



European pine sawfly

Neodiprion sertifer

Order Hymenoptera, Family Diprionidae; conifer sawflies
Introduced pest

Host plants: Mugo, Scotch, red and jack pines are preferred, but Eastern white, and Austrian, are also susceptible.

Description: Adult sawflies are wasp-like. Larvae are gray-green with a black head and legs. They have a single, light, longitudinal stripe down the back, two light green stripes and one dark green or black stripe on each side. Larvae are 18–25 mm long when fully grown.

Life history: Larvae hatch and begin feeding around April and continue through June. After feeding, larvae pupate in the soil and adults begin appearing in early September through late October. Adults deposit eggs in the current season's needles near the ends of branches where they overwinter. There is one generation a year.

Overwintering: Eggs imbedded in needles.

Damage symptoms: Larvae feed in groups on the previous year's needles and eat all needles on a single branch before moving to another branch to continue feeding. They will leave a tree for a new host once all the previous season's needles have been eaten. Larvae never eat new needles, but may feed on the bark of new shoots.

Monitoring: Eggs hatch when PJM rhododendron bloom in mid April (Herms). Monitor beginning in early April and look for branches stripped of needles and for larvae.

Physical control: In minor infestations, remove larvae by hand or dislodge with a powerful water spray.

Chemical control: Insecticidal soap is best for low populations of young larvae. Conventional insecticides should be considered only after all other control options have been explored. If larvae are nearly full grown, control measures should not be attempted, as most of the damage has already occurred.

Biological control: Several parasitoids have been introduced to control this pest. Native birds feed on the larvae. Sawfly populations are often controlled by a nuclear polyhedrosis virus. Affected larvae are limp and hang head down from the plant. Rodents often eat the pupae in the soil. However, these natural predators are usually not abundant in urban settings.

Plant mortality risk: Low

Biorational pesticides: azadirachtin, horticultural oil, insecticidal soap, pyrethrins, spinosad

Conventional pesticides: acephate, bifenthrin, carbaryl, chlorpyrifos (nursery only), cyfluthrin, deltamethrin, fluralinate, imidacloprid, lambda-cyhalothrin, malathion, permethrin



Needle damage on Scotch pine caused by first instar European pine sawfly. (108)
Photo: Cliff Sadof



Early needle damage caused by European pine sawfly; note needles in the straw stage and small larvae near thumb. (108)
Photo: Cliff Sadof



Eggs of the European pine sawfly. (108)
Photo: E. Bradford Walker, Vermont Department of Forests, Parks and Recreation, The Bugwood Network, University of Georgia



European pine sawfly (continued)



European pine sawfly larvae feeding on last year's pine needles. (108)
Photo: Steve Katovich, USDA Forest Service



European pine sawfly larvae. They are often seen in pairs on individual needles. (108)
Photo: E. Bradford Walker, Vermont Department of Forests, Parks and Recreation, The Bugwood Network, University of Georgia