

the nomadic phase. Since the distribution of the small, intermediate and large forms in any one larval series of any one sample was not critical for the purposes of this investigation, a random sampling technique was not employed.

## OBSERVATIONS AND RESULTS

Preliminary observations of various structures of the army ant larvae indicated that the imaginal leg discs were the most important structures for separating the larvae into stages. In *Eciton hamatum* the leg discs are found in all stages, and, more-

TABLE 1

IMAGINAL LEG DISC SIZES FOR EACH POLYMORPHIC GROUP OF LARVAE  
COLLECTED DURING THE NOMADIC PHASE

Nomadic Day	Larvae	Body Length	Leg Discs	
		in mm.	Length in mm.	Width in mm.
3rd	All Small	0.50 to 1.40	0.021 to 0.028	0.021 to 0.042
5th	Small	0.70 to 1.30	0.021 to 0.028	0.021 to 0.028
	Inter.*	2.50 to 2.90	0.042 to 0.060	0.051 to 0.084
	Large	3.60 to 4.50	0.079 to 0.084	0.098 to 0.105
7th	Small	0.90 to 1.40	0.028 to 0.028	0.028 to 0.042
	Inter.	2.30 to 3.10	0.042 to 0.060	0.051 to 0.070
	Large	3.70 to 5.50	0.098 to 0.126	0.098 to 0.112
9th	Small	4.50 to 5.20	0.103 to 0.133	0.126 to 0.135
	Inter.	6.30 to 6.50	0.147 to 0.168	0.140 to 0.145
	Large	7.60 to 8.20	0.168 to 0.173	0.145 to 0.173
10th	Small	2.90 to 4.30	0.084 to 0.107	0.084 to 0.126
	Inter.	6.60 to 7.00	0.175 to 0.217	0.163 to 0.187
	Large	8.60 to 9.50	0.241 to 0.210	0.162 to 0.201
12th	Small	3.40 to 4.10	0.084 to 0.112	0.084 to 0.126
	Inter.	6.80 to 7.50	0.226 to 0.236	0.173 to 0.196
	Large	8.40 to 9.60	0.280 to 0.280	0.210 to 0.224
14th	Small	4.40 to 4.90	0.203 to 0.217	0.149 to 0.156
	Inter.	6.60 to 7.50	0.306 to 0.352	0.217 to 0.254
	Large	9.00 to 10.0	0.420 to 0.420	0.287 to 0.280
15th	Small	4.60 to 4.80	0.226 to 0.268	0.163 to 0.175
	Inter.	8.20 to 8.70	0.446 to 0.509	0.254 to 0.320
	Large	10.0 to 10.8	0.445 to 0.515	0.273 to 0.303
16th	Small	4.10 to 5.00	0.259 to 0.287	0.182 to 0.201
	Inter.	6.50 to 7.30	0.336 to 0.420	0.227 to 0.247
	Large	8.40 to 9.20	0.351 to 0.470	0.271 to 0.305
17th	Small	4.80 to 5.50	0.327 to 0.403	0.203 to 0.210
	Inter.	Enclosed ---	-----	-----
	Large	Enclosed ---	-----	-----

\* Abbreviation used in this table to indicate the intermediate larvae.