University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville, Florida

3-3-2023

Description of a new species of Crossidius LeConte (Coleoptera: Cerambycidae: Cerambycinae: Trachyderini) from Texas

Frederick W. Skillman Jr.

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



Part of the Ecology and Evolutionary Biology Commons, and the Entomology Commons

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.

Insect systematics A journal of world insect systematics

0977

Description of a new species of *Crossidius* LeConte (Coleoptera: Cerambycidae: Cerambycinae: Trachyderini) from Texas

Frederick W. Skillman Jr. 7033 S. 19th Street Phoenix, Arizona 85042

Date of issue: March 3, 2023

Skillman FW, Jr. 2023. Description of a new species of *Crossidius* LeConte (Coleoptera: Cerambycidae: Cerambycinae: Trachyderini) from Texas. Insecta Mundi 0977: 1–4.

Published on March 3, 2023 by Center for Systematic Entomology, Inc. P.O. Box 141874 Gainesville, FL 32614-1874 USA http://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 and CAB Abstracts. 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.

Guidelines and requirements for the preparation of manuscripts are available on the Insecta Mundi website at http://centerforsystematicentomology.org/insectamundi/

Chief Editor: David Plotkin, insectamundi@gmail.com **Assistant Editor:** Paul E. Skelley, insectamundi@gmail.com

Layout Editor: Robert G. Forsyth

Editorial Board: Davide Dal Pos, Oliver Keller, M. J. Paulsen

Founding Editors: Ross H. Arnett, Jr., J. H. Frank, Virendra Gupta, John B. Heppner, Lionel A. Stange, Michael

C. Thomas, Robert E. Woodruff

Review Editors: Listed on the Insecta Mundi webpage

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

Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA The Natural History Museum, London, UK National Museum of Natural History, Smithsonian Institution, Washington, DC, USA Zoological Institute of Russian Academy of Sciences, Saint-Petersburg, Russia

Electronic copies (Online ISSN 1942-1354) in PDF format

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://nbn-resolving.de/urn/resolver.pl?urn:nbn:de:hebis:30:3-135240

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. https://creativecommons.org/licenses/by-nc/3.0/

Description of a new species of *Crossidius* LeConte (Coleoptera: Cerambycidae: Cerambycinae: Trachyderini) from Texas

Frederick W. Skillman Jr.

7033 S. 19th Street Phoenix, Arizona 85042 azbycid@gmail.com

Abstract. Crossidius wappesi Skillman, **new species** (Coleoptera: Cerambycidae) is described from Presidio County, Texas, USA.

Key words. Longhorn beetles, Presidio County, USA.

Resumen. Se describe *Crossidius wappesi* Skillman, **especie nuevo** (Coleoptera: Cerambycidae) de Presidio County, Texas, USA

Palabras clave. Longicórneos, Presidio County, EE.UU.

ZooBank registration. urn:lsid:zoobank.org:pub:850D5F00-5105-47E7-B6BF-3DF461B847A6

Introduction

I discovered a new species of *Crossidius* LeConte (Cerambycinae) in the fall of 2018 while collecting with Jim Wappes in Presidio County, Texas. Additional specimens were collected at the same location in 2019 by Jim Wappes and Kenneth Kuckartz.

This large, predominately western trachyderine genus presently contains 17 species and 37 subspecies (Bezark 2022). It should be noted that in the study of the genus by Linsley and Chemsak (1961), numerous populations, known from short series, were mentioned, given short descriptions and left nameless. It is possible that a study utilizing DNA could result in a better understanding of the genus.

Materials and Methods

Photographs were taken with a Canon EOS Rebel T7 DSLR camera, Canon MP-E 65mm f/2.8 1–5× macro lens, controlled by Zerene Stacker AutoMontage software. Specimens studied are deposited in the following Collections:

ACMT American Coleoptera Museum (James E. Wappes) now at FSCA, Gainesville, Florida, USA

DHCO Daniel Heffern Collection, Houston, Texas, USA

EMEC Essig Museum of Entomology (University of California), Berkely, California, USA

FSCA Florida Collection of Arthropods, Gainesville, Florida, USA

FWSC Frederick W. Skillman Collection, Phoenix, Arizona, USA

MZSP Museu de Zoologia da Universidad de São Paulo, SP, BRAZIL

RFMC Roy F. Morris Collection, Lakeland, Florida, USA

RFTC Robert H. Turnbow Collection, Enterprise, Alabama, USA

TAMU Texas A&M University, College Station, Texas, USA

2 · March 3, 2023 SKILLMAN

Systemtatics

Crossidius wappesi Skillman, new species

(Figures 1–5)

Description. Holotype male (Fig. 1-2, 5): Length 10.5-16 mm, elongate, parallel-sided, robust; head, legs, and antenna dark red-brown almost black; pronotum, thorax and abdomen rufo-testaceous; elytra testaceous. **Head** with pale blonde pubescence partially obscuring punctation which is contiguous and variable in size, all punctation smaller than that of pronotal disc. Antenna 11 segmented, long, extending three segments beyond elytral apex, dark red-brown becoming lighter towards apex; pubescence pale, short, recumbent, segments 3-5 densely pubescent on lateral surfaces, shining and very sparsely pubescent on dorsal and ventral surfaces; segments 6-11 densely pubescent throughout; last segment slightly flattened, curved inward, terminus shiny, most specimens with an indented ring ½ from apex that looks to be the possible fusion of two antennomers. Pronotum rufo-testaceous, shiny, margined with dark red-brown at apex and base; cylindrical, swollen, rounded at sides with a small, blunt, lateral tubercle; disc with 5 vague tubercles, (2 just before midline, 1 medially and 2 just before base, situated lateral to anterior pair) that are often darker than surrounding area; punctation contiguous, smaller than that of elytral base; erect and semi-erect pale pubescence moderate, not obscuring surface, ending at posterior margin of pronotum. **Prosternum** swollen at sides; punctation contiguous; erect and semi-erect pale pubescence moderate, not obscuring surface. Metasternum finely punctate, densely pubescent. Scutellar shield dark, indented medially, lateral edges elevated, small indentation before acute apex, pubescence long, sparse not obscuring surface. Elytra length 2.2 times width of both elytra at the humeri; testaceous with suture margin dark red-brown to basal ¼, often slightly expanded; surface moderately coarsely, densely punctate, becoming denser apically; pubescence short, blonde, sparse, recumbent, becoming semi-erect at basal ¼, not obscuring surface; apices truncate, inner angle usually dentate. Legs coarsely punctate thinly clothed with pale hairs, not obscuring surface. Abdomen densely pubescent and micro-punctate; pubescence consisting of recumbent and semi-erect hairs that partially obscure surface.

Female (Fig. 3–4) Length 10.5–16 mm form similar to male except as noted. Black sutural band on apical ¾ covering about ¾ of the width of the elytra over apical ⅓ then narrowing anteriorly to suture at basal ¼; elytral punctures of similar size but, more widely separated, pubescence somewhat longer, humeri sometimes black; Antenna 11 segmented, entirely dark red-brown, barely reaching apical ⅓ of body, pubescence very fine, darker than male, segments 7–10 somewhat serrate.

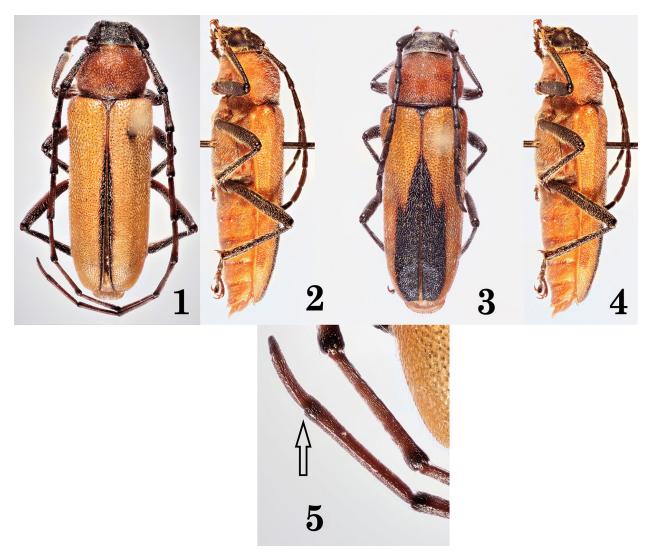
Diagnosis. Crossidius wappesi drops out at couplet 14 in Linsley and Chemsak's key to the species of Crossidius (Linsley and Chemsak 1961). This couplet contains two species: Crossidius hurdi, Chemsak and Linsley, 1959 and Crossidius pulchellus, LeConte, 1861. Crossidius wappesi is readily separated from these two species by having the pronotum rufo-testaceous not black as in both Crossidius hurdi and Crossidius pulchellus. Additionally, both Crossidius hurdi and Crossidius pulchellus have black antennae while those of Crossidius wappesi are dark red-brown.

Type material. Holotype male labeled: USA: TX: Presidio Co., SR170, 3mi W. Ruidosa, 6-X-2018, Skillman & Wappes, ex flowers of *Chrysothamnus* ssp. It is deposited in the FSCA.

Paratypes: 83 males and 19 females. **Texas:** Same data as holotype (8m, 2f – FWSC; 1m, 1f – SWLC; 1m, 1f – RFTC; 1m, 1f – DHCO), Presidio Co., Hwy 170, 7–12 mi W, Ruidosa, 6-X-2018, Skillman & Wappes, ex flowers of *Chrysothamnus* sp. (4m – FWSC), Presidio Co., Hwy 170, 3–6 mi W, Ruidosa 6 Oct. 2018, Wappes & Skillman, ex flowers of *Chrysothamnus* spp. (41m, 6f – ACMT/FSCA; 1m, 1f – RFMC; 1m, 1f – MZSP), Presidio Co., Hwy 170, 3–6 mi W, Ruidosa 19.X.2019, Wappes & Kuckartz, ex flowers of *Chrysothamnus* spp. (23m, 4f – ACMT/FSCA; 1m, 1f – TAMU; 1m, 1f – EMEC)

Etymology. I take great pleasure in naming this new species in memory of James Earl Wappes, good friend, teacher, identifier, traveling companion and camping buddy. He finally got some work out of me!

Remarks. The new species was found on flowers of a *Chrysothamnus* sp. growing by Hwy. 170 along a dip in the road where storm run-off was apt to flow. Other plants were found in similar circumstance. This area is frequently within sight of the Rio Grande and the state of Chihuahua, Mexico. I would expect to find this new species, in suitable habitat, on the Mexico side of the Rio Grande.



Figures 1–5. *Crossidius wappesi.* 1) Holotype male dorsal habitus. 2) Holotype male lateral habitus. 3) Female dorsal habitus. 4) Female lateral habitus. 5) Holotype male terminal antennal segment showing indented ring.

Acknowledgments

I wish to thank the following for help in this endeavor: Andrew Johnston, ASU, for early manuscript suggestions; Paul E. Skelley and Kyle Schnepp, FSCA for providing specimens; Steven W. Lingafelter and Norman E. Woodley, Hereford, AZ and Roy F. Morris, Lakeland, FL for reviewing the manuscript.

Literature Cited

Bezark LG. 2022. Checklist of the Cerambycidae of the Western Hemisphere (updated through 31 December 2021). Available at http://bezbycids.com/byciddb/wdefault.asp?w=n (Last accessed December 2022.)

Chemsak JA, Linsley 1959. Some new species and subspecies of *Crossidius* from western North America. Journal of the Kansas Entomological Society 32(4): 176–177.

LeConte JL. 1861. New species of Coleoptera inhabiting the Pacific District of the United States. Proceedings of the Academy of Natural Science of Philadelphia 13: 338–359.

4 · March 3, 2023

Linsley EG, Chemsak JA. 1961. A distributional and taxonomic study of the genus *Crossidius* (Coleoptera, Cerambycidae). Miscellaneous Publications of the Entomological Society of America 3(2): 26–64.

Received December 2, 2022; accepted February 2, 2023. Review editor Patrick Gorring.