



Carpenter Ants

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Introduction

Ants in the genus *Camponotus* are known as carpenter ants because they excavate wood to house their colonies. Carpenter ants belong to the family Formicidae in the order Hymenoptera.

Identification

Carpenter ants vary in size from about 6 mm (0.25 inch) for a worker up to 19 mm (0.75 inch) for a queen. Carpenter ants are black, reddish-brown, or sometimes red and black (Fig. 1 & 2). Like all ants, they have a distinctly constricted “waist” between the thorax and the abdomen (Fig. 2).



Figure 1. Adult carpenter ant (Susan Ellis, Bugwood.org).



Figure 2. Chestnut carpenter ant (*Camponotus castaneus*) (Gary Alpert, Harvard University, Bugwood.org).

Habitat

In their natural habitat outdoors, carpenter ants nest in live trees with some decay, dead trees, and in rotting logs and stumps. However, they will also construct their nests moist, soft wood structural wood of buildings.

Wood is used solely as a nesting site, not as food. The ants deposit the wood they remove while constructing their nest in piles outside the entrances to the colony (Fig. 3). Their galleries are kept smooth and clean, unlike termite tunnels that are lined with moist soil. The natural diet of carpenter ants consists of insects, honeydew from aphids, and plant juices, but they will readily forage indoors for water and sugary food scraps within a house.



Figure 3. Piles of sawdust-like material accumulate at the base of a tree with a carpenter ant nest (Dave Powell, USDA Forest Service, Bugwood.org).

Activity

Carpenter ants can be found on trees and sidewalks and sometimes indoors. Where the ants are found determines how best to control them. Carpenter ants can be active indoors during many months of the year, most often during the spring and summer. When ants are active in the house during late winter or early spring (February/March), the infestation

probably originates from a nest inside the house. Outdoors, carpenter ants become active in late spring and early summer. Large numbers of carpenter ants suddenly seen indoors in late spring might actually be foraging ants from outside and not an indication of an inside nest.

Life Cycle

Carpenter ant colonies are often long lived. Each colony is founded by a single fertilized queen. She establishes a nesting site in a cavity in wood where she rears her first brood of workers by feeding them salivary secretions. She does not leave the nest or feed herself throughout this period. The first generation of workers assume the task of gathering food to feed the younger larvae. The colony will grow rapidly in warm weather as the available food supply increases. A colony does not reach maturity and become capable of producing young queens and males until it contains 2,000 or more workers. It may take a colony 3-6 years or longer to reach this stage, and then the colony will produce winged queens and males each year (Fig. 4). The winged reproductives leave their nest on mating flights from May through July, after which the mated queens begin new colonies.



Figure 4. A winged queen ant (Joseph Berger, Bugwood.org).

Damage to Wood

Carpenter ants do not damage sound wood. Instead, they make their galleries in water-damaged wood that is soft or rotten. Large numbers of carpenter ants on a tree suggest that the tree has wood decay and is potentially hazardous. If you suspect that carpenter ants are nesting in a tree, consider having an arborist check the tree for potential problems, especially if

the tree is near a house, walkway, or similar places where a falling tree would be hazardous.

Carpenter ant nests in houses are commonly found in porch pillars, roofs, windowsills, and doorframes where water has damaged the wood, or in wood with soil contact. Other locations that often have water damage include around eaves, chimneys, and skylights. Carpenter ants may also nest in wet foam insulation. Carpenter ants rarely cause significant structural damage to buildings themselves, but their presence indicates that there is water damage somewhere in the building.

Control

Successful control of indoor carpenter ants requires finding the nest. The best approach is to inspect all possible nest locations on the basis of potential water damage. Once located, the nest can be treated with a registered insecticide. Address the causes for the moisture damage to the wood and, if need be, remove the damaged wood or the nest site will remain attractive to other carpenter ants. If the nest cannot be located, consider using bait specifically for carpenter ants or for sweet feeding ants.

Carpenter ants will nest in old wet firewood if it has begun to decay. Store firewood so that it stays dry, and remove any wet, decaying wood near the house. Consider removing rotting stumps, logs, or other wood left near the house as well. Remove all vines or other vegetation, including tree branches, in contact with the house.

Revised

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2021

3104-1573 (ENTO-485NP)