

## Least-toxic Control of Carpenter Bees

Carpenter bees should be protected whenever possible; they valuable pollinators and do not pose a threat to humans. They tunnel very slowly and their damage is very easily curbed.

Carpenter bees are most often confused with bumblebees. They are large, about 1 inch (25 mm) long and have a noticeably hairy thorax and legs, but a hairless abdomen. The abdomen is metallic or iridescent, and may reflect blue, blue-black, bronze, purple, green or buff, depending upon the species.

They fly and hover with little regard to human activity. Males cannot sting and pose no threat to humans, though their interactions are noisy and may seem threatening as they defend and challenge each other over their territories. Females concentrate on provisioning their nests and are most often seen entering and emerging from large entrance holes in wood or in flowers searching for pollen. They can sting, but won't, although they may bite if handled roughly.

As young adults, carpenter bees overwinter in wood, mate from April to June and then begin preparations for the next generation. The female may clean out a previously used gallery, lengthen an existing gallery, or bore a new tunnel or chew a new gallery from an entrance shared with or started by other bees.

Carpenter bees have distinct preferences for certain species of softwoods, and do not attack wood that is soft due to decay or tunnel in wood with bark still on it. Their favorites include southern yellow pine, white pine, California redwood, cedar, Douglas fir, and cypress. They chew with their mouthparts into structures, most frequently attacking roof trim and siding, exterior columns, steps, decks, and porch beams and railings. Their entrance is usually against the grain, except where it starts on the end of a board. Approximately 1 inch into the wood, the tunnel turns abruptly at a right angle, and, in newly excavated areas, travels with the grain from 4-6 inches. Several bees working together over a period of time can form a system of galleries extending as far as 6-9 feet into the timber.

### **Prevention**

- Do not build external structures with wood that carpenter bees find attractive. Keep exposed wood in vulnerable areas covered with paint or varnish, or metal or fiberglass materials.
- Fill depressions in wood, which will attract female carpenter bees, before painting. Repaint as often as necessary to keep up with weathering, paying particular attention to undersides of siding and trim.

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## Monitoring

- These bees are attracted to unpainted and unvarnished wood. Roof trim, siding, exterior columns, steps, decks, porch beams, and railings are all acceptable nesting grounds.
- Look for 1/2 inch holes on structures. Sometimes there will be sawdust beneath. Woodpeckers are attracted to carpenter bee nests. Damage on the structure from this bird may indicate a nest.

## Control

- When a nest is detected, you should close it off or replace the damaged wood.
- After the bees have emerged, plug holes in wood with steel wool and staple on metal screen. Soft material such as wood putty or caulk will not prevent bee re-entry. You can also use aluminum, asphalt or fiberglass materials.
- The best time to physically renovate the structure is in the spring after the bees have left their nest.
- Repellants offer a temporary solution until physical alterations can be made. Almond oil and almond essence placed around the nest will repel the carpenter bees.

## References

Beyond Pesticides/NCAMP. "Least Toxic Control of Pests In the Home & Garden: A series of pest control & chemical factsheets." Washington, DC.

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