The next two salamander species have no lungs. They breathe through their skins, and the lining of the roof of the mouth.

### Red-backed Salamander *Plethodon cinereus* (Green)

This salamander is more of a land creature. It lives in all sorts of moist forests and often invades suburban backyards. Its eggs are laid in damp places under rocks or logs, so there is no aquatic stage at all.

Three colour phases are known. The "red-back" is gray-black with a red to orange stripe down the back and tail and is found in all damp forests. The "lead-back" is all gray-black in colour, and is most common in evergreen and mixed woods. Least common is an all red phase found in hardwood forests of the Cobequid Mountains and North Mountain.

No matter what the colour phase, Red-backed Salamanders are small -- about four to five centimeters long--and slender. They seem to be fragile. Sometimes the tails break off as you hold them. This may be an adaptation to help the salamander escape from predators that bite and hold its tail.

April 9 is the earliest Nova Scotia spring record, and November 4 the latest.

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

This is our least common species. Most reports are from south central Nova Scotia, but the creature is small and secretive and easily overlooked. The Four-toed is orange to reddish brown above with patches of black spots. It is the only white-bellied salamander in Nova Scotia. Its hind feet have four toes instead of five.

Its habitat is moist mossy woods, particularly in peat moss. Peat bogs or mossy areas bordering streams are good breeding sites. Adults lay eggs deep between the moss plants. The little larvae live in the water for a short while, then move to live on land.

"It's a lizard!"

That's a cry we often hear when people meet up with their first salamander. But salamanders are amphibians, like frogs and toads. Their skin is smooth and moist. Lizards have dry scaly skin like their relatives, the turtles and snakes. There are no lizards in the Maritime Provinces.

Salamanders are common. Nova Scotia has five species. But because of their secretive way of life, most of us notice salamanders only in spring, when they wake up from winter hibernation and migrate to breeding ponds.

Salamanders eat a variety of insects, worms, snails, spiders and slugs. They use sight and smell to find prey. Our salamanders make no sounds and cannot hear, although they do feel vibrations in the ground with their forelegs and lower jaw. Salamanders can regrow their legs or tail if these are bitten off by a predator.

In spring, the Yellow-Spotted and Blue-Spotted Salamanders gather in woodland ponds or roadside ditches to breed. Males court females with an underwater dance. The male then places a small white package of sperm (called a spermatophore) near a female. If she is receptive, she takes the spermatophore and holds it in her abdomen until egg-laying time. Newts also breed in ponds, but Red-backed Salamanders and Four-toed Salamanders lay their eggs on land. Salamander larvae are slimmer than frog tadpoles, with flattened heads and feathery external gills.

### Yellow-spotted Salamander *Ambystoma maculatum* (Shaw)

Camouflage is not a talent of this plump salamander. Its head, body and tail are dark grey to blue-black, with lighter blue-grey on the sides and belly. But along its back and tail are two uneven rows of very bright yellow spots. You'll know one when you see one!

At 10 to 20 cm. long, these are our biggest salamanders. They are common all over, hiding by day in the moist forest darkness under logs and rocks, or in other animals' tunnels. On damp nights Yellow-spots move about on the forest floor searching for food. Like all Nova Scotian Salamanders they hibernate during the winter. You might find one holed up in a damp cellar or tucked into a woodpile.

March 26 is their earliest noted spring appearance here, but you will see them during April and May courting and mating in ponds at night. Eggs are laid in water, in first-sized masses of jelly attached to pond plants. Each female can lay up to several hundred eggs. Some larvae mature after one summer in the pond, but others overwinter in the mud. These become adults during their second summer.

### Salamander Watching

The best way to see salamanders in the wild is to take flashlight and rubber boots and visit a pond some rainy spring night.

Most salamanders make good temporary pets. Put newts in an aquarium, and other species in a terrarium of moss and rotting wood. Red-backs eat small ants. Newts and the other salamanders will eat worms, beetles, ants and other small invertebrates. Egg masses placed in pond water will usually hatch in a few days indoors. The larvae will eat small pond insects or water fleas. Return animals to the place where you found them.

The secretive salamander is a harmless creature. It has no poison sting or biting teeth. Its permanent smile and delicate little toes will win your heart, once you take that first curious look.

### Mole Salamanders

Ambystomatidae

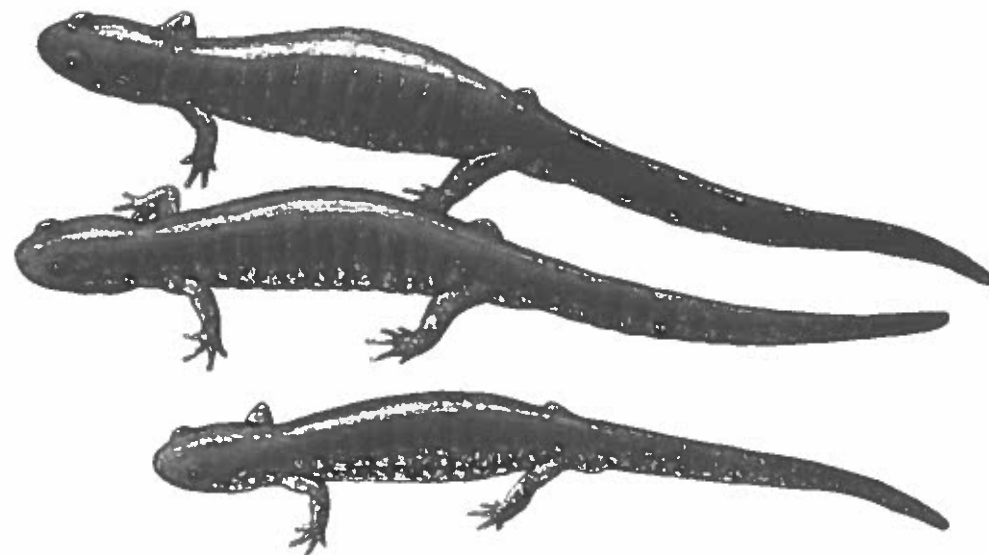
#### Yellow-spotted Salamander

*Ambystoma maculatum*



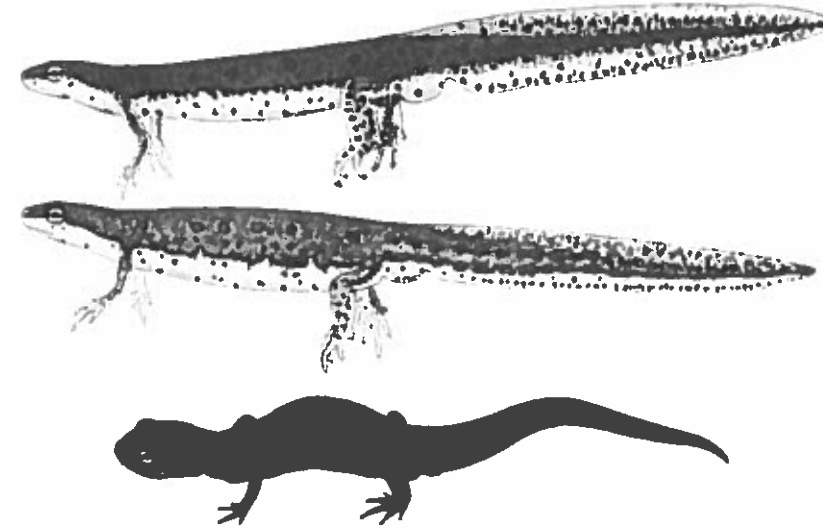
#### Blue-spotted Salamander

*Ambystoma laterale*



### Red-spotted Newt

*Notophthalmus viridescens viridescens*

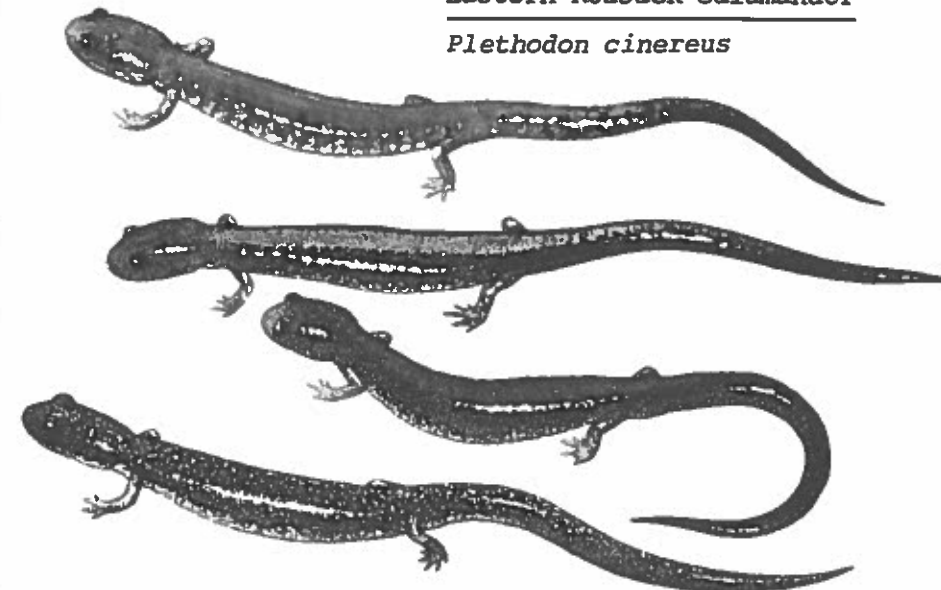


Newts

Salamandridae

### Eastern Redback Salamander

*Plethodon cinereus*



Lungless Salamanders

Plethodontidae

### Four-toed Salamander

*Hemidactylium scutatum*



F. Scott '80