

# WOOD WASPS AND HORNTAILS

*Integrated Pest Management in the Home*

The common names “wood wasp” and “horntail” are used to describe several kinds of wood-boring insects (families Siricidae, Xiphydriidae, Anaxyelidae, and Orussidae). Of greatest public interest are the large, nonstinging wasps that normally are attracted to and complete their life cycles in recently dead or dying conifer trees. Timber, salvaged from drought-stricken or fire-ravaged forests, may be processed into infested lumber that can eventually lead to emergence of adult wasps in completed buildings. Even though these insects are extremely annoying, they are not harmful to humans or structures.

Many species of wood-boring beetles, especially those in the family Buprestidae (flatheaded or metallic wood borers) or the family Cerambycidae (which includes long-horned beetles and roundheaded wood borers), feed on live trees that are old or weakened or fire- or insect-killed trees but do not attack harvested lumber. They cause problems, however, when they emerge from wood in newly constructed buildings, leaving small circular or oval exit holes in the wood.

Insects that will invade and damage structural and decorative wood and furniture include the powderpost beetles, deathwatch beetles, and false powderpost beetles (see *Pest Notes: Wood-boring Beetles in Homes*), carpenter ants (see *Pest Notes: Carpenter Ants*), carpenter bees (see *Pest Notes: Carpenter Bees*), and termites (see *Pest Notes: Termites*).

## IDENTIFICATION

The dozen species of wood wasps in California, Oregon, and Washington

have a similar appearance. They are robust insects, generally 1 inch or more in length, wasplike in appearance but have an elongated, cylindrical body without a noticeable constriction or “waist.” They are often black or metallic dark blue in color, or with combinations of black, red, and yellow. They make a noisy buzz when flying. The male and female have a similar body shape, except that the female is larger and has a long egg-laying apparatus (ovipositor), which can exceed her body length. The ovipositor is used only for egg laying and cannot be used to sting in defense. Although wood wasps and horntails can chew through wood, they do not bite people.

## LIFE CYCLE

A female wood wasp inserts her ovipositor nearly  $\frac{3}{4}$  inch into wood of a weakened or dying tree and lays one to seven eggs. Eggs hatch in 3 to 4 weeks, and larvae tunnel into the wood parallel with the grain. As it chews, the larva uses a spine at the tip of its abdomen to help push it forward, through the wood. The larva begins eating the softer wood (sapwood) just under the bark, moves into hardwood (heartwood) deeper in the trunk, then returns to sapwood to complete its feeding. The tunnel, or gallery, usually measures 10 to 12 inches in length at completion. Larval feeding (associated with wood-decaying fungal growth) persists through development of four or five immature stages, taking at least 2 years or as many as 5 years to complete. Pupation takes place at the end of the gallery. After 5 or 6 weeks as a pupa, the adult emerges by chewing through about  $\frac{3}{4}$  inch of wood, leaving a round exit hole  $\frac{1}{4}$  to  $\frac{1}{2}$  inch in diameter.

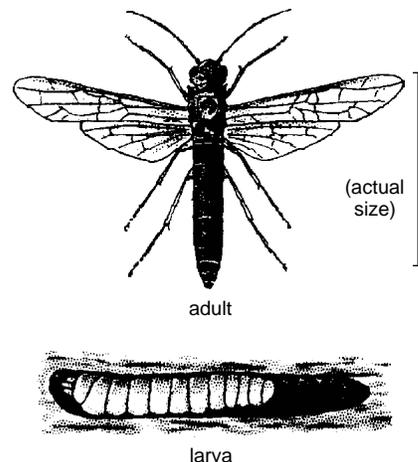


Figure 1. Western horntail wasp, *Sirex areolatus*.

## DAMAGE

Wood wasp damage in buildings is more cosmetic than structurally weakening. Total numbers of insects emerging in any one house are limited, and usually less than a dozen. Emerging wood wasps can chew through just about any substance. Their large exit holes may be seen in wallboard or plaster walls, hardwood floors, linoleum, carpeting, nonceramic floor tiles, and other interior surfaces. Even if male and female wood wasps had the opportunity to mate in the building, the females would not be stimulated to lay eggs in dry, finished lumber. Wood wasps do not reinfest structures.

## MANAGEMENT

Wood wasps are likely to occur anywhere that infested timber is used for construction. Even though salvaged timber is adequate for restricted, lower grade construction purposes (such as

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studs and subflooring), it is not valuable enough to warrant kiln-drying. Kiln-drying or vacuum fumigation of lumber is the only effective way to kill wood wasp larvae that have survived milling operations, but treatment is costly. Fumigation of milled lumber in boxcars, under tarpaulins, and in standing buildings has not been successful.

Even though wood wasps can be a noisy, scary nuisance, they are not a threat to anyone or anything. Waiting out the life cycle and repairing cosmetic damage is about all that can be done in an infested building. Once emerged, wood wasps will not reinfest harvested lumber.

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Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in the original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock.

Confine chemicals to the property being treated. Avoid drift onto neighboring properties, especially gardens containing fruits or vegetables ready to be picked.

Do not place containers containing pesticide in the trash nor pour pesticides down sink or toilet. Either use the pesticide according to the label or take unwanted pesticides to a Household Hazardous Waste Collection site. Contact your county agricultural commissioner for additional information on safe container disposal and for the location of the Hazardous Waste Collection site nearest you. Dispose of empty containers by following label directions. Never reuse or burn the containers or dispose of them in such a manner that they may contaminate water supplies or natural waterways.

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