Moths may feast

Press Republican 2000

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Staff Writer

ELIZABETHTOWN — A tiny creature no larger than a fingernail may become a hero in the fight against Eurasian milfoil.

Researchers from Cornell University are studying the impact a small moth called acentria ephemerella has on milfoil, a nuisance aquatic plant that is infesting lakes and ponds across the state, including Lincoln Pond in Essex County.

"We've seen excellent results in Cayuga Lake (in central New York)," said Cornell Researcher Bob Johnson. "We now have 13 years of data that show milfoil levels in the northern part of the lake dropping down to almost zero.

"We'd like to see those kinds of results in our study at Lincoln Pond."

Will begin this spring

This spring, Johnson expects to release up to 20,000 moth caterpillars into Lincoln Pond. He is now raising the caterpillars in laboratories on campus and expects to have that many by May, when they can do a lot of damage to young milfoil plants.

"The moth is naturally occurring in Lincoln Pond, but for some reason it doesn't grow to a population that is high enough to control the growth of milfoil," Johnson said. "We're hoping to put enough caterpillars in one location that they will build up a sustaining population."

Leaf houses

The tiny caterpillars, less than a half-centimeter long, love to eat milfoil. The miniature insects, which live their entire pre-moth life under water, head directly to the tip of milfoil plants and begin their feast.

The insects actually build "houses" on the plants by folding leaves over themselves and sewing the leaves shut with their silk. They are then protected from the elements and predators as they steadily eat from their penthouse locations.

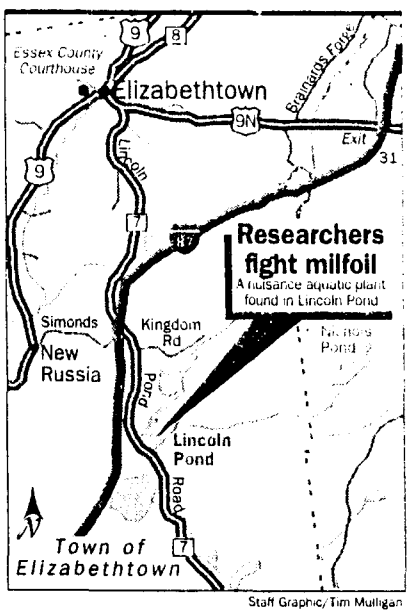
"We're hoping they destroy the plants' tips so they can't elongate to the surface," Johnson said. "If they hold back the milfoil growth, that will enable other native plants to increase. In Cayuga, we've really seen a resurgence of native species."

Growing problem

Milfoil are extremely competitive plants and usually dominate an area once they catch hold. At Lincoln Pond, they have mushroomed in population over the past few years.

"We didn't have a lot of milfoil for a long time," said Anita Deming of Cornell Cooperative Extension of Essex County. "But one year we had a summer drawdown (when repairs were being done to a causeway that cuts the pond in half). That killed off a lot of plants down in the area where

on local lake scourge



Staff Graphic/Tim Mulligan

the boat launch is.

"What came back was milfoil. And it's expanded a lot since then. Deming and her husband, John, own property on Lincoln Pond and watched in awe as milfoil quickly changed the lake's appearance. The plant grew so thick that boats and even jet skis could not maneuver through it.

In 1995, about 60 acres were heavily infested. The infestation grew to 118 acres in just two years.

Results a few years off

"We have a good base of information for what kinds of plants were there before the milfoil and what has happened since milfoil arrived," Deming said. "Now we can look at the comparisons (following the introduction of the moth) to see what kind of impact we're having."

It takes about three or four caterpillars per milfoil plant to effectively reduce the number of plants. During a recent survey, researchers found only a few caterpillars when they sampled 300 milfoil tips from the pond.

But the fact that the insects were already in the pond helped win approval from the Department of Environmental Conservation.

Officials are now waiting for an OK from the Adirondack Park Agency before going ahead with the program.

"We're certainly excited that the Lincoln Pond Association has decided on using a natural predator to reduce milfoil," said Robin Ulmer of the environmental group Boquet River Association. "We only caution people that they can't expect results soon. This will take time."

The caterpillars will eventually transform into adult moths. But the adults live for only about two days, and the females have no wings and remain floating on the surface waiting for males to fertilize their eggs, which they will lay before dying.

It's the next generation of caterpillars, and the next, that will ensure success in the program.

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