

Scape flattened basally, noticeably thickened toward the apex, extending past the posterior corner of the head except in the largest workers. Antennal fossa well separated from the posterior border of the clypeus. Frontal carinae lyrate in shape. Eye well-developed, flattened or weakly convex, nearer the posterior border of the head than to the base of the mandible. Clypeus ecarinate or else scarcely carinate in largest workers. Middle of the anterior border of the clypeus extended as a slight lobe. A deep impression or fossa on the lateral border of the clypeus, especially in the largest workers. Pronotum flattened; noticeably so in the larger workers. *Specific characters:* Large ants, workers 6-13 mm. long. Body color typically black but some individuals may have reddish thoracic pleuron, petiole, and legs. Thorax and gaster typically subopaque or opaque, the gaster covered with dense, long, appressed, pale yellowish or ashy pubescence. Body hairs suberect or erect, yellowish, and moderately abundant. Species subject to considerable variation in color and sculpture. Variation in color especially apparent on thorax and petiole, which may be very light red or brown. Sculpture of head and thorax may also be weaker, making them more shiny than in typical form. Typical form, however, readily distinguished by black body and long, appressed, pale yellowish or ashy-colored pubescence on dorsum of gaster.

### Biology and Economic Importance

Exclusively (or almost so) a wood-nesting form, *Camponotus pennsylvanicus* is one of our best known and most adaptable ants. It is especially common in the eastern and central United States. Van Pelt has found colonies of this species common in the Blue Ridge Mountains at altitudes between 3,500 and 5,500 feet. The life history of the species, as studied by Pricer at Urbana, Ill., is briefly as follows: Nuptial flights of overwintering males and females in parental colonies take place from May to late July. A single, fertilized female establishes a nest in a self-made, or preformed, cavity, usually under the bark of a tree, log, or stump; this is done without the aid of workers. In this sealed cavity she brings her first brood of workers (usually up to 27 or more individuals) to maturity on her salivary secretions. During this time she does not gather any food for herself from outside the nest. Since the first brood does not have an ample supply of food, the workers are small (minor workers). The next and following broods are all fed by the workers, and as the food supply gradually increases, so does the size of the workers produced. After a number of years, a colony will contain numerous workers of various sizes, some of the largest being extraordinarily large (major workers). Workers too large to be called minor, and too small to be called major, are designated as intermediate workers. The number and size of workers progressively increases each year at a much accelerated rate until the colony reaches maturity, at which time there will be present not only a few thousand workers, but males and winged females, and numerous eggs, larvae, and pupae.

Pricer estimated that a colony could not produce males and winged females until it contained approximately 2,000 or more workers, and that to do this, a colony must be at least 3 to 6 or more years old. The largest colony he observed contained 3,018 workers, a reproductive fe-