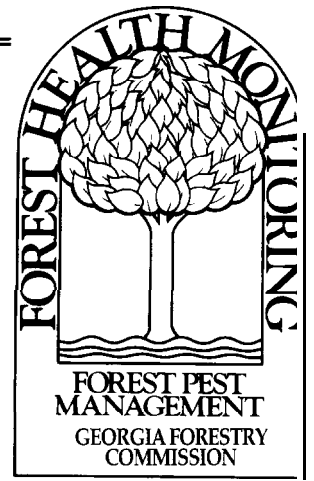

Georgia Forestry Commission

FOREST HEALTH FACT SHEET



CONIFER SAWFLIES

INTRODUCTION

Conifer sawflies are a unique group of defoliating insects. Eleven species are described in this fact sheet and most are generally distributed throughout the south wherever the preferred hosts grow. The larvae consume the needles and feeding preferences are peculiar to each species. Most all of the sawflies feed on old and current year foliage at some point in their development. Some species have one generation per year with defoliation occurring in the spring and others produce three or more generations with defoliation occurring on into fall. Fall defoliation has a greater impact on trees and it is for this reason that sawflies having multiple generations are considered more devastating. Sawfly adults resemble large house flies but are actually broad-waisted wasps. The females are equipped with an ovipositor that

is serrated which enables them to saw little slits in the needles where eggs are laid; thus the name "sawflies." It's important for foresters to recognize sawflies and the damage they do.

Defoliation by sawflies is sporadic, occurring in localized or regionwide outbreaks lasting one or more years. Growth loss the year following a severe defoliation (> 75%) can average over 50 percent and mortality increases due to secondary invasion by bark beetles and pine sawyers.

The red-headed pine sawfly is the most widely distributed species in the south and is usually the species responsible for regionwide outbreaks covering several states. It is capable of producing 3 or more generations per year in the south.

Management practices have been developed to reduce the

severity of sawflies and they should be considered before planting. Although most of the southern conifers are adaptable to a wide range of site conditions, it is always advisable to match the tree species to sites favoring that species. The management suggestions that may reduce the severity of sawflies in the south are:

- Consider herbicides to reduce hardwood competition.
- Avoid planting on wet or dry soils.
- Avoid sites below an index of 65.
- Monitor plantations frequently for sawfly damage. Most infestations begin on the edges of stands or are localized in a portion of the stand. Control with insecticides is most effective at this stage.

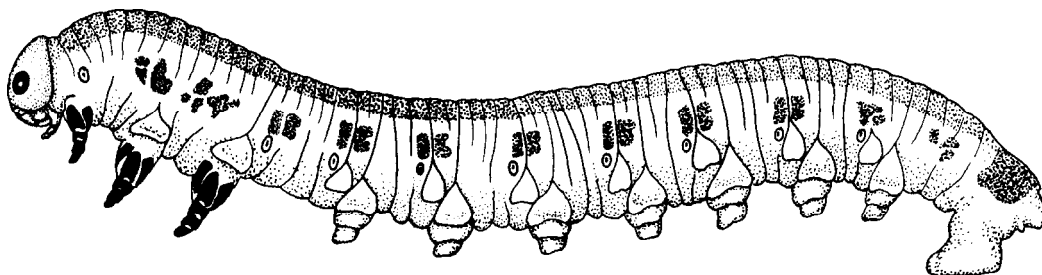
For more information about sawflies contact your local GFC office or call toll-free 1-800-GATREES

Sawflies are generally described as either spring or summer feeders. The spring sawflies are present in early spring and may be found feeding into the summer. The summer feeding sawflies are present from spring until the first hard freeze. The following descriptions and distribution information is general in nature and some variations may occur depending upon the species. Host descriptions are limited to southern species and those noted in parenthesis are rarely, or occasionally fed on.

The following drawings were done by Randall Blackburn, formally with the Smithsonian Institute, Washington, D. C. 20560. Bill Hoffard, an entomologist with the U.S. Forest Service, FPM reviewed the fact sheet for southwide distribution.



Spotted Loblolly Pine Sawfly *Neodiprion taedae taedae*

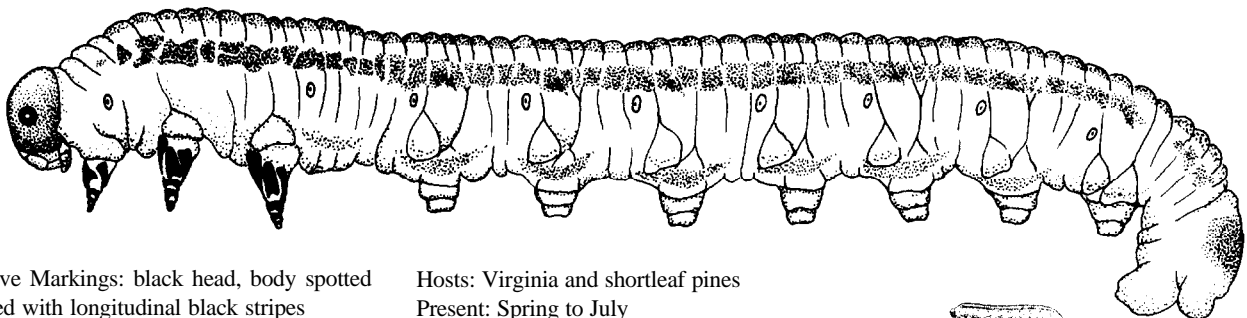


Distinctive Markings: greenish-white, red-brown head, a dull gray-green stripe on each side of body, a row of black spots just above the midline, two black blotches on top of tenth body segment

Hosts: loblolly and shortleaf
Present: Spring to July
Distribution: North Carolina, Eastern Virginia, (scattered in southeast)



Virginia Pine Sawfly *Neodiprion pratti pratti*

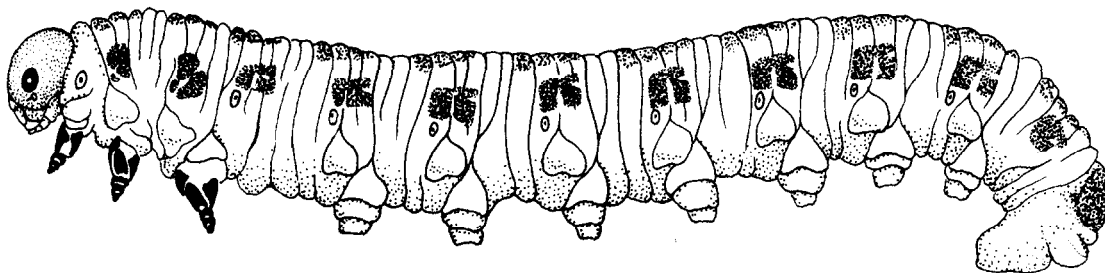


Distinctive Markings: black head, body spotted or marked with longitudinal black stripes

Hosts: Virginia and shortleaf pines
Present: Spring to July
Distribution: North Carolina, Virginia, Tennessee



White Pine Sawfly *Neodiprion pinetum*

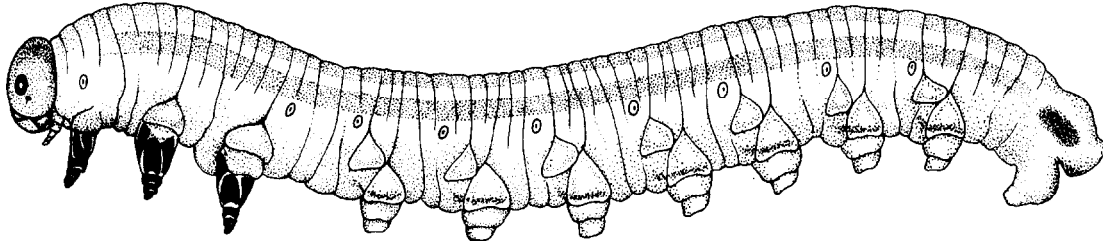


Distinctive Markings: pale yellow with 4 rows of black spots extending from head to a black spot at tail end of body, black head

Hosts: eastern white pine
Present: Spring to July
Distribution: Eastern North America

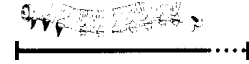


Slash Pine Sawfly *Neodiprion merkeli*

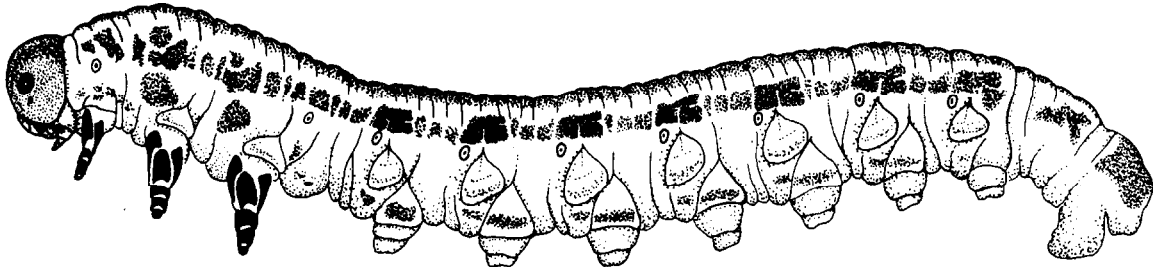


Distinctive Markings: reddish above the eyes and sooty black below the eyes, brown stripes and two widely separated black semi-oval spots near tail end

Hosts: slash pine
Present: Spring to December
Distribution: Georgia, Florida and Mississippi



Hetrick's Sawfly *Neodiprion hetricki*

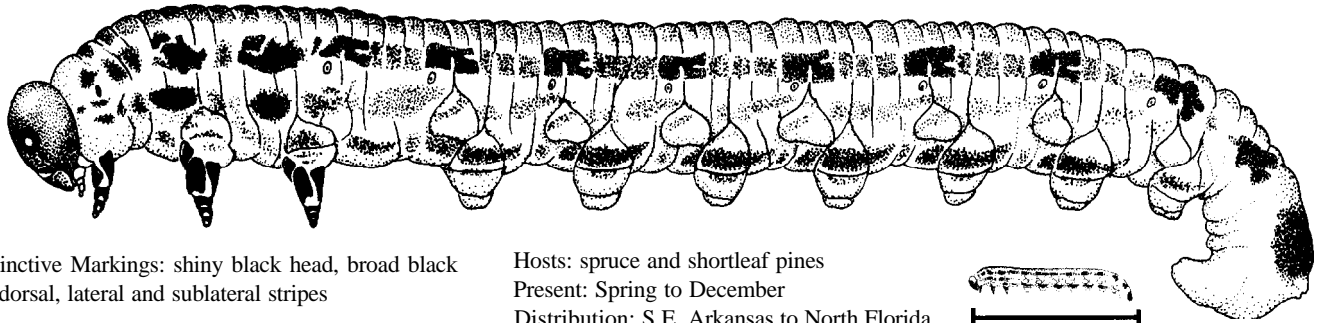


Distinctive Markings: black head and black subdorsal and lateral stripes, (Florida specimen are pale green with faint stripes, head is pale amber and bears a yellow triangular spot with a large pentagonal marking)

Hosts: observed feeding on loblolly, pond and longleaf
Present: April to July
Distribution: Virginia, Florida, South Carolina, Georgia



Warren's Sawfly *Neodiprion warreni*

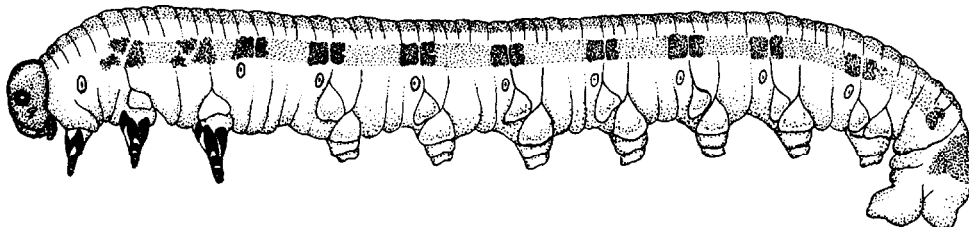


Distinctive Markings: shiny black head, broad black subdorsal, lateral and sublateral stripes

Hosts: spruce and shortleaf pines
Present: Spring to December
Distribution: S.E. Arkansas to North Florida



Blackheaded Pine Sawfly *Neodiprion excitans*

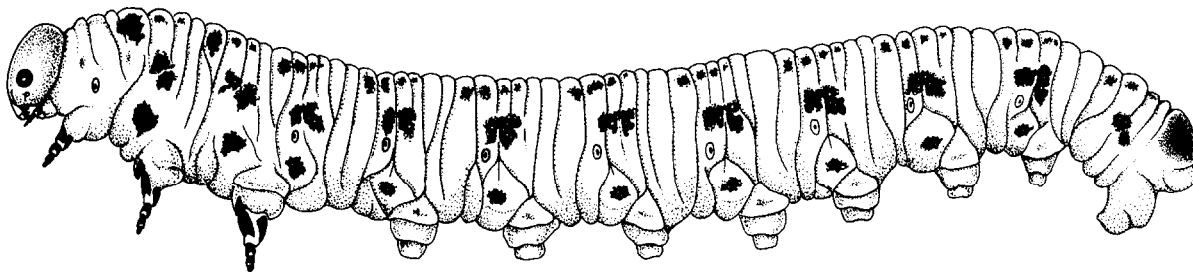


Distinctive Markings: olive green. head is glossy black, two longitudinal black stripes on the side, with a row of black spots on each side and a large black spot on the last body segment

Hosts: loblolly and shortleaf pines (Slash, Longleaf, Pond, Spruce and Sand Pines)
Present: Spring to December
Distribution: Virginia to Florida and west to Arkansas and Texas (probably southwide)

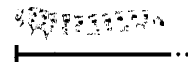


Red-Headed Pine Sawfly *Neodiprion lecontei*

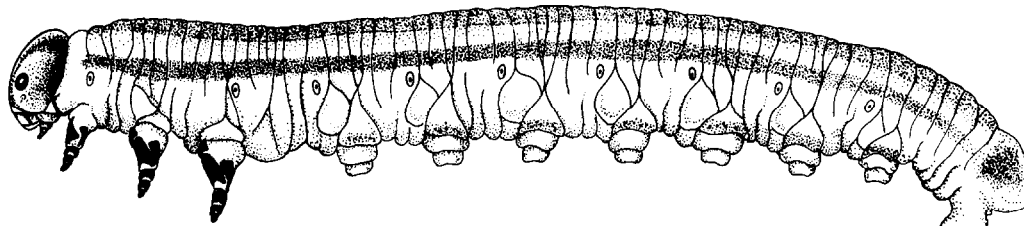


Distinctive Markings: reddish head, yellowish-white body with six rows of black spots

Hosts: shortleaf, loblolly, slash, longleaf, pitch, (eastern white pine, deodar cedar).
Present: Spring to December (probably year-round in South Florida)
Distribution: Eastern United States

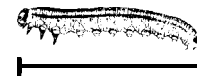


Abbott's Sawfly *Neodiprion abbottii*

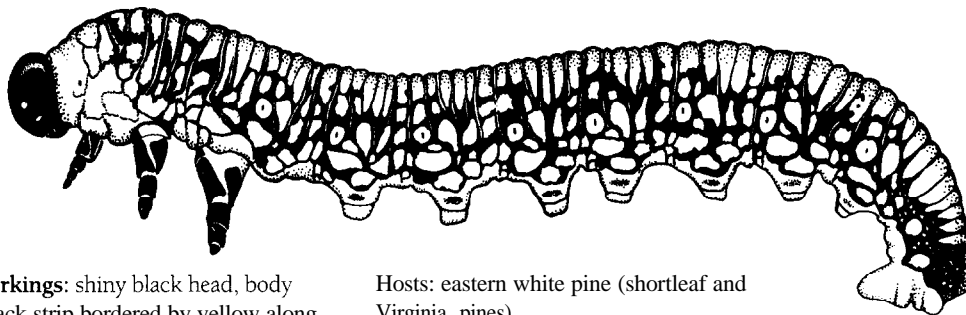


Distinctive Markings: brown to black head, thorax and abdomen pale green, four dark green to black lateral spots

Hosts: loblolly, shortleaf, slash and longleaf
Present: Spring to December
Distribution: Wisconsin to Florida



Introduced Pine Sawfly *Diprion similis*

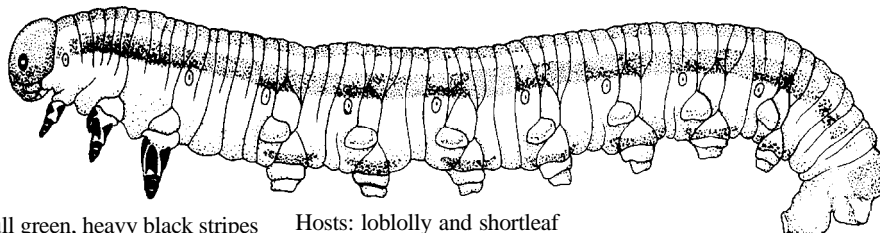


Distinctive Markings: shiny black head, body has a double black strip bordered by yellow along the back; sides are dark and mottled with numerous rounded yellow and white spots

Hosts: eastern white pine (shortleaf and Virginia pines)
Present: Spring to first freeze (December)
Distribution: North Carolina, Virginia, and Tennessee



Loblolly Pine Sawfly *Neodiprion taedae*



Distinctive Markings: dull green, heavy black stripes along each side and often two lighter stripes below the heavier ones.

Hosts: loblolly and shortleaf
Present: Spring to July
Distribution: Arkansas, Louisiana, S.E. Texas, Mississippi, South Carolina, (Probably southwide)

