Zootaxa 1688: 20–36 (2008)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

A revision of the South American bee genus *Leptometriella* Roig-Alsina (Hymenoptera, Apidae, Emphorini)

A. ROIG-ALSINA

Museo Argentino de Ciencias Naturales "Bernardino Rivadavia," Av. Angel Gallardo 470, 1405 Buenos Aires, Argentina.
E-mail: arturo@macn.gov.ar

Abstract

A revision of the emphorine bee genus *Leptometriella* Roig-Alsina is presented. These bees occur mostly in xeric areas of South America, from Cochabamba in Bolivia to northern Patagonia in Argentina. Seven species are recognized, four of which are described as new: *L. boliviana* and *L. minima* from Bolivia, and *L. hirsutula* and *L. monteana* from Argentina. Lectotypes are designated for *Teleutemnesta separata* Holmberg, 1903, and *Ancyloscelis minuta* Friese, 1908. *Ancyloscelis humilis* Vachal, 1904, *Ancyloscelis minuta* Friese, 1908, and *Melitoma specularis* Vachal, 1909, are new synonyms of *L. separata* (Holmberg). A key to the species, descriptions, and illustrations are provided.

Key words: Bees, Emphorini, Argentina, Bolivia

Introduction

The genus *Leptometriella* Roig-Alsina is a member of the Emphorini, a tribe of bees restricted to the Western Hemisphere (Michener, 2000). The genus has its maximum diversity in xeric areas of Bolivia and Argentina, although one of its species, *Leptometriella separata* Holmberg occurs also in mesic areas of eastern Argentina.

Species of *Leptometriella* are solitary, burrowing bees. As is the case of many other emphorines, its species seem to be oligolectic, and records in the literature (Jörgensen, 1912b, Sipes & Tepedino, 2005), as well as plant association labels on specimens, relate them to plants of the family Malvaceae. I have observed females of *L. separata* actively collecting pollen on flowers of *Sphaeralcea*.

Species of *Leptometriella* resemble species of *Diadasia* Patton and *Diadasina* Moure because of their uniform grayish to tawny pubescence, with distinct apical bands on the metasomal terga. The generic name *Leptometriella* alludes to this resemblance, since *Leptometria* Holmberg is a junior synonym of *Diadasia*. Its species are rather small, ranging from 4.5 to 9.5 mm long, and one of the species described here as new, *L. minima*, is the smallest within the tribe Emphorini. *Leptometriella* is distinguished from *Diadasia* by the second metasomal sternum with a gently curved gradulus, the scopal hairs on the hind tibia of the female with staight branches pointing away from the bases of the hairs, and the claws always pointed. The alternative conditions, second metasomal sternum with gradulus medially bent posteriorly forming an angle, scopal hairs on the hind tibia of the female with retrorse branches, and claws of the males frequently with rounded apices, are characteristic of *Diadasia*.

Michener (2000, 2007) includes *Leptometriella* as a subgenus of *Diadasina* because of the similarity of the two groups, although recognizing the probable paraphyly of this classification. Studies in progress show that *Diadasina*, together with *Ptilothrix* Smith, *Alepidosceles* Moure, and *Melitomella* Roig-Alsina, form a

 Accepted by L. Packer: 6 Dec. 2007; published: 23 Jan. 2008