

# New disease strikes Michigan trees. Arborists don't know how to treat it

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A mysterious invasive disease has hit a stand of southeast Michigan

trees, adding to a long list of threats faced by state forests.

Foresters recently discovered beech [leaf](#) disease in a southern St. Clair County woodlot, the Michigan Department of Natural Resources announced Tuesday. It is the first confirmed appearance of the disease in the state.

The emergence of beech leaf disease "is very concerning for our trees," said Joanne Foreman, the DNR's invasive species communications coordinator.

Beech leaf disease can cause leaf buds to abort and leaves to curl.

"We know what it is, we know it can kill trees but we do not have at this time a way to treat it," she said. "That is probably the worst part."

Beech trees have smooth bark, popular with vandals, and toothed, oblong leaves. They are common throughout Michigan—which has roughly 37 million of them—and often found in forests and parks. They are not often planted as street trees.

Michigan beech trees already are under threat by beech bark disease, spread by a sap-sucking insect that introduces a [fungus](#) into trees. That fungus causes cankers that kills trees by cutting off their flow of water and nutrients. The disease appeared in Michigan in 2000.

"Our trees over the last couple of decades have taken a big hit from invasive species," Foreman said. "From Dutch elm disease to [emerald ash borer](#), which took out pretty much an entire species of tree. We have oak wilt. We have hemlock wooly adelgid.

"For our forests, this is very significant."

## Disease in 9 states

Beech leaf disease was detected in Ohio in 2012, its first emergence in the United States. It has since spread to the Canadian province of Ontario and nine other states including Michigan.

The owners of the sick St. Clair County trees alerted a regional [invasive species](#) network after they noticed their young beech trees were growing stunted, oddly shaped leaves. DNR foresters collected samples of the affected trees and confirmed with state and federal laboratories that they had been struck by beech leaf disease.

Beech leaf disease is a tricky challenge for Michigan foresters. It is associated with a nematode, or microscopic worm, that lives in tree leaf buds for the winter. That damages the leaves and makes them susceptible to other disease.

Foresters aren't sure whether the [nematode](#) itself or a fungus, bacteria or something else causes the damage, Foreman said.

They also don't know how the disease spreads. The nematodes are slow and don't move much on their own, Foreman said. It could be birds that spread the disease, or it could spread through nursery stock or another avenue, she said.

"There's just not enough known about it right now," Foreman said.

The disease also takes a while to appear after it strikes a tree, said Simeon Wright, DNR forest health specialist. The sick St. Clair County [trees](#) likely harbored the disease for more than a year before it was discovered, he said.

"Because symptoms are slow to emerge, it is difficult to detect the

disease before it is established," Wright said.

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