

Everyman's Guide to The Common Groups of Bees

Scientific Name: *Xylocopa* (zile-low-COPE-uh)

Common Name: Carpenter Bee

Approximate # of Species (Spp.) in Canada: 1

Approximate # of Spp. East of the Rockies: 2

Approximate # of Spp. West of the Rockies: 7

Approximate # of Species in Texas: 6

Approximate # of Species in Mexico: 25



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Xylocopa californica arizonensis

General Abundance in Eastern Gardens: Common north to southern New England, southern Ontario, and southern Great Lakes, may be moving northwards over the last several decades.

General Abundance in Western Gardens: Common in warm deserts

Time of Year: All season but males are often most active in the early spring with the overall population increasing as the broods emerge in late summer and early fall; in many areas, the peak begins when the redbud bloom.

General Look and Feel: Large, the size of bumblebees and some species as large as the largest bumblebee; much of the time these are the largest bee around; told from the similar looking bumblebees by the combination of all black abdomen (*X. virginica* has scattered and sometimes hard to see yellow hairs at the base) and those hairs present on the abdomen are sparse enough to clearly see the shining integument (skin) below; most males with a white spot on their face; when resting, *Xylocopa* hold their wings splayed some to the sides (resembling swept-backjet fighter wings), not neatly overlapped down the back like bumblebees.

Nesting Site: In nature, the female excavates nesting tunnels in the dead wood of standing trees or, in some western species, in yucca and agave flower stalks. In the eastern and central regions the Eastern Carpenter Bee (*Xylocopa*

virginica) nests commonly in exposed treated and untreated lumber of houses, decks, and outdoor wooden furniture.

Overwintering Site: Groups of adult males and females overwinter in their nest sites.

Stinging: Low to no concern. Note that males are territorial and will hover for long periods of time in front of you if you are near a nesting area, but they cannot sting (males of all bees have no stingers) and the females do not defend their nests and are not often seen, unless they are nesting in your house! When captured in the hand (something that likely only an Entomologist would do) the females will sting, but stings are relatively painless and are more the feel of a splinter than the pain of a colonial wasp or bee like yellowjackets or honeybees. Also when caught females are known to bite rather than sting.

Favorite Flowers: Will visit a wide variety of flowers; often bites and slits the base of tubular or narrow flowers to steal the nectar from such plants as blueberries (*Vaccinium*) which are too small to fit into and too long for their relatively short tongues; often conspicuous on leguminous flowers such as Lupines (*Lupinus*), Wisteria, Erythrina, and Locust (*Robinia*) in the spring; in the summer are attracted to large gardens and plant collections having massed bedding plants; in late summer and fall are common on goldenrod and asters.

Interesting Xylocopa Facts:



Most are the largest of North American bees (other than some queen bumblebees)



Males defend females, have much larger eyes than females, and are one of the few bees that hover.



Unlike most species of bees, which live for less than a year, adults of some species live up to 3 years.



Species that live in deserts will line their nest cavities with wax-like substances to retain moisture in their nests.



Has the largest insect egg in the world (0.6 inches, 15mm).



The tunnels of the Eastern Carpenter Bee rarely ever intersect one another or run outside of the branch or board, tunnels are sometimes reused and branched over several nesting seasons, but eventually are abandoned.



It takes many years for carpenter bees to cause significant structural damage; damage can be minimized by sealing nesting holes in the fall or winter (if you do this during the spring and summer they will simply create a new entrance) with a small dowel or expanding window caulk and providing alternative nesting sites in cedar (their preferred nesting material in the East); insecticides are inefficient and dangerous and should not be used to control carpenter bees.

How to Attract: Some species will nest in wooden timbers (softwoods such as cedar and pine often preferred) in which one half - three quarter inch holes have been drilled. A diverse and season long assemblage of blooming plants will attract Xylocopa.

Web Sites and Technical ID Guides:

<http://www.discoverlife.org/mp/20q?guide=Xylocopa>

http://en.wikipedia.org/wiki/Carpenter_bee

http://www.fs.fed.us/wildflowers/pollinators/pollinator-of-the-month/carpenter_bees.shtml

Author: Sam Droege,2009, Photograph © John Ascher,2006-2007.

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