



Sirex Woodwasp

Sirex noctilio Fabricius (Hymenoptera: Siricidae)

The Sirex woodwasp (SWW) is an exotic, invasive pest that primarily attacks pines, causing large scale damage to numerous pine species attacked throughout the world. In the U.S., SWW is also known to attack spruce, fir, larch, and Douglas-fir. SWW are commonly called horntails because of the spear-shaped spike (cornus) at the tail end of adults.

IDENTIFICATION:

- Adults of both sexes have large, stout, cylindrical bodies, with a cornus protruding from the tail tip. Woodwasps lack the narrow “wasp-waist” characteristic of many other wasp families.
- Both sexes have black antennae typically over 0.8” long (20 mm), and four clear yellow/orange membranous wings.



- Female adults have a dark metallic blue/black head and body with orange legs. Beneath the cornus at the tail end is a longer ovipositor and sheath. Females may be up to 1.8” long (4.5 cm) including ovipositor.

- Male adults have a dark metallic blue/black head and thorax; the abdomen is black at the base and tail ends with the middle segment orange. The front two pairs of legs are orange, the hind pair is black. Males may be 1-1.5” long (2.5-4 cm).



Adult female SWW Actual Size:



- Eggs: sausage-shaped, creamy white, ~ 0.06” long (1.46 mm) and ~ 0.01” wide (0.3 mm).
- Larvae: cylindrical, legless, creamy white grubs, with distinct heads, up to 1.18” long (30 mm), with a distinctive dark spike (or spine) at the tail end.



What to Look For:

Adult SWW may be found emerging from host trees June-September, with peak emergence in August. SWW are more likely to infest weak, injured, diseased, rapidly growing, or otherwise stressed living trees, and dead or fallen trees. Trees with smaller diameters (< 6” or 16 cm) are more likely to be killed, but SWW readily attack larger trees that are damaged or stressed. Eggs are laid deep in holes drilled by the females, and the larvae that hatch out bore deep into the heartwood of the host tree.

Symptoms of SWW infestation include:

- Foliage wilts; needles point straight down and turn light green/yellow to red/brown over 3-6 months.



- Resin beads or dribbles on bark from oviposition drill wounds.



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- Drill holes: perfectly round, usually clustered in groups of 5-6. Drill sites are more common 10-30+ ft up (3-9+ m) on trees 6-8" (> 15 cm) in diameter and larger.



- Meandering larval galleries 5-6" long (12-15 cm), tightly packed with frass, expanding in diameter as they progress, turning first inward then back out towards the bark.
- Fungal stains in cambial layer beneath bark: long, narrow, oval-shaped brown bands along the grain, with drill hole(s) at the center.



- Larvae may be found in galleries beneath the bark, deep into heartwood, or in oviposition drill holes.
- Pupae are typically found in chambers about 2" (5 cm) below the bark surface.
- Round exit holes 1/8-3/8" in diameter (3-8 mm) created by adults emerging in year two.

To report a possible sighting, visit the UMD Cooperative Extension Exotic Pest Threats Website:
<http://hgic.umd.edu/faq/sendAQuestion.cfm>

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