

# State to battle 'invasion'

■ Effort is under way to control problem-causing foreign species.

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Invasive species. The words alone sound ominous.

But until they hear "zebra mussels" or the name of another plant or animal that has affected their life,

many Rochesterians are still befuddled by the term. They don't realize that invasive plants and animals can boost bacterial growth in their lakes, clog their sewer pipes and drive out their beloved bluebirds.

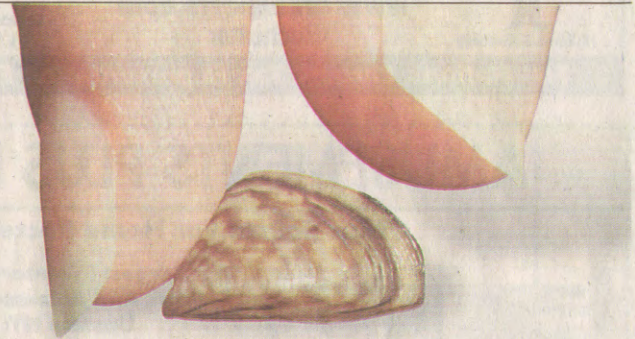
That's precisely why

state environmental leaders spent the past two years dissecting the issue before releasing the final report of the New York State Invasive Species Task Force in December. The report delineates the state's problem and proposes some solutions. This week, Gov. George Pataki proposed \$2 million in funding to get the effort started.

Before the costly problem can be solved, it must be better understood, the report said.

To be termed invasive, species "need to be from somewhere else and they need to cause a problem," said Steve Sanford, chief of the Department of Environmental Conservation's

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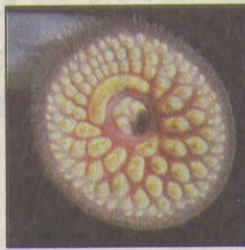
## On Page 8A

■ Graphic highlights invasive species threatening our area.  
 ■ Residents share views on how state should respond.

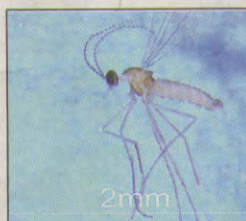
One invasive species, the zebra mussel, is tiny but causes big problems in local lakes.

U.S. Geological Survey photo

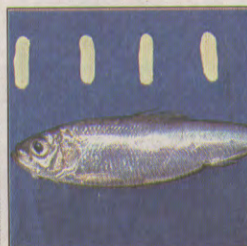
# Invasive species in New York state



<b>Species</b>	<b>European starling</b>	<b>Eurasian water milfoil</b>	<b>Zebra mussel</b>	<b>Sea lamprey</b>	<b>Purple loosestrife</b>
<b>Year of arrival*</b>	1890s	1960s	1990s	1835	1951
<b>Native habitat</b>	Europe	Europe and Asia	Caspian Sea	Atlantic Ocean	Europe and Asia, primarily Japan
<b>Likely source</b>	Intentional release	Aquarium or pleasure boat	Shipping: ballast water	Range expansion via canals	Shipping: soil ballast
<b>Controls</b>	Nest boxes for native birds	Surface mowing and lake floor barriers	None, but another invasive species, the round goby, feeds on it	Poisoning young lampreys in small creeks	Introduction of an Asian beetle predator
<b>Impact</b>	One hundred European starlings were released into Central Park in an effort to introduce all the birds from Shakespeare's plays. Today, 200 million of these aggressive birds outcompete native species for food and habitat.	The milfoil was probably released from an aquarium into a pond near Washington, D.C. It has spread to waterways in 45 states and is found in all the Finger Lakes. It can reproduce from the slightest scrap of plant material, making boats a major cause of its spread.	First discovered near Detroit, this tiny shellfish quickly spread throughout the Great Lakes. Today, it is found in 20 states. It clogs pipes and covers docks. It might also boost growth of harmful bacteria.	This leech-like fish is native to the rivers that flow into the Atlantic Ocean, where it feeds on the blood of other fish. It migrated through canals into the Great Lakes basin, contributing to the disappearance of native lake trout.	One plant can produce more than 1 million seeds, quickly spreading and taking over entire wetlands. Native plants are crowded out, and local wildlife lose critical habitat.



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<b>Species</b>	<b>Swede midge**</b>	<b>Alewife</b>	<b>Giant hogweed</b>	<b>Chronic wasting disease prion</b>	<b>Hemlock woolly adelgid</b>
<b>Year of arrival</b>	2004	1873	1917	2005	2002
<b>Native habitat</b>	Europe	Atlantic Ocean waterways	Central and southern Asia	Rocky Mountains	Japan
<b>Likely source</b>	Unknown	Range expansion via canals	Introduced for landscaping	Shipping of farmed deer	Hitchhiked on nursery plants
<b>Controls</b>	Crop rotation	Introduction of predatory fish	Physical removal	Restrictions on movement of farmed deer	Inspections at nurseries and regulations on interstate shipping
<b>Impact</b>	In its larval form, this small fly inflicts serious crop damage. The insect has been found in several area counties, and New York's \$87 million annual cabbage crop is at risk.  **Enlarged about 1,785%	Also known as river herring, alewives migrated via canals from coastal waters. The fish was also intentionally introduced into several of the Finger Lakes. As alewife populations grew to nuisance levels in Lake Ontario, lake trout declined.	The plant was introduced into gardens for its huge masses of blossoms and fast growth rate. Today, it's considered harmful because its sap poses a risk to humans. It acts as a sort of anti-sunscreen, boosting the power of the sun's rays and causing serious burns.	A disease-causing agent called a prion is responsible for this degenerative illness, which has killed thousands of wild and domestic deer in the Rockies. It has been found near a deer farm in Oneida County, but is not yet believed to have infected New York's wild herds. It is closely related to mad cow disease.	This tiny insect feeds on the sap of eastern hemlock trees, injecting them with a substance that causes needles, buds and eventually limbs to die. While minuscule, the adelgid can be spotted by the cottony white mass that covers its eggs.

\*First known introduction or discovery in western New York and/or Lake Ontario

# Invasive

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Bureau of Habitat.

When an invasive organism is introduced into a new environment where it has no natural predators, it can quickly grow to unnaturally large populations, throwing the entire ecosystem into disarray.

Zebra mussels and Eurasian milfoil, for example, are transforming the natural communities of Lake Ontario and the Finger Lakes, raising fears that shoreline property values may fall as lakes become clogged with weeds.

And Swede midge, an aphid-like insect, is threatening cabbage and broccoli crops, costing farmers thousands of dollars and setting the stage for increased produce prices.

"These are not potential, hypothetical problems," Sanford said. "... It really does affect everybody."

Invasive species pose one of the biggest risks to the Earth's biodiversity. Nationwide, about half of all the species listed as threatened or endangered are at risk — at least in part — because of an invasive species.

But just deciding what's invasive and what isn't is often a major challenge. A third of the plants found in New York state are nonnative, but only 10 percent to 15 percent are invasive, according to the DEC.

"There are a lot of species that come for landscaping, for pets, that don't cause problems," Sanford said. "We didn't write a definition that would be bullet-proof."

And so, the task force has pro-

## What you can do

Citizen groups will be key in addressing invasive species, state leaders say, and \$1 million in grants has been set aside for eliminating aquatic invaders. Awards will range from \$10,000 to \$100,000; local governments and nonprofit groups may apply. The deadline is Feb. 28; call (518) 402-8970 or go to [www.dec.state.ny.us/website/dfwmmr/habitat/erad.html](http://www.dec.state.ny.us/website/dfwmmr/habitat/erad.html).

posed creating a list, either of those plants and animals that are considered safe or of those considered invasive.

"We need to be able to tell people what is and what isn't good," said Steve Clemants of the nonprofit Invasive Plant Council. "And we need to tell people, in some meaningful way, what are the consequences of that (species)."

The first priority must be keeping new invasives out of New York, task force members said this week. Agriculture has done a particularly good job of responding to new troublemakers, the task force found, yet dozens of threats remain.

Local environmental groups and homeowners' associations have made important strides — encouraging boat washing to reduce the spread of milfoil or pulling giant hogweed plants — but no one was aware of the full scope of these activities until the task force convened, Tauzel said.

"Everyone's doing something a little but different. ... We all have these projects going on, but is there a way we can better communicate them?" he said.

This sort of coordinated effort to identify and respond to a new

invader immediately is often the only hope of control, the report said.

"Once an invasive species arrives, it's about impossible to get rid of it," agreed Sean Hanna, the DEC's regional director in Avon, Livingston County.

But creating the list and a "rapid response" system will require several more years of effort and substantial funding. Only about a third of the states have even attempted wide-scale invasive species planning.

This week, Pataki included \$2 million for implementing the task force's recommendations as part of his proposed 2006-07 budget. The money could go toward continuing a community grant program for fighting infestations, as well as creating a permanent staff to coordinate invasive species planning.

The full cost of creating a strategy to fight invasive species in New York could exceed \$10 million a year for several years, the report said. When the costs of controlling the plants and animals that have already arrived are counted, the price rises into the billions, Sanford said.

Eradicating the Asian long-horned beetle has cost New York an average of \$13 million annually, the report said. Nationwide, \$120 billion is spent on controlling invasives each year, a Cornell University study found.

"Funding is the top priority," Clemants said, describing promising control programs like that for the Asian long-horned beetle that have faltered when funding was not sustained.

"These things are going to be cyclical unless we keep money in that pot," Clemants said. □

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