



Creature Feature: Summer 2012

By W. Scott Douglas

Yellow Spotted Salamander



It was about 9:00 on a rainy but warm night in March when I got the call from Francine Schmidt of the Upper Tohickon Watershed Association. "They're on the move!" she said. "What?" I replied. "The salamanders are migrating; do you still want to help us?" "Oh!", I said, "of course!" A few minutes later I was dressed to stay dry and headed to the Quakertown Swamp where a team of herpetologists and friends of herps were scouring the roadways of Richlandtown on the lookout for salamanders attempting to cross asphalt as they moved to vernal pools to mate. Marlin Corn of Honey Hollow was in charge of the event and made sure we all knew what the several species of salamanders looked like and how to record information on a survey form. And no, we

weren't interested in their voting intentions; we were more interested in their intended direction, species, size and gender. For the next couple of hours we drove around slowly, stopping every few hundred yards or so to pick up a 6-9 inch yellow spotted beauty, take some measurements, and gently transport the little guy or gal to the other side of the road.

While to us that night it seemed like salamanders were everywhere, most people rarely see spotted salamanders. That's because the adults live in the woods either under rocks or logs, or more often in burrows excavated by rodents. They are nocturnal feeders, usually on rainy nights, when they emerge to feed on insects, spiders, worms, slugs and snails. Spotted salamanders are preyed upon by snakes and raccoons as adults, but the predator has to be really hungry since the salamander will secrete a noxious white liquid when threatened. Consequently, spotted salamanders are long lived; there are records of them living in captivity for over 30 years! Sadly, roadkill is one of the greatest threats to this and other salamanders in PA.

Every spring, when either snowmelt or rain will ensure a moist transit, adults leave their burrows to migrate to vernal pools and ponds to mate. The males display for the females and then deposit a sperm filled packet, called a spermatophore, onto a leaf or stick. If the female is interested, she will pick up the spermatophore with her cloaca and fertilize her eggs. She will then lay between 75 and 250 eggs in a 2-4" wide jelly like mass either directly on the bottom or around a stick.



After 1-2 months, the eggs hatch into larvae. The larvae are mostly head and tail, with long feathery external gills. The larvae, like adults are big eaters, feeding on zooplankton, crustaceans and worms, as well as other insects that wander into or fall onto the pond. The larvae mature in 2-4 months, when they leave the pond.

Vernal pools are ponds that hold rain and snowmelt in the spring, but dry up in the summer and fall. Many different species use these pools to breed, as they do not have fish which tend to eat the eggs and larvae. Vernal pools are protected as wetlands, and there are restrictions on grading, logging and filling activities around them. However, vernal pools are rapidly being lost to overdevelopment, which lowers groundwater and dries the pools up. Since spotted salamanders return to the same pool every year to mate, loss of pools can mean loss of entire populations of these unique and beautiful creatures.

If you have witnessed a mating migration in our Watershed that crosses a road, please drop me a line. I will pass the information on to Marlin Corn and who knows, we may have a salamander night here next spring!