Pseudacteon notocaudatus and Pseudacteon obtusitus (Diptera: Phoridae),
two new species of fire ant parasitoids from South America

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Abstract. Ongoing studies in South America of phorid flies of the genus Pseudacteon Coquillett 1907 have revealed two further new species in this genus that are described here: P. obtusitus and P. notocaudatus. Both species are parasitoids of Solenopsis (F.) fire ants.

Key words: Phoridae, phorid, parasitoid, Pseudacteon, Solenopsis, fire ant

Introduction

The genus Pseudacteon contains a rich diversity of nearly seventy described species of parasitoid flies that are hosted by several genera of ants, with a large radiation of about twenty species associated with Solenopsis saevissima complex fire ants in the Neotropics. Much attention has been given to Pseudacteon species that parasitize Solenopsis fire ants for their potential use in biological control of fire ants (Feener & Brown 1992, Orr et al. 1995). During field studies of Solenopsis fire ants in Brazil and Argentina, several undescribed species have been referenced in literature (e.g. Calceta La et al. 2005, Kronforst et al. 2007, Patrock et al. 2009). In this study we formalize two of these previously undescribed Pseudacteon species that parasitize Solenopsis fire ants. One species (P. obtusitus) is closely related to P. obtusus Borgmeier 1925 while the second (P. notocaudatus) is related to P. pradei Borgmeier 1925.

Materials and methods

Material is deposited in the Natural History Museum of Los Angeles County (LACM), University of Texas at Austin Insect Collection (UTIC), Museo Argentino de Ciencias Naturales Bernardino Rivadavia (MACN), and P.J. Folgarait (PJF) collection. Specimens were examined whole, either dried and mounted or preserved in ethanol, to allow examination of intact morphology.

Terms are those of the Manual of Nearctic Diptera (McAlpine et al. 1981). We use the term “oviscape” in place of ovipositor to describe the structures associated with oviposition on segment 7 (Plowes et al. 2009).

Taxonomy

We describe two new species of Pseudacteon. Since this is not a broad revision we have not included a comprehensive key but provide diagnostic comments to separate the new species from closely related congeners.

Pseudacteon notocaudatus new species

Fig. 1