

INSECTA MUNDI

A Journal of World Insect Systematics

0287

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descriptions of two new species (Coleoptera: Scarabaeidae: Aphodiinae)

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Date of Issue: March 8, 2013

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Insecta Mundi 0286: 1-5

ZooBank Registered: urn:lsid:zoobank.org:pub:0BEF5958-8EA5-45FC-8679-43B54ED77E52

Published in 2013 by

Center for Systematic Entomology, Inc.
P. O. Box 141874
Gainesville, FL 32614-1874 USA
<http://www.centerforsystematicentomology.org/>

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Pseudocoelotrachelus new genus of Neotropical Aphodiini with descriptions of two new species (Coleoptera: Scarabaeidae: Aphodiinae)

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Abstract. The **new genus** *Pseudocoelotrachelus* (Coleoptera: Scarabaeidae: Aphodiinae) is diagnosed and the **new species** *Pseudocoelotrachelus peckorum* from Argentina (Salta) and *P. tristaobrancoi* from Mexico (Oaxaca) are described and figured.

Key words. Systematics, *Pseudocoelotrachelus* new genus, *P. peckorum* new species, *P. tristaobrancoi* new species, Argentina, Mexico, American Aphodiinae.

Introduction

This work belongs to a series of papers describing new taxa in preparation for a systematic revision of Mexican Aphodiinae (Coleoptera: Scarabaeidae).

Materials and Methods

Terminology used in this work to describe morpho-anatomical features follows that of Dellacasa et al. (2001). Materials studied are in the following collections:

CMNO – Canadian Museum of Nature, Ottawa, Canada

DCGI – Dellacasa Collection, Genoa, Italy

FSCA – Florida State Collection of Arthropods, Gainesville, Florida, U.S.A.

Genus *Pseudocoelotrachelus* new genus

Type species. *Pseudocoelotrachelus tristaobrancoi* new species, here designated.

Description. Rather small species (length 5.0-5.5 mm); oval elongate, moderately convex, shiny, glabrous. Piceous or reddish brown. Head with epistome gibbous, finely and sparsely punctured; clypeus slightly sinuate at middle, distinctly denticulate or subangulate at sides, genae protruding from the eyes; frontal suture not tuberculate. Pronotum transverse, moderately convex, simply or dually, rather coarsely punctured; lateral margins almost straight, S-shaped before hind angles; latter obtusely round; base not bordered. Scutellum small, narrowly triangular. Elytra elongate, strongly denticulate at shoulder, finely striate; striae more or less distinctly punctured, feebly crenulate; interstriae moderately convex or al-

most flat, sparsely finely punctured. Fore tibiae distally tridentate and proximally serrulate at outer margin; upper side rather densely coarsely punctured. Hind tibiae with very feeble transverse carinae on outer face, apically fimbriate with progressively unequal spinules. Pygidium very densely and coarsely punctured, punctures setose, pubescence recumbent toward apex; latter with few straight and elongate setae. Sexual dimorphism shown in males by more transverse and less convex pronotum and by the metasternal plate relatively more distinctly excavate. Aedeagus with parameres elongate, feebly curved, acuminate and distinctly pubescent apically. Epipharynx inwardly sinuate at middle of anterior margin, round at sides; epitorma drop-shaped or campaniform; corypha with two strong and curved apical celtes protruding from the front margin; pedia pubescent with two lateral subregular series of few elongate spinules; chaetopariae moderately elongate, not very closely arranged.

Distribution. Neotropical region.

Etymology. The name is a combination of the prefix *pseudo*- [= false] and the genus name *Coelotrachelus*. The gender is masculine.

Discussion. The primary characteristics of *Pseudocoelotrachelus*, new genus, are:

- scutellum small, triangular;
- hind tibiae apically fimbriate with unequal spinules;
- pronotum lateral margins S-shaped before hind angles;
- aedeagus with parameres pubescent apically;
- epipharynx with two strong apical celtes protruding from the anterior margin.

The new genus is similar to *Coelotrachelus* Schmidt, 1913, but is easily distinguished from it by the strongly differing epipharyngeal shape, fore tibiae proximally serrulate at outer margin with dorsal surface coarsely and densely punctured, hind tibiae with very feeble transverse carinae at outer face and apex fimbriate with progressively unequal spinules. *Pseudocoelotrachelus* falls after couplet 60 in the key to genera of Aphodiini by Dellacasa et al. (2001) that must be modified as follows:

- 60a. Epipharynx with corypha protruding frontward and with a clump of several stout celtes; aedeagus with parameres glabrous apically. Protibia not densely punctate on dorsal surface. Length 7.0-8.0 mm. Nearctic and Neotropical region ***Coelotrachelus* Schmidt**
 — Epipharynx with corypha not reaching the front margin and with two strong and curved apical celtes; aedeagus with parameres distinctly pubescent apically. Protibia densely punctate on dorsal surface. Length 5.0-5.5 mm. Neotropical region .. ***Pseudocoelotrachelus* new genus**

Key to species of *Pseudocoelotrachelus*

1. Clypeus angulate at sides of median sinuosity, pronotum dually punctured; elytral interstriae flat. Brownish-red. Length 5.0-5.5 mm. Mexico (Oaxaca) ***P. tristaobrancoi* new species**
 — Clypeus denticulate at sides of median sinuosity; pronotum evenly punctured; elytral interstriae moderately convex. Dark piceous. Length 5.0-5.5 mm. Argentina (Salta)
 ***P. peckorum* new species**

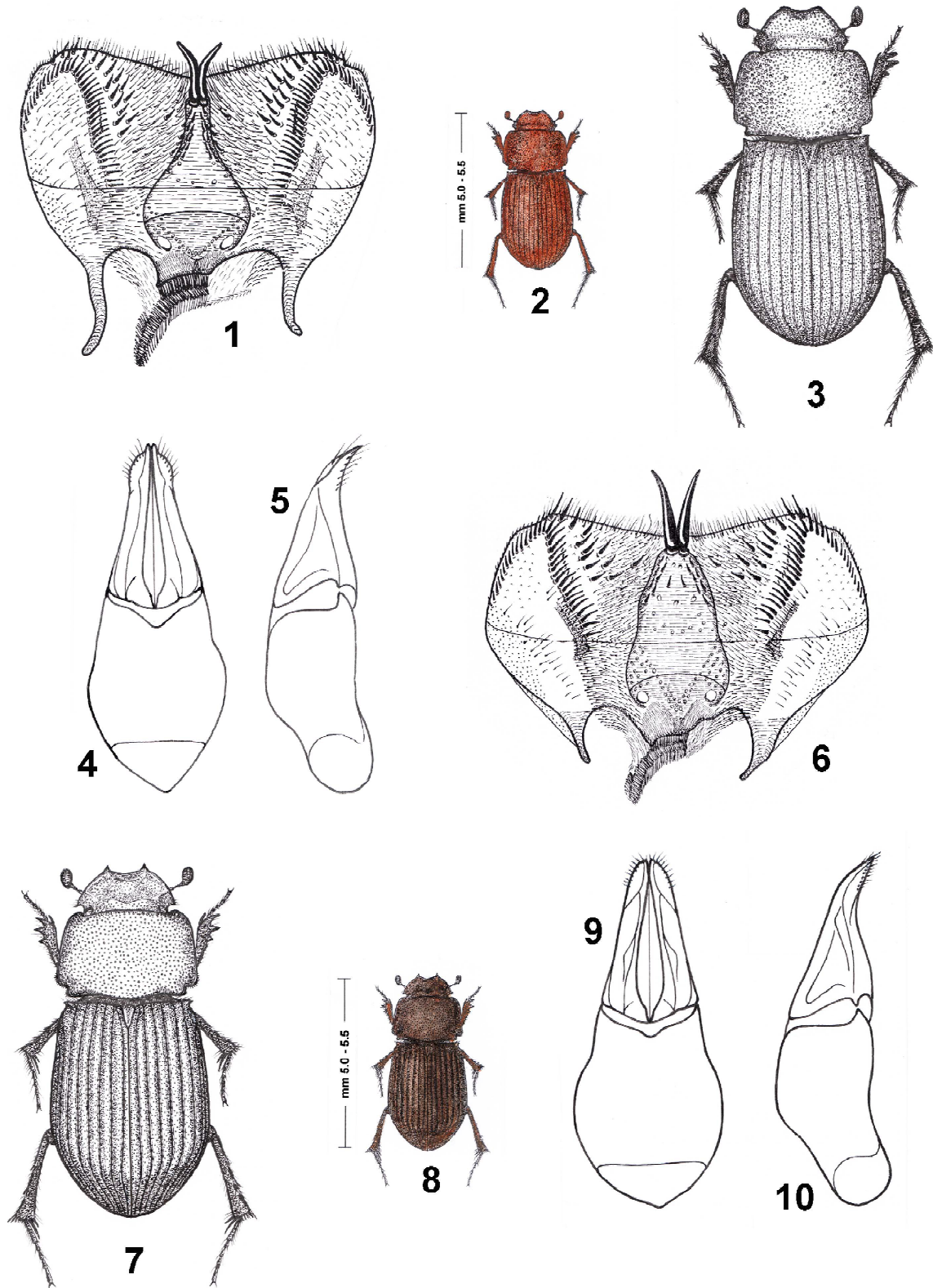
***Pseudocoelotrachelus tristaobrancoi* new species**

(Fig. 1-5)

Type locality. La Venta env., 16°11'25.0"N-096°20'50.0"W, m 2467, Oaxaca, Mexico.

Type repository. Dellacasa Collection, Genoa, Italy.

Description. Length 5.0-5.5 mm; oblong, moderately convex, shiny, glabrous. Entirely reddish brown; antennal club testaceous. Head with epistome slightly gibbous on disc, antero-medially moderately de-



Figures 1-10. *Pseudocoelotrachelus tristaobrancoi* (La Venta env., 16°11'25.0"N-096°20'50.0"W, Oaxaca, Mexico). 1) Epipharynx. 2-3) Habitus (length ideogram and morphological details). 4-5) Aedeagus (dorsal and lateral view). *Pseudocoelotrachelus peckorum* (Pozo Verde Trail, km 7, El Rey Nat. Park, Salta, Argentina). 6) Epipharynx. 7-8) Habitus (length ideogram and morphological details). 9-10) Aedeagus (dorsal and lateral view).

pressed, evenly, rather finely, not closely punctured; punctation sparser and somewhat more superficial medially; clypeus broadly sinuate at middle, subangulate at sides, thinly bordered, edge slightly reflexed, glabrous; genae obtusely round, shortly bristled, protruding from the eyes; frontal suture almost obsolete; front evenly, finely, rather sparsely punctured. Pronotum transverse, few convex, dually, somewhat irregularly punctured; large coarse punctures, five to six times larger than small ones, denser on sides, lacking medially; small fine punctures evenly scattered throughout, somewhat finer and sparser on disc; lateral margins feebly arcuate, S-shaped before hind angles; latter obtusely round, almost imperceptibly bristled; base nearly straight, not bordered. Scutellum narrowly elongate, subdepressed laterally, finely punctured medially. Elytra elongate, slightly broadened posteriorly, strongly denticulate at shoulder, finely striate; striae superficially not closely punctured, not crenulate; interstriae almost flat, superficially alutaceous, evenly, rather densely, finely punctured. Hind tibiae superior apical spur shorter than first tarsal segment; latter longer than following three segments combined. Male: pronotum relatively more transverse and less convex; metasternal plate excavate; aedeagus Fig. 4-5. Female: pronotum relatively less transverse and more convex; metasternal plate almost flat.

Type material. MEXICO: Oaxaca: La Venta env., 16°11'25.0"N-096°20'50.0"W, m 2467, 28.VI.2007, leg. Dellacasa M., Fresi C. & Martínez I. (**holotype**, male, and **allotype** DCGI, 1 paratype, FSCA).

Distribution. Known from the type locality only.

Etymology. Named in honor of our dear friend and colleague Tristão Branco, Portuguese scarabaeidologist.

Bionomics. Almost unknown. Specimens of the type series were collected in June.

***Pseudocoelotrachelus peckorum* new species**
(Fig. 6-10)

Type locality. Pozo Verde Trail, km 7, El Rey Nat. Park, m 1000, Salta Prov., Argentina.

Type repository. Canadian Museum of Nature, Ottawa, Canada.

Description. Length 5.0-5.5 mm; oblong, moderately convex, shiny, glabrous. Dark piceous; clypeal margin and pronotum sides shadowy reddish brown; legs and antennal club piceous. Head with epistome feebly gibbous medially, anteriorly with vestiges of arcuate transverse carina; finely sparsely punctured, punctation more superficial distally; clypeus slightly sinuate at middle, distinctly denticulate at sides, denticles moderately reflexed, very thinly bordered, edge glabrous; genae acutely angulate, shortly ciliate, strongly protruding from the eyes; frontal suture finely impressed; front subregularly punctured, punctation somewhat coarser than on epistome. Pronotum feebly transverse, moderately convex, rather closely, simply and subregularly punctured; lateral margins almost straight, very thinly bordered, edge glabrous, S-shaped before hind angles; latter obtusely round and very shortly bristled; base slightly bisinuate, not bordered. Scutellum finely sparsely punctured on basal half. Elytra feebly broadened posteriorly, strongly denticulate at shoulder, rather deeply striate; striae feebly crenulate; interstriae moderately convex, finely and sparsely punctured. Hind tibiae superior apical spur shorter than first tarsal segment; latter somewhat longer than following three segments combined. Male: metasternal plate moderately excavate and with superficial median longitudinal groove; aedeagus Fig. 9-10. Female: metasternal plate almost flat, only with trace of median longitudinal groove.

Type material. ARGENTINA: Salta Prov., Pozo Verde Trail, km 7, El Rey Nat. Park, m 1000, 9-15.XII.1987, leg. S. & J. Peck, dung trap, Yungas forest (**holotype**, male, **allotype** CMNO; 1 paratype, DCGI).

Distribution. Known from the type locality only.

Etymology. Named in honor of its collectors, Stewart and Jarmila Peck.

Bionomics. The specimens of the type series were collected in December in Yungas forest by dung traps (labels data).

Acknowledgments

Thanks are due to P. Bouchard (Ottawa) for loan of material and to P. Bordat (Saint-Cirq) and M. Rakovic (Prague) for critical reviews of the manuscript.

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Received November 13, 2012; Accepted February 3, 2013.

