shape, as is the labrum and stipes. The mouthparts of *Dorylus* throughout the several subgenera also indicate that this genus is a homogeneous, closely related group. The exceptional development of the galeal crown and the consistency in shape of the palpi, stipes, galea, and lacinia all convey this impression. *Aenictogiton* has been placed with the Dorylini in this investigation on the basis of its rounded labrum, its well developed galeal crown, the shape of its 1-segmented labial palpus, the shape of the stipes, and the presence of the transverse stipital groove. The drawings of the male *Aenictogiton* mouthparts (plate 37) should be compared with those of the males of *Dorylus* (*Typhlopone*) *fulvus* (plates 43, 44) and *Aenictus sp.* (plate 36). *Aenictus* also forms a uniform group, although the structure of the labrum and mandibles varies somewhat. The ecitonines and Dorylini share well developed labral tubercles and transverse stipital grooves. They are strikingly different, however, in the construction of the labrum, in the development of the galeal crown, and in the absence of the galeal comb in the Dorylini and its presence in the Ecitonini. The Aenictini exhibit a rounded lacinia, a reduced lacinial comb, and a less complex stipes. Labral tubercles are not present. Do the similarities within the tribes and the distinct differences between the tribes indicate that these groups diverged from a common ancestor early in their history, or rather that the Dorylinae are truly polyphyletic? This question is difficult to answer, although it would not be surprising to find that this group is triphyletic, particularly since army-ant lifeways have strong selective advantages.

Borgmeier (1953, 1955) has revised the New World army ants and has given generic status to the previous subgenera. Although *Dorylus* similarly contains several subgenera, it is not possible yet to determine whether these deserve equivalent generic rank. Wilson (1964) has revised the "true army ants" (mainly *Aenictus*) of the Indo-Australian area, so that *Dorylus* remains the only major doryline group to be taxonomically revised.

An examination of the mouthparts of the Leptanillinae has yielded little information regarding the placement of this small group. As Brown (1954) has indicated, discovery of these species is so highly fortuitous and their anatomical reduction so drastic that their true phylogenetic affinities may never be discovered.

The mouthparts of the Myrmicinae appear, at first glance, diverse. The variation in palpal segmentation, in development of the distal labral margin, and in the shape of the stipes convey this impression. The mouthparts of *Metapone truki* (plate 80) and *Melissotarsus beccarii* contribute greatly to this appearance of heterogeneity. In spite of this diversity, the presence of the paraglossae unifies the group. This subfamily can almost be defined on the basis of these structures, and, as noted before, they provide evidence of an evolutionary link between the Ponerinae and myrmicines. These structures are lacking only in *M. truki* and *M. beccarii*. Each paraglossa is provided with a single sensory peg, which may or may not be partly surrounded by protective setae.