

Wet work tracking tiny 'tigers'



IN THE FIELD
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The recent downpours flooded local roads and snarled traffic, but they also spurred an amphibious baby boom in ponds scattered across the Central Pine Barrens.

For Eastern tiger salamanders, spring rains are a clarion call to go forth and multiply. Rarely seen, they leave their woodland burrows on wet nights in February and March and head en masse for nearby ponds — the only places in New York where these big, blotchy amphibians breed. The salamanders slide in, pair up and mate underwater.

“The males will fertilize the females, and then they lay their eggs on these pieces of grass,” said biologist Tim Green, the cultural and natural resources manager at Brookhaven National Laboratory in Upton.

Green knelt in the water at one of lab’s sumps on a recent overcast day and gently placed his hand beneath a gelatinous mass attached to a stalk. Inside wriggled dozens of black larvae the size of fingernail clippings.

Likely laid a few weeks earlier, the tiny proto-salamanders would soon be ready to leave the egg mass and try life in the water. They emerge from the ponds in July and August, when they have grown four or five inches long.

Endangered in New York

The Eastern tiger salamander is one of eight types of salamanders that live on Long Island. Found throughout much of the Northeast, the species is considered endangered in New York State.

This pond — an unlovely man-made pool known as “650 sump outfall” — is one of 26 at the lab where Eastern tiger salamanders are known to breed.

Each spring Green wades through as many as he can to look for traces of recent activity. He sends the results to the state Department of Environmental Conservation, which tracks the 120 or so local ponds where salamanders are known to breed.

“They want to know do we



Tim Green, natural resources manager at Brookhaven National Lab, holds a salamander, above and at right, that he says “did not survive the egg-laying process.”



PHOTOS BY DANIEL GOODRICH

have a good breeding population, is it declining — and if it is, what needs to be done,” Green said.

Long Island is the northernmost point of the Eastern tiger salamander’s coastal range, and its status here is precarious. Its breeding ponds are protected by the state DEC: Developers must leave a 1,000-foot buffer zone around the water untouched.

Still, the upland habitats where tiger salamanders spend most of their lives underground have been damaged and dimin-

ished by development, pollution and off-road vehicle use.

Research done at the lab in recent years may end up strengthening existing protections. Green said a graduate student who used radio transmitters to study Eastern tiger salamander movements found they used nearly a quarter mile of habitat around the pond — 1,320 feet.

Later that day, Green hopped into his truck to look for eggs at a pond farther east. Fringed with red maples and oaks, the pool is subject to occasional incursions

by fish. In wet years, fish swim up from the Peconic via mosquito ditches that were dug by the Army back when the property was known at Camp Upton.

“If you find fish in this pond, they’re probably eating salamanders,” Green said.

Hunting for egg masses

No fish turned up that day, but there were precious few salamanders, either. Spring peepers, the tiny woodland frogs whose call signals the end of winter, sang out as Green carefully navi-

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gated submerged thickets of downed tree limbs. He peered into water stained the color of tea by the tannins in dropped leaves. After half an hour or so, he found one salamander egg mass, a tight cluster likely laid in the past week.

“It’s not as full as the ones that we had in the other pond,” Green said.

Made from mucus secreted by the mother, the masses are tight balls when the eggs are first laid but get looser as they absorb water, which forms a protective layer around the larvae.

The afternoon’s tally: 14 egg masses at the sump and one from the pond farther east. Green also found a casualty — a dead adult female about eight inches long.

“Hopefully, maybe she did have some eggs to lay and they’ll survive,” Green said, gently placing her body in the water. “Her lineage can go on.”

THE MONTH OF APRIL

You can see

Spring is snake season here. You can see the **Eastern garter snake** — Long Island’s native garter-snake subspecies. The snake is just now emerging from hibernation. It becomes active when the air temperature is between 68 and 98 degrees. That’s when it can be seen basking — on woodpiles, stone walls and in hedges. Folklore suggests that the snake takes its name from the resemblance of its stripes to old-fashioned sock garters. It’s harmless to people.

This snake measures 18 to 25 inches long. It ranges in color from olive to brown to black (and usually green to yellow underneath, with two rows of black dots), according to the online snake archive maintained by Hofstra University herpetologist Russell Burke. It has three stripes:



AP PHOTO, 2004

one down its back and one down each side. Eastern garter snakes mate now through the end of next month and will give birth to as many as 80 live young over the summer. The baby snakes need no parental care whatsoever; they disperse shortly after birth. The snake lives about eight years. According to Cornell Cooperative Extension, the Eastern garter snake diet includes earthworms, frogs and toads, carrion, insects, small birds, slugs, fish, crayfish and other snakes.

— JOE HABERSTROH