



Figure 49.—*Acanthomyops murphyi* (Forel), lateral view of worker.

Biology and Economic Importance

Less is known about *murphyi* than any other species of *Acanthomyops* discussed in this paper. Since the ant is only infrequently collected, there are almost no published notes on its biology. Although rather widely distributed, the species seems to be uncommon throughout its range. The ants usually nest in populous colonies in the soil beneath stones and other objects, more frequently in the open woods in our Eastern States. Creighton remarks that in the West, their nests often occur in cottonwood groves near stream bottoms. It is quite likely they may also nest in rotting stumps and logs. The workers undoubtedly obtain most of their food from honeydew of subterranean plant lice and mealybugs on the roots of plants. Vickery records them tending the corn root aphid *Anuraphis maidiradicis* (Forbes), an important pest of corn, cotton, and other crops.

Fragmentary records indicate that males and winged females are probably produced from approximately June 15 to midsummer or late summer, and that nuptial flights take place thereafter, perhaps extending into the fall. Forel witnessed a nuptial flight in North Carolina on July 16 following a rain; at the same time he also observed isolated wingless (presumably fecund) females running around on the ground. It appears from these and other observations that the ants can make their nuptial flights during the day, at dusk, or in the early night, and that they can mate in or on the soil without the necessity of a flight. As with *interjectus*, males and winged females also overwinter in the parental nest and make their nuptial flights the following year, perhaps in the spring. It is likely that new colonies are formed by the fertilized queen becoming a temporary parasite in the nest of another species of ant, most probably one or more of the common forms of *Lasius*. The peculiar aberrant, highly pilose female of *murphyi* suggests that this species is probably a temporary parasite.

Dr. Mary Talbot (in press) has the following to say: "Young colonies of *Acanthomyops* are extremely difficult to find because they are hypogaecic at all times except when the mature colonies come to the surface for flights. It has been assumed that *Acanthomyops* females become temporary social parasites when beginning a colony. One bit