



Species Brief 5.1

What Is in Your Firewood?

Asian Longhorned Beetle



Pest and Target Species

The Asian longhorned beetle (ALB), *Anoplophora glabripennis* (Coleoptera: Cerambycidae), kills hardwood trees such as maple, horse chestnut, birch, poplar, willow, elm, buckeye, and ash.

Range

An exotic invasive insect from Asia, the Asian longhorned beetle was first detected in 1996 in Brooklyn, New York. This pest has since become established in New York, New Jersey, Massachusetts, Ohio, and Illinois. It has been found inside warehouses in the following southern states: Florida, North Carolina, South Carolina, and Texas. The ALB is not established in the southern region. The ALB has been successfully eradicated from Illinois and portions of New Jersey and New York.

Identification and Symptoms

The adult beetle is shiny black from one to one-and-a-half inches long with white spots on each wing cover (*Figure 1*). It has a pair of black and white banded antennae four inches long and three pairs of black legs that may have a blue tinge. Female ALBs chew depressions into the bark of trees to lay eggs (*Figure 2*). The white, grub-like larvae cause the most damage, boring into trees and feeding on wood underneath the bark (*Figure 3*). The emergence of adult beetles from pupal cells creates exit holes three-eighths to three-fourths of an inch in diameter, in the trunk and branches (*Figures 1 and 3*). Sap may flow from these exit holes and sawdust and a fine, powdery insect waste called frass may be noticed at the base of the tree and in the crotches of branches (*Figure 4*). Feeding by several generations of larvae eventually disrupts the tissues that carry water from tree roots and nutrients from the canopy above. Infested trees have dying branches in the crown and leaves turn yellow and droop prematurely. Severe infestations kill trees.



Photo by: Kenneth R. Law, USDAA.PHIS, Bugwood.org

Figure 1: An adult Asian longhorned beetle next to an exit hole in a branch (on left).



Photo by: Dennis Haugen, US Forest Service, Bugwood.org

Figure 2: A round pit caused by a female Asian longhorned beetle chewing out an egg-laying site.

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Photo by: Dennis Haugen, US Forest Service, Bugwood.org



Figure 3: A tree damaged by the Asian longhorned beetle.

Control Options

The best method of controlling the ALB is to prevent its introduction. Avoiding the movement of infested wood and proper disposal of infested wood can drastically reduce the spread of this invasive pest. Since the beetle can live in cut wood, infested wood debris and firewood should not be moved long distances. If traveling for recreational activities, it is recommended to leave firewood at home and buy local firewood at the destination.

Once ALBs infest trees, the only effective way to eliminate them is to remove and destroy all infested trees and replace them with non-host trees. It is recommended that infested trees be cut down and chipped to at least one inch in two dimensions. The insecticide imidacloprid has been shown to decrease beetle populations and help in preventing the spread of the ALB. It can be applied to neighboring uninfested host trees as a preventative method.

When an ALB infestation is found in a new area, a quarantine is established to limit the spread of the pest through human activities. The quarantine prohibits the transport of firewood out of quarantined areas into unaffected areas.

Photo by: Robert A. Haack, US Forest Service, Bugwood.org



Figure 4: The accumulation of sawdust and frass in the crotches of tree branches may be evidence of the presence of Asian longhorned beetles.

Suggested Resources

Asian Longhorned Beetle: Questions and Answers.
www.aphis.usda.gov/publications/plant_health/content/printable_version/faq_alb_o7.pdf

Hungry Pests: Leave Hungry Pests Behind.
www.hungrypests.com/the-threat/asian-longhorned-beetle.php

Plant Health: Asian Longhorned Beetle.
www.aphis.usda.gov/plant_health/plant_pest_info/asian_lhb/index.shtml

Questions and Answers: Asian Longhorned Beetle Control Treatments.
www.aphis.usda.gov/publications/plant_health/content/printable_version/faq_albcon.pdf



http://ncforestservice.gov/forest_health/monitoring_invasives.htm