differences in the percentages of fertile dealate females and inseminated, but sterile intermorphs, if we compare the two species. But we also can find some striking similarities. So in both species only a small part of the " potential queens ", the dealate and intermorphic females with a spermatheca, remain unmated (9,4 % in *F. hirticornis* and 14,8 % in *F. nitidulus*). And in both species a high percentage of the inseminated, dealate or intermorphic females doesn't become fertile (46,8 and 72,9 % respectively). According to our observations on *F. nitidulus* these females remain for a longer time, more than one year, in colonies with one fertile queen. We suppose that this queen by any mechanism, which we do not yet understand, prevents the growth of the ovarioles and the development of oocytes in the " supernumerary " potential queens.

CONCLUSIONS

The result of our study on *F. hirticornis* is, that this species, like *F. nitidulus*, seems to have a " functional monogyny ". Otherwise the occurrence of a high percentage of inseminated but sterile females and intermorphs in our samples could not be explained ; in colonies of truly polygynous species normally all inseminated females become fertile.

The data of *F. diversipilosus*, given by ALPERT and AKRE (1973), suggest that the same social organisation is realised in this species, too. Functional monogyny might be an ancient, common character of the genus *Formicoxenus*, or it might be an adaption to the special conditions of living and nesting as guest ants in *Formica* nests. Further studies will be necessary to decide which of these alternatives is true. These studies should include *F. diversipilosus* as well as the guest ant of *Myrmica, Letpothorax provancheri* Emery with " numerous ergatoid females " (WHEELER, 1910), and *Symmyrmica chamberlini* WHEELER, with ergatoid males, guest of *Manica mutica.*

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