

April Showers

April showers bring May flowers, the proverb reminds us. For those of you who hanker for instant gratification, however, there is something else that April showers bring—amphibians. And once the showers begin, you don't need to wait until May, you only need to wait until dark. These salamanders and frogs brighten my spring-time spirits more than any tulips and daffodils.

On those dreariest of April nights when its raining and temperatures get above 42°F, the spotted salamanders, Jefferson's salamanders, and wood frogs emerge from their hibernacula. Terrestrial and solitary most of their lives, these spring rains trigger their annual urge for aquatic social activity. Most head to vernal pools, small temporary bodies of water, for a wild pool party, during which the business of procreation occurs.

For many amphibians, the trek to their breeding pools takes them across roads. For creatures with legs less than an inch long and blood as cool as the April night, a simple road crossing is a dangerous prospect. Fortunately for some amphibians, on such nights another colorful spectacle blooms along roadways in our area—groups of people in raincoats and reflective vests wielding flashlights. These are kind-hearted folks who turn out in “amphibian weather” to see some of these handsome salamanders, and also to help them safely reach their pools and parties. One of my most rewarding and stressful tasks at the Bonnyvale Environmental Education Center is to keep track of where and when these amphibians are likely to be moving to make sure the amphibian escorts are in position when they're needed.

Those of you who roll your eyes and think we must be crazy are partly right. Chances are good that most of us are a bit crazy. However, these crossing brigades may prove critical to the survival of amphibian populations as traffic on our roads increases. The likelihood of an amphibian making it across a particular road can be calculated by knowing the speed of cars, the number of cars likely to pass, and the amount of time an amphibian spends crossing the “kill zones,” those parts of the road that tires travel. A study of spotted salamanders in western Massachusetts modeled the number of amphibians that would likely need to cross roads to reach breeding habitat, and the percentage of the population that would be killed by cars in the attempt. This study projected a gloomy future for the spotted salamanders of western Massachusetts. In



their conclusion, study authors Gibbs and Shriver state that “if efforts are successful in limiting rates of traffic-caused mortality to less than 10% of individuals attempting to cross roads during their migration circuit to a particular pond, e.g., by tunnel construction, road closure, or physically transporting individuals, then those efforts are likely warranted to stave off local population extirpation.”

It is the spotted salamanders, those mysterious recluses in their polka dotted suits, that steal the show on rainy April nights, but they are not the only amphibians that benefit from our help. I am usually out at the biggest wood frog crossing site on amphibian nights. I especially remember one night with temperatures hovering close to 40° F and a light rain settling on top of dry soil. Though I thought the salamanders would sleep in, I knew my site would be hopping—wood frogs are less discriminating about temperature and moisture than salamanders. In fact one of their charms is how very indiscriminate they can be.

The more enthusiastic of the male frogs were easy to spot. They perched on the asphalt in an upright posture. With their dark bandit masks they looked like miniature highwaymen hoping to plunder a stagecoach before retiring to the tavern for a night of carnal revelry. Others, spent from their travels, had no energy left for good posture. They felt like empty frog sacks as we scooped them up. I hoped the pool party would rejuvenate them. Some of these seemed grateful not so much for the lift across

the road, but for a warm spot to rest. They hunkered into my hand and seemed reluctant to leave.

Soon the nearby pond quacked with the mating calls of the males who had arrived. As we walked the road we would sometimes hear the cluck of a frog warming up for his performance as he hopped through the woods. A few offered a little “kkRRruuK” when I picked them up. Still others were so eager to mate I had to pluck them from my fingers to set them free once we crossed the road.

I thought I would leave at 10:30 when the rest of the team headed home. “I don’t know if it was the abrupt increase in the volume of rain or the reduced activity of the human patrols, but in a moment I found myself in the midst of a flood of frogs. They flowed down the banks and into the road, a torrent of amphibious life. I couldn’t begin to keep the road clear, so I was very grateful that the couple of cars that passed were driven by sympathetic folk who were happy to have a path cleared through the wood frog parade.

We saw just three spotted salamanders that night, but I was not disappointed. While there we managed to nearly eliminate mortality. I knew we had helped over 400 frogs reach their breeding pool in safety.

If you think you might be crazy enough to join an amphibian crossing brigade, I’ll be very happy to put you on the list! If you’re not quite crazy enough, I encourage you to avoid driving after dark on the first rainy nights of April. If you find you must be out, drive slowly and avoid “sticks” in the road. Watch out for people in raincoats, too. If you drive through one of the salamander crossing sites we’ll all be so happy if you brake for amphibians.

—Patti Smith