

Table 1.—Characters selected and their character-states for major workers of New and Old World army ants. Plesiomorphic states are for the family Formicidae.

Character	Plesiomorphic		Apomorphic	
No. of segments in maxillary palpus	6	2	1	
No. of segments in labial palpus	4	3	2	
No. of segments in antennal funiculus	11	10	9	8
Compound eyes	large, lateral	reduced	absent	
Promesonotal suture	complete	absent		
Segmentation of waist	uninodal	binodal		
Pygidial spines	absent	present		

Table 2.—Distribution of character-states of 6 characters. 0 = plesiomorphy, 1, 2, 3 = apomorphy and morphocline series. Characterstates: 1. maxillary palpus 6-(0), 2-(1), or 1-segmented (2); 2. Labial palpus 4-(0), 3-(1), or 2-segmented (2); 3. Antennal funiculus 11-(0), 10-(1), 9-(2), or 8-segmented (3); 4. Compound eyes large (0), reduced (1) or absent (2); 5. Promesonotal suture complete (0) or absent (1); 6. Waist uninodal (0) or binodal (1); 7. Pygidial spines absent (0) or present (1).

Tribe	Characters	1	2	3	4	5	6	7
Cheliomyrmecini	<i>Cheliomyrmex</i>	1	1	0	2	1	0	0
	<i>Eciton</i>	1	1	0	1	1	1	0
Ecitonini	<i>Labidus</i>	1	1	0	1	1	1	0
	<i>Neivamyrmex</i>	1	1	0	1	1	1	0
Aenictini	<i>Nomamyrmex</i>	1	1	0	1	1	1	0
	<i>Aenictus</i>	1	2	2	2	1	1	0
	<i>Alaopone</i>	2	2	3	2	0	0	1
Doryliini	<i>Anomma</i>	1	2	1	2	0	0	1
	<i>Dichthadia</i>	1	2	0	2	0	0	1
	<i>Dorylus</i>	1	2	1	2	0	0	1
	<i>Rhognus</i>	1	2	1	2	0	0	1
	<i>Typhlopone</i>	1	2	1	2	0	0	1

synapomorphy reveals that fewest derived character-states are shared by *Dorylus* and its subgenera with the New World genera *Eciton*, *Labidus*, *Neivamyrmex*, and *Nomamyrmex*. This is supportive of the taxonomic separation of New and Old World species into 2 subfamilies. But *Cheliomyrmex* shares as many derived character-states with the New World genera as it does with *Dorylus*. This is true of *Aenictus* as well, and any attempt to construct a cladogram is confounded by these 2 genera, at least for the selected characters. For instance, the binodal waist, an apomorphic character-state, is shared by *Aenictus* and all New World genera but *Cheliomyrmex*; however, the antennal funiculus of *Aenictus* and *Dorylus* is reduced (i.e., derived), while that of all New World genera is plesiomorphic. A cladogram cannot be constructed unless certain character-states are disposed of as convergently developed.

Resolution of this problem may be effected in possibly one of two ways. First, a much larger set of characters could be assembled and a weighting system applied

Table 3.—Matrix of synapomorphy based on 7 characters for the subfamilies Ecitoninae and Dorylinae. Numbers represent totals of shared derived character-states.

Tribe	Genus	<i>Cheliomyrmex</i>	<i>Eciton</i>	<i>Labidus</i>	<i>Neivamyrmex</i>	<i>Nomamyrmex</i>	<i>Aenictus</i>	<i>Alaopone</i>	<i>Anomma</i>	<i>Dichthadia</i>	<i>Dorylus</i>	<i>Rhognus</i>	<i>Typhlopone</i>
Cheliomyrmecini	<i>Cheliomyrmex</i>	X											
	<i>Eciton</i>	3	X										
Ecitonini	<i>Labidus</i>	3	5	X									
	<i>Neivamyrmex</i>	3	5	5	X								
	<i>Nomamyrmex</i>	3	5	5	5	X							
Aenictini	<i>Aenictus</i>	2	3	3	3	3	X						
	<i>Alaopone</i>	2	0	0	0	0	2	X					
	<i>Anomma</i>	3	1	1	1	1	3	4	X				
Doryliini	<i>Dichthadia</i>	3	1	1	1	1	3	4	5	X			
	<i>Dorylus</i>	3	1	1	1	1	3	4	6	5	X		
	<i>Rhognus</i>	3	1	1	1	1	3	4	6	5	6	X	
	<i>Typhlopone</i>	3	1	1	1	1	3	4	6	5	6	6	X