



Pine Sawyers

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Plants Attacked

Conifers such as pine, spruce, and balsam fir.

Description of Damage

Often mistaken for causing the death of a tree, pine sawyers are only secondary invaders of trees stressed or dying from other causes. Pine sawyer larvae bore into and tunnel through tree trunks, reducing the quality of usable wood. They attack both recently felled and still standing trees.

Identification

Adult pine sawyers are large, cylindrical beetles, often measuring 0.6-1 inch (15-25 mm) long. They are usually colored black, brownish-black, or reddish brown, and are often mottled with patches of white or gray hair (Figs. 1 and 2). The thorax bears a prominent projection on each side. The antennae are remarkably long in the males (Fig. 2).



Figure 1. An adult whitespotted sawyer (Natasha Wright, Cook's Pest Control, Bugwood.org).

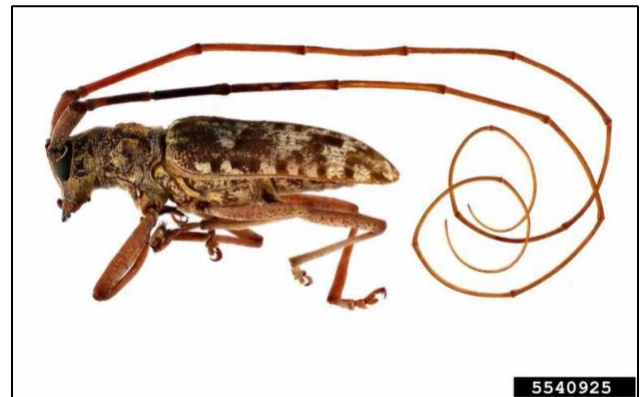


Figure 2. Adult Southern pine sawyer (Joseph Benzel, Screening Aids, USDA APHIS PPQ, Bugwood.org).

Pine sawyer larvae are elongate, cylindrical, pale grubs with brown head capsules and highly segmented bodies (Fig. 3). They have noticeably large gnawing mandibles and lack legs. They are found tunneling under the bark of conifers.

Coleoptera: Cerambycidae, *Monochamus* spp.



Figure 3. *Monochamus* spp. beetle larvae (Herbert A. 'Joe' Pase III, Texas A&M Forest Service, Bugwood.org).

Life History

Adult pine sawyers emerge through nearly characteristic circular emergence holes in the bark of host trees. Adult pine sawyers feed on needles and the tender bark of twigs. Adult females gnaw pits into the bark of dying or recently killed or felled trees and insert one to several eggs in each pit. Upon hatching, the larvae bore beneath the bark and develop for 40-60 days (Fig. 3). Sawdust-like frass may accumulate at the base of a heavily infested tree (Fig. 4). Older larvae make deep tunnels through the sapwood and heartwood (Fig. 5). Maturing larvae return to near the surface to create a pupal cell with an entrance plugged with frass. They overwinter as larvae in this cell and pupate the following spring or early summer, with adult emergence the same year.



Figure 4. Sawdust-like frass accumulating at the base of a pine tree indicating pine sawyer activity (Jim Baker, North Carolina State University, Bugwood.org).

Non-chemical Control

Sanitation and prompt action are the best controls against pine sawyers. Felled timber should be removed from the woods as soon as possible and debarked to prevent infestation. Adult pine sawyers are not attracted to debarked logs. Stored logs may be treated to protect the lumber if necessary. Insecticide treatment of wood only intended for use as firewood is not recommended. Firewood should be properly dried and stored to be burned promptly.

Properly planted, watered, and fertilized trees maintained in vigorous condition are less likely to be attacked by borers.



Figure 5. Pine sawyer larva and meandering tunnels under bark (W.H. Bennett, USDA Forest Service, Bugwood.org).

Chemical Control

Standing trees with pine sawyer larvae cannot be rescued by insecticide application. Infested trees should be removed and destroyed or the trunks debarked as soon as possible. Nearby conifers of value can be protected with insecticidal soil drenches or trunk and branch sprays. See the Virginia Pest Management Guide for Home Grounds and Animals (PMG 456-018) for current recommendations for insecticides and treatment times for pine sawyers in Virginia.

Remarks

Adults may enter homes when attracted to the smell of various materials with resin bases, such as turpentine. They may also emerge from firewood brought inside the home. Pine sawyers do not infest structural wood and will not establish indoors.

Revised

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