

Salamanderings



BEEC

Crossing Brigade News

April 14, 2006

Issue 1.2

Welcome to the Bonnyvale Environmental Education Center's seasonal Salamander Crossing Newsletter. Each issue includes reports of amphibian activity, natural history information, and advice for amphibian crossing guards. Please send your photos, accounts of your activities, and hot tips for inclusion in future issues. If you would like to receive this e-newsletter, please contact Patti Smith at: grayfox@svcable.net.



What's Hoppin'?

Friday, April 7— Weather forecasts were promising for a Big Night, but in the end it just didn't rain enough. Small to moderate numbers of salamanders were reported at most sites. The big concern was that Gallery Walk traffic would lead to mayhem with migrants. Many amphibian fans took to the streets to safeguard amphibians in spite of the appealing Friday Night activities that beckoned. Thanks so much!

A detailed report will be produced at the end of the season, but the following numbers indicate the kind of activity we saw on Friday night:

One couple moved about 6 or 7 Spotted Salamanders on Rice Farm Road, 10 Spotted Salamanders and one Jefferson on East-West Road, and 31 Spotted Salamanders and a half dozen Spring Peepers on Kipling Road, all in Dummerston.

Another 8 Spotted Salamanders and 1 Jefferson were reported by a volunteer on East-West Road.

At Depot Road in Williamsville about 300 frogs were transported to safety. There were so many when the first volunteers arrived that counting was impractical. Many had already been killed. Apparently wood frogs begin moving

before dark, so we will try to get volunteers to the big wood frog sites earlier in the evening. Fewer than a dozen salamanders were seen there.



Spotted Salamander spermatophore

Evidence of Breeding

The first evidence that Spotted Salamander courtship has begun is the presence of spermatophores. These little gelatinous pedestals contain the males' sperm packets. They look like white dots on the floor of the pool. You will often see most of them concentrated in a few places in the pool.

I have been checking vernal pools since Friday, and have seen NO evidence of salamander breeding, although we know that some salamanders have made it to these pools. It seems that the numbers are still too low for mating to occur.

The Salamander Big Night is Yet to Come!

With Constabulary Duties to be Done, to be done, A policeman's lot is not a happy one...



The State Trooper that pulled up to our Depot Road crossing site on Friday night told us he was having a difficult night. His complaint did not surprise me. We had more rude and unruly drivers speeding through our site than usual. “You people,” he said, “I understand what you’re doing, but we’ve been getting calls from all over.”

I admit to feeling a bit of a thrill to hear that you were out there “all over,” slowing traffic and aiding amphibians. I was not thrilled to think that some of the drivers who sped through our sites were disgruntled enough to report us a hazard to motorists.

The poor young man in his uniform didn’t know what to do with this band of gaudy pedestrians in flashing lights and safety vests. He told us to move a couple of cars (yes, they were parked illegally), and he suggested that I order

everyone to go home. He explained that these amphibians have been crossing roads forever and would continue to do so whether we were out or not. After a bit more discussion to clarify just what he expected from us, we agreed that we’d do our best not to annoy any drivers so much that he’d have to come out again.

Since that night I have been trying to find out just what rights and restrictions apply to salamander crossing activities. I don’t have the answer yet. My hunch is that as pedestrians, we have as much right to the road as anyone, and in fact have right of way. When our activities are organized, however, and involve interfering with traffic, a permit might be required—one that would doubtless be difficult to obtain. So, while this issue remains in the realm of speculation, I recommend that you follow the advice of Hinesburg Road Site Coordinator Lisa Holderness. She tells volunteers that their job is to keep the roadway clear of amphibians. When a car comes, step off the road, wave and smile.

Since we might find ourselves ordered to cease all activity if more complaints come in:

Do try to alert motorists to your presence and the nature of your activity

with signs, flashing lights, and plenty of reflective clothing, but **don’t** try to slow cars.

Dealing with Drivers

One learns a great deal about human nature as a salamander crossing volunteer, some of it I’d as soon not know. There are a few people, for example, who think we’re deranged. They could be right. Some of these folks see flashing lights and people wandering in the rain with flashlights and stop to find out what’s wrong. When they find out that it’s a bunch of escapees from an asylum helping salamanders across the road they feel embarrassed for stopping, drive quickly away, and, if we’re unlucky, they dial 911 as they do.

Here’s what I now tell all motorists who stop to ask what’s going on:

“Thank you for stopping. Everything is fine. We are conducting a population study of Ambystomid salamanders and this is one of the few nights of the year when these unusual animals are visible.”

If they seem interested or nice, I suggest that they could help by driving slowly through the site and tapping their horn if they see any amphibians.

— Patti Smith

Looking For a Sign

Was it spring fever that induced someone to toss one of our big “Salamander X-ing” signs into their car and speed away, right under the noses of crossing guards, last Friday? If you read the article above you won’t be surprised to hear that the State Police seemed more amused than concerned when the theft was reported.

This seems a good time to solicit suggestions. Three years ago, BEEC received a grant that allowed us to purchase ten big portable signs that warn motorists at some of the busier crossing sites. These signs work well, but we could really use two signs for nearly every site, and the number of sites grows each year. Do any of you have ideas for signs that would be easy and inexpensive to make, readily portable, and unappealing to thieves? All ideas are welcome.



Hot Tip: Be Prepared!

April weather is notoriously unpredictable. Amphibians will be grateful if you're ready to take to the road whenever the right conditions develop. Consider keeping the following kit packed by your door:



- Rain gear
- Reflective clothing
- Bright flashlight
- Headlamp
- Extra batteries
- Snacks
- Scoop for dead amphibians
- Clean bucket



Species Spotlight: *Spotted Salamander*

A member of the group called the mole salamanders, the Spotted Salamander, *Ambystoma maculatum*, leads a life similar to that of those little gray mammals. They spend most of their lives alone in dark subterranean networks of mammal tunnels. Here they stalk their wily prey—earthworms and other soil invertebrates.

The big event on the Spotted Salamander calendar is their annual sojourn to their breeding habitat. The preferred habitat for this activity is a woodland vernal pool. The best of these hold water for much of the summer, but dry up at least during some years, thus dooming or discouraging such aquatic species as fish, bullfrogs, and snapping turtles that would eat their eggs and young.

It is on these treks to their breeding pools that we have the best opportunity to see these amphibians. They are up to 9 inches long, gray to black, and each salamander has a distinctive pattern of yellow polka dots on its back. The belly is usually pale gray, but can sometimes have light spots, as reported by one crossing guard this year.

The females can be distinguished from the males on their way to the pools because their sides are plump with eggs.

Once in the pools, the males gather in groups called congresses. The congress at its peak can be a sphere of up to 200 undulating swimmers, yes it's the Salamander Ball! The bottom of the pool will be speckled with spermatophores,

the white packets of genetic material excreted by the males. When a female arrives and has been sufficiently stimulated by gyrating males, she and a suitor will leave the ball, and he will beckon her to follow him with his waving tail. He will lead her to his spermatophore. If she is suitably impressed, she will draw it into her cloaca to fertilize her eggs. She will lay a cluster of 100 - 300 eggs attached to a stick or pond vegetation. After the eggs have been laid, courtship is over and that salamanders return to their fossorial lives. (There are many accounts of Spotted Salamander courtship, and the details don't always match. According to some, females select spermatophores at random. I suggest that you visit a pool on the night after salamander migration and see for yourself.)

The young salamanders wriggle free of their jelly coating after a month or two. The warmer the water temperature, the sooner they hatch, but the warmer the temperature, the sooner the pond will dry up. Each year it is a race with the sun. The larval salamanders have feathery gills and very soon develop legs, but it takes a few more months for them to be ready to join their kind on land. Many vernal pools will dry before this metamorphosis can be completed. Fortunately, Spotted Salamanders can live 20 years, so the adults might have many opportunities to reproduce.

Photo Gallery

The following amphibian photos were taken in Westminster West by KT Thalin.



Peggy Farrabaugh picked up this Jefferson X salamander near a beaver pond on Huckle Hill Road in Vernon. You can see that it is transporting some leeches from the pond. They will drop off soon and the salamander should be fine.

