

Carpenter Bees on Increase in Southern Nebraska

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Carpenter bees are large bees seen in the springtime hovering around the eaves of a house or the underside of a deck or porch rail. These bees are more common in states to the east and south of Nebraska, but the last few years, we have received an increasing number of callers reporting these carpenter bees in Lancaster and counties in the southern part of Nebraska.

Most people mistake carpenter bees for bumble bees because they are robust, black, and yellow. They differ from bumble bees in having a black, shiny abdomen.

Carpenter bees get their name because they excavate tunnels in wood to lay eggs in. The perfectly round, 1/2-inch diameter entrance holes are usually found on the underside of a board, beam, bench, or tree limb. Coarse sawdust is often found beneath the hole. Wooden decks, overhangs, and other exposed wood on houses are prime targets. Carpenter bees do not attack painted and treated wood as often, but painted surfaces are not immune to attack.

Unpainted or unstained cedar, cypress,



Carpenter bee shown approximate size. Note black, shiny abdomen.

Photos: Jim Kalisch, UNL Department of Entomology



Carpenter bee nests have perfectly round, 1/2-inch diameter entrance holes.

and redwood shingles and siding are also attacked because carpenter bees do not consume the wood as food, but excavate tunnels for nesting sites.

Carpenter bees overwinter as adults in old burrows and emerge in April and May. Males are usually the first to appear. The males do not have a stinger, but they are

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Wood cut to show nest gallery (tunnel) and egg chambers.

USDA Forest Service Archive, USDA Forest Service, Bugwood.org

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territorial and seem to harass people who venture near their protected areas. Females do have a stinger and can sting, but they are not aggressive.

After feeding on plant nectar for a few weeks, the mated females begin constructing tunnels. The entrance holes start inward for about one-half inch or more, then turn and follow the grain of the wood. The gallery is usually six- to seven-inches long, but may be longer. The female bee collects pollen and packs it into a pollen ball inside the gallery; this pollen ball will feed her offspring. After depositing an egg near the pollen ball, she seals off each section of tunnel with a partition made of chewed wood. She constructs additional cells in this manner until her tunnel is completely filled.

Adult bees die after a few weeks. The eggs hatch after a few days and the offspring complete their development in five to seven weeks. Adults begin to emerge in late summer. They do not construct new tunnels, but may be seen cleaning out old tunnels which they will use as overwintering sites

when the weather turns cold.

Typically, carpenter bees do not cause serious structural damage to wood unless large numbers of bees are allowed to drill many tunnels over successive years. Woodpeckers may damage infested wood in search of bee larvae in the tunnels. In the case of thin wood, such as siding, this damage can be severe. Holes on exposed surfaces may lead to damage by wood-decaying fungi or attack by other insects, such as carpenter ants.

Control

Preventing carpenter bee damage with liquid chemical treatments is nearly impossible. Insecticide sprays applied to wood surfaces are effective for only short periods, even when repeated every few weeks. And, it is impractical and unsafe to try applying a pesticide to all possible sites where the bees might tunnel. Trying to spray bees seen hovering about is not a sensible (or particularly safe) use of pesticides either. Swatting hovering bees will often prove to be just as

effective.

Dust formulations provide residual effects and are effective due to the nature of carpenter bee gallery construction. Inject the dust directly and deeply into each nest entrance hole. Wait for a few days before plugging entrance holes to let female bees distribute the insecticide within the galleries. Later in the summer, newly emerged bees also will contact the dust when attempting to leave their gallery.

A completely non-insecticidal approach is to deny carpenter bees access to their galleries by sealing each entrance hole you find later in the summer. Thoroughly plug the hole with caulk, wood putty, or a wooden dowel affixed with wood glue. If possible, also fill the entire gallery system with an expandible sealant. Carpenter bee galleries are a critical resource, since the bees require these protective conditions to survive the winter. Plugging these galleries will reduce future carpenter bee infestations.