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Systematic revision and phylogeny of the genera *Blakeius* Ashmead, 1903 and *Liomutilla* André, 1907, with description of two new genera (Hymenoptera: Mutillidae, Myrmillinae)

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Abstract

Nine species of Palaearctic Myrmillinae with females bearing two round spots on the second metasomal tergite, currently assigned to two genera, *Blakeius* Ashmead, 1903 and *Liomotilla* André, 1907, are revised and their phylogenetic relationships are investigated. The cladistic analyses demonstrate that *Blakeius* is not strictly monophyletic but includes three distinct lineages: *Blakeius* s. str., containing three species, an additional two genera proposed as new (*Bidecoloratilla* Turrisi & Matteini Palmerini, **gen. nov.**, with four species, type species *Mutilla chiesi* Spinola, 1839, and *Bimaculatilla* Turrisi & Matteini Palmerini, **gen. nov.**, including only type species *Myrmilla invreai* Suárez, 1958), and the monotypic genus *Liomotilla* is nested within the former *Blakeius*. A new status is proposed for *Bla. cobosi* (Suárez, 1958), **stat. nov.**, and the specific status of *Bid. iberica* (Suárez, 1958), is confirmed. New combinations are proposed for *Bim. invreai* (Suárez, 1958), **comb. nov.** (from *Myrmilla*), *Bid. chiesi* (Spinola, 1839), **comb. nov.**, *Bid. iberica* (Suárez, 1958), **comb. nov.**, *Bid. leopoldina* (Invrea, 1955), **comb. nov.** *Bid. negrei* (Suárez, 1958), **comb. nov.** (all from *Blakeius*). Lectotypes are designated for *Myr. otini* Giner Marí, 1959 (♀) and *Myr. leopoldina* Invrea, 1955 (♂). Redescriptions of all treated taxa, based also on material belonging to the type series, are provided, along with illustrations of both sexes. Based on extensive material of relevant museum collections and personal collections, the distributions of all treated taxa are revised and illustrated through distributional maps. A revised key to genera of the subfamily Myrmillinae of the Palaearctic Region is given.

Key words: Hymenoptera, Mutillidae, *Blakeius*, *Liomotilla*, revision, phylogeny, taxonomy, Mediterranean basin, Canary Islands, new genera, new records

Introduction

Mutillidae Latreille, 1802 represent a large family of aculeate wasps that currently includes some 4200 described species, although the estimated number is about 6000, arranged into more than 200 genera (Lelej & Brothers 2008). The Palaearctic mutillid fauna includes 523 species according to Lelej (2002), of which 151 are known from Europe and 156 from North Africa. Myrmillinae Bischoff, 1920 are considered the sister group of the Mutillinae, as first shown by Brothers (1975) and confirmed by Lelej & Nemkov (1997) and Brothers (1999), and contains