A journal of world insect systematics

INSECTA MUNDI

0831

Aphelocerus thomasi, a new species of checkered beetle (Coleoptera: Cleridae: Clerinae) from Mexico

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Michael C. Thomas Festschrift Contribution
Date of issue: December 25, 2020

Center for Systematic Entomology, Inc., Gainesville, FL

Rifkind J. 2020. *Aphelocerus thomasi*, a new species of checkered beetle (Coleoptera: Cleridae: Clerinae) from Mexico. Insecta Mundi 0831: 1–3.

Published on December 25, 2020 by
Center for Systematic Entomology, Inc.
P.O. Box 141874
Gainesville, FL 32614-1874 USA
http://centerforsystematicentomology.org/

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Aphelocerus thomasi, a new species of checkered beetle (Coleoptera: Cleridae: Clerinae) from Mexico

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Abstract. *Aphelocerus thomasi* Rifkind, **new species** (Coleoptera: Cleridae: Clerinae), is described from the state of San Luis Potosí, Mexico. This beetle is named for the late Michael C. Thomas, in recognition of his lifetime of contributions to the study of Coleoptera.

Key words. Clerid fauna, taxonomy, endemism.

ZooBank registration. urn:lsid:zoobank.org:pub:CD47CC7D-0D74-42CA-902B-72889B0E8528

Introduction

Aphelocerus Kirsch (Coleoptera: Cleridae) is a moderately speciose genus (approx. 66 species) of predaceous beetle, broadly distributed across Mexico, Central America, and South America, that was recently revised by Opitz (2005). The Mexican *Aphelocerus* fauna includes approximately 25 described species (Opitz 2005), and several undescribed species are known. Endemism appears to be common, particularly in the tropical and subtropical highlands. Species in Mexico are adapted to a wide variety of habitats, including tropical deciduous forest, evergreen forest, pine–oak, and pine forest. This paper describes and illustrates a new species of Mexican *Aphelocerus*.

Materials and Methods

Depositories. The holotype is deposited in the California State Collection of Arthropods, Sacramento, California, U.S.A. (CSCA).

Images. Macro photographs were taken with an Olympus TG-5 camera fitted with an Olympus LED Light Guide (LG-1) attachment. Images were captured and processed using the camera's onboard macro photo stacking software. Measurements were established using the ocular grid in a Zeiss stereomicroscope and a millimeter scale.

Results

Aphelocerus thomasi Rifkind, new species

(Fig. 1–2)

Specimen examined. Holotype male: México, San Luis Potosí, Huichihuayán, VI-21-1962, J. M. Campbell (CSCA).

Description. Length: 6.0 mm. Color: orange testaceous; head, prothorax, abdomen, black; posterior ⅓ of elytra piceous; mouthparts testaceous, antennae reddish brown; piceous elytral markings arcuately emarginate on anterior border, slightly produced anteriorly at suture (Fig. 1). **Head:** shining, shallowly, finely punctate; surface inconspicuously set with fine, short, silvery, adpressed setae, and a few longer, more robust, black setae; antennae moderate in length; club composed of distal 4 antennomeres, gradually enlarged. **Pronotum:** slightly broader than long, subflattened on disk above; anterior depression distinct; surface shining, moderately densely but inconspicuously vested with fine, medium length, reclinate silvery setae, intermixed with longer, more robust suberect black setae (Fig. 2). Scutellum small, densely covered with white setae. **Elytra:** elongate (ratio of length to width 13:7); umbones distinct; sides subparallel, arcuately, but rather gradually convergent posteriorly to

Figures 1–2. *Aphelocerus thomasi*, holotype. **1)** Habitus. **2)** Head and prothorax.

separately rounded, dehiscent apices; dorsum slightly subflattened; integument shining, finely, sparsely, shallowly punctate, anterior ⅔ sparsely and inconspicuously set with short, erect pale setae, and fewer, somewhat longer and more robust erect, tawny setae; posterior margin of testaceous area with an irregular transverse band formed by a concentration of moderately long, reclinate, posteriorly oriented white setae, most conspicuous internally at suture; elytral posterior ⅓ rather densely covered with suberect and longer, erect black setae. **Metasternum:** shining, moderately densely clothed with medium length pale setae. **Abdomen:** ventrites shining, coarsely, shallowly, punctate and moderately densely clothed with fine, pale setae, ventrite 5 with hind margin broadly, feebly emarginate; ventrite 6 smaller, hind margin broadly, feebly emarginate; tergite 6 obliquely rounded laterally, subtruncate apically, somewhat excavate ventrally, surpassing ventrite 6 posteriorly.

Variation. Only the holotype is known.

Etymology. I dedicate this species to the late Michael C. Thomas, in recognition of his many contributions to the systematics of Coleoptera.

Distribution. The new species is known from San Luis Potosí, on the Atlantic versant of north central Mexico. The holotype was collected in June.

Diagnosis. *Aphelocerus thomasi* can be distinguished from congeners by a unique combination of color pattern and elytral shape. Most *Aphelocerus* species are uniformly black. Of the few bicolorous species, *A. thomasi* could only be confused with the similarly sized *A. delicatulus* (Barr), but the latter has the head and prothorax partially testaceous, the anterior ⅔ of the elytra with a broad longitudinal dark band at the suture, and the elytral apices distinctly more rounded than the former (Fig. 3). Furthermore, *A. thomasi* is known from a specimen collected in June on Mexico's Atlantic side, whereas *A. delicatulus* has only been recorded from the Pacific versant (in the states of Sinaloa, Jalisco, Colima, Morelos, Puebla and Oaxaca), with all collections made from late August through October. The two species therefore appear to be both allopatric and phenologically isolated.

Figure 3. *Aphelocerus delicatulus*, habitus.

Acknowledgments

I thank Weston Opitz for giving me the type specimen and Patricia Gum for preparing the illustrations. Henry Hespenheide and John M. Leavengood, Jr. kindly reviewed the manuscript: I appreciate their time and efforts.

Literature Cited

Opitz W. 2005. Classification, natural history and evolution of the genus *Aphelocerus* Kirsch (Coleoptera: Cleridae: Clerinae). Bulletin of the American Museum of Natural History 293: 1–128.

Received November 19, 2020; accepted November 24, 2020.
Review editor Paul E. Skelley.