

Bark Beetles

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Biology and Life Cycle

Bark beetles have hard, smooth, stout bodies and range from 1.3 to 2.9 mm in length, depending on gender and species. The majority of bark beetles are female; males are smaller and flightless. Adult beetles can be reddish brown or black in color, while larvae are white and legless. Female bark borers seek out stressed woody plants as their breeding grounds since healthy trees are able to resist infection. They excavate a gallery of tunnels and chamber systems into twigs or branches, where they introduce a symbiotic ambrosial fungus that infects the plant and serves as the brood's food source. The beetles then lay their eggs in the tunnels over several days, which hatch and develop over the course of about two months. Newly matured females mate with their brother(s) before leaving the gallery to find new host plants.

- Holly
- Linden
- Maple*
- Pine
- Willow
- 100+ others



Photo credit: J.R. Baker & S.B. Bambara, North Carolina State University, Bugwood.org

Common Name: Granulate ambrosia beetle

Scientific Name: *Xylosandrus crassiusculus*

Host Plants-

- Beech
- Cherry
- Crape myrtle
- Dogwood
- Locust
- Magnolia
- Maple*
- Oaks
- Redbud
- Tulip poplar
- 100+ others



Photo credit: J.R. Baker & S.B. Bambara, North Carolina State University, Bugwood.org

Common Name: Black timber bark beetle

Scientific Name: *Xylosandrus germanus*

Host Plants-

- Ash*
- Beech
- Birch
- Dogwood



Possible Symptoms

- Wilted foliage
- Discoloration
- Cankers
- Frass toothpicks
- 1-mm entry/exit holes in the bark
- Sap production from wounds
- Necrosis
- Gummosis
- Early senescence
- Dieback



Frass toothpicks in *asimina triloba* Monitoring Photo credit: P. Schultz, V. Tech

Bark beetles are drawn to ethanol production from stressed plants.



Sap production in *styrax japonica* Photo credit: P. Schultz, V. Tech

Monitoring

Monitor bark beetle flight activity and populations with an ethanol lure in a modified bottle trap. Stressed trees produce ethanol even if they appear outwardly healthy, which attracts beetles looking for new hosts.

Management

Properly planted, healthy plants are the best management tool.

If used properly, bark sprays can protect healthy trees while killing beetle broods within infested plants.

Contact your local cooperative extension office for information on the best products to manage this pest population.

