

SIREX WOODWASP

[*Sirex noctilio* Fabricius]

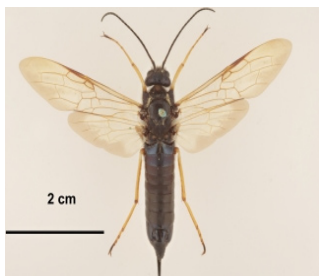


Fig. 1 UGA 5314009



Fig. 2 UGA 5314012

Problem: A native of Europe, Asia, and northern Africa, sirex woodwasp (SWW) has devastated pine species in its introduced range.^{2,3,5,6} Here in the U.S., SWW has the potential to threaten and kill native and exotic pines from coast-to-coast. Loblolly, scotch, shortleaf and other hard pine species are known to be susceptible.^{2,5} Pine plantations are particularly vulnerable. The damage process begins when females drill their ovipositors into the outer sapwood to inject

a symbiotic fungus [*Amylostereum areolatum* (Fr.) Boid.] toxic mucus, and eggs.^{2,3,6} The fungus and mucus then act together to kill the tree and create a suitable environment for larval development.^{2,3,6}

Identification: Adults are generally 25 to 38 mm long (1 to 1 ½ in)² with black antennae.^{2,5} Females generally have dark metallic blue or black bodies and yellow to red legs (Fig. 1).^{2,3} Males have orange middle segments on the abdomen and thickened black hind legs (Fig. 2).^{2,3,5} Larvae are creamy white, legless, and have a distinctive dark spine at the rear of the abdomen.²

Signs and Symptoms: SWW can attack living pines, while native woodwasps attack only dead and dying trees.² At low populations, SSW selects stressed and injured trees for egg laying.^{2,3} Foliage of infested trees initially wilts, and then changes color from dark green to yellow (Fig. 3), and finally to red during the 3-6 months following attack.^{2,3,6} Infested trees may have resin beads or seeps at the egg laying sites (Fig. 4), which are more common at the mid-bole level.^{2,3,6} As adults emerge, they chew round exit holes

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Fig. 3

UGA 1349007



Fig. 4

UGA 2166052

that vary from roughly 3 to 8 mm in diameter ($\frac{1}{8}$ to $\frac{3}{8}$ in) (Fig. 5).^{2,3,6}

Similar Species: There are more than a dozen species of native woodwasps (horntails) that occur in North America.⁴ One of them, pigeon tremex [*Tremex columba* (L.)] (Fig. 6), is a native horntail, but prefers deciduous trees.¹ The paper wasp (*Polistes* spp.) (Fig. 7)



Fig. 5

UGA 1231229



Fig. 6

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Fig. 7

UGA 5006017

and cicada killer [*Sphecius speciosus* (Drury)] (Fig 8.), have various yellow abdominal markings and have a constricted body shape.¹ Paperwasps feed on nectar and insects and cicada killers kill and feed on cicadas.



Fig. 8

UGA 5007028