

INSECTA MUNDI

A Journal of World Insect Systematics

0067

Gordonius rhinocerillus, a new genus and species of Colombian
Aphodiini (Coleoptera: Scarabaeidae: Aphodiinae)

Paul E. Skelley
Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services-DPI
P.O.Box 147100
Gainesville, FL 32614-7100

Marco Dellacasa
Museo di Storia Naturale e del Territorio, Università di Pisa
Via Roma 79
I-56011 Calci (Pisa), Italy

Giovanni Dellacasa
C.P. 921
I-16121 Genoa, Italy

Date of Issue: January 30, 2009

Paul E. Skelley, Marco Dellacasa, and Giovanni Dellacasa
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Insecta Mundi 0067: 1-4

Published in 2009 by

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

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Printed Copy	ISSN 0749-6737
On-Line	ISSN 1942-1354
CD-ROM	ISSN 1942-1362

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Paul E. Skelley

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Marco Dellacasa

Museo di Storia Naturale e del Territorio, Università di Pisa
Via Roma 79
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Giovanni Dellacasa

C.P. 921
I-16121 Genoa, Italy

Abstract. *Gordonius rhinocerillus*, a new genus and new species of Colombian Aphodiini is described and figured. It is the only known member of New World Aphodiinae where the male has a prominent horn on the head.

Key words. New genus, new species, Colombia, Aphodiinae, *Gordonius rhinocerillus*.

Introduction

In preparation for systematic revisions of the Aphodiini of Mexico (M. Dellacasa et al., in prep.) and America north of Mexico (Gordon and Skelley 2007), it was necessary to be familiar with taxa occurring in northern South America. While studying unidentified South American specimens, an undescribed genus and species was discovered that is here described. Terminology used in this work to describe morphological features follows that of Dellacasa et al. (2001).

Genus *GORDONIUS*, new genus

Type species. *Gordonius rhinocerillus* sp. nov., here designated (gender masculine).

Diagnosis. Frontal suture not tuberculate; pronotum with marginal line at base, hind angles not truncate; scutellum small, triangular; elytra glabrous; protibia finely punctate dorsally, ventral inner margin of protibia with 3 widely spaced tubercles; metatibiae apically fimbriate with equal, very short spinules; male with prominent clypeal horn. *Gordonius* is the only New World aphodiine with a horn.

Description. Body oblong, strongly convex, moderately shining, glabrous (Fig. 4-9); pale brown. Head with clypeus anteriorly truncate, rounded at sides; genae weakly protruding past eyes; frontal suture not tuberculate. Pronotum transverse; strongly convex; with irregularly spaced, coarse and fine punctures; with marginal line at base. Scutellum small, triangular. Elytra strongly convex, deeply striate; intervals moderately convex. Protibiae distally tridentate, proximally weakly serrulate along outer margin, upper face sparsely punctured, inner ventral margin with 3 widely spaced strong tubercles. Mesotibia similar to metatibia in shape, abruptly dilated at apex. Metatibiae with strong transverse carinae on outer surface (Fig. 6, 9); apically fimbriate with very short, equal spinules, row of setae along inner margin only (lacking medial-ventral longitudinal row of setae). Pygidium alutaceous, glabrous, sporadically punctured; weakly shining in basal half, subrugosely punctured on distal half with sparse, very elongate setae toward apex; apical margin glabrous. Sexual dimorphism in male clypeus with strong anteromedial horn (male Fig. 4-5, female Fig. 7-8). Aedeagus with parameres in lateral view obtusely rounded apically, in

dorsal view moderately widened toward apex (Fig. 2-3). Epipharynx feebly, inwardly sinuate at anterior margin; widely rounded at sides. Epitorma crown-shaped. Corypha not protruding beyond the fore margin; with 4 strong, rather elongate apical spinules. Pedia pubescent with rather elongate chaetae densely, irregularly arranged throughout. Chaetopariae dense, moderately elongate (Fig. 1).

Distribution. Colombia.

Etymology. This genus is named in honour of our friend Robert D. Gordon, eminent specialist of American Coccinellidae and Aphodiinae.

Remarks. *Gordonius* appears most similar to *Trichaphodiellus brasiliensis* (Laporte). *Trichaphodiellus* lacks the basal pronotal marginal line, has crenate inner ventral margin of the protibia, has the dorsal protibial surface densely punctate, has the mesotibia more triangular and gradually widened to apex (distinctly different from metatibia), and metatibia with complete medial-ventral longitudinal row of stout setae in addition to the fine row of setae along the inner margin.

Gordonius keys to couplet 163 in the key of Aphodiini by Dellacasa et al. (2001), but is immediately distinguished from other genus-group taxa by the punctate anterior surface of the protibia, distribution, and sexually dimorphic clypeus with a horn in males.

Gordonius rhinocerillus, new species

Figure 1-9

Type locality. 20 km W Silvia, 6000', Cauca, Colombia.

Holotype depository. Canadian National Collection of Insects, Ottawa (Canada).

Description. Length 5.5-6.0 mm. Body yellowish brown; head, most of pronotum, broad discal spot of elytra brown; legs, antennal club reddish brown. Head with clypeal surface evenly, finely, sparsely punctured; clypeus very thinly margined, edge slightly reflexed, glabrous; genae rounded, short fringe of setae; frontal suture weakly raised laterally, obsolete at middle; front evenly, finely, sparsely punctured. Pronotum finely, superficially alutaceous; large punctures 6-7 times larger than small punctures, irregularly scattered on sides, lacking medially; small, very fine punctures sparsely distributed throughout; lateral margins feebly arcuate, thickly bordered, edge glabrous; hind angles obtusely rounded; base faintly bisinuate, distinctly bordered. Scutellum flat, sparsely punctured. Elytra subparallel-sided; striae deeply punctured, feebly crenulate; intervals very finely, sparsely punctured. Metatibiae with superior apical spur shorter than first tarsomere; latter as long as following 3 combined. Male head with clypeus broadly depressed medially with anteromedial horn; pronotum relatively more transverse and less coarsely punctured; aedeagus in Fig. 3-4. Female head with clypeus regularly, moderately convex, lacking tubercle; pronotum somewhat narrowed anteriorly, more coarsely punctured.

Distribution. Known only from the type locality.

Bionomics. The type specimens were collected in July.

Type material. The male holotype, female allotype, and 5 male paratypes all have the same data: "Colombia: Cauca, 6000', 20 km W Silvia, 17.07.1970, J. M. Campbell leg." The holotype and allotype are deposited in the Canadian National Collection of Insects, Ottawa, Canada. The paratypes are deposited as follows: Canadian National Collection of Insects, Ottawa, Canada (2); Florida State Collection of Arthropods, Gainesville, FL, USA (1); Dellacasa Collection, Genova, Italy (1).

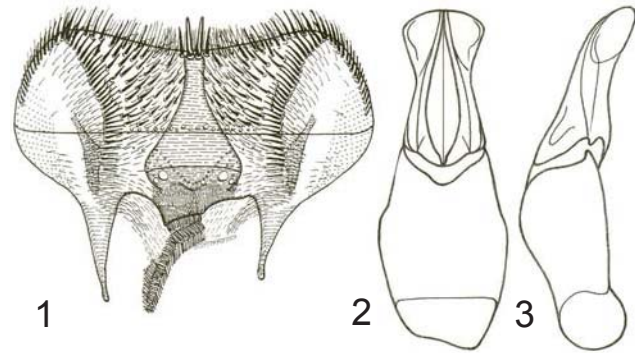


Figure 1-3. *Gordonius rhinocerillus* sp. nov. (Cauca, 6000', 20 km W Silvia, Colombia. 1) Epipharynx. 2-3) Aedeagus, dorsal and lateral view.



Figure 4-9. *Gordonius rhinocerillus* sp. nov. 4-6) Male habitus; dorsal, lateral and ventral. 7-9) Female habitus; dorsal, lateral and ventral.

Etymology. The horn on males of this species is similar to that of a rhinoceros. Thus, we are naming it “little rhinoceros.”

Acknowledgments

We thank Patrice Bouchard, Canadian National Collection of Insects, Ottawa, Canada, for loaning the material described here. For reviews of the manuscript we thank P. Bordat, Saint-Cirq, France, and W. Warner, Chandler, AZ, USA, and an anonymous reviewer. We thank M. J. Paulsen, University of Nebraska State Museum, Lincoln, NE, for acting as editor on this manuscript. This is Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Entomology Contribution Number 1118.

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.
- Gordon, R. D., and P. E. Skelley. 2007.** A monograph of the Aphodiini inhabiting the United States and Canada (Coleoptera: Scarabaeidae: Aphodiinae). *Memoirs of the American Entomological Institute* 79: 580 p.

Received January 13, 2009; accepted January 21, 2009.