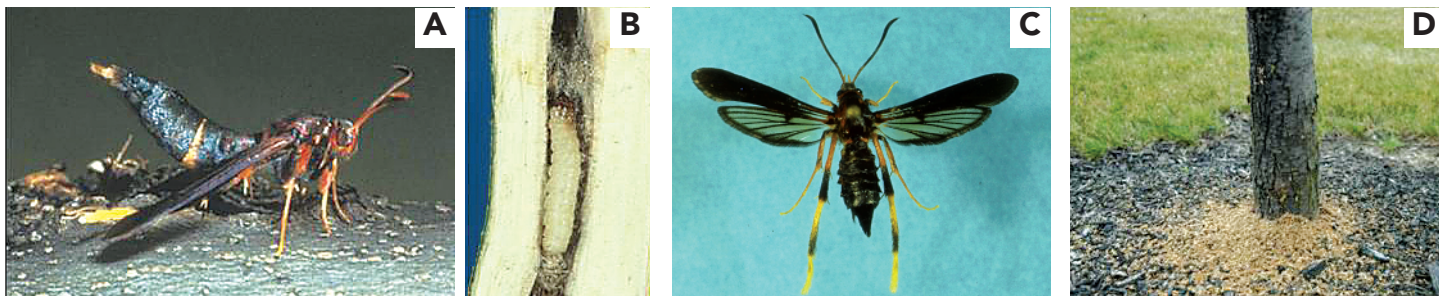


Native Borers and Emerald Ash Borer Look-alikes

Native Ash Borers



D.G. Nielsen, Ohio State University/OARDC

J. Solomon, USDA Forest Service www.forestryimages.com

D. Herms, Ohio State University/OARDC



D. Herms, Ohio State University/OARDC

D. Herms, Ohio State University/OARDC

D. Herms, Ohio State University/OARDC

Native ash borers are North American insects that tunnel under the bark of ash trees, sometimes causing enough damage to seriously weaken trees.

These two borers attack healthy ash trees:

Banded ash clearwing, *Podosesia aureocincta*; adult (Fig. A), larva (Fig. B).

Ash/lilac borer, *Podosesia syringae*; adult (Fig. C).

- Wasp-mimicking moths that feed on xylem of ash trees.
- Larvae are round with legs and expel frass from tree (Fig. D).
- Round exit hole (1/4 inch); pupal case exposed in exit hole upon emergence (Fig. E).

These three borers attack stressed or dying ash trees:

Redheaded ash borer, *Neoclytus acuminatus*; adult (Fig. F), larva (Fig. G).

Banded ash borer, *Neoclytus caprea*; adult (Fig. H).

- Longhorned beetles (roundheaded borers) that attack stressed ash trees, but also colonize elm, hickory, oak, linden and others.
- Larvae tunnel deep into xylem (Fig. I) and adults emerge from round-oval exit holes measuring 1/4 inch (Fig. J).



J. Solomon, USDA Forest Service www.forestryimages.com



Csoka, Hungary For Res Inst., www.forestryimages.com



J. Solomon, USDA Forest Service www.forestryimages.com



Emerald Ash Borer

MICHIGAN STATE UNIVERSITY
EXTENSION

Native Borers (continued)

Eastern ash bark beetle, *Hylesinus aculeatus*; adult (Fig. K).

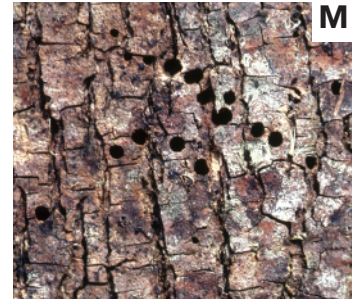
- Cylindrical bark beetle that forms galleries beneath the bark of ash trees (Fig. L).
- Infested trees peppered with tiny, round exit holes measuring approximately 1/16 inch (Fig. M).



J. Solomon, USDA Forest Service
www.forestryimages.com



J. Solomon, USDA Forest Service
www.forestryimages.com



J. Solomon, USDA Forest Service
www.forestryimages.com

Emerald Ash Borer Look-alikes

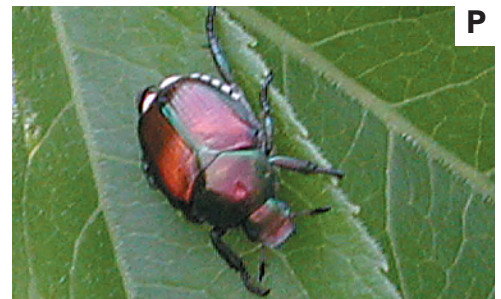
The following insects are common to Michigan and could possibly be confused with emerald ash borer.



Michigan State University



University of Arkansas

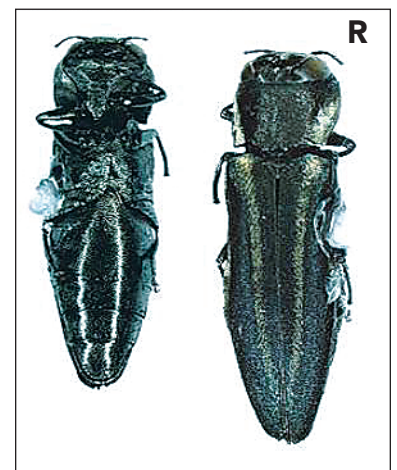


Michigan State University

- **Six-spotted tiger beetle,** *Cicindela sexguttata*; adult measures 1/2 inch long (Fig. N).
- **Caterpillar hunter,** *Calosoma scrutator*; adult measures 1 inch long (Fig. O).
- **Japanese beetle,** *Popillia japonica*; adult measures slightly less than 1/2 inch long (Fig. P).
- **Bronze birch borer,** *Agrilus anxius*; adult measures approximately 1/2 inch long (Fig. Q).
- **Two-lined chestnut borer,** *Agrilus bilineatus*; adult measures approximately 1/2 inch long (Fig. R).
- Several other uncommon metallic wood-boring beetles.



J. Zablotny, USDA APHIS PPQ



J. Zablotny, USDA APHIS PPQ