

## European Pine Sawfly (*Neodiprion sertifer*)

Native to Europe, the European Pine Sawfly (EPS) was accidentally introduced to North America in 1925. European pine sawflies are defoliator insects that attack several species of pine and their activities make these more vulnerable to other secondary pests, such as bark beetles.

### Identification and Biology

Adult sawflies emerge from their pupal cocoons in late August through late Fall. The females deposit eggs in the needles near the end of a lateral branch. The term sawfly comes from the saw-like ovipositor the female uses to cut a slit into leaf tissue where the eggs will be deposited. The eggs overwinter and hatch in spring to produce caterpillar-like larvae with black heads and legs, and gray-green bodies. There is an off-white stripe down the middle of the back and slightly lighter stripes on either side. They feed for 4 to 6 weeks in groups of 10-100, eventually growing to about one inch long. When feeding stops in the summer, the sawfly larvae will drop to the soil or move into crevices on the tree to build a papery cocoon to provide protection while they complete their development into adulthood.



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#### Eggs on needles (left)

Fabio Stergulc, Università di Udine,  
Bugwood.org

#### Young larvae (above)

Gyorgy Csoka, Hungary Forest Research  
Institute, Bugwood.org

#### Cluster of older larvae (right)

Steven Katovich, USDA Forest Service,  
Bugwood.org



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### Damage

Larvae feed on the previous year's growth. Young larvae eat only the surface of the needle causing discoloration and giving it the appearance of dried straw. The older larvae eat the entire needle from tip to base. One of the initial signs of an infestation of EPS is withered, twisted, skeletonized needles. In the case of severe infestations, all foliage, except needles of the current year, may be destroyed. Because EPS larvae feed on last year's needles and most trees are



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seldom entirely defoliated, pines usually survive an infestation. However, aesthetic damage can be significant. Repeated defoliation results in a stunted tree with a thin, unsightly appearance, but this rarely kills the tree outright. New foliage generally develops and the tree recovers.

## Damage

Steven Katovich,  
USDA Forest Service,  
Bugwood.org  
(both photos)



## Management

Host trees should be monitored for the presence of eggs in needles between September and mid-April. In late April and early May begin looking for tufts of dry, straw-like needles on the previous year's growth. This is a symptom that indicates feeding by young larvae and may be the best time to effectively manage this pest. Larval colonies can be removed by hand while wearing gloves. Infested branches can also be pruned off and destroyed, but this can damage the tree's appearance as much or more than the insects will.

It may be possible to plant varieties of Scots pine that are less susceptible to damage caused by this pest. Northern cultivars of Scots pine are known to be more resistant to attack than southern ones. Since adults can fly, populations on unmanaged host trees may a source of future infestations. Therefore, another management suggestion may be to remove host pines that are no longer of value in a landscape or nursery.

Chemical control should target young larvae. Apply registered insecticides according to label directions in early to mid-May. Treat only those trees where sawfly larvae are found, focusing the spray directly on the colonies. Check with your local Extension office to inquire about specific insecticides registered for control of this pest.

## References:

European Pine Sawfly. Penn State University Extension website.

<https://ento.psu.edu/extension/factsheets/european-pine-sawfly>

European Sawfly. Cornell University website.

<http://www.plantpath.cornell.edu/Trees/EuroPsawf.html>

*Prepared by Jennifer Dacey M.S., Nursery IPM Program, University of Connecticut, 2019*