



White pine weevil

Pissodes strobi

Order Coleoptera, Family Curculionidae; snout beetles
Native pest

Host plants: Pine and spruce; black hill and Colorado spruce are more preferred than Norway spruce.

Description: Adult weevils are approximately 6 mm long. They have a long snout, and are oval in shape. They are brown with two white spots that often run together on the back of the elytra. Larvae are C-shaped, legless, approximately 9 mm long, and white with a brown head.

Life history: Adults are active early to mid-spring and again in late summer. Eggs are deposited in feeding punctures just below terminal buds. Larvae tunnel down parallel to the phloem and girdle the stem. Girdling may progress below the first branch whorl. New adults emerge from late July to early September and feed for several weeks on healthy branches. There is one generation a year.

Overwintering: Adults in debris under trees.

Damage symptoms: Weevils destroy leaders resulting in forked or crooked growth pattern. Damaged leaders grow into a “shepherd’s crook” and then die. Dead leaders are the most common and readily observed symptom of attack. Adults chew holes in outer bark and consume phloem during maturation feeding. This may cause dieback of some lateral branches, which is insignificant compared to terminal leader death.

Monitoring: Adults emerge when border forsythia and Norway maple first blooms in early to mid April. (Herms). Look for adults feeding and laying eggs close to terminal buds from April to June. Also look for flagging terminals in late July and early August. Break open a terminal to confirm the presence of weevil larvae.

Physical control: Remove infested leaders before adults emerge. This should be done as soon as damage is discovered. Concentrate this activity when wild raspberries start to ripen.

Chemical control: Spray when adults are active in early to mid spring and again in late summer. It is at these times that adults are most susceptible to insecticides.

Biological control: A number of natural enemies are known, but their ability to control the borer is low.

Plant mortality risk: High on small trees and leaders of larger trees.

Biorational pesticides: None

Conventional pesticides: chlorpyrifos (nursery only), deltamethrin, permethrin



Shoot damage caused by white pine weevil larvae. (W29)
Photo: Whitney Cranshaw



Dead terminal shoots caused by white pine weevil larvae. (W30)
Photo: Whitney Cranshaw



White pine weevil adult. (262)
Photo: John Davidson



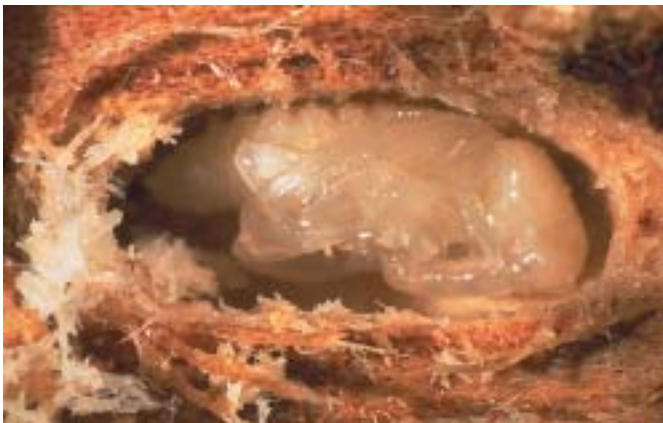
White pine weevil (continued)



Feeding damage inside a terminal caused by white pine weevil. (263) Photo: John Davidson



White pine weevil chip cocoons. (261) Photo: John Davidson



White pine weevil pupa in chip cocoon. (264) Photo: John Davidson



Scouting for white pine weevils in the nursery by beating the tree and counting weevils that fall onto a surface. (265) Photo: Chuck Cornell



Chip cocoons of white pine weevil. (W27) Photo: Whitney Cranshaw



Monitoring white pine weevil overwintering adults. (266) Photo: Chuck Cornell