



Rediscovery of the ant genus *Amyrmex* Kusnezov (Hymenoptera: Formicidae) and its transfer from Dolichoderinae to Leptanilloidinae

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Abstract

The ant genus *Amyrmex* Kusnezov (1953), previously known only from several males collected more than fifty years ago in Tucumán, Argentina, is redescribed on the basis of more recent material from Argentina and Brazil. Using DNA sequence data from seven nuclear genes we investigate the phylogenetic position of *Amyrmex* and demonstrate that it is a member of the subfamily Leptanilloidinae, rather than the Dolichoderinae to which it had been previously assigned. This placement is also supported by a reevaluation of morphological traits. *Amyrmex* is possibly a senior synonym of the worker-based genus *Asphinctanilloides* Brandão, Diniz, Agosti & Delabie (1999), but additional study is needed to establish generic limits within the Leptanilloidinae and to reliably associate male and worker castes.

Key words: ant taxonomy, molecular phylogenetics, dorylomorphs, *Leptanilloides*, *Asphinctanilloides*, Neotropical region

Introduction

The genus *Amyrmex* was established by Kusnezov (1953) for four small male ants collected in the Tucumán region of Argentina. Kusnezov recognized a single species, *Amyrmex golbachi*, which he placed in the subfamily Dolichoderinae, while noting peculiar features of the wing venation and abdominal morphology that introduced some uncertainty about its affinities. Since its original description *Amyrmex* has received scant attention from ant taxonomists. In his generic revision of the Dolichoderinae Shattuck (1992) synonymized *Amyrmex* under *Forelius*. Cuzzo (2000) resurrected *Amyrmex*, pointing out various distinctive features of morphology that do not agree with any known males of *Forelius*. No *Amyrmex* specimens have been reported besides the holotype, three paratypes, and one additional series of males from the Kusnezov collection (Cuzzo, 2000). All of this material is more than half a century old.

Recently one of us (PSW) discovered several males of *Amyrmex* among miscellaneous unidentified ant specimens in the Bohart Museum of Entomology, University of California at Davis (UCDC). Most of these males were collected in Malaise traps at a lowland rainforest site in Rondônia, Brazil in 1991. This newer material provided the opportunity to reexamine the identity of *Amyrmex* and to investigate its phylogenetic placement with DNA sequence data.

Materials and methods

The Bohart Museum of Entomology (UCDC) contains four males of an *Amyrmex* species from Fazenda Rancho Grande, Rondônia, Brazil (12–22 November 1991, leg. E. M. Fisher). These specimens were