enough for karyotype analysis. The 9 species discussed hereinafter represent the 1st records of chromosomes for each species. In addition, 2 of the species represent 1st records for their subfamilies.

MATERIALS AND METHODS

Field-collected ants and their brood were held in the Entomology Laboratory of Chung Hsing University, Taichung, Taiwan, until the brood reached suitable stages. The organs used as sources of cytological material included the testes of male pupae at the "slight rouge" eye stage, the ovaries of female pupae at the "scarlet" eye stage, and the brains (cerebral ganglia) of all castes at the "transparent" prepupal stage. The organs were dissected out in hypotonic solution with colchicine (0.45% sodium citrate 10 ml:0.1% colchicine 1 ml). After tracheae and fat bodies were removed, the organs were transferred to the same hypotonic solution for 10–15 min at room temperature. Fixing and staining were made in aceto-orcein (1% orcein in 50% glacial acetic acid) for 30 min. After this treatment, the organs were transferred to precleaned slides with a small amount of aceto-orcein. Coverslips were placed over the organs, excess aceto-orcein was removed, and the material was squashed with the thumb between a piece of highly absorbent paper and a thick glass plate. Finally, the squash preparations were sealed with nail polish. Voucher specimens bearing collection numbers are deposited in the collections of Hung and Kubota.

RESULTS AND DISCUSSION

DORYLINAE.—*Acnictus* sp., near *camposi* Wheeler & Chapman.—n = 15, 2 cells from testes of male pupae; 2n = 30, 4 cells from brain of worker prepupae. One colony (no. 11) taken at Fenchihu (1800 m alt). Identified by W. L. Brown, Jr. This record is the first of chromosome number in this subfamily.

PSEUDOMYRMINAE.—*Tetraponera allaborans* Walker.—n = 16, 7 cells from testes of male pupae. One colony (no. 2) taken at Wufeng, Taichung. Identification confirmed by Dr. Brown. This record is also the first for the Pseudomyrminae.

MYRMICINAE.—*Aphaenogaster tipuna* Forel.— 2n = 34, 14 cells from brain of worker prepupae. One colony (no. 8) taken at Wushe (1500 m alt) and another (no. 14) at Fenchihu. Identified by Dr. Brown. Hauschteck (1962) reported 2n = 22 for *A. subterranea* (Latreille) from Switzerland. The same number was found in *A. smythiesi* Forel from Japan (Imai 1971). Imai also reported haploid numbers of 16 and 17 for the other 2 Japanese species (*A. osimensis* Teranishi and *famelica* (F. Smith)) and suggested that the karyotype of *famelica* (n = 17) could be derived from that of *osimensis* (n = 16) by centric dissociation of the largest submetacentric chromosome. A karyotype variation of 16–18 was found in a North American species, *A. rudis* (Emery), suggesting rapid karyotype change relative to phenotype change (Crozier 1970).

Oligomyrmex sauteri Forel.—n = 18, 11 cells from testes of male pupae. One colony (no. 12) taken at Fenchihu. The cytology of *Oligomyrmex* has not previously been studied. The other species in the subfamily Myrmicinae so far known to have n = 18 are *Vollenhovia emeryi* Wheeler (Imai 1966) and *A. rudis* Emery (n = 16–18). The latter is in the tribe Pheidolini and according to Ettershank (1966) *Vollenhovia* is not a member of the *Pheidologeton* genus group to which *Oligomyrmex* belongs.

Xiphomyrmex sp.—2n = 20, 11 cells from brain of worker prepupae. One colony (no. 19) taken at Fenchihu. Identified by Dr. Brown. The only other species of the tribe Tetramoriini known cytologically are *Strongylognathus huberi alpina* Wheeler (Hauschteck 1962) and *Tetramorium caespitum* (L.) (Hauschteck 1961, Imai 1966). Each of the latter has n = 14.

FORMICINAE.—*Paratrechina longicornis* (Latreille). —2n = 16, 7 cells from ovaries of female pupae. One colony (no. 3) taken at Taichung. This well known tropicopolitan species has been placed in the genus *Prenolepis* by some authors. Because *Prenolepis imparis* Say is the only other species in the Lasiini so far known to have 2n = 16 (Hauschteck 1962), a close relationship of *longicornis* to *Prenolepis* is evident. The other groups in this tribe the cytology of which has been examined are the genus *Lasius* with n = 14 or 15 (Crozier 1970, Hauschteck 1962, Hung 1969, Imai 1966) and *Pseudolasius* (see hereinafter).

Pseudolasius sp., near *emeryi* Forel.— n = 14, from testes of 20 ♂ pupae. One colony (no. 10) taken at Lusan (1420 m alt) near Wushe. This species has the same chromosome number as some species in *Lasius*. Although we lack data for the North American honey ant genus *Myrmecocystus* and the monotypic genus *Andragnathus* from Java, it now seems

Table 1.—Frequency of haploid and diploid cells observed in the testes, and of polyploid cells in male cerebral ganglia, of *Pseudolasius*.

Individuals observed	Range of ploidy			
	n	2n	4n	8n
Testes				
1	139	2		
2	349	0		
3	400	1		
4	181	2		
5[a]	0	53		
6[a]	4	337		
7[a]	0	276		
8[a]	0	542		
Cerebral ganglia				
1	33	12	7	5
2	85	42	3	4
3	29	10	8	7
4[b]	8	17	0	0
5	75	16	0	0
6	29	2	0	0
7	38	9	4	1

[a] Exceptional males having diploid number which are conveniently named as diploid males.
[b] Diploid cells predominate over haploid cells, suggesting a diploid male occurred secondarily by polyploidization.