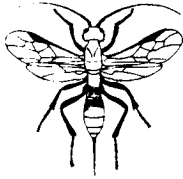


# *Epimyrma adlerzi* sp. n. (Hymenoptera: Formicidae) from Greece: morphology and life history

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*Epimyrma adlerzi* is described from material from S, C and N Greece. Morphologically, it is very similar to *E. ravouxi*, a slavemaking species, whereas the biology of *E. adlerzi* is almost identical to that of *E. corsica*. Both are workerless parasites on *Leptothorax exilis*, and have a female biased sex ratio and intranidal mating. Like all other *Epimyrma* species thus far studied the *E. adlerzi* ♀, after having penetrated into a host nest, kills the queen of this colony through protracted throttling with her mandibles. Despite the biological similarities between *E. adlerzi* and *E. corsica* we suggest an independent evolution of workerlessness in these two species. The karyotype of *E. adlerzi* is the same as in its congeners and *Myrmoxenus gordiagini* ( $n = 10$ ).

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## INTRODUCTION

The genus *Epimyrma* Emery, 1915, which is apparently restricted to the SW part of the Palearctic region, includes 7–9 species that are social parasites on members of the subgenera *Myrafant* Smith, 1950 and *Temnothorax* Mayr, 1861 of the genus *Leptothorax* Mayr, 1855 (Buschinger et al. 1986, Espadaler 1982, Kutter 1973). Two species, *E. africana* Bernard, 1948 (assumed to be synonymous with *Leptothorax angulatus* Mayr, 1862 by Kutter (1973)) from N Africa and *E. tamarae* Arnoldi, 1968 from Georgia, USSR are poorly known (only workers described). *E. algeriana* Cagniant, 1968 from N Africa, *E. bernardi* Espadaler, 1982 from Spain, *E. ravouxi* (André, 1896) from C and S Europe, *E. stumperi* Kutter, 1950 from the Alps, and *E. zaleskyi* Sadil, 1953 from Czechoslovakia have workers and are known or assumed to be slavemakers (Buschinger 1982, 1985, Buschinger et al. 1986, Cagniant 1968, Espadaler 1982, Jessen 1987, Kutter 1951, Sadil 1953, Winter 1979). *E. kraussei* Emery, 1915 from S Europe, N Africa and Turkey also has workers, reduced in numbers though and in some popula-

tions almost absent (Buschinger & Winter 1983, Buschinger et al. 1986, Heinze 1987). The remaining species, *E. corsica* (Emery, 1895) from Corsica, C Italy (Mei *in litt.*) and N Yugoslavia, has no workers (Buschinger & Winter 1985).

Like other social parasites the *Epimyrma* species are more or less host specific. Thus, *algeriana* is living with *L. (M.) spinosus* Forel, 1894 and related species, *bernardi* with *L. (M.) gredosi* Espadaler & Collingwood, 1982, *corsica* with *L. (M.) exilis* Emery, 1869, *kraussei* with *L. (T.) recedens* (Nylander, 1856), *ravouxi* with *L. (M.) unifasciatus* (Latreille, 1798) and *L. (M.) nigriceps* Mayr, 1855 (and also with *L. (M.) affinis* Mayr, 1855 (Winter, Faber & Buschinger *unpubl. obs.*)), *stumperi* with *L. (M.) tuberum* (Fabricius, 1775), and *zaleskyi* with *L. (M.) affinis* (Buschinger 1982, Buschinger & Winter 1983, Buschinger et al. 1986, Cagniant 1968, Espadaler 1982, Kutter 1973, Sadil 1953).

Until recently hardly any records of *Epimyrma* existed from SE Europe. In the years 1978–1985 we collected a workerless *Epimyrma* species in different parts of Greece (Fig. 1). A total of 10 *L.*