

Asian Longhorned Beetle (ALB) Preliminary Management Plan August 2013

Executive Summary

The Asian Longhorned Beetle (ALB) is a non-native insect that has been found attacking multiple species of trees in five different states, the most recent being Ohio. The ALB has the potential to cause an unprecedented devastating loss of trees in North America. Currently the only means to eradicate the ALB is the removal and destruction of infested trees and high-risk host trees (ALB host trees that are within a ½-mile radius from infested trees). The Ohio Department of Agriculture considers the ALB a significant threat to Ohio's hardwood forests and the state's nursery industry.

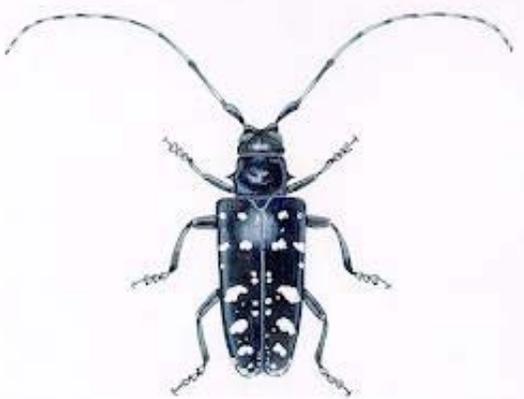
The City of Shaker Heights is concerned about the risk the ALB poses to our trees and has developed this preliminary management plan to outline the current situation, define the ALB, and begin the process of community outreach and education.

Ohio's Current Asian Longhorned Beetle Situation

In 2011, Ohio became the fifth U.S. state affected by ALB when an infestation was detected in Bethel, a small town about 25 miles east of Cincinnati in Clermont County. Currently, the county is in a state of quarantine in which it is illegal to remove items from the area that present a risk of spreading the ALB, such as firewood, stumps, and branches.

What is an Asian Longhorned Beetle?

The ALB is a distinctive-looking insect, approximately 1 inch to 1.5 inches in length with long, black and white banded antennae that extend longer than the insect's body. It has a shiny, jet black body with white spots, six legs, and may have blue feet.



Adult Asian Longhorned Beetle



Full Grown ALB Larvae

The ALB was first discovered in North America in 1996. A native of China and the Koreas, it is universally believed to have traveled across the globe inside the wood of packing materials. It was first detected in Brooklyn, NY, followed by Illinois and New Jersey. In 2008, the largest infestation in North America was discovered in Worcester, MA. In 2011, the southern-most infestation in North America was found in Bethel, OH.

The ALB has one generation per year. Adult beetles are typically present from May to October. Each female usually lays 35-90 eggs in her lifetime. The eggs hatch in 10-15 days. ALB larvae tunnel into a tree and feed under the bark in the living tissue for a period of time before they bore deep into the wood where they pupate. The adults emerge from pupation sites by boring a tunnel in the wood and creating a distinctive, round, pencil-sized exit hole in the tree. Sawdust-like debris is also commonly found at the base of afflicted trees. The damage cuts off nutrient flow, weakening the tree and leading to dieback of the tree crown and, eventually, death of the tree.

The ALB is particularly insidious in that it attacks 13 different species of trees, including Ash, Birch, Elm, and Maple*. Currently, the only effective way to eliminate ALB is to remove infested trees and destroy them by chipping or burning. To prevent further spread of the insect, quarantines are established to avoid transporting trees and branches from the area, including firewood.

Monitoring of Trees

Early detection of infestations and rapid treatment response are crucial to successful eradication of the ALB. The City of Shaker Heights has established 3 test sites, each comprised of 13 maple trees, which are regularly monitored for any signs of ALB.

It is also crucial that residents of Shaker Heights know how to look for the ALB and keep a watchful eye on their trees. If any beetles or signs of damage are spotted, it should be directly reported to the Superintendent of Forestry, Pat Neville (216) 491-3285.



ALB egg sites or oviposition pits



ALB larval tunneling damage



ALB emergence hole

Communication Plan & Public Education

The City of Shaker Heights will begin a communication plan to alert residents to the ALB situation and what can be done to protect their trees. Possible venues for communication include the Shaker Magazine, mass emails, and public meetings. The primary goal of this outreach is to spread awareness and begin educating residents on what to look for and what proactive steps can be taken.

* The complete list of the 13 species affected by ALB is as follows: ash, birch, elm, goldenrain tree, hackberry, horsechestnut, katsura, London plane tree, maple, mimosa, mountain ash, poplar, and willow.

For more information go to:

Asianlonghornedbeetle.com

<http://www.invasivespeciesinfo.gov/animals/asianbeetle.shtml>