

Review and reclassification of *Cataglyphis* (Hymenoptera, Formicidae)

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(Accepted 6 June 1990)

Exactly 100 years ago Forel made a misidentification of *Cataglyphis viaticus* as *C. megalocolus*, one of the most characteristic insects of North Africa. This far-reaching error has influenced the systematics of the genus ever since. What really are the species of *Cataglyphis*? *Cataglyphis* is unique among formicine ants in that the morphology of the male genitalia is highly diverse: their characteristics are used for the differentiation of species groups and as a basis for postulated phylogenetic relationships within the genus. A synopsis, a key to the species-groups, and a full catalogue of all the available names are given. Of the 104 taxa currently recognized as valid, *Cataglyphis albicans* var. *mixtus* is a new combination, *Cataglyphis cursor* ssp. *flavicornis* is transferred to *Alloformica*, and *Cataglyphis mauritanicus* and *Cataglyphis nigripes* are given a new status. *Camponotus phaenogaster* is a new synonym, and *Cataglyphis hispidus* is a nomen nudum. A lectotype has been fixed for *Cataglyphis savignyi*.

KEYWORDS: Formicidae, *Cataglyphis*, key, catalogue, phylogeny.

Introduction and history

This survey began as a systematic revision of the Formicini genera (Agosti, in preparation). However, whilst revising the genera it became apparent that much remained to be done, both at species and at species-group level, and that within the Formicini genera there is a striking contrast between *Formica* and *Cataglyphis*. Whereas in *Formica* the male genitalia are uniform and the behaviour of the species very diverse, in *Cataglyphis* the male genitalia are extremely diverse but the behaviour is quite uniform. It is hoped that the results discussed here will help to dispel at least a little of the taxonomic and nomenclatural fog which still surrounds the species-groups and species of *Cataglyphis*, and perhaps clear the way for further detailed taxonomic or phylogenetic work and comparative studies such as sexual selection (see Eberhard, 1985) within *Formica* and *Cataglyphis*.

The study presented here gives an historical review of the subgenus-level and species-group-level taxonomy. A phylogeny is presented together with a redefinition of the species-groups based on male genitalia characters and a full catalogue.

The genus *Cataglyphis* was defined by Foerster (1850), based on a male of *C. fairmairei*. 'Einschnürungen am Hinterleib' was given as the character to separate *Cataglyphis* from *Formica*. He stressed that unless workers were found, this genus had to be given provisional status. At that time he did not realize that his description of the

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