

Don't be Fooled by Look-Alikes!

Watch Out for the Exotic Emerald Ash Borer

Emerald ash borer (EAB), *Agrilus planipennis* Fairmaire

This Asian beetle, discovered in 2002 in southeastern Michigan and Windsor, Ont., infests and kills North American ash species (*Fraxinus* sp.) including green, white, black and blue ash. Damage is caused by the larvae, which feed in tunnels (called galleries) in the phloem just below the bark. The serpentine galleries disrupt water and nutrient transport, causing branches, and eventually the entire tree, to die. Adult beetles leave distinctive D-shaped exit holes in the outer bark of branches and the trunk. Adults are roughly 3/8 to 5/8 inch long with metallic green wing covers and a coppery red or purple abdomen. They may be present from late May through early September but are most common in June and July.



Dave Cappaert, MSU

Emerald ash borer adult

Don't be fooled by these beetles....

J. Zablotny, USDA APHIS PPQ



Agrilus anxius Gory

Bronze birch borer

This native beetle attacks stressed birch trees. Adults are similar to EAB adults but are dark-colored. Like EAB larvae, bronze birch borer larvae feed in the phloem just below the bark. Heavily attacked trees typically die from the top down. Emerging beetles leave D-shaped exit holes in the bark.

Swollen ridges under the bark result from callus tissue that trees sometimes form over larval galleries. Adults may be present throughout the summer.

H. Russell



Popillia japonica Newman

Japanese beetle

This exotic beetle has been established in the northeastern region for several years. Adults feed on the foliage of more than 300 plant species, including many common hardwood trees. Trees may be defoliated by late summer but are rarely killed. Larvae are common pests in turf, where they feed on the roots of grasses. Adults are slightly less than 1/2 inch long and are present from late June through late summer.

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Cicindela sexguttata Fabricius

Six-spotted tiger beetle

This native beetle is a common predator of insects in woodlands in the eastern U.S. Tiger beetles are ground-dwelling and prefer open habitats along trails and roads. Adults are 1/2 inch long and usually iridescent green or blue. They can be found from April through August.

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Agrilus bilineatus (Weber)

Two-lined chestnut borer

This native borer attacks stressed and declining oak trees. Adults are dark-colored with two lines on the dorsal (back) side. Larval feeding beneath the bark disrupts the transport of water and nutrients and can kill infested branches and entire trees. Adults can be present from April through August.

University of Arkansas



Calosoma scrutator Fabricius

Caterpillar hunter

This large ground beetle is a predator of other insects. It is often found under rocks, leaves, and other debris, but it will climb trees to find prey. These native beetles prey on foliage feeding caterpillars in the forest, including gypsy moth caterpillars. The caterpillar hunter generally feeds at night and hides during the day. Adults are roughly 1 inch long and are present from May through November.

Watch Out for the Exotic Asian Longhorned Beetle

USDA Forest Service



Asian longhorned beetle (ALB), *Anoplophora glabripennis* (Motschulsky)

This Asian beetle was discovered in areas of New York in 1996. Populations of ALB have since been found in New Jersey and Toronto, Ont. A population in Chicago, discovered in 1998, appears to be nearly eradicated. Major efforts are continuing to eradicate all other known populations in North America. Maple trees, including box elder, are often preferred hosts, but ALB can also infest horsechestnut, elms, birches, willows and poplars. Small larvae feed in the outer sapwood; larger larvae chew out tunnels into the heartwood of the tree. Branches are usually attacked first, but eventually the entire trunk can be colonized. Adult beetles are shiny black with white spots and have alternating white and black bands on the long antennae. The large beetles, roughly 1 1/4 to 1 1/2 inches long, emerge through round, dime-sized exit holes in the bark of trees. Adults can be present from May through October.

Don't be fooled by these beetles....



Monochamus scutellatus (Say)

White-spotted pine sawyer

This is a common native beetle that feeds on many conifer (evergreen) trees including pines, firs and spruce. Sawyer beetles

colonize only trees that are dying or were recently cut or killed. Larvae feed in the phloem and outer sapwood at first, then excavate tunnels into the wood. Adults emerge through round holes in the bark. They are smaller than ALB, usually about 3/4 inch long. Males are dark with a single white spot on the dorsal (back) side, while female beetles are a mottled brown and white. Adults can be present from June through September.

Mike Higgins



Plectrodera scalator (Fabricius)

Cottonwood borer,

Native to the United States, the cottonwood borer prefers eastern cottonwood but can also colonize poplars and willows. Larvae feed in the large roots and the root collar area of live trees. Unlike ALB, the cottonwood borer does

not leave visible emergence holes on the trunk or branches because it pupates in roots below the ground, and adults emerge from the roots. Adults are large, black and white beetles and roughly 1 1/4 to 1 1/2 inches long. They are present from late May through mid-August.

Mike Higgins



The line-up includes (left to right) a male white-spotted pine sawyer, a cottonwood borer, a female Asian longhorned beetle, a male Asian longhorned beetle and a female white-spotted pine sawyer.

USDA Forest Service



Exit holes left by emerging Asian longhorned beetles.

Mike Higgins



A male white-spotted pine sawyer beetle.