

Springing to life

Growing interest in vernal pools breeds more understanding

BY TIM WACKER
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For years Ramona Latham had listened to the piercing chirp that reached a near roar outside her home about this time each spring, but she never saw where it came from.

Wednesday night, the Gloucester resident finally saw them. Spring peepers, thimble-sized frogs that belt out a bucket full of noise in their annual search for a mate, were clinging by the hundreds to brush and tree limbs around Gloucester's Stillington Pond. She was enthralled.

"I grew up with that sound all around me, but I never saw one before," she said. "So, when I got the opportunity to view them, I thought it was a privilege."

The spring peepers join other amphibians in a rite of spring that plays out every year across hundreds of anonymous depressions in the forest floor whose only saving grace is they are too small to support fish. As the seasons wear on, they either dry up completely, or close enough to make them more puddles than ponds.

With no fish, these wetlands — called vernal pools — are a springtime haven for largely defenseless animals that can lay their eggs, and have them hatch, in peace. But come the dry months of late summer and early autumn the eggs hatch, the pools dry up and a vital link in the forest ecology looks little more than a litter of leaves until next spring.

And that's the problem.

"Historically, vernal pools were thought of as nothing in the context of other wetlands because they don't hold water all the time," said Tom French, an assistant director at the state's Divi-

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sion of Fisheries, Wildlife and Environmental Law Enforcement. "But in the last 10 years, the importance of vernal pools has come to light. These little, insignificant pot holes in the woods are being viewed as absolutely essential to a whole variety of wildlife."

At Stillington Pond that night, spring peepers maniacally inflated their throats like bubble gum to fuel a mating cry a moose would admire.

In the pond a few feet away, the amorous entreaties of tree frogs barely rose above the din with a bizarre appeal that landed somewhere between a quack and a giggle.

Soundlessly writhing in ecstasy below them, hundreds of yellow-spotted salamanders ensured that species' future generations, while a smattering of leeches made cameos in what is essentially an orgy that takes place for a few nights each week, when the weather's just right.

Breeding grounds

After the first warm rains of spring, all manner of salamanders, turtles, frogs and a peculiar, inch-long crustacean called fairy



A male yellow-spotted salamander crawls across a moss-covered rock at Stillington Pond.



KIRA HORVATH/Staff photos

A spring peeper puffs out its throat, which causes the "peeping" sound it makes to attract a mate. Stillington Pond is a protected vernal pool where many frogs and salamanders come to breed.

VERNAL: Pools a haven for defenseless animals

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shrimp, turn these quiet pools into cauldrons of carnality over the course of the next month. Some of these animals depend wholly on vernal pools for reproduction and some are on the state's list of rare species, including three species of salamander: the blue-spotted, the marble and the four-toed.

These hard-to-find critters are becoming harder to find, largely because vernal pools are so misunderstood.

They are often seen more as groundwater recharge areas and less as vital habitat for rare animals.

They are tampered with in ways experts say is catastrophic for these creatures.

Both New Hampshire and Massachusetts have wetlands restoration policies that permit development or construction on or around vernal pools, as long as the disturbed pools are restored, or wetlands elsewhere are preserved in their place.

The Maritimes and Northeast Pipelines gas line project marched across and, in some cases, washed out vernal pools in their cross-state excavation from Methuen to Beverly. The proposed Interstate 93 expansion in New Hampshire is expected to displace wetlands in Salem, N.H., Windham and Londonderry.

Vernal pools and their seasonal inhabitants don't handle such disruptions well, French and others say. Salamanders, some which live 25 years or longer, return to the same pools every year, much like salmon returning to their home streams.

"We don't really know the effect of dismantling our forest



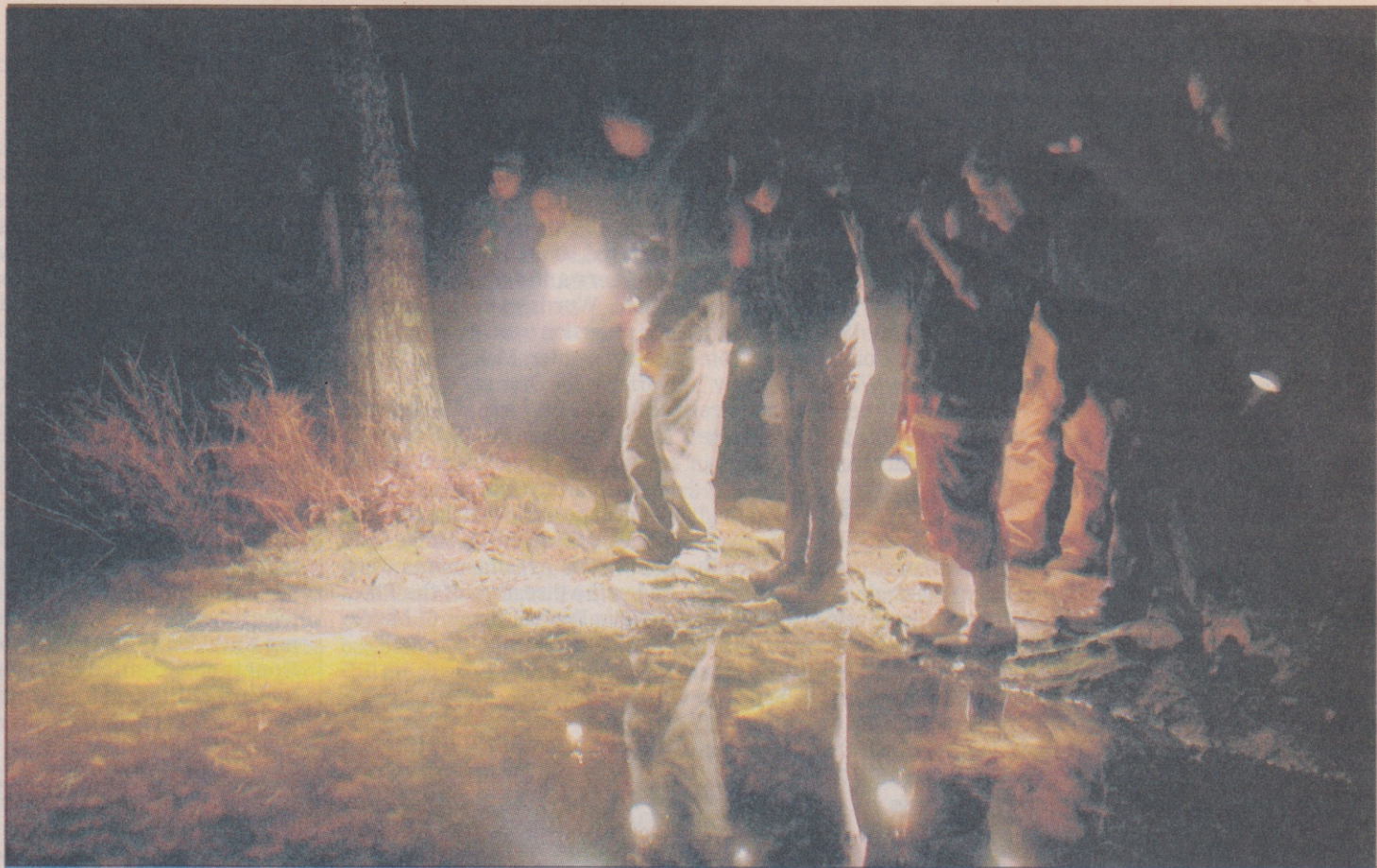
A group of spring peepers perch on the foliage that surrounds Stillington Pond.

ecosystems like this," said Leo Kenny, a science teacher at Reading High School who has been involving his students in vernal pools for the past few years.

"These are terrestrial animals that live out in the woods and migrate to the pools," he said. "If the pool isn't there, it's problematic. They don't go in."

Teachable moments

Kenny and other teachers have been using their students to fight for the pools. Massachu-



KIRA HORVATH/Staff photos

The Cape Ann Vernal Pond Team took a group out to Stillington Pond on Wednesday evening to observe salamanders and frogs breeding.

setts has vernal pool certification programs where students, and anyone else, can go out and document what species live there.

State-certified vernal pools, and woods within 100 feet, are considered environmentally sensitive areas, which helps community planning and conservation officials guide development in a more environmentally sensitive way. Haverhill Conservation Commissioner Brent Baeslack said a home being erected near a vernal pool there had construction traffic diverted until after the spring-time migration.

All this attention is turning these puddles in the woods into bonafide tourist attractions.

The 13 who turned up in Gloucester Wednesday night were led by members of the Cape Ann Vernal Pond Team, which is leading larger and larger contingents each year.

Kenny's students run their own Web site devoted to the ponds and regularly make field trips out to certify new ones. And Ipswich elementary school teacher Lisa Manzi can be found with her students posting "Salamander Crossing" signs at sensitive locations during the spring migrations.

At the edge of Stillington Pond, fans of amphibians were cautioned to watch where they put their feet. And on occasion, the spring peepers curtailed their calls when the flashlights



A pair of spring peepers mate on the foliage that surrounds Stillington Pond. After amplexus (mating) is over the female will retreat to the water and lay her eggs.

shone a little too brightly. But, for team leader Rick Roth, all this attention for these anonymous animals is well worth it.

"The way we figure it is, the outreach and conservation is more important than bothering a few salamanders," Roth said.