



Article

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***Lynchiatilla* Casal, 1963 (Hymenoptera: Mutillidae): a new species from Brazil associated with *Paroxystoglossa spilopectera* Moure (Hymenoptera: Apidae: Halictinae), and notes on other species**

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Abstract

Lynchiatilla parana Cambra in Bergamaschi *et al.*, **sp. nov.** (female and male) from Brazil and the male of *Lynchiatilla leguera* Casal, 1963 are newly described and illustrated. *Lynchiatilla silvai* Casal, 1963 is reported for the first time for the state of Paraná, southern Brazil. A key to the males for those species where they are known is given. Specimens of *L. parana* **sp. nov.** were observed and collected during 204 hours of fieldwork in a montane Atlantic Forest area, providing behavioral data and implicating the halictine bee *Paroxystoglossa spilopectera* Moure, 1960 as its probable host. Adult wasps were captured and kept in individual containers for sex-association mating trials in the laboratory. Color and size variation in a population of *L. leguera* from Jujuy, northern Argentina, are discussed and illustrated.

Key words: Mutillid, *Lynchiatilla*, new species, mating trial, host record, Halictinae

Introduction

Mutillidae, also known as velvet ants, are often conspicuous and brightly colored; they exhibit extreme sexual dimorphism such that sex associations cannot be made on morphological grounds alone. The result has been many synonymies and taxonomic challenges (Lelej & Brothers 2008). Mutillids are parasitic on the enclosed immature stages (usually the prepupae or pupae) of other insects, mainly other aculeate Hymenoptera (Brothers 1989), and are distributed in all biogeographic regions, though the greatest diversity occurs in tropical and subtropical regions of the world (Lelej & Brothers 2008). The family has about 208 genera and 4200 described species (Lelej 2007), of which only about 2% have host records (Brothers 2006). Despite having the greatest diversity, the Neotropical fauna is still poorly studied and it is difficult to estimate the actual number of species present there (Brothers 2006). The biology and natural history of the Neotropical genus *Lynchiatilla* Casal, 1963 is totally unknown. At present it comprises ten described species (Casal 1963, Fritz 1992), with records from Brazil, Argentina and Paraguay (Casal 1963, Fritz 1992, Quintero & Cambra 1996). The purpose of this paper is to describe both sexes of a new species of *Lynchiatilla* and indicate its probable host, including records of behavioral observations. We also describe the male of *L. leguera* Casal, 1963 and evaluate size and color variation in that species. A new geographic record for *L. silvai* Casal, 1963 is also given.