



Stinging Insects: Carpenter Bees



Carpenter bee gathering nectar, note the shiny abdomen
Jerry A. Payne, USDA ARS,
www.insectimages.org

Common name: Carpenter bees

Scientific name: *Xylocopa virginica*

Also known as: wood bees

Size: 3/4 to 1 inch long

Commonly confused with: bumble bees

Distinguishing marks:

- large and robust bees that resemble bumble bees
- hairless abdomen appears metallic black-blue
- males have a yellow area on their face

Distribution: throughout North America

Habitat: forests, adjacent meadows, parks, dwellings, and other buildings

Life cycle: Carpenter bees are solitary bees that survive over the winter as adults. After mating, usually in April or May, a female excavates a tunnel in wood or cleans out and reuses an old one. The nesting holes are perfectly round and about the diameter of a finger. Often, a pile of sawdust is found near the entrance of a tunnel and one may hear scraping sounds indoors. Males and females are territorial and will defend nest sites and potential mates. The female lays her eggs in a series of small cells within the tunnel. Each cell is provisioned with a small ball of pollen on which a single larva feeds. The larva pupates in the cell and emerges as an adult in late summer. The new adults leave the nesting holes to feed on nectar, but return to the tunnels to over-winter.

Damage: Damage from a single nest is minor; however, structural damage to wood that has been used for nesting for several years may be considerable. Sawdust that is produced as a tunnel is excavated often contains insect waste and may leave unsightly stains. Woodpeckers seeking the immature larvae inside the nest may cause further structural damage.



Female carpenter bee gathering pollen and nectar
Carl Dennis, Auburn University, www.insectimages.org



Nesting hole of a carpenter bee, Lamar Merck,
University of Georgia, www.insectimages.org

Benefits: Carpenter bees play an important role in the pollination of wild flowers and agricultural crops.

Management: Carpenter bees prefer to nest in wood that is untreated, bare and weathered. Therefore, all exposed wood surfaces should be painted, especially those with a history of use by carpenter bees. Stains and preservatives provide some protection, but less so than paint. Keep sheds and garages closed in the spring when females are searching for nest sites. Replace exposed softwoods with hardwoods, which are less likely to be utilized by carpenter bees. Before covering an existing nest hole, it is best to apply an approved insecticide, as any trapped bees will likely chew another exit. Be sure to dress appropriately. Wear eye protection, a long-sleeved shirt, trousers and boots, and secure your sleeves and pant legs. Establish an unobstructed escape route and be ready to move quickly away if any of the bees fly towards you. If you require illumination, use a flashlight covered with red cellophane for a light – bees cannot see red. Carpenter bees will not nest in aluminum or vinyl siding.

Sting: Female carpenter bees only sting when disturbed; however, their sting can be painful. If you are stung, cooling the area with ice may be soothing. Males, identified by their yellow face, are aggressive and will often dart toward people near a nest. There is no need to be alarmed, males do not have stingers and cannot sting you.

Remember! Insect stings can elicit a life-threatening, allergic reaction in some individuals. Check with your physician to determine what symptoms require a visit to the emergency room. Never attempt any control measure if you have a known allergy to insect stings.



Carpenter bee - note yellow face of male, Jerry A. Payne, USDA ARS, www.insectimages.org

Further sources: Hutchins, R.E. and R. Cuffari. 1972. *The Carpenter Bee*, Addison-Wesely Publishing Co., 48pp.

Prepared by: Kathryn Gardner, Carolyn Klass, and Nicholas Calderone

Date Prepared: July 2004