

Technical Tip

Carpenter Bees

Carpenter bees are big black solitary bees that look similar to bumble bees but have bare, shiny backs whereas a bumble bee's back is hairy. Unlike honey bees that reproduce in hives, carpenter bees drill into wood in order to lay their eggs. Their holes are perfectly round and about 1/4 inch in diameter. Although carpenter bees prefer softwoods such as cedar, redwood, or cypress, they happily attack pine and most other species of wood. Even pressure treated wood is not immune from carpenter bee attack. As the bee drills into the wood, coarse sawdust may be seen coming out of the hole and piling up beneath. Since it only takes a couple of hours for a carpenter bee to drill a hole a few inches deep, lots of holes can appear over a fairly short period of time.



Carpenter Bee

Most carpenter bee activity occurs in early spring when male and female bees emerge after spending the winter in old nest tunnels. Once they have paired and mated, the female bee drills into a suitable site while the male stays nearby to ward off intruders. Male carpenter bees often frighten people with their aggressive behavior, but since they have no stinger they are essentially harmless. Females have a stinger but only use it if molested. Once the initial hole is drilled through the surface, the bee will make a turn and excavate a tunnel along the grain of the wood. This tunnel, which may run for several inches, becomes the cavity where the female deposits her eggs. Several eggs are laid in individual chambers separated by plugs of sawdust and pollen on which the larvae feed until they emerge as adults during the summer months. In addition to making new holes, carpenter bees also enlarge old tunnels and if left unattended for several years, serious damage to a wood member may result.



Carpenter Bee Nest

In late fall activity may again be seen as both male and female carpenter bees clean out old nest cavities where they over-winter. Since carpenter bees tend to migrate back to the same area from which they emerged, it is important to implement some control measures in order to prevent logs and wood members from becoming riddled by these bees.

Treating Carpenter Bee Holes

Any carpenter bee holes you can reach should be treated and plugged since existing holes attract more carpenter bees. The way to treat an existing hole and tunnel depends on the time of year and if bees are present at the time of treatment. If the female is drilling away when you find a hole (you can see sawdust coming out or hear her working inside) spray a contact pesticide like wasp and hornet spray or WD-40 into the hole. She will quickly back out and die. Immediately fill the hole with wood putty or Energy Seal. You need to treat the hole even if it appears empty since the bee may be resting and, if left alive, will drill back through the plug you've just inserted.

If you find carpenter bee holes in late spring or early summer it's difficult to tell if there are bee larvae developing in the tunnels. The best thing to do is to run a length of flexible wire into the tunnels in order to break through the pollen plugs separating the chambers. Then spray a pesticide into the hole and seal it up. Another option is WD-40. It comes with a long, thin tube that's inserted into the nozzle. You need to push the tube into the hole as far as it will go to break through the chamber walls then spray as you pull it out. The same thing should be done on holes found in the fall or winter to kill any bees that may be over-wintering in the holes. Just remember to plug the holes since they will attract more carpenter bees come spring.

Preventing Carpenter Bees

Although carpenter bees prefer bare wood they will attack wood that is stained. Painted wood surfaces, on the other hand, are rarely attacked since the bees don't recognize it as wood. We've discovered that the presence of a gloss topcoat on top of a stain appears to act somewhat like a painted surface in that carpenter bees rarely drill through it. It could be that the slick, hard surface does not appeal to them.

One way to keep carpenter bees from drilling into wood is by spraying pesticides that contain either cypermethrin, deltamethrin or bifenthrin (Ortho Home Defense Max) onto wood surfaces. When it comes to carpenter bees, these products act more as repellants than contact poisons. However, the effectiveness of these applications is only about three to four weeks so the treatment will have to be repeated every so often. Pesticides should only be used during the periods of peak activity in the spring and perhaps again in late fall. Be sure to follow label directions and read and understand any precautions that must be taken when using these products.