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Two new species of *Caenohalictus* Cameron, 1903 (Hymenoptera: Halictidae) from Colombia

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Abstract

This paper describes and illustrates females and males of two species of *Caenohalictus* Cameron, 1903: *C. sabanaensis* **n.sp.** and *C. alexandrei* **n.sp.** Both species are commonly collected in the Savanna of Bogotá, a high plateau in the central region of the Eastern Andes of Colombia. Notes on morphological variations within and among the species, as well as comments on some biological aspects and images of diagnostic structures are provided.

Key words: Halictini, Neotropical bees, taxonomy, morphology

Resumen

Este trabajo describe e ilustra hembras y machos de dos especies de *Caenohalictus* Cameron, 1903: *C. sabanaensis* **n.sp.** y *C. alexandrei* **n.sp.** Las dos especies son frecuentemente colectadas en la Sabana de Bogotá, una alta meseta en la región central de los Andes orientales de Colombia. Notas sobre la variación intra e interespecifica en las especies, comentarios sobre algunos aspectos biológicos e ilustraciones de estructuras diagnosticas son presentadas.

Introduction

Caenohalictus Cameron is a widely distributed genus in the Neotropical region, being especially diverse in the Andes of South America (Moure & Hurd, 1987; Gonzalez *et al.*, 2005). Moure and Hurd (1987) listed 49 valid names for the genus, while Moure (2007) listed 55 species, mostly from Chile (16 species), Brazil (nine species) and Argentina (eight species). The remaining described species are distributed in Ecuador (six species), Peru (seven species), Colombia (five species), Bolivia (two species) and Paraguay (one species). Only one species, *Caenohalictus elachion* (Vachal, 1904) was reported from Central America (Honduras), and several undescribed species were reported from Mexico and Costa Rica (Radclyffe & Brooks, 1987). *Caenohalictus cuprellus* (Vachal, 1903) was described from Peru and later recorded from Chile (Rojas & Toro, 2000). It was also recorded from Bogotá, Colombia, based on specimens identified by Beatriz Coelho (Gonzalez, 2006). This Colombian record, however, appears to be a misidentification as the true *C. cuprellus* is restricted to southern South America. To date, the only revisions of *Caenohalictus* are the species from Chile and Argentina by Rojas & Toro (2000) and Gonzalez-Vaquero & Roig-Alsina (2013).

Caenohalictus species described and reported from Colombia are: *Caenohalictus modestus* (Smith, 1853) and *C. moritzi* Alfken, 1932, non-specified location; *C. columbus* (Vachal, 1903) and *C. lindigi* (Vachal, 1911), reported for Cundinamarca, Bogotá (Rasmussen, 2012); and *C. eberhardorum* Michener, 1979, from Valle del Cauca, West of the Central Mountain Range at 2000 m a.s.l. and La Calera (2850 m a.s.l) and Cota (2566 m a.s.l) in Cundinamarca, in the Eastern Mountain Range (Gonzalez & Engel, 2004; Nates-Parra *et al.*, 2006).

The goal of this study is to describe two new species of *Caenohalictus* from Colombia, and compare the external morphology of both sexes and the genital capsule of the males. Both species are very common in the Savanna of Bogota Plateau in the Eastern Andes of Colombia.

basally, shorter apical. Flagellum with very short hairs giving a velvety appearance. Mesoscutum, scutellum and metanotum with dark pilosity originating from visible punctures. Mesopleura with erect, branched, white hairs, as long as 3.2–3.4 times MOD. Legs with branched, white hairs; scopa of coxa, trochanter and femur of the hind legs with long, branched, white hairs. Tarsus of the legs with abundant, translucent, simple bristles, denser in the hind legs. Scopa of the S_I – S_{IV} with branched, fine, suberect white hairs, shorter on distal sterna, marginal zone of terga glabrous.

Sculpture: Mesoscutum, scutellum and metanotum micro tessellate. Punctures separated by four to five times a puncture width in the mesoscutum, two times a puncture width in scutellum and three times a puncture width on metanotum. Lunula completely micro tessellate or with a few basal, anastomosed superficial striae, medially, striae not reaching posterior margin of lunula (Fig. 8). Metasoma with reticulate integument.

Structure: Alveolocular distance 1.6–1.8 times interalveolar distance. Frontal carina absent. Antenna in repose does not exceed half the length of the mesosoma. Scape nearly half of total length of antenna. Length of labrum, distal process included, close to 0.4 mm, with abundant marginal fimbria (Fig. 13). Mandible with subapical tooth, basal portion with long hairs in dorsal and ventral margins. Inner spur of hind tibia pectinate, with three basal teeth longer than wide, slightly rounded at the tip, and a third subapical tooth poorly defined (Fig. 11). Pseudopygidial area with an oval shape appearance due to pubescence along the midline.

Variation. There is variation in the hair color of the compound eye, from dark-brown to completely white. The males show variation in the color of the apical band of clypeus generally intense-yellow, rarely pale-yellow, gray or absent.

Comments. This species was listed as *C. cuprellus* by Gonzalez (2006). However, *C. cuprellus* is restricted to Peru and Chile. The Colombian specimens identified as *C. cuprellus* are morphologically distinct from those of Peru and Chile based on the description and illustrations provided by Rojas & Toro (2000). Thus, herein the Colombian species are described as a new species. *Caenohalictus alexandrei* was collected on flowers of Asteraceae (*Taraxacum officinale*, *Bidens pilosa* and *Senecio*) or in their nest, which are built in vertical banks of well drained, exposed soil. Specimens of the cleptoparasite *Sphcodes* spp. (Halictidae) were frequently observed around the nests (based on direct observations made by us on the nests during the collection of specimens in the field from 3-VII-2011 to 1-XII-2012).

Etymology. The name of this species is a patronymic honoring Alexander Escobar, for his passion for nature and enthusiastic contribution to the Bee Biodiversity and Ecology Research Group of the UMNG.

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