

evident that the tribe Lasiini is composed of 2 distinct groups as far as chromosome numbers are concerned; one with  $n = 8$  and the other  $n = 14-15$ .

Polyloid cells have been observed in the larval somatic cells in ants (Smith and Peacock 1957, Hauschteck 1965). Imai and Yosida (1965) also found diploid and tetraploid cells in the testes and tetraploids in the oögonial cells of *A. osimensis*. In our study we have found 7 diploid and 20 haploid males in this species with many diploid cells, especially in the testes (Table 1). However, no gross morphological differences were found between these haploid and diploid males. Further studies are needed to determine whether the diploid males produce functional sperm or not. This information may be a key point in knowing whether polyploidization has played an important role in the karyotype evolution in ants as suggested by Imai (1966, 1969, 1971).

*Camponotus* sp., (*variegatus* complex).— $2n = 20$ , 20 cells from brains of worker prepupae. One colony (no. 21) taken at Kenting Botanical Garden. Identified by Dr. Brown. *C. compressus* (F.) from India is the only other *Camponotus* known to have the same chromosome number (Kumbkarni 1965).

*Polyrhachis dives* F. Smith.— $n = 21$  (Fig. 1), 18 cells from testes of male pupae. One colony (no. 1) taken on the campus of Chung Hsing University. This large Old World genus with ca. 500 nominal forms is poorly known cytologically. Besides *P. dives*, only 4 other species have been studied: *hippomanes* F. Smith with  $n = 20$  and *lamellidens* F. Smith with  $2n = 42$  (Imai 1969), *simplex* Mayr with  $2n = 42$ ,  $n = 21$  (Imai, unpublished) and *rastellata* (Latreille) with  $n = 21$  (Crozier 1970). Morphologically, *dives*, *hippomanes*, and *simplex* are in the same subgenus, *Myrmhopla*, while *rastellata* belongs to the subgenus *Cyrtomyrma* and *lamellidens* is in the subgenus *Polyrhachis*. Furthermore, *Myrmhopla* is more closely related to *Cyrtomyrma* than to *Polyrhachis* (s. str.) (Hung 1967). As shown in Fig. 1, *dives* has a karyotype formula of  $n = 1M + 8SM + 1ST + 3A + 8T = 21$ . A karyotype formula of  $n = 8SM + 1ST + 8T = 20$  was reported for *hippomanes* (Imai 1969) and according to Crozier (1970), *rastellata* has 4 metacentrics and 17 subacrocentrics (= subtelocentric) to acrocentric (= telocentric + acrocentric) chromosomes. We do not know the centromere positions of chromosomes in the other 2 species. However, it is interesting to note that within the subgenus *Myrmhopla* there are at least 2 different chromosome numbers with significantly different karyotype formulas.

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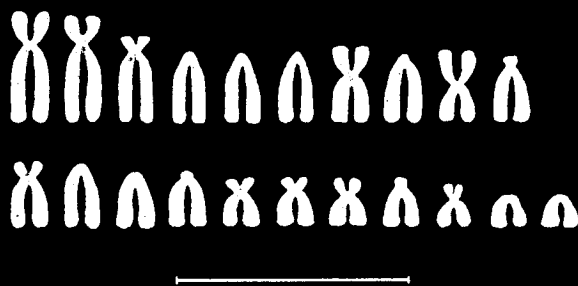


FIG. 1.—Karyotype of *P. dives*,  $n = 21$ , based on the study of 18 cells. (Scale line =  $5 \mu$ .)

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