

numbers of the messy *muscorum* complex. Species a, with a haploid number of 15 or 16 will be described soon. Its particular biology is under investigation at the Institut für Zoologie of Darmstadt (HEINZE and BUSCHINGER 1988a, 1988b, 1989). Species 1, with a haploid number of 17, is a concolorous reddish brown ant. It is known only from the western part of North America. Concerning the other forms of the complex, it should be possible at least in part to combine the different karyotypes with precise phenotypes, when the study of the basic morphology is completed. Biogeographic and ecological data should also help to resolve the tangle.

«*Leptothorax*» (s.s.) versus «*Myrafant*».

The data now available show an apparently different tendency in the variation of the chromosome numbers in these two taxa. The haploid number of chromosomes in the genus *Leptothorax* (s.s.) (see FRANCOEUR *et al.* 1985 for taxonomic aspects) varies from 11 in the European species *gredleri* to 23 in two populations of the *muscorum* complex (Table 1). Up to now the haploid number is smaller than 15 in only three species: *gredleri*, *acervorum* and *sphagnicolus*. Furthermore, the parasitic genera associated with the genus *Leptothorax* exhibit an haploid number usually higher than 18: *Doronomyrmex* (including *kutteri* and *goesswaldi*; 18, 23, 25, 26 and 28) and *Harpagoxenus* (18 and 20) (FISCHER 1987). Finally, the other genus of Leptothoraciti (subtribe that will be proposed by FRANCOEUR *et al.*, in prep.) is *Formicoxenus* with $n = 11, 14$ and 15 (FRANCOEUR *et al.* 1985).

In the subgenus *Myrafant* and its parasitic genus group (FISCHER 1987) the haploid number varies mainly between 8 and 14 chromosomes, and secondarily (18 species out of 42; CROZIER 1975, FISCHER 1987, TABER and COCKEN-DOLPHER 1988) exceed 15 chromosomes. These data seem to confirm the conclusions of other investigations carried out on the biology (BUSCHINGER 1981 and 1987), on the analysis of some enzymes (DOUWES and STILLE 1987) and on comparative morphology (unpublished data) of these two groups of Leptothoracines, as being generically different.

Diploid and triploid males.

Diploid males were recently found for the first time in the genus *Leptothorax*. We observed 28 cases of diploidy among 169 examined males of *L. muscorum* giving the high percentage of 17.6%. Fourteen of these cases are identified on Table 1; the chromosome enumeration for 14 other males was not precise enough to determine a diploid number. All these males were produced by 10 colonies sampled in some regions of Québec and in Utah; eight colonies are pointed out on Table 1 and the two others are CAF 09521 and 10265. In