MSU's invasive species factsheets

Asian long-horned beetle *Anoplophora glabripennis*

The Asian long-horned beetle is an exotic wood-boring insect that attacks various broadleaf trees and shrubs. The beetle has been detected in a few urban areas of the United States. In Michigan, food host plants for this insect are abundantly present in urban landscapes, hardwood forests and riparian habitats. This beetle is a concern to lumber, nursery, landscaping and tourism industries.

Michigan risk maps for exotic plant pests.

Other common name

starry sky beetle

Systematic position

Insecta > Coleoptera > Cerambycidae > Anoplophora glabripennis (Motschulsky)

Global distribution

Native to East Asia (China and Korea). Outside the native range, the beetle infestation has been found in Austria and Canada (Toronto) and the United States: Illinois (Chicago), New Jersey, New York (Long Island), and Massachusetts.

Quarantine status

This insect is a federally quarantined organism in the United States (NEPDN 2006). Therefore, detection must be reported to regulatory authorities and will lead to eradication efforts.

Plant hosts

A wide range of broadleaf trees and shrubs including maple (*Acer spp.*), poplar (*Populus* spp.), willow (*Salix spp.*), mulberry (*Morus spp.*), plum (*Prunus* spp.), pear (*Pyrus* spp.), black locust (*Robinia pseudoacacia*) and elms (*Ulmus* spp.).

In the United States, the beetle has been reported in buckeye and horse chestnut (*Aesculus* spp.), green ash (*Fraxinus pennsylvanica*), rose of Sharon (*Hibiscus* spp.), birch (*Betula* spp.), Norway maple (*Acer platanoides*), sugar maple (*Acer saccharum*), silver maple (*Acer saccharinum*), Sycamore (*Platanus* spp.) and box elder (*Acer negundo*).

Biology, identification, photos, and signs of infestation

See MSU Extension Bulletin E-2693.

Asian long-horned beetle.

Management notes

The only effective eradication technique available in North America has been to cut and completely destroy infested trees (Cavey 2000).

Economic and environmental significance to Michigan

If the beetle establishes in Michigan, it may lead to undesirable economic consequences such as restricted movements and exports of solid wood products via quarantine, reduced marketability of lumber, and reduced plantings of broadleaf trees in urban landscaping. Environmental impacts of the beetle invasion may include loss of biodiversity in broadleaf forests and urban landscapes (e.g., trees killed or weakened by beetle infestation or infested trees destroyed in eradication efforts), and increased risk of wildfires when trees die. Tens of thousands of trees have been cut down in New York, New Jersey and Chicago in effort to eradicate this beetle.

Likely pathways of entry in Michigan

Shipments of solid wood packing material, solid wood products, logs and lumber from East Asia.

The Asian long-horned beetle and unspecified *Anoplophora sp*. have been intercepted at many United

Prepared by T. Noma, M. Colunga-Garcia, M. Brewer, J. Landis, and A. Gooch as a part of Michigan State University IPM program and M. Philip of Michigan Department of Agriculture.

States ports of entry including one in Michigan. To prevent further beetle introduction to the United States, a new regulation was put in effect in 1998 so that wooden packing materials from China must be chemically treated or dried via kiln.

References

Cavey, J. F. 2000. Pest Reports—EXFOR Database: *Anoplophora glabripennis.* (http://spfnic.fs.fed.us/exfor/data/pestreports.cfm?pestidval=53&langdisplay=english)

Illinois CAPS program. 2009 Illinois most “unwanted” invasive pests. Illinois Cooperative Agriculture Survey program. (http://www.inhs.illinois.edu/research/CAPS/docs/2009%20most%20unwanted%20invasives.pdf)

McCullough, D. G. 2005. Asian longhorned beetle: an exotic pest that we don’t want in Michigan! Extension Bulletin E-2693, Michigan State University. East Lansing.

NEPDN. 2006. Northeast Plant Diagnostic Network.

USDA. Asian long-horned beetle. United States Department of Agriculture National Agricultural Library. (http://www.invasivespeciesinfo.gov/animals/asianbeetle.shtml)

February 2010.