

Spotted Salamander

Scientific name: Ambystoma maculatum

Spotted salamanders are black with two rows of round yellow spots running lengthwise down the back. The belly is gray. Adults are 5-9 inches long

Spotted salamanders spend most of their lives underground in woodlands, close to ponds or vernal pools.

They breed early in the spring. On warm rainy nights, the adults migrate to the breeding ponds. The migration can take them as far as half a mile from their hibernating spot to the breeding pool. They usually return to the pool they were born in. Males court the females by nudging and rubbing them with their snouts. The male drops a spermatophore, which the female walks over and picks up with her cloacal lips. Females lay 100-250 fertilized eggs in a mass she attaches to branches underwater. The mass is covered by a jelly like coating that protects the eggs from predators. The eggs hatch after three to six weeks. The larvae feed on insects and small crustaceans in the water. The larva stays in the water for 2 to 4 months, while growing and developing into an adult. After losing the gills that helped them breathe in the water, and developing legs, they leave the breeding pool and look for a place to hibernate. The adults migrate back to the woods over the summer months.

Spotted salamanders eat invertebrates such as earthworms, slugs and insects.

Spotted salamanders can live 25-30 years (25-30 - this is not a typo!).

Vernal pools are the preferred breeding places for salamanders. Fish cannot survive in vernal pools because the pools are dry in the summer. No fish means there no big predators who may eat eggs and tadpoles.

Beekman Road salamanders

“Frog kill road” is what the residents of the area used to call Beekman road. Every spring, after rainy nights, frogs were found dead on the road. It is no surprise - every time a frog meets a car, the car wins.

A few years ago, David Moskowitz, an East Brunswick resident and a member of the East Brunswick Environmental Commission, observed this phenomenon. Dave saw dead frogs and dead spotted salamanders on the road. He knew what that means – salamanders were hit by cars during their spring migration to breed in the vernal pools, off Beekman Road. It didn't take long for Dave and the Environmental Commission to initiate the interest of town official to the last known population of spotted salamanders in the area. The population that has been migrating from the woods to the pools for thousands of years was now in danger because a road was paved in their path. Every female can lay up to 250 eggs, so every female that is hit by a car means 250 fewer tadpoles that year. An Amphibian protection plan was established and with the support of the town's mayor and the police, starting in 2003, on those rainy spring nights when salamanders are expected to cross the road, the road is blocked for traffic from dusk to dawn, to let the salamander cross safely.

The Amphibian Protection Plan received two awards - a 2004 Environmental Achievement Award from the Association of New Jersey Environmental Commissions (ANJEC) for an outstanding environmental commission project. The second was a special award from the New Jersey Audubon Society for an outstanding community environmental protection effort in a suburban area. It was presented, in ceremony, to Mayor Bill Neary.

All are welcome to come watch the migration on the nights the road is closed. For more information go to www.njnaturenotes.com.

Do not take salamanders home - they are not interesting as pets. Most of the year they are buried under mud or leaves and don't move. And, it is illegal to collect wildlife – the fine in NJ is \$5000.

For more information:

http://www.uri.edu/cels/nrs/paton/LH_spotted_sal.html - spotted salamanders

<http://www.state.nj.us/dep/fgw/vpoolart.htm> - NJ vernal pools

<http://www.njfishandwildlife.com/ensp/vernalpool.htm> - NJ vernal pools