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EMERALD ASH BORER (*Agrilus planipennis*)

The emerald ash borer (EAB) is an invasive beetle in the buprestid family that is native to Asia. First discovered in 2002 in Detroit, this metallic wood-boring beetle has since rapidly spread to 15 US states; it is now found as far south as Tennessee, as far west as Minnesota, as far north as the upper peninsula of Michigan and as far east as the Hudson River in New York State. It has also crossed north and east into Ontario and south of Montreal, Quebec. Likely an accidental introduction from eastern Asia in wood-packing materials, EAB has spread so quickly in part due to the ease of accidental transport of beetles by humans in everything from firewood to rustic crafts. It is a strong flier and capable of spreading on its own.

Adult EABs are metallic green, about ½ inch long, and feed exclusively on ash trees in the genus *Fraxinus*. Tiny, flat, round 1mm long eggs are laid in bark crevices. Seven to 10 days later, the eggs hatch and the young larvae begin to feed on the tree's conducting tissues. As they feed and grow, the larvae create distinctive tightly-winding 'serpentine galleries.' This feeding can very quickly stress and girdle an ash tree. The mature larvae overwinter in a pupal chamber and pupate in the spring. Adult beetles emerge,

chewing themselves a distinctive 4 mm wide D-shaped exit hole. Adults feed on the margins of ash foliage prior to mating. The adult's lifespan is 4-5 weeks, during which time a single female may lay upwards of 60 eggs.

Manually surveying Connecticut's ash trees for this invasive pest can be difficult due to the small size of the insect and the large amount of general ash decline in the state. Therefore, trapping methods such as the use of purple panel traps are a much more effective way of monitoring for EAB. These traps are hung in ash trees during peak adult activity, and are baited with manuka oil to attract beetles. In 2011, over 800 were set throughout Connecticut. Another method of monitoring for EAB is known as 'biosurveillance.' Scientists and volunteers monitor the nests of a native wasp that specifically hunts for buprestids, including EAB. If the invasive beetle is in the area, it is likely that the wasp would capture some and bring it back to their nest.

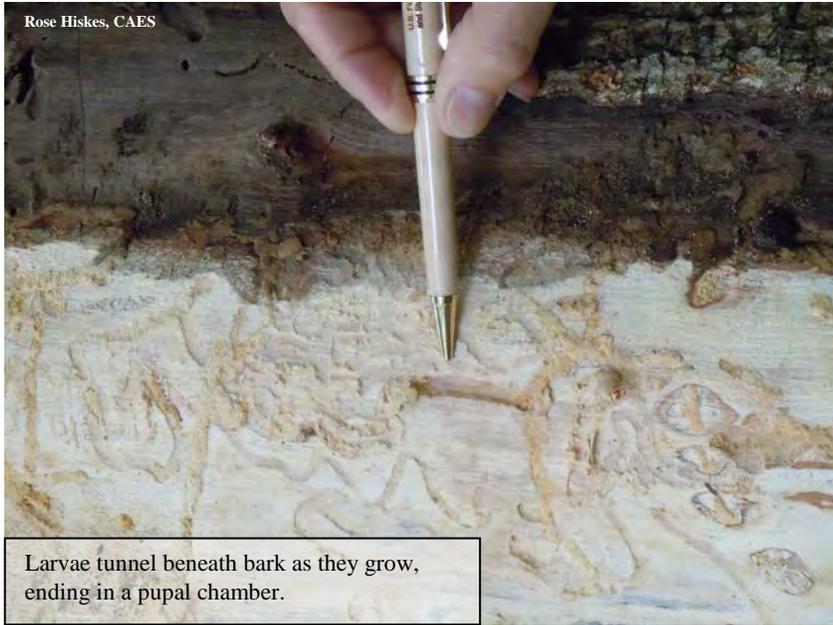
Information Sources:

Emerald Ash Borer: www.emeraldashborer.info

Biosurveillance: www.cerceris.info



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Larvae tunnel beneath bark as they grow, ending in a pupal chamber.

David Cappaert, Michigan State University, Bugwood.org



Larvae are flat, broad and segmented, reaching a length of 1 inch at maturity.

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