Asian longhorned beetle

Anoplophora glabripennis
Order Coleoptera, Family Cerambycidae; longhorned beetles, roundheaded borers
Introduced pest

Host plants: Maple (*Acer*) species are preferred, but horsechestnut, elms, birches, willows, and poplars are also susceptible.

Description: Adults are 19–33 mm long, glossy black, and smooth, with up to 20 distinct white spots on the back, and blue feet. The antennae are black with distinctive white bands on each segment. Adult male beetles have antennae twice as long as female antennae.

Life history: In 2004 restricted to areas around Chicago, Illinois; areas around New York City; New Jersey; and Toronto, Canada. This is a quarantine pest, so infested trees are destroyed. Other nearby trees can be treated to prevent infestation. Adults are present from May to October, but can be found earlier in spring or later in fall if temperatures are warm. Adults stay on the trees from which they emerged or they may disperse short distances to a new host to feed and reproduce. Each female is capable of laying 30 to 70 eggs. Eggs hatch in 10–15 days and larvae tunnel under the bark and into the wood where they eventually pupate. Adults emerge from pupation sites by boring a tunnel in the wood and creating a round exit hole. There is usually only one generation per year.

Overwintering: Prepupae.

Damage symptoms: Larval tunneling girdles tree stems and branches. Repeated attacks lead to dieback of the tree crown and, eventually, death of the tree.

Monitoring: Look for deep, perfectly round exit holes somewhat larger than the diameter of a pencil. These exit holes may ooze sap and frass. Also look for unseasonable yellowing or dropping of leaves and branch dieback when the weather has not been especially dry.

Chemical control: Spray for adults after they have emerged from tree stems and branches.

Biological control: No reports of natural enemies

Plant mortality risk: High. Quarantine pest, contact your Department of Agriculture. Infested trees will die.

Biorational pesticides: None

Conventional pesticides: chlorpyrifos (nursery only), imidacloprid, permethrin

Dying branches on Norway maple caused by Asian longhorned beetle. (12)
Photo: James E. Appleby, Dept. of Natural Resources and Environmental Sciences, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign

Trunk damage caused by Asian longhorned beetle. (13)
Photo: Robert A. Haack, USDA Forest Service

Asian longhorned beetle (continued)

Trunk damage on a young Norway maple tree caused by Asian longhorned beetle. Bark was peeled back by photographer to reveal this damage. Notice exit holes and larval tunneling. (14)
Photo: James E. Appleby, Dept. of Natural Resources and Environmental Sciences, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign

Asian longhorned beetle adult. (16)
Photo: Robert A. Haack, USDA Forest Service

Asian longhorned beetle adult and emergence holes on a dead Norway maple. (15)
Photo: James E. Appleby, Dept. of Natural Resources and Environmental Sciences, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign