

FIG. 1.—Distribution of Old World army ants of the tribes Aenictini and Dorylini.

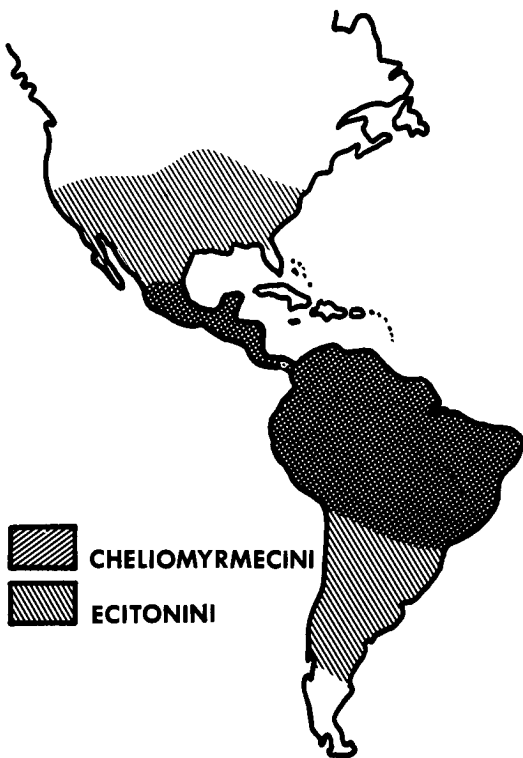


FIG. 2.—Distribution of New World army ants of the tribes Cheliomyrmecini and Ecitonini.

dropped from the analysis. The elimination of several such characters was the limit to which characters for this investigation were weighted (see Kim and Ludwig (1978) for a cogent discussion of the cladistic process). Even so, the compound eyes, which are reduced or absent in army ants, were arbitrarily retained in the analysis. Likewise, segmentation in the palpi and antennal funiculus and the promesonotal suture were included, even though they represent in their apomorphic character states simplification through reduction or fusion. Only the segmentation of the waist and the presence of pygidial spines can be considered additive or unique. The characters selected for analysis are presented in Table 1. The plesiomorphic state for each character, as found in the family Formicidae, is provided, and all apomorphic states for each character as found in the Ecitoninae and Dorylinae are included. Note that some characters, such as the number of antennal segments, form a morphocline series, i.e., they exist in more than one apomorphic state. The distribution of the character-states for the 7 selected characters among the New and Old World army ant genera and subgenera is given in Table 2. Based on this distribution a matrix of synapomorphy was assembled (Table 3), in which each numerical entry constitutes the number of shared derived character-states between any 2 taxa. Note that the 6 subgenera of *Dorylus* (*Alaopone*, *Anomma*, *Dichthadia*, *Dorylus*, *Rhogmus*, and *Typhlopone*) are treated individually.

All attempts to produce a cladogram that adequately explained, in phylogenetic terms, the apparent synapomorphies met with failure. Examination of the matrix of