

sites in large, polygynous colonies which sometimes extend over more than 1 m². We could regularly identify, in different *Myrmica* colonies, several brood chambers of *provancheri*, the content of which, adults and immatures, was removed carefully with an aspirator. The ants from one brood chamber, together with a few individuals crawling in the soil in the immediate vicinity of the chamber, were considered as belonging to one "colony unit". We stress that normally these colony units, found within one *Myrmica* nest, were clearly separated from each other by several decimeters. Nevertheless we cannot completely exclude the possibility that two chambers belonged to one colony unit (one society), or that specimens from two colony units separated by smaller distance were mixed together.

Soon after in the laboratory the numbers of males, females, intermorphs, workers, and pupae were counted (Table I). All female individuals of several representative samples were dissected and their reproductive state was evaluated as described by Buschinger and Winter (1976) and Buschinger and Alloway (1978). We prefer to define castes only by the function: queens are inseminated, fertile individuals, irrespective of their morphological aspect. The morphological differences between alate or deälate females, "workers" in the

Table I: Numbers of individuals, adults and pupae, in 15 colony units of *Leptothorax provancheri*, as counted immediately after collecting.

Nr.	♂♂	deälate ♀♀	Inter-morphs	Ergato-morphs	♂-pupae	alate ♀-pupae	Interm. pupae	Ergatom. pupae
1	—	—	1	—	—	—	—	—
2	—	1	9	34	9	—	24	16
3	3	—	7	71	9	—	5	15
4	2	—	5	26	7	—	—	10
5	22	—	6	60	18	—	11	27
6	—	—	1	1	—	—	—	—
7	5	—	9	36	10	—	16	23
8	8	1	21	30	26	3	31	14
9	—	—	3	6	—	—	1	8
10	2	—	1	6	2	—	—	—
11	1	—	3	21	6	—	3	15
12	—	—	4	13	—	—	2	5
13	—	—	13	29	7	—	8	17
14	—	—	12	22	—	—	11	9
15	1	—	14	20	2	—	19	7
Σ	44	2	109	375	96	3	131	166