

and that all these populations with a nearly or totally “clonal” structure, may exhibit more or less accentuated morphological peculiarities, depending upon the length of time they have developed separately. Therefore, we don't deem it advisable to give separate names to the local populations.

The inbreeding system itself, despite being uncommon in ants, has a parallel in the same genus. *Epimyrma kraussei* Emery 1915 also exhibits this strange feature [Winter & Buschinger 1983], and so do *E. foreli* Menozzi 1921 as well as *E. vandeli* Santschi 1927, which apparently represent but slightly different local populations of *E. kraussei* (unpublished observations of material from the type localities). In laboratory culture, also the ♂♀ of *E. algeriana* mate inside the nest, and the ♀♀ shed off their wings there [Cagniant 1968].

We are conscious of the problems which arise from such a reproductive system. If there really does not exist any opportunity for sexuals to leave the nest, mate with partners from other nests, and spread by flying, it is hard to understand how *E. corsica* was able to reach the islands in the Mediterranean Sea. But, even if mating outside the nest might occasionally occur, the degree of inbreeding within a given population must be excessively high. How these ants nevertheless manage to produce normal ♀♀ and ♂♂, remains an open question.

The very low number of ♂♂ produced in *E. corsica* corresponds well with the observations in *E. kraussei* [Winter & Buschinger 1983], and, like in this species, it may be a consequence of inbreeding [Hamilton 1967].

With our extensive material we are sure that *E. corsica* has lost the ♀ caste completely. Workerlessness has previously been claimed also for *E. vandeli* [Santschi 1927], however, a few colonies from its type locality, which we originally had collected without *Epimyrma* ♂♂, did produce ♂♂ in laboratory culture (unpublished). *E. corsica* thus represents the first truly workerless species in this genus. As we have stressed already in former papers [Buschinger & Winter 1982, Winter & Buschinger 1983], the genus *Epimyrma* provides good evidence for an evolution from dulotic life habits (*E. ravouxi*, *E. stumperi*) via the “degenerate slavemaking” of *E. kraussei* with reduced ♀ number, to the derived condition of a workerless, permanently parasitic species like *E. corsica*. Apart from morphological characters which clearly indicate that *E. corsica* is a member of this genus, also the particular colony foundation behaviour of the young ♀♀ supports this assumption.

Stinging of host species ♂♂ by the *Epimyrma* ♀ does occur in spring, both in newly infested and in older colonies. The meaning of this behavior has not yet been elucidated. However, the ♀♀ of *E. kraussei* are also known to sting some ♂♂ of their host species *Leptothorax (Temnothorax) recedens* (Nylander 1856). Workers of this species after the hibernation become fertile and generate the colony's ♂ production [Dejean & Passera 1974]. Therefore, we have suggested that the stinging of such fertile ♂♂ may inhibit or prevent their egg-laying so that the remaining ♂♂ concentrate their brood care to the *Epimyrma* offspring [Winter & Buschinger 1983]. This explanation might also fit the stinging of *L. exilis* ♂♂ by the *E. corsica* ♀, however, it is not yet known whether they become fertile in spring like the *L. recedens* ♂♂.

Finally, some of our observations raise the question of whether or not *E. corsica* might be facultatively polygynous. All other *Epimyrma* species, as far as is known, are strictly monogynous, and also in the *E. corsica* populations from Yugoslavia we did not find any signs of a polygyny. In Corsica, however, 1 colony was found with 2 fully fertile ♀♀ (section 3.6 e, perhaps an artifact), and 1 colony (section 3.6 g) contained, alongside of a number of young ♀♀, also 2 fertile specimens, yet with short ovarioles. Twice we found