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ADVICE TO GROW BY »
MASTER GARDENERS

Carpenter bees are valuable pollinators



Carpenter bee (*Xylocopa californica*) Photo credit: UC ANR: Kathy Keatley Garvey

Question: Every time I walk out into my backyard, an aggressive carpenter bee flies in circles around me. I like bees, but I am afraid of being stung. Is there some way to let this bee know I am not a threat?

Answer: The bee you describe is a western carpenter bee (*Xylocopa californica*), a large, shiny, blue-black bee. The males are either being territorial or curious, or both. Their in-your-face habit can be disconcerting, but their aggressive behavior is only a front, because they lack weaponry. Female carpenter bees, although they do have a stinger, are shy and retiring and won't sting unless provoked, for example, by being handled.

Menacing behavior of the males aside, there is a lot to like about carpenter bees. They are important pollinators of many native plants

and some crop plants, including blueberries, blackberries, peppers, melons and passion fruit.

On some flowers, such as those of tomatoes and eggplants, the females practice “buzz pollination.” They bite into and hold on to the anther base of the flower — the part of the stamen that holds the pollen. Then they curl their bodies into a “C” shape and beat their wings to create vibrations that blast the pollen out of the anther pores and onto a set of bristles, or scopae, on their hind legs. However, they do have a reputation as “nectar robbers,” sometimes shirking their pollinator duties by piercing the petals of tubular flowers with their blade-like tongue to get to the nectar.

The females have been described as “businesslike” in their foraging activities, collecting pollen and nectar and quickly returning to their nests to unload the goods. These bee moms combine the pollen, nectar and saliva into a dough-like substance called “bee bread.” In a tunnel she has drilled into wood with her mandibles, the female shapes the bee bread into a small pillow with three legs and lays a large single egg on top of the pillow. There may be multiple chambers, or brood cells, in each tunnel. She seals each chamber with sawdust left over from construction. When it hatches, each young bee is fully nourished with its own supply of bee bread as it matures over a period of months.

Bee tunnels are approximately ½ inch in diameter and initially 6 to 10 inches deep. Over time, carpenter bee tunnels can extend up to 10 feet in length. Carpenter bees prefer untreated softwoods for building their nests, especially redwood, cedar, cypress and pine. They tend to avoid hardwoods and do not bother with painted, varnished or treated wood.

If you are concerned about the damage carpenter bee tunnels may cause to your home, you can treat the wood to discourage tunneling. Take care of exterior wood to prevent the formation of depressions and cracks which might attract the bees. If bees are already residing there, wait until the newly emerged adults have left the nest in the late summer or early fall, and then block the unoccupied tunnels with steel wool or caulk.

You would be fortunate to encounter the valley carpenter bee (*Xylocopa varipuncta*), known as the “teddy bear bee,” a nonaggressive species of carpenter bee that is rarely found in Sonoma County. This bee is even larger than the western carpenter bee, and the males are golden brown and furry, with green eyes.

For more information, check out “Carpenter Bee: Beneficial Insect or Pest?” at bit.ly/3KyeykG or the UC IPM Pest Notes for Home and Garden: Carpenter Bees at bit.ly/3F0k9iA.

Contributors to this week’s column were Janet Bair, Karen Felker and Pat Rosales. The UC Master Gardener Program of Sonoma County sonomamg.ucanr.edu provides environmentally sustainable, science-based horticultural information to Sonoma

County home gardeners. Send your gardening questions to scmgpd@gmail.com. You will receive answers to your questions either in this newspaper or from our Information Desk. You can contact the Information Desk directly at 707-565-2608 or mgsonoma@ucanr.edu.