pachyinae, and Dorylinae. The galeal comb is most strongly developed in the Ecitonini and *Acanthostichus* and appears in various degrees among numerous ponerines. The transverse groove is strongly developed in the Dorylini, Ecitonini, Cerapachyinae, *Amblyopone* sp., and weakly developed in some of the Ectatommini. It is difficult to attach phylogenetic importance to these characters, since they can be easily explained as the result of convergence. The sclerites of gastral segments 1 and 2 are fused in both segments only in the ponerines. Hermann (1967) has shown that the ponerines and dorylines differ in the construction of the sting apparatus, primarily in that the Dorylinae lack a sclerite called the furcula. This sclerite is curiously also lacking in *Simopelta oculata,* an ant that has evolved toward an army ant lifeform (Borgmeier, 1950; Gotwald and Brown, 1966).

Group predation, similar to that so highly developed in the Dorylinae, is not uncommon among both the Ponerinae and Cerapachyinae. Wilson (1958a) has distinguished true doryline behavior as being a combination of nomadism (emigration between temporary bivouacs) and group predation. Reports on group predation in the ponerines and cerapachyines are numerous. Wheeler (1936) reported on the termite raiders, *Megaponera* and *Termitopone,* and Hermann (1968) has described the raids of the latter genus. Levieux (1966) has analyzed in detail the raiding columns of *Megaponera foetens.* Clark (1941) and Wilson (1958b) have discussed the group raids of cerapachyines and Wilson (1958a) has found that species of *Leptogenys* (Ponerinae) combine both nomadism and group predation. These facts have led Wilson (1958a) to conclude that legionary behavior may have arisen several times independently among the ants, and that if so, legionary behavior must confer considerable selective advantage upon ants behaving in this way. One might thus also expect convergence among morphological characters associated with this type of behavior.

Brown (1954) has suggested that the family Dorylinae might possibly be diphyletic, and Reid (1941) has pointed out that there are 2 distinct types of worker thorax in this subfamily. One is typical of the Dorylini and another of the Ecitonini. *Leptanilla* is of the Dorylini type and *Aenictus* and *Cheliomyrmex* are of the ecitonine type. Except for *Leptanilla* and *Aenictus,* the doryline thorax is characterized by a large endophragmal pit anterior to the propodeal spiracle. Brown and Nutting (1950) reported that, with respect to wing venation, the Dorylinae may represent a line arising from a preponerine stock. Schneirla has contributed much to the understanding of the functional behavior patterns in the Dorylinae and has compared the patterns in the New and Old World army ants (1957).

The present study has shown that the tribes Dorylini, Aenictini, and Ecitonini are distinct and easily separable from one another solely on the basis of the mouthparts. Cheliomyrmecini and Ecitonini are extremely close, and together form a distinct, closely related group. Labral tubercles, the galeal comb, the transverse stipital groove, and the lateral shoulder of the stipes are all well developed. The lacinia and galea are of a consistent