# Signs and Symptoms of the Emerald Ash Borer

#### **Adult**



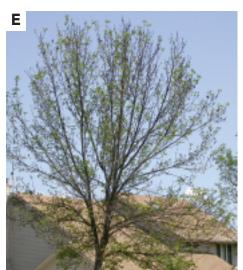


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- Michigan State University
- Bright, metallic green (Figs. A, B). • 1/2 inch long, flattened back (Figs. A, B).
- Purple abdominal segments beneath wing covers.

## **Canopy Dieback**





- Begins in top one-third of canopy (Fig. D).
- Progresses until tree is bare (Fig. E).





#### Larva



- Creamy white, legless (Fig. C).
- Flattened, bell-shaped body segments (Fig. C).
- Terminal segment bears a pair of small appendages.

### **Epicormic Shoots**





- Sprouts grow from roots and trunk (Figs. F, G).
- Leaves often larger than normal.



### **Bark Splitting**





- Vertical fissures on bark (Fig. H) due to callous tissue formation (Fig. I).
- Galleries exposed under bark split.

#### Serpentine Galleries and **D-shaped Exit Holes**





- Larval feeding galleries typically serpentine
- Galleries weave back and forth across the woodgrain.
- Packed with frass (mix of sawdust and excrement).
- Adults form D-shaped holes upon emergence (Fig. K).

#### Increased Woodpecker Activity/Damage







- Several woodpecker species (Fig. L) feed on EAB larvae/pupae.
- Peck outer bark while foraging (Fig. M).
- Create large holes when extracting insects (Fig. M).

