

Taxonomic revision of the *Pachycondyla apicalis* species complex (Hymenoptera: Formicidae)

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Abstract

The taxonomy of the Neotropical *Pachycondyla apicalis* species complex is revised. Contrary to the widely-held view that the *apicalis* complex contains only two species, *P. apicalis* (Latreille 1802) and *P. obscuricornis* (Emery 1890), morphological evidence indicates the existence of three broadly sympatric species. Examination of type specimens reveals that the name *obscuricornis* has been extensively misapplied in the literature, and that the valid name for the widespread species commonly misdiagnosed as *P. obscuricornis* is *P. verenae* (Forel 1922). True *P. obscuricornis* is shown to be an uncommonly collected South American species. The name *apicalis* is valid as currently employed for that species. A taxonomic key is provided, along with diagnoses, illustrations, and distributional data for all three species.

Key words: Pachycondyla, Neoponera, Ponerinae, Taxonomy

Introduction

Ants in the *Pachycondyla apicalis* species complex are large, conspicuous insects found in Neotropical forests from southern Mexico to Paraguay. These ants comprise a small monophyletic assemblage of very similar species within a heterogeneous and much larger cosmopolitan genus, *Pachycondyla* F. Smith 1858 (c.a. 270 species, Bolton 1995), that is almost certainly paraphyletic (C. Schmidt, pers. comm.). Ants in the *apicalis* complex are epigaeic, predaceous, form small colonies, and are thought to display a relatively simple behavioral repertoire. Because these ants possess purportedly “primitive” traits (Peeters 1997), they have served as model organisms for studies of ant foraging (Fresneau 1985, Goss et al 1989), colony social structure (Fresneau 1984, Dietemann & Peeters 2000, Gobin et al 2003), and pheromone production and dissemination (Traniello & Hölldobler 1984, Soroker et al 1998).