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Stinging Insects

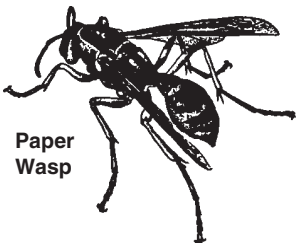
In the Northeast, eight stinging insects cause the most problems: carpenter bees, bumblebees, honeybees, wasps, paper wasps, nesting yellow-jackets and two kinds of aerial yellow-jackets or "hornets."

Carpenter bees are more a structural pest than a stinging threat. The solitary Carpenter bee adults will over-winter and emerge in the spring (April to June). The female will bore tunnels into wood in which she deposits her eggs. Males fly with intimidation to defend their territory, but are powerless as they lack stingers. Females chew tunnels about 3/8 inch in diameter and 8-10 inches deep. The end of the tunnel is packed with pollen on which 3 to 4 larvae will develop. Females do have stingers, but will only use them when highly provoked.

Carpenter bees resemble bumblebees so closely that at first they can be confused. Carpenter bees abdomens are all black and shiny, whereas bumblebees have fuzzy abdomens marked with yellow.

Mud wasps are frequently found nesting around window and door frames and are often cause for concern to homeowners. While they are not aggressive toward humans they are very similar in appearance to wasps that are. Mud wasps use their stingers to paralyze spiders to pack into the mud cells to nourish their young; most wasps use their stinger defensively.

Paper wasps, **yellow-jackets** and **hornets** share many character-istics and are all in the family Vespidae. Over-wintered queens start new nests each summer that remain active up to six months. Old nests are usually not reused.


Paper Wasp

Queens begin the season by starting a paper nest, laying eggs and hunting. As the worker force grows, activities become more restricted to egg laying. In August, nests begin a reproductive phase and large numbers of queens and males are produced. Year-old queens and their workers die quickly thereafter, except for yellow-jacket workers that often live into December. Vespidae larvae are fed meat, usually in the form of chewed-up insects or matter scavenged from a picnic or garbage can. Prey is not stung, but caught and torn to pieces with the bee's mandibles. Adults feed primarily on sugary fluids, usually nectar.

Nest size and architecture vary with each species. *Polistes* sp., or paper wasps, make the small open combs often seen under eaves. They also build them in concealed locations. A large nest might house a couple of dozen adults. The white-faced hornet, and its smaller cousin, the yellow-hornet, make similar grey ball-shaped nests built on structures or in trees.

The six different species of yellow jackets in the Northeast all have a similar appearance and nest in concealed locations. Common nesting sites include stone walls, old rodent burrows or other ground cavities, old mattresses and wall voids. Inside the concealed space one would find something resembling a hornet's nest, except with an irregular shape. In their prime, yellow-jacket nests will contain several thousand adults that compensate for their small size by their meanness.

Squashing yellow jackets causes the release of an alarm chemical that may cause others in the area to attack. Don't make quick movements like swatting; this also will incite aggressive behavior. Brush them off gently with a piece of paper. Avoid wearing cologne and brightly colored/patterned clothing. Feed pets indoors, manage garbage appropriately, and make sure soft drinks are covered.

Bumblebees have an annual nesting cycle similar to yellow-jackets and nest in material such as insulation, old bird nests and straw. Bumblebee larvae are raised in little waxen pots and are fed nectar and pollen. Probably less than 100 bees inhabit a large nest.

One would be hard-pressed to name an insect as beneficial as the **honeybee**, but finding them nesting in a wall void is as bad a problem as termites. Most people are familiar with honeybees and know they have a highly developed social system and are able to store surplus honey for winter survival of the colony. An average colony contains about 50,000 bees.

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Stings

Stings kill twice as many people as snakebites and account for about 100 deaths each year. Some stings are incorrectly diagnosed as heart attacks or other causes. Death can result from a simple toxic effect if a person is stung 30 or more times. More often, death results from allergic reactions that can be triggered by a single sting. Sting allergies are poorly understood, but are basically a body's reaction to protein in the sting venom.

An estimated one percent of the human population is allergic to insect stings. Often an allergic individual's sensitivity will increase over time. Common symptoms of sting allergies include swelling away from the area of the sting, hives or shortness of breath. Pain, local swelling and itching are normal reactions and not cause for alarm.

Yellow Jacket

Many people who know they are allergic carry hypodermic needles containing synthetic adrenalin — the only first aid for preventing possible shock and death within minutes of being stung. A series of treatments can make some people immune to sting reactions. These treatments involve injections of increas-ingly larger doses of pure venom, begin-ning with as little as 1/100,000,000 of a sting equivalent.

For more information see Home Grounds Fact Sheet B-2-4B.