

Taxonomic Revision of the Ant Genus Formicoxenus  
(Formicidae, Hymenoptera)

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Among the socially parasitic ants, the guest ants are representing a particular mode of coexistence with their hosts. They are living within their own nest chambers which are found in the nest material or nest walls of the host species. There they care for their own brood, and they depend from the hosts only in that the guest ant  $\forall$  are begging food from them. The guest ants up till recently were attributed to three leptothoracine genera, Leptothorax, Symmyrmica, and Formicoxenus.

Morphological studies including measurements, dissections of male and female reproductive organs, polymorphism etc. were done with material from various museums, but mainly with freshly collected ants from numerous localities in Europe and North America. Several species could be kept in laboratory culture for some time, thus enabling us to study sexual behavior and the relations between the guest ants and their hosts.

Our studies (Francoeur et al., 1985) revealed that all the six guest ant species known and one newly detected by us, share a number of particular behavioral and morphological traits. They all are living as xenobionts with similar relations to their hosts belonging to the genera Formica and Myrmica, respectively. In all species a considerable number of intermorphs, together with ergatomorphs and gynomorphs, is produced. Most, perhaps all, species are functionally monogynous, and gynomorphs as well as intermorphs may be reproductive queens. The  $\delta\delta$  represent a regressive evolution from ordinary alate (F. provancheri) to fully wingless and ergatoid shape (F. nitidulus). The number of species and the geographic distribution of the most primitive forms suggest a nearctic origin of the genus.

The genus Formicoxenus, after our revision, now includes 2 species, nitidulus (Nylander) and sibiricus (Forel) (= orientalis Dlussky) from Eurasia, both living with Formica spp., and 5 from North America, chamberlini (Wheeler) (with Manica), diversipilosus (Smith), hirticornis (Emery) (with Formica), provancheri (Emery) and quebecensis Francoeur with Myrmica spp..

REFERENCE

- Francoeur A., Loiselle R., Buschinger A., 1985. -- Biosystématique de la tribu Leptothoracini (Formicidae, Hymenoptera) 1. Le genre Formicoxenus dans la région holarctique. Naturaliste can. (Rev. Ecol. Syst.), 112, 343-403.