

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville,
Florida

3-8-2013

Gonaphodioides cartwrighti new species from El Salvador (Coleoptera: Scarabaeidae: Aphodiinae)

Marco Dellacasa

Museo di Storia Naturale e del Territorio, Università di Pisa, dellacasa@museo.unipi.it

Giovanni Dellacasa

Genova, Italy, dellacasag@alice.it

Robert D. Gordon

Northern Plains Entomology, Willow City, ND 58384, rdgordon@utma.com

Follow this and additional works at: <https://digitalcommons.unl.edu/insectamundi>

Dellacasa, Marco; Dellacasa, Giovanni; and Gordon, Robert D., "*Gonaphodioides cartwrighti* new species from El Salvador (Coleoptera: Scarabaeidae: Aphodiinae)" (2013). *Insecta Mundi*. 795.

<https://digitalcommons.unl.edu/insectamundi/795>

This Article is brought to you for free and open access by the Center for Systematic Entomology, Gainesville, Florida at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Insecta Mundi by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

INSECTA MUNDI

A Journal of World Insect Systematics

0286

Gonaphodioides cartwrighti new species from El Salvador
(Coleoptera: Scarabaeidae: Aphodiinae)

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

Giovanni Dellacasa
Via Talamone 31/19
I-16127 Genova, Italy

Robert D. Gordon
Northern Plains Entomology
P.O. Box 65
Willow City, ND 58384 USA

Date of Issue: March 8, 2013

Marco Dellacasa, Giovanni Dellacasa, and Robert D. Gordon
Gonaphodioides cartwrighti new species from El Salvador
(Coleoptera: Scarabaeidae: Aphodiinae)
Insecta Mundi 0286: 1-3

ZooBank Registered: urn:lsid:zoobank.org:pub:7AB65FAF-4DDA-4F58-B75A-8A8CD109B125

Published in 2013 by

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

Insecta Mundi is a journal primarily devoted to insect systematics, but articles can be published on any non-marine arthropod. Topics considered for publication include systematics, taxonomy, nomenclature, checklists, faunal works, and natural history. **Insecta Mundi** will not consider works in the applied sciences (i.e. medical entomology, pest control research, etc.), and no longer publishes book reviews or editorials. **Insecta Mundi** publishes original research or discoveries in an inexpensive and timely manner, distributing them free via open access on the internet on the date of publication.

Insecta Mundi is referenced or abstracted by several sources including the Zoological Record, CAB Abstracts, etc. **Insecta Mundi** is published irregularly throughout the year, with completed manuscripts assigned an individual number. Manuscripts must be peer reviewed prior to submission, after which they are reviewed by the editorial board to ensure quality. One author of each submitted manuscript must be a current member of the Center for Systematic Entomology. Manuscript preparation guidelines are available at the CSE website.

Managing editor: Paul E. Skelley, e-mail: insectamundi@gmail.com

Production editor: Michael C. Thomas, Brian Armitage, Ian Stocks

Editorial board: J. H. Frank, M. J. Paulsen

Subject editors: G.B. Edwards, J. Eger, A. Rasmussen, F. Shockley, G. Steck, Ian Stocks, A. Van Pelt, J. Zaspel

Spanish editors: Julieta Brambila, Angélico Asenjo

Printed copies (ISSN 0749-6737) annually deposited in libraries:

CSIRO, Canberra, ACT, Australia
Museu de Zoologia, São Paulo, Brazil
Agriculture and Agrifood Canada, Ottawa, ON, Canada
The Natural History Museum, London, Great Britain
Muzeum i Instytut Zoologiczny PAN, Warsaw, Poland
National Taiwan University, Taipei, Taiwan
California Academy of Sciences, San Francisco, CA, USA
Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA
Field Museum of Natural History, Chicago, IL, USA
National Museum of Natural History, Smithsonian Institution, Washington, DC, USA
Zoological Institute of Russian Academy of Sciences, Saint-Petersburg, Russia

Electronic copies (On-Line ISSN 1942-1354, CDROM ISSN 1942-1362) in PDF format:

Printed CD or DVD mailed to all members at end of year. Archived digitally by Portico.
Florida Virtual Campus: <http://purl.fcla.edu/fcla/insectamundi>
University of Nebraska-Lincoln, Digital Commons: <http://digitalcommons.unl.edu/insectamundi/>
Goethe-Universität, Frankfurt am Main: <http://edocs.ub.uni-frankfurt.de/volltexte/2010/14363/>

Author instructions available on the Insecta Mundi page at:

<http://www.centerforsystematicentomology.org/insectamundi/>

Copyright held by the author(s). This is an open access article distributed under the terms of the Creative Commons, Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited. <http://creativecommons.org/licenses/by-nc/3.0/>

Gonaphodioides cartwrighti new species from El Salvador (Coleoptera: Scarabaeidae: Aphodiinae)

Marco Dellacasa

Museo di Storia Naturale e del Territorio, Università di Pisa
Via Roma, 79
I-56011 Calci (Pisa), Italy
dellacasa@museo.unipi.it

Giovanni Dellacasa

Via Talamone 31/19
I-16127 Genova, Italy
dellacasag@alice.it

Robert D. Gordon

Northern Plains Entomology
PO. Box 65
Willow City, ND 58384 USA
rdgordon@utma.com

Abstract. The new species *Gonaphodioides cartwrighti* from El Salvador is described and figured.

Key words. Systematics, *Gonaphodioides cartwrighti* new species, El Salvador, Aphodiinae.

Introduction

In a recent paper (Dellacasa et al. 2012) we study all Meso- and South American “gonaphodielliform” Aphodiinae (Coleoptera: Scarabaeidae) and describe the genus *Gonaphodioides*. While revising some unidentified material we found a small series of specimens from El Salvador that belong to a new species of *Gonaphodioides* Dellacasa, Dellacasa and Gordon, 2012 that we here describe.

Materials and methods

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

DCGI – Dellacasa Collection, Genoa, Italy

USNM – United States National Museum, Washington, D. C., U.S.A.

Gonaphodioides cartwrighti new species

(Fig. 1-6)

Type locality. Monte Cristo. El Salvador.

Type repository. United States National Museum, Washington, D. C., U.S.A.

Description. Length 3.5-4.0 mm, elongate, convex, moderately shiny, glabrous. Piceous black; clypeal margin and pronotal sides reddish brown; elytra variously yellowish spotted; legs reddish brown, antennal club piceous. Head with epistome moderately convex on disc, slightly depressed medially toward clypeal margin, evenly, rather coarsely punctured, punctation somewhat sparser on disc; clypeus feebly sinuate at middle, round at sides, very thinly bordered, edge glabrous; genae round, not ciliate, slightly

protruding from the eyes; frontal suture almost obsolete. Pronotum transverse, convex, shiny, dually punctured; large punctures, four to five times larger than contiguous small ones, irregularly sparse on sides; small punctures, somewhat variable in size, coarser on sides, superficial and finer on disc, evenly sparse throughout; lateral margins feebly arcuate, almost parallel toward the base, rather thinly bordered, edge glabrous; hind angles truncate and truncation inward sinuate; base bisinuate, not bordered. Scutellum elongate, irregularly punctured basally. Elytra oval elongate, slightly widened posteriorly, minutely denticulate at shoulder; striae rather strongly coarsely punctured, crenulate; interstriae feebly convex, superficially alutaceous, finely sparsely but distinctly punctured. Hind tibiae superior spur shorter than first tarsal segment; latter longer than following three segments combined. Male: head and pronotum relatively less densely and coarsely punctured; metasternal plate excavate; aedeagus Fig. 4-5. Female: head and pronotum relatively more densely and coarsely punctured; metasternal plate almost flat.

Type material. EL SALVADOR: Monte Cristo, 07-09.V.1958, leg. O. L. Cartwright (**holotype**, male, **allotype** and 1 **paratype**, USNM; 2 **paratypes**, DCGI).

Distribution. Known from the type locality only.

Etymology. Named in honor of the eminent coleopterologist Oscar L. Cartwright.

Bionomics. Unknown. Specimens of the type series were collected in May.

Discussion. *Gonaphodioides cartwrighti* is most similar to *G. skelleyi* Dellacasa, Dellacasa and Gordon, 2012, but can be easily distinguished from that species. It falls to couplet 5 in the key to *Gonaphodioides* (Dellacasa et al. 2012: 16) which has to be modified as follows:

5. Elytral striae very fine, superficial, not closely punctured, faintly crenulate; interstriae flat with extremely fine sparse punctures. Black. Length 5.0-6.0 mm. Mexico (Chiapas) ***G. skelleyi* Dellacasa, Dellacasa and Gordon**
- Elytral striae deep, wide, coarsely, rather closely punctured, crenulate; interstriae feebly convex, finely sparsely but distinctly punctured. Piceous black; elytra with yellowish spots variously arranged. Length 3.5-4.0 mm. El Salvador ***G. cartwrighti* new species**

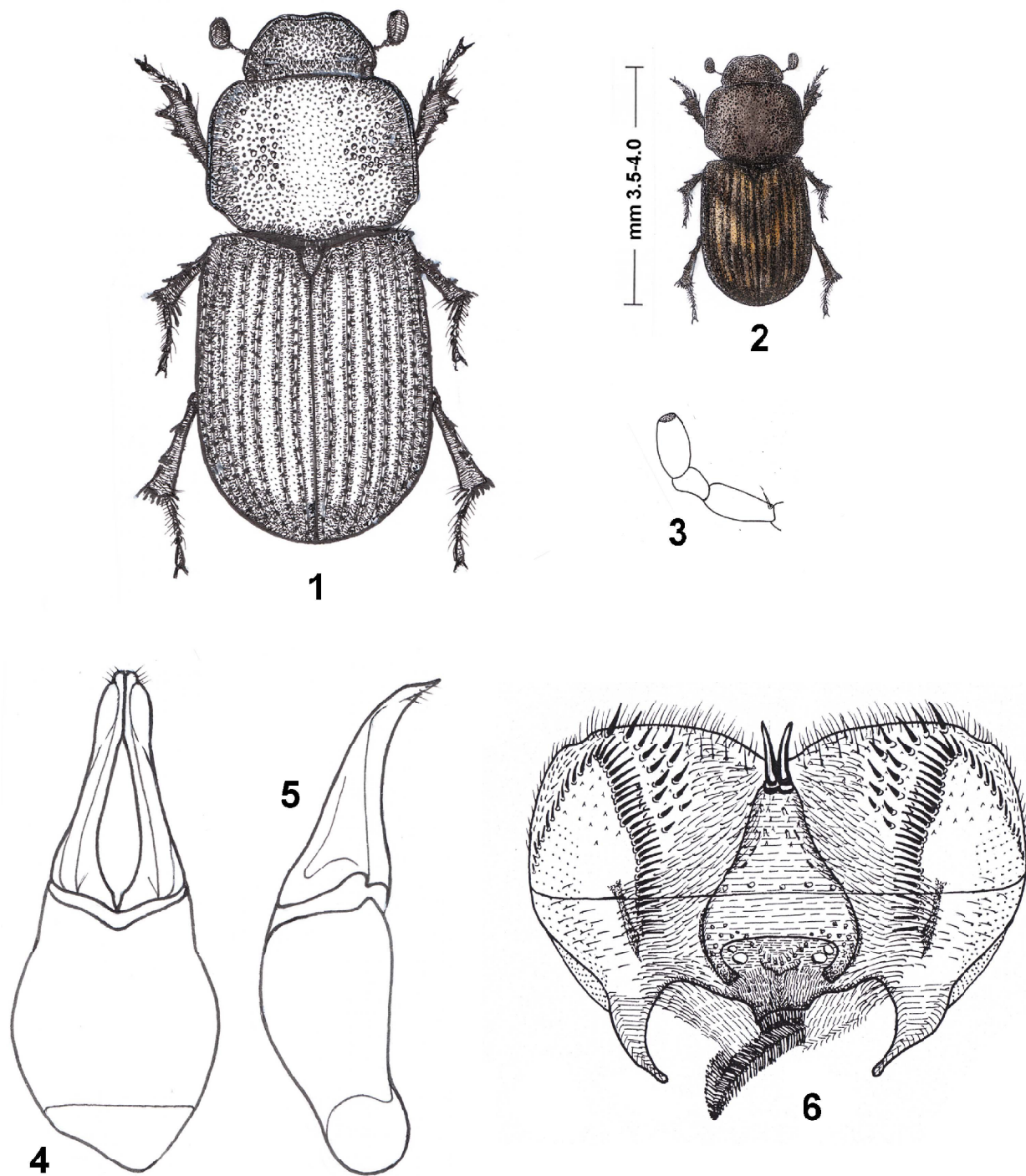
Acknowledgments

Thanks are due to P. Bordat (Saint-Cirq), and to 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* [2000] 79: 1-482.
- Dellacasa, M., G. Dellacasa and R. D. Gordon. 2012.** Systematic revision of *Gonaphodiellus* taxa with description of two new genera and fourteen new species. *Insecta Mundi* 0230: 1-41.

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



Figures 1-6. *Gonaphodioides cartwrighti* (Monte Cristo, El Salvador, holotype). **1-2)** Habitus of male (morphological details and length ideogram). **3)** Left labial palp (ventral view). **4-5)** Aedeagus (dorsal and lateral views). **6)** Epipharynx.

