

INSECTA MUNDI

A Journal of World Insect Systematics

0507

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(Coleoptera: Scarabaeidae: Aphodiinae)

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Date of Issue: October 21, 2016

Marco Dellacasa, Giovanni Dellacasa, and Robert D. Gordon
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Insecta Mundi 0507: 1–3

ZooBank Registered: urn:lsid:zoobank.org:pub:30427384-90ED-406C-81C1-38B4F568CD3D

Published in 2016 by

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

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Layout Editor for this article: Eugenio H. Nearn

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Abstract. *Euotophorus* **new genus** and *E. imeldae* **new species** (Coleoptera: Scarabaeidae: Aphodiinae) from Mexico are described and figured.

Key words. Mexico, Systematics.

Introduction

This work is part of a series of papers describing new taxa in preparation for a systematic revision of Mexican Aphodiinae (Coleoptera: Scarabaeidae). The peculiar characteristics of *Euotophorus* new genus are:

- shape short, strongly oval;
- genae strongly auriculate;
- scutellum small, triangular;
- hind angle of pronotum widely subtruncate;
- elytra not denticulate at shoulder;
- hind tibiae apically fimbriate with spinules alternately unequal.

The new genus is most similar to the genus *Jalisco* Dellacasa, Gordon and Dellacasa (2004) in its peculiar body shape. They can be distinguished by characters in the following couplet:

1. Middle and hind tarsi with second, third and fourth segments acinaciform, serially, densely and very elongately ciliate laterally resembling a feather; genae not auriculate; lateral margins of pronotum distinctly inwardly sinuate before hind angles; latter obtusely round; elytra strongly denticulate at shoulder with interstriae densely, coarsely subvermiculately punctured. Species chestnut brown. Length 4.0–4.5 mm. Mexico (Jalisco) ***Jalisco* Dellacasa, Gordon and Dellacasa**
- Middle and hind tarsi normally ciliate; genae strongly auriculate (Fig. 5); lateral margins of pronotum not sinuate inwardly before hind angles; latter widely obliquely truncate; elytra not denticulate at shoulder with interstriae sparsely and almost evenly punctured. Species dark brown. Length 4.5 mm. Mexico (Durango) ***Euotophorus* new genus**

Materials and methods

Terminology used to describe morpho-anatomical features follows that of Dellacasa et al. (2001). Materials studied are in the following collection: DCGI – Dellacasa Collection, Genoa, Italy.

Genus *Euotophorus* new genus

Type species. *Euotophorus imeldae* new species.

Diagnosis. Small species (length 4.5 mm), broadly oval, convex, shiny, glabrous. Dark brown. Head with epistome alutaceous, rather densely irregularly punctured; clypeus weakly sinuate at middle, round at sides; genae strongly auriculate and strongly protruding from the eyes; frontal suture not tuberculate. Pronotum transverse, dually punctured; hind angles widely subtruncate; base not bordered. Scutellum small, triangular. Elytra strongly broadly oval, not denticulate at shoulder, finely deeply striate; striae crenulate; interstriae flat, distinctly punctured. Fore tibiae distally tridentate and proximally weakly serrulate at outer margin; upper side smooth. Hind tibiae with strong transverse carinae on outer face, apically fimbriate with spinules rather stout, alternately and somewhat irregularly elongate. Pygidium alutaceous, sparsely roughly punctured; each puncture with a long recumbent hair; apical margin with sparse long setae. Aedeagus rather stout, with parameres lacking membranous process and distinctly angulate toward the acute apex. Epipharynx weakly inwardly sinuate at front margin, round at sides; epitorma subpyriform; corypha moderately protruding from the anterior margin, apically with clump of short celtis; pedia finely pubescent mostly toward epitorma and with a series of short strong spines toward proplegmatium only; chaetopariae moderately elongate and moderately dense.

Distribution. Mexico.

Etymology. The name is from the combination of the genus name *Otophorus* and the prefix *eu-* [good, true]. The gender is masculine.

Euotophorus imeldae new species

(Fig. 1–5)

Type locality. El Salto dint. W, km 125 carr. El Salto to Mazatlán, 23°45'20.6"N–105°31'17.0"W, m 2400, Estado de Durango, Mexico.

Type repository. Dellacasa collection, Genoa, Italy.

Description of male. Length 4.5 mm; short, broadly oval, moderately convex, shiny, glabrous. Dark reddish brown; clypeal margin, anterior angles of pronotum, legs and antennal club somewhat paler. Head with epistome moderately convex on disc, alutaceous, irregularly, rather coarsely and closely punctured; punctation distally confuse, medially sparser and superficial; clypeus feebly sinuate at middle, widely round at sides, thinly bordered, edge slightly reflexed, laterally shortly sparsely bristled; genae round, strongly auriculate, sparsely ciliate, protruding from the eyes; frontal suture finely impressed, not tuberculate; front distinctly, evenly, not closely punctured. Pronotum transverse, moderately convex, somewhat flattened on sides, more evidently so toward anterior angles, dually not closely punctured; large punctures, twice to three times larger than small, denser on sides but lacking medially; small rather coarse punctures somewhat sparser on disc; lateral margins feebly arcuate, rather thickly bordered, edge almost glabrous; hind angles widely subtruncate; base regularly arcuate, not bordered. Elytra convex, broadly widened posteriorly, deeply finely striate; striae rather deeply punctured, feebly crenulate; interstriae flat, distinctly sparsely punctured; metasternal carina strongly evident in posterior third. Hind tibiae superior spur shorter than first tarsal segment; latter longer than following three segments combined. Aedeagus Fig. 2–3. Female: unknown.

Type material. MEXICO: Durango: km 125 carr. El Salto to Mazatlán, El Salto dint. W, 23°45'20.6"N-105°31'17.0"W, m 2400, 20.VII.2004, leg. M. Dellacasa & I. Martínez (1 ex., holotype male, DCGI).

Distribution. Known from the type locality only.

Bionomics. The sole specimen known was collected in horse dung in summer.

Etymology. Named in honour of Imelda Martínez Morales, eminent Mexican scarabaeidologist.

Acknowledgments

Thanks are due to our friends and colleagues P. Bordat (Saint-Cirq) and T. Branco (Porto) for critical reviews of the manuscript.

Literature Cited

Dellacasa G., P. Bordat, and M. Dellacasa. 2001. A revisional essay of world genus-group taxa of Aphodiinae. *Memorie della Società Entomologica Italiana* 79 [2000]: 1–482.

Dellacasa M., Gordon R. D. and G. Dellacasa. 2004. *Jalisco plumipes*, new genus and new species of Mexican Aphodiini. *Insecta Mundi* 17 [2003]: 69–71.

Received April 23, 2016; Accepted September 13, 2016.

Review Editor Paul Skelley.

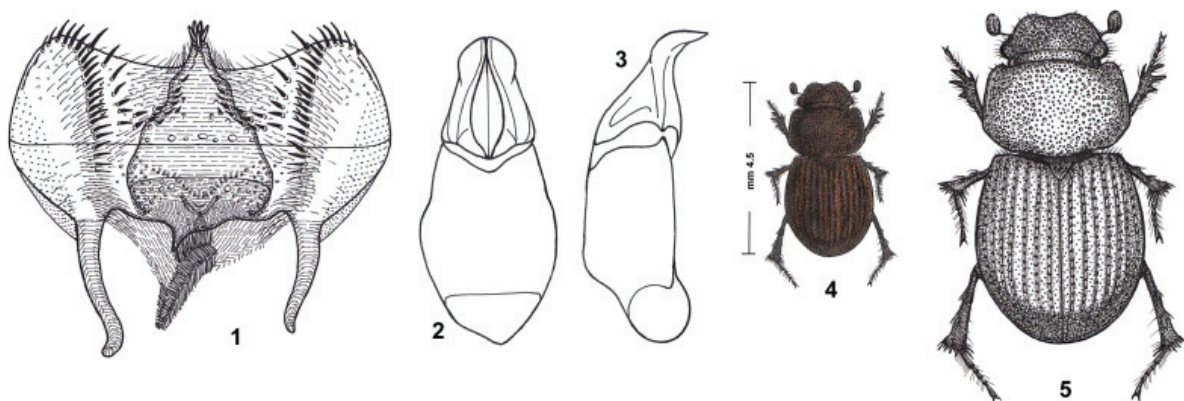


Figure 1–5. *Euotophorus imeldae* new species (km 125 carr. El Salto to Mazatlán, El Salto dint. W, 23°45'20.6"N-105°31'17.0"W, m 2400, Estado de Durango, Mexico, holotype). 1) Epipharynx. 2–3) Aedeagus (dorsal and lateral views). 4–5) Habitus (length ideogram and morphological details).

