

March of the Salamanders

As I write this column, squirrels and chickadees outside my window can celebrate having just survived the coldest night so far this year. They refuel on sunflower seeds and defrost in the morning sun of early March. Incongruous as it seems, I know that beneath this two feet of snow and an unknown depth of frozen soil a host of amphibians snooze in yellow-polka dot pajamas. They await their big moment of the year. If this year is like most, it is only a few weeks a way.

These black eight-inch long spotted salamanders are of the genus *Ambystoma*, the mole salamanders, denizens of the earth. Their ancestors returned to this region with the temperate forests as the last glacier trickled away far to the north. For the thousands of years that have ensued, spotted salamanders have prospered.

Yet even these solitary beings are not immune to the allure of spring, and when the first thawing rain reaches them, their fancies turn to thoughts of love. On those first rainy nights after the ground thaws, and when temperatures are above 40°F, these salamanders begin their annual trek to their breeding pools. No obstacle is deemed insurmountable (although some might prove to be), as the lure of the pool and the other spotted salamanders they will find there exerts its pull.

Once in the water, buoyant and gregarious, the salamanders assemble for the *Ambystoma* Ball. The males arrive before the females, but they aren't shy about getting the dance started. I understand that on a year when the salamanders synchronize their arrival at the pool perfectly, their courtship dance is spectacular. David M. Carroll, in his book, *Swampwalker's Journal*, describes the scene: "It seems that all of the salamanders I have been looking for all spring are here, and have all become one, in a mesmerizing black mass of interweaving sun yellow spots. . . I have never before witnessed this libesspiel, as it is called, this loveplay, a great communal congress of salamanders continually weaving among themselves in a dense, nearly spherical mass. . . Limbs tucked against their sides, one main stream of salamanders slips from one pole of the rough globe to the other, while others slide around in all directions. . . Adding to the magic, the perpetuum mobile of the entire living orb remains stationary in the water."



This is not something I have seen, although I have seen more subdued variations. It could be that Vermont salamanders are simply less flamboyant than those in New Hampshire, but I doubt it. I must admit I have been preoccupied on the nights of the salamander migrations, as you shall read below.

These courtship rituals typically occur in vernal pools—temporary wetlands that hold spring rain and snow melt. In this habitat, amphibian eggs are safe from predation by fish, but each year the young develop in a race with the sun as the pools dry. The salamanders' longevity (twenty years or more) assures the survival of their genes even if developing young sometimes lose the race.

This year the salamanders will once again head to the pools their kind have used for hundreds, or perhaps thousands, of years. Superimposed upon this ancient world, however, is a new world of houses, shopping centers, roads and cars. In areas where salamanders are forced to cross wide, busy roads, populations of these animals are likely to disappear. What about populations of amphibians that must cross even moderately traveled rural roads? Can populations survive the impact of this new source of mortality over the long term?

If you have a soft place in your heart for amphibians, or just a more pragmatic concern about conserving biodiversity, one thing you can do to help these salamanders is to avoid driving on rainy nights in April. Should you be out driving on such a night, keep an alert eye tuned for "little sticks" in the road. If you can safely pull over, a closer look might reveal a salamander bewildered by this world of asphalt and rushing tires. Give it a lift across the road and

you will be helping to perpetuate a very old tradition, and assuring one inhabitant of earthy darkness a great night at a vernal pool party.

If you're out driving on these warm wet nights of spring, you will have no trouble spotting another type of creature—the two-legged ones in their raincoats and reflective vests that will be scanning the road with flashlights. The

one with the long yellow slicker and the felt hat might be me. Each year dozens of Windham County residents contribute to the conservation of amphibians by participating in "salamander crossing brigades." If you think you'd like to join them this year, please send an e-mail to BEEC@sover.net. Let us know where you live and we can direct you to the salamander crossing site nearest you and send you alerts on salamander crossing nights.