

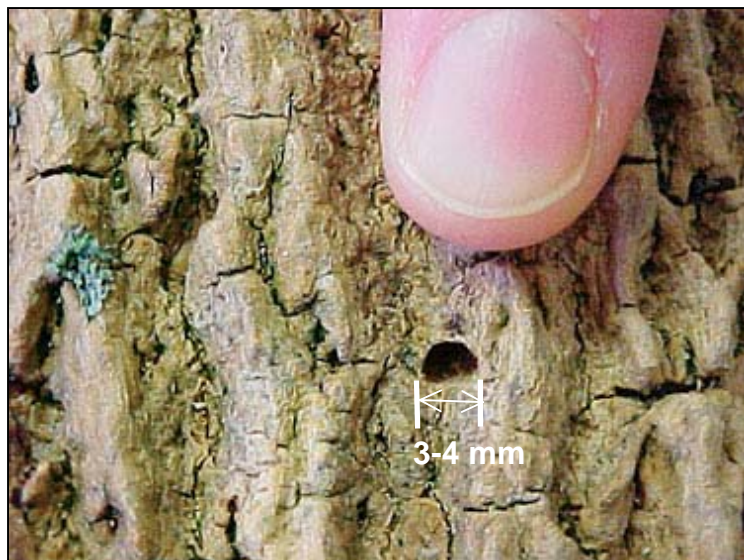
# Emerald Ash Borer Field Guide



EAB larvae  
*Agrilus planipennis*



EAB gallery  
and exit hole  
(1/8 inch)



Signs of EAB attack in bark  
1/8 inch exit hole



EAB adult  
(1/2 inch) and  
gallery  
Look for adults –  
May through July



Adult EAB, 1/2 inch



**NOT** an emerald ash  
borer





D-shaped exit holes, 1/8 inch



Look closely for the  
d-shaped exit hole,  
1/8 inch



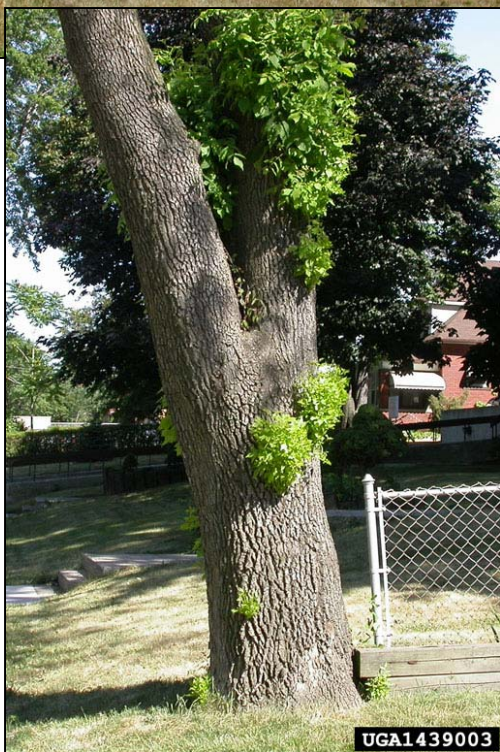
Canker formed from EAB infestation.  
Note WINDING galleries



Typical crack at  
infested region of  
bole



Epicormic branching  
associated with  
infested tree



Sprouts beneath  
infested area of bole



Dying branches possibly  
associated with infested  
ash



Possible early symptoms  
of EAB attack



Possible EAB symptoms  
-later stage of infestation



Woodpeckers may be a sign of EAB  
or other borer or bark beetle  
infestation

Ash leaves, compound and opposite



Healthy ash trees





White ash  
*Fraxinus americana*



Compound and  
opposite





Green ash  
*Fraxinus*  
*pennsylvanica*  
Compound  
and opposite





Stem canker caused  
by *Cytospora pruinosa*

Ash yellows

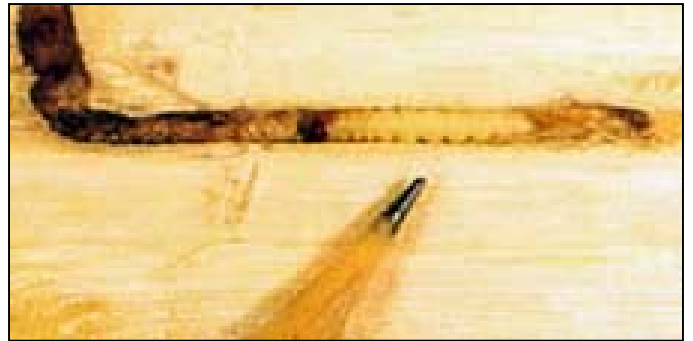


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UGA4213091b

Banded Ash Clearwing  
*Podosesia aureocincta*



Larvae exude strands of woody frass from 1/8 inch holes in the trunk. Frass can often be found piled at the base of infested trees.

Banded ash borer  
*Neoclytus caprea*



Round exit holes. Larval galleries packed with frass.

Redheaded  
Ash Borer,  
*Neoclytus*  
*acuminatus*



Look for sap spots with fine boring dust –early attack  
Later, frass is discharged from entrance holes,  
Exit holes are round

Ash/Lilac Borer (trunk borer),  
*Podosesia syringae*

Adults are  
clearwing moths  
that mimic paper  
wasps in  
appearance and  
flight



Circular exit holes often with pupal skins  
protruding



Eastern ash bark beetle  
*Hvlesinus aculeatus*



Ash cambium miner  
*Phytobia* spp.

Mining can only be  
seen under the  
bark



Photos obtained from the following sources:

Michigan State University

<http://www.forestryimages.org>

Michigan Department of Agriculture

University of Georgia

University of Illinois

University of Nebraska