

male, 196 winged or virgin females, 174 males, and 842 larvae. No doubt there are colonies that considerably exceed this number of individuals. Pricer believed that after a colony has once started to produce males and winged females, it will continue to do so each year for an indefinite period. During winter, when reproduction ceases, the immature stages live in the colony as larvae. A mature colony, during the warm months of the year, may contain a reproductive female, winged females, males, workers, eggs, larvae, and pupae. It is normal for a colony to have a single queen. In life-history studies of this ant, McCook found that the first-brood workers were reared in late June or early July, and required 60 days to pass from the egg to the adult stage.

Under natural conditions, black carpenter ants nest in live and dead standing trees and in rotting logs and stumps, but they are also adapted to nesting in houses and buildings, telephone and telegraph poles, or in other wood or wood products used by man. The ants nest in logs and stumps, which vary widely in degree of decay and moisture content. Most observers maintain that carpenter ants enter live trees through cracks, scars, knot holes, and decayed or faulty places. Once inside the tree, they remove the faulty wood and extend their burrows into the adjacent sound wood. It would appear that almost all types of trees may be attacked. The ants have been recorded from poplar, cherry, white and pitch pine, balsam, elm, willow, maple, hickory, chestnut, cottonwood, juniper, aspen, and scarlet, red, black, white, and post oaks. This list no doubt is incomplete. Graham thought that this species and *ferrugineus* did considerable damage to standing white cedar trees in Minnesota. For remarks on this finding, see footnote on *ferrugineus*, p. 69.

Although nests are frequently only a few feet from ground level, at times they can be very high in trees. McCook reported that the top of a white pine nearly 75 feet from the ground was nearly cut off by the excavation of these ants. Felt (McCook, 1876) stated that two balsam trees were so riddled by galleries of ants, the trees broke off during a heavy wind storm. The black carpenter ant is generally regarded as a wood-nesting species. Although it has been reported nesting in the soil, such reports should be questioned, for in most, if not all, instances the observers have not ascertained whether the ants are nesting in an invisible root or stump far below the surface of the ground.

The natural food of the ants consists largely of dead and live insects, honeydew obtained from plant lice or treehoppers, the juices of well-ripened fruits, sap of certain plants, and refuse. Although workers tend plant lice, no one has observed them fostering or cultivating the lice, as do some of our well-known species of *Lasius* and *Acanthomyops*. The ants feed on a wide variety of household foods such as sweets (honey, syrup, sugar, jam, preserves, jelly), raw and cooked meats, fruits (pears, apples, oranges), melons, cakes, and boiled eggs.

The ant is inimical to man because of its habit of nesting in the wood of houses and other buildings, telephone and telegraph poles, and other wood or wood products; because it feeds on household foods; and because it annoys housekeepers by its presence in houses. One correspondent complained that a carpenter ant bit her arm while she was