

Carpenter Ants **by Lloyd Eighme, retired entomologist**

Many people are concerned about carpenter ants. These large black ants flying in and around buildings raise the question of where they are coming from. Maybe they are chewing up the wooden structure of the buildings. These large winged carpenter ants are not the ones that chew into the wood. They are only the reproductive queens and kings. It is the smaller workers with no wings and left behind in the colony that are chewing into the wood. The winged queens are flying out in search of a suitable place to start a new colony of carpenter ants somewhere in the vicinity. Finding that colony can be very difficult. The nest is completely concealed within the wood and the ants come and go through one or two small openings.

Carpenter ants do not eat wood like termites do. The ants do not have the necessary bacteria and protozoans in their gut to digest cellulose. They chew tunnels and chambers in the wood in which to live and raise the young larvae which are soft and legless and would be quickly gobbled up by predators if left exposed. The workers must gather food outside of the nest cavities. They feed on a wide variety of foods including small caterpillars and other insects that they are able to capture. They gather energy foods such as nectar from flowers and honeydew from aphids. The workers are mostly active at night. If you can find them gathering food at night and watch long enough to see where they are taking it, you might be able to locate their nest. They require moisture in the nest so they will usually be chewing their tunnels and galleries in soft, damp wood. As the colony grows and expands they may extend some of the tunnels into adjacent dry wood, but the nucleus of the nest will always be in wood with high moisture content.

Sometimes a large carpenter ant with no wings will be found crawling around inside the house. Workers have no wings, but they are less than 1/2 inch in length. These larger ants are queens that have shed their wings. After flying to a likely spot in which to start a new colony the queen ant breaks her wings off since they are no longer needed. Under a magnifying glass you can still see the wing stubs that verify the identity of the queen. Only a tiny fraction of swarming queens ever succeed in finding a suitable site for a nest, escape predators, and survive through many other hazards to be successful in starting a new colony all by herself. That is good because otherwise we would be knee-deep in carpenter ants. Our forested areas provide an abundance of suitable nesting sites for carpenter ants. In the summer when the winged reproductives swarm and fly they will be seen searching everywhere for a place to live. When land is cleared for building sites there are always roots and portions of stumps left in the ground or covered up with dirt. Those are good home sites for carpenter ants and that

may bring them closer to the houses. The wood structure of houses must be kept dry to discourage carpenter ants from moving in.

There are several bulletins and publications to help you learn more about carpenter ants and how to control them. Look up EB 0472, EB 0671, and EB 0818. Locating the nest of the ants makes control more feasible, but that is often difficult to accomplish. If you know their life cycle and feeding habits you will be more successful in your efforts to control them. The presence of a few carpenter ants in the house does not necessarily mean they have established residence there, but it does alert you to the possibilities and should lead you to further investigation.



Fig. 10. Dorsal view of the adult stages of the carpenter ant: Top left—Queen; top right—Male; bottom left—Minor worker; bottom middle—Intermediate worker; bottom right—Major worker.