

EXOTIC FOREST PESTS: Let's keep them out of Michigan

Asian Longhorned Beetle

(*Anoplophora glabripennis*)

Why we care: This large, showy beetle was accidentally introduced into the U.S. on several occasions, probably in wood crating or pallets shipped from Asia. Larvae feed in tunnels (called galleries) in the wood of tree branches and trunks. The galleries can cause branches or trees to break and will eventually kill the tree. North American trees have little or no resistance to this Asian pest.

What is at risk? Maple trees are the Asian longhorned beetle's (ALB) favorite host. More than 1 billion maple trees grow in Michigan. ALB can attack and kill many other tree species, including poplar, willow, sycamore and horse chestnut.

The threat: ALB populations are known to be present in areas of southern Ohio, Massachusetts and New York. What could happen in Michigan? If a new ALB infestation is found, federal officials will begin survey and eradica-

tion activities. These include removing and destroying all infested trees. Eradication is messy and unpleasant, but it has been successful in eradicating ALB populations in New Jersey, Chicago and Toronto. If ALB is not eradicated and populations spread across North America, economic and ecological impacts would be enormous.

What is being done? Eradication efforts are continuing in New York, Massachusetts and Ohio. There are international regulations on wood crating and pallets used for shipping, but enforcement is challenging.

What can you do? Pay attention to trees, especially maples, with dying branches. Look for the characteristic exit holes in large branches or the trunks. Many websites have good ALB photos and information. If you see a suspect tree or beetle, take photos and record the location. Try to collect suspect beetles in a jar. Contact an expert at one of the phone numbers or websites below to report suspect trees or beetles.

Learn more: asianlonghornedbeetle.com/

Joe Boggs, Ohio State University Extension



Asian Longhorned Beetle larva.

Joe Boggs, Ohio State University Extension



Adult Asian Longhorned Beetle.

Steven Katovich, USDA Forest Service, Bugwood.org



Exit hole (with pencil).

Pennsylvania Department of Conservation and Natural Resources - Forestry Archive, Bugwood.org



Maple tree with ALB exit holes with maple leaf insert

If you see a suspect insect or tree contact:

Michigan State University
Diagnostic Services
www.pestid.msu.edu/
Phone: 517-355-4536
578 Wilson Road, Rm 107
East Lansing, MI 48824

Midwest Invasive Species
Information Network (MISIN)
www.misin.msu.edu/
Email: info@misin.msu.edu

Michigan Department
of Agriculture and Rural
Development
Invasive Forest Pests website
www.michigan.gov/exoticpests
Hotline: 1-800-292-3939

Hemlock Woolly Adelgid (*Adelges tsugae*)

Why we care: These tiny insects secrete white wax as they feed on sap from hemlock shoots and branches. Hemlock woolly adelgid (HWA) feeding can kill needles, shoots and branches. Over time, growth slows as trees become less vigorous and trees may take on a grayish-green appearance. Infested hemlocks, especially large, old trees, are often killed when other stress factors, such as drought, affect trees.

James Johnson, Georgia Forestry Commission, Bugwood.org



Infested hemlock tree.

What is at risk? More than 100 million mature hemlocks grow in Michigan. Hemlocks provide important habitat and winter cover for many wildlife species.

The threat: HWA populations are common in many eastern states, including Pennsylvania. Eggs and very young adelgids are likely carried by birds and can be moved on hemlock nursery trees, logs or firewood.

What could happen in Michigan? Much of the state's hemlock resource is relatively old and very vulnerable to HWA. If this pest becomes established, most of these trees will be killed.

What can you do? If you notice white, waxy material at the base of the needles on hemlock trees, contact one of the phone numbers or websites listed on the front page. Take photos and note the location of the affected trees.

Elizabeth Willhite, USDA Forest Service, Bugwood.org



Hemlock branch infested with HWA.

Learn more:
www.na.fs.fed.us/fhp/hwa/

Thousand Cankers Disease

(*Pityophthorus juglandis*); (*Geosmithia* sp.)

Why we care: Thousand cankers disease (TCD) involves an insect native to the southwestern U.S. and a newly identified pathogen. It is a relatively new concern for black walnut trees. When tiny walnut twig beetles feed on tree shoots, they introduce a fungal pathogen that causes TCD in live trees. The pathogen kills small areas of tissue, resulting in cankers. As more cankers form, branches die and over time, the entire tree succumbs. TCD has been described as “death by 1000 paper cuts.”

The threat: Black walnut trees in many western states, and in Tennessee and Pennsylvania, are dying from TCD. The beetle and fungus can be transported into new areas in walnut logs, firewood and staves used for woodworking.

Black walnut is a valuable timber species and important for wildlife.

What could happen in Michigan? An effective control for TCD has not been identified. A high proportion of black walnut trees will likely die if TCD becomes established in Michigan.

What can you do? If black walnut trees have wilting leaves or dying branches during the summer, check the tree carefully. If there is no obvious cause of the problem, such as a broken branch, note the location of the suspect tree and contact one of the phone numbers or websites listed on the front page. Identifying the tiny walnut twig beetles and confirming the presence of TCD require specialized expertise.

Learn more: www.thousandcankers.com/

Whitney Cranshaw, Col State University



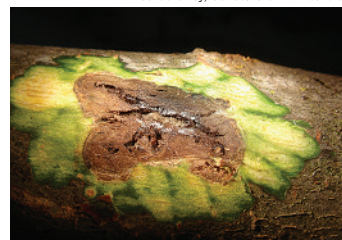
Tiny adult walnut twig beetles vector TCD.

Whitney Cranshaw, Col State University



Exit holes of walnut twig beetle.

Curtis Utley, Col State Univ Extension



Small canker beneath the bark on a walnut shoot.

Ned Tisserat at Colorado State University



Walnut trees dying from TCD.