

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville,
Florida

2020

**Taxonomic notes on Western Hemisphere Cyrtinini (Coleoptera:
Cerambycidae: Lamiinae) including description of two new
Cyrtinus LeConte species**

James E. Wappes

Antonio Santos-Silva

Francisco E. de L. Nascimento

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.

INSECTA MUNDI

A Journal of World Insect Systematics

0751

Taxonomic notes on Western Hemisphere Cyrtinini
(Coleoptera: Cerambycidae: Lamiinae) including description
of two new *Cyrtinus* LeConte species

James E. Wappes
American Coleoptera Museum
8734 Paisano Pass
San Antonio, TX 78255-3523, USA

Antonio Santos-Silva
Museu de Zoologia
Universidade de São Paulo
São Paulo, SP, Brazil

Francisco Eriberto de L. Nascimento
Museu de Zoologia
Universidade de São Paulo
São Paulo, SP, Brazil

Date of issue: February 28, 2020



James E. Wappes, Antonio Santos-Silva and Francisco Eriberto de L. Nascimento
Taxonomic notes on Western Hemisphere Cyrtinini (Coleoptera: Cerambycidae:
Lamiinae) including description of two new *Cyrtinus* LeConte species
Insecta Mundi 0751: 1–15

ZooBank Registered: urn:lsid:zoobank.org:pub:15C3800B-ED47-4B50-90DA-8553B0D80BE6

Published in 2020 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

Head Layout Editor: Robert G. Forsyth

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

Founding Editors: Ross H. Arnett, Jr., 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

CSIRO, Canberra, ACT, Australia

Museu de Zoologia, São Paulo, Brazil

Agriculture and Agrifood Canada, Ottawa, ON, Canada

The Natural History Museum, London, UK

Muzeum i Instytut Zoologii 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 (Online 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://nbn-resolving.de/urn/resolver.pl?urn:nbn:de:hebis:30:3-135240>

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/>

Layout Editor for this article: Robert G. Forsyth

Taxonomic notes on Western Hemisphere Cyrtinini (Coleoptera: Cerambycidae: Lamiinae) including description of two new *Cyrtinus* LeConte species

James E. Wappes

American Coleoptera Museum
8734 Paisano Pass
San Antonio, TX 78255-3523, USA
wappes@earthlink.net

Antonio Santos-Silva

Museu de Zoologia
Universidade de São Paulo
São Paulo, SP, Brazil
toncriss@uol.com.br
<https://orcid.org/0000-0001-7128-1418>

Francisco Eriberto de L. Nascimento

Museu de Zoologia
Universidade de São Paulo
São Paulo, SP, Brazil
eribnascimentoff@gmail.com
<https://orcid.org/0000-0002-5047-8921>

Abstract. *Cyrtinus pygmaeus* (Haldeman, 1847) (Coleoptera: Cerambycidae: Lamiinae) is redescribed and newly recorded from Mexico. The female of *Decarthria stephensii* Hope, 1834 is also redescribed, the number of specimens in the type series is corrected, as is the depository of the types, and the species is newly recorded from Dominica. Two new species of *Cyrtinus* LeConte, 1852 are described from Mexico: *C. fisheri* Wappes, Santos-Silva and Nascimento; and *C. howdeni* Wappes, Santos-Silva and Nascimento. A key to species of *Decarthria* Hope, 1834 (adapted from an earlier key to Cyrtinini) is provided.

Key words. New taxa, geographical distribution, Caribbean, Central America, North America.

Introduction

The Cyrtinini Thomson, 1864 is a small tribe of four New World genera totaling 33 species (1 *Boricyrtinus* Micheli, 2003; 28 *Cyrtinus* LeConte, 1852; 3 *Decarthria* Hope, 1834; and 1 *Sciocyrtinus* Fisher, 1935) (Tavakilian and Chevillotte 2019). They are widely distributed from North America to western South America but the three smallest genera (*Boricyrtinus*, *Decarthria* and *Sciocyrtinus*) are found only in the West Indies. The largest genus, *Cyrtinus*, has 12 species in the West Indies, two in the USA (both also occurring in Mexico), seven in Mexico and Central America, and seven in northern and western South America (Bolivia, Ecuador, Peru and Venezuela).

The genus *Cyrtinus*, being the most numerous and commonly collected of the Cyrtinini, has received the most attention from authors. Among the notable are the works of Warren S. Fisher (1926, 1935a, 1935b) who had a fondness for West Indian Cerambycidae and described dozens of new species from the islands including six new *Cyrtinus* and the new genus/species *Sciocyrtinus elongatus* Fisher, 1935. Henry F. Howden (1959) described two new *Cyrtinus* and published the first “Key to the New World Cyrtinini”, which, at that time covered all the genera and species in the tribe. Howden followed this with three more works (1960, 1970 and 1973) describing an additional six new species and publishing a “Key to the four Jamaican *Cyrtinus* species” (Howden 1970). Joly and Rosales (1990) studied the Venezuelan fauna and published the description of a new *Cyrtinus* species along with a key to the four Venezuelan *Cyrtinus* species. Julio Micheli (2003) described two new Cyrtinini from Puerto Rico, one a new genus/

species, *Boricyrtinus elongatus*, and the other *Decarthria boricua*. He followed this with Micheli (2010), his long-awaited book: “Longicornios de Puerto Rico” in which he provides his own illustrations of species, including the five Cyrtinini species found there and relating his experiences collecting them.

Authors and collectors frequently refer to the Cyrtinini as being “ant-like” or “ant mimics” and although uncommon, it is not unusual to collect them by beating shade-killed twigs on maple or other hardwood trees. They are often in the company of similar appearing ants or other insects. One species, *Cyrtinus pygmaeus* (Haldeman, 1847) is occasionally collected at lights. However, little is definitively known of their biology or host plants. Of special note is an account by Robert Turnbow (in Rice et al., 1985) regarding *Cyrtinus beckeri* Howden, 1960: “Small twigs (<1 cm dia.) on the trunks and lower limbs of living trees are where most of the infestations were located. Larvae form elongate (3–4 cm), longitudinal galleries, tightly packed with fine frass and deeply scoring the heartwood. Prior to pupation, larval mining reversed direction (giving the gallery a characteristic j-shaped appearance) and an oval pupal cell was formed. Emergence typically occurred through a round exit hole chewed through the wood and exited from the side of the twig opposite the larval mine and pupal cell.”

The addition of the two new species described herein results in 30 *Cyrtinus* species and a total of 35 species in the Cyrtinini. As nearly all the American species of the tribe are rare and often poorly described we take this opportunity to redescribe the male and female of one species, female of another, as well as describe the two new species from Mexico.

Materials and Methods

Photographs were taken in the MZSP with a Canon EOS Rebel T3i DSLR camera, Canon MP-E 65mm f/2.8 1–5× macro lens, controlled by Zerene Stacker AutoMontage software. Measurements were taken using a measuring ocular Hensoldt/Wetzlar - Mess 10 in the Leica MZ6 stereomicroscope, also used in the study of the specimens.

Nearly all dimensions were rounded, often downward. The references under the known species are restricted to the original description and first citation in the current genus (see Tavakilian and Chevillotte (2019) for entire lists of references).

The acronyms used in the text are as follows:

| | |
|-------------|---|
| ACMT | American Coleoptera Museum (James Wappes), San Antonio, Texas, USA |
| BMNH | The Natural History Museum, London, United Kingdom |
| FSCA | Florida State Collection of Arthropods, Gainesville, Florida, USA |
| MZSP | Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil |
| NIS | National Identification Services, National Museum of Natural History, Smithsonian Institution, Washington DC, USA |
| OUNH | Oxford University Museum of Natural History, Oxford, United Kingdom |

Results

Cyrtinus pygmaeus (Haldeman, 1847)

(Fig. 1–9)

Clytus pygmaeus Haldeman 1847: 42.

Cyrtinus pygmaeus; LeConte 1852: 166.

Redescription. Female (Fig. 1–4, 9). Integument mostly dark-brown, nearly black on some areas, especially pronotum and abdominal ventrites; mouthparts reddish-brown, more yellowish-brown toward apex of last segment of maxillary and labial palpi; postclypeus dark reddish-brown; most of anteclypeus and anterior area of labrum reddish-brown; basal 2/3 of mandibles reddish-brown with margins darkened, distal third black; gulamentum dark reddish-brown; base of scape reddish-brown, remaining surface brown; basal half of pedicel yellowish-brown, remaining surface brown; antennomeres III–X yellowish-brown anteriorly, brown posteriorly (light area gradually shorter toward X; brown area gradually

darker toward X); antennomere XI dark-brown; prosternum and mesoventrite dark reddish-brown, with irregular darker areas; anterior area of metaventrite slightly lighter than remaining surface; basal third of elytra slightly lighter than remaining surface, except oblique reddish-brown band in posterior area of anterior third, not reaching suture or epipleural margin, reddish-brown maculae close to suture before oblique band, and transverse, slightly distinct reddish-brown maculae on sides of posterior quarter. Coxae reddish-brown (darker on metacoxae). Femoral peduncle yellowish-brown (more reddish-brown depending on light intensity).

Head. Frons slightly convex, minutely, densely tuberculate; with grayish-white bristly setae clearly not obscuring integument, with a few long, erect brown setae interspersed. Vertex densely, microscopically rugose; with sparse, decumbent grayish-white setae, and long, erect, brown setae interspersed between antennal tubercles and upper eye lobes, glabrous on remaining surface. Area behind upper eye lobes and area between lobes with sculpturing as on frons, glabrous. Area behind lower eye lobes with sculpturing as on vertex superiorly, gradually smooth toward genae; with sparse, short, decumbent grayish-white setae, and a few long, dark setae interspersed on inferior area. Genae about 1.5 times length of lower eye lobe, with sculpturing and setae as on frons close to eye, smooth, glabrous toward apex. Postclypeus finely punctate on wide central area, smooth laterally; with a few short grayish-white setae, and a few long, erect brown setae on wide central area, glabrous laterally. Labrum with a few yellowish-white setae, and long, erect brown setae interspersed on posterior area; with dense pale-yellow setae directed forward anteriorly. Distance between upper eye lobes 0.37 times length of scape (0.30 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.85 times length of scape (0.69 times distance between outer margins of eyes). Antennae 1.9 times elytral length, reaching elytral apex at posterior quarter of antennomere IX (only holotype measured). Scape, pedicel and antennomeres with white pubescence not obscuring integument; scape and pedicel with a few moderately long, erect dark setae ventrally (lighter depending on light intensity); antennomeres III–VII slightly widened toward apex, VIII–XI cylindrical; antennomere III with a few long, erect brownish setae on anterior 3/4, very long, brownish tuft of setae directed backward on posterior quarter; antennomeres IV–X, with very long, brownish tuft of setae directed forward on posterior quarter. Antennal formula (ratio) based on length of antennomere III: scape = 1.93; pedicel = 0.71; IV = 1.28; V = 1.14; VI = 1.07; VII = 1.07; VIII = 1.00; IX = 0.93; X = 0.86; XI = 1.00.

Thorax. Pronotum very finely, sparsely punctate, minutely densely punctate on posterior constriction (somewhat striate centrally); with a few grayish-white decumbent setae, slightly more abundant near anterior margin, sides on lateral gibbosity of prothorax, distinctly more abundant on sides of posterior constriction; with long, erect, sparse brown setae interspersed, absent on posterior constriction. Sides of prothorax very finely striate anteriorly, somewhat rugose posteriorly, smooth on wide central area; with a few short white setae, slightly denser centrally close to pronotum and posteriorly close to procoxal cavity; with a few long, erect brown setae close to pronotum. Prosternum rugose-punctate on posterior half, depressed (limit between anterior and posterior half abruptly inclined), nearly smooth on anterior half, less so close to anterior margin; with sparse grayish-white setae on punctate area (forming sparse fringe close to anterior half), nearly glabrous on anterior half. Prosternal process rugose-punctate, less so centrally on anterior 2/3; with short, sparse grayish-white setae; narrowest area 0.4 times width of procoxal cavity. Mesoventrite with sparse grayish-white pubescence centrally, glabrous laterally, except very short pubescence close to mesanepisternum; mesanepisternum with abundant white pubescence; mesepimeron with minute, sparse grayish-white pubescence. Metanepisternum and sides of metaventrite with bristly white setae, denser toward apex; remaining surface of metaventrite with sparse grayish-white setae, longer than laterally. Scutellum nearly glabrous basally, with white pubescence posteriorly. **Elytra.** Moderately flattened on anterior quarter, convex on posterior 3/4; with elevated, subtriangular crest anteriorly, with tuft of long, erect dark setae at apex; anterior area before oblique reddish-brown band coarsely punctate (surface somewhat rugose); remaining surface coarsely, sparsely punctate (punctures nearly aligned in longitudinal rows); anterior area before oblique reddish-brown band with long, erect, sparse grayish-white setae (darker depending on light intensity) dorsally, distinctly denser on reddish-brown area close to suture, glabrous on inclined area; oblique, somewhat dense white pubescent band on reddish-brown area reaching epipleural margin, forming small dense tuft on

its inner apex; with white pubescence on posterior quarter, denser on reddish-brown area; with long, erect, sparse dark setae throughout; apex together rounded. **Legs.** Femora with white decumbent setae not obscuring integument, bristly on ventral surface of peduncle. Tibiae with decumbent white setae not obscuring integument, denser ventrally on posterior third, bristly close to apex.

Abdomen. Ventrites with sparse, decumbent grayish-white setae, slightly more abundant toward V; posterior margin of ventrite V rounded.

Male (Fig. 5–8). Nearly identical to female, except slightly longer antennae surpassing elytral apex at apex of antennomere VIII, and abdominal ventrite V more transverse.

Variation. Head and prothorax distinctly reddish-brown; scape, and posterior area of pedicel and antennomeres brown; anterior third of elytra light reddish-brown; ventral surface of meso- and meta-thorax reddish-brown; posterior area of pronotum reddish-brown; prosternal process orangish-brown; oblique reddish-brown band on elytra from slightly distinct to well-marked; femoral peduncle distinctly yellowish-brown and femoral club reddish-brown; pronotum microscopically rugose on some areas; sides of prothorax distinctly striate centrally, rugose posteriorly (Fig. 9); anterior half of prosternum entirely smooth; anterior half of prosternum glabrous; pubescence on posterior quarter of elytra absent dorsally.

Dimensions in mm (male/female). Total length, 3.95/2.55–3.20; prothoracic length, 1.10/0.75–0.85; anterior prothoracic width, 0.90/0.55–0.70; posterior prothoracic width, 0.75/0.50–0.60; widest prothoracic width, 0.90/0.60–0.75; humeral width, 1.10/0.70–0.90; elytral length, 2.40/1.60–2.00.

Material examined. **MEXICO (New country record):** TAMAULIPAS: 10 miles E Tulas, 3900', Oak Forest, 5 females, 10.V.1994, J.E. Wappes col. (4, ACMT; 1, MZSP). HIDALGO: 2.4 miles N Tlanchinol, 4 females, 8–9.V.1983, C.W. & L. O'Brien col. (4, ACMT; 1, MZSP). NUEVO LEÓN: El Cercado, 29.VI.1954, Kissinger col. (MZSP).

Remarks. *Cyrtinus pygmaeus* is the most widespread species in the genus with its known geographical distribution including Canada, USA (Pennsylvania, Alabama, Massachusetts, District of Columbia, New Jersey, New York, Ohio, Georgia, Indiana, South Carolina, Texas, Mississippi, Missouri, Maryland, Tennessee) and Mexico (Tamaulipas, Hidalgo, Nuevo León). Although Gilmour (1965) recorded the species from Panama no specimens have been located from there and it is likely the record was based on a misidentified specimen.

***Cyrtinus fisheri* Wappes, Santos-Silva and Nascimento, new species**
(Fig. 10–17)

Description. **Holotype male** (Fig. 10–13). Head, prothorax, ventral surface of mesothorax, basal third of elytra, and most of surface of legs reddish-brown; remaining surface of elytra gradually dark-brown toward apex; femoral peduncle and base of tibiae irregularly dark yellowish-brown; scape yellowish-brown basally, brownish on remaining surface except small yellowish-brown dorsal macula on apex; pedicel reddish-brown, with yellowish-brown apex; antennomeres III–VII yellowish-brown anteriorly, reddish-brown posteriorly (yellowish-brown area gradually shorter toward VII); remaining antennomeres reddish-brown; ventral surface of metathorax dark reddish-brown basally, gradually brown toward apex; abdominal ventrites dark-brown, almost black.

Head. Frons convex, finely, sparsely rugose, with fine sparse punctures interspersed; with sparse yellowish-white pubescence, and a few erect yellowish setae interspersed. Vertex finely, densely rugose between antennal tubercles and posterior margin of eyes, finely, abundantly punctate close to prothorax; with short, decumbent, very sparse yellowish-white setae, with a few long, erect brown setae interspersed laterally, glabrous close to prothorax. Area behind upper eye lobes and between ocular lobes finely, longitudinally, densely rugose, except area closer to vertex and prothorax finely, densely punctate; glabrous. Area behind lower eye lobes nearly smooth and glabrous. Genae 1.3 times length of lower eye lobe, nearly smooth toward ventral surface, finely rugose toward clypeus, smooth on apex; with a few short yellowish setae, except glabrous apex, and a few long, erect dark setae interspersed. Postclypeus with a few erect, short yellowish-white setae, and a few long, erect dark setae on wide

central area, glabrous laterally. Labrum with a few long, erect dark setae posteriorly, long pale-yellow setae anteriorly (shorter and more abundant than on posterior area). Distance between upper eye lobes 0.41 times length of scape (0.39 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.75 times length of scape (0.72 times distance between outer margins of eyes). Antennae 1.65 times elytral length, reaching elytral apex at middle of antennomere XI. Scape distinctly, gradually widened from anterior third; with short, sparse, decumbent yellowish-white setae, with a few short, erect yellowish-white setae interspersed. Pedicel and antennomeres with short, decumbent yellowish-white setae (more yellowish depending on light intensity), gradually, slightly more abundant toward antennomere XI, with short, erect yellowish-white setae interspersed; pedicel and antennomeres III–XI with very long, brownish tuft of setae directed backward on posterior quarter (tuft gradually less dense toward XI); antennomeres III–V pedunculate-clavate; antennomeres VI–VIII nearly pyriform; antennomeres IX–XI cylindrical. Antennal formula (ratio) based on length of antennomere III: scape = 2.20; pedicel = 0.30; IV = 1.00; V = 0.95; VI = 0.80; VII = 0.80; VIII = 0.70; IX = 0.60; X = 0.55; XI = 0.50.

Thorax. Pronotum finely, rugose-punctate on anterocentral area, finely, densely, longitudinally striate on wide central area, partially smooth close to posterior constriction, rugose-punctate on constricted posterior area; with a few short yellowish-white setae, and one long, erect dark seta on each side of constricted area. Sides of prothorax nearly smooth anteriorly (this area widened toward prosternum), finely, densely, longitudinally striate on wide central area close to pronotum, nearly smooth on wide central area close to prosternum, rugose-punctate posteriorly. Prosternum nearly smooth and glabrous laterally, somewhat rugose-punctate on wide central area; with short, decumbent, sparse white setae on punctate area. Prosternum with sculpturing as on central area of prosternum; narrowest area 0.4 times width of procoxal cavity. Mesoventrite with a few white setae centrally, glabrous laterally toward inferior area; mesanepisternum with sparse, slightly conspicuous setae close to mesoventrite, with white abundant pubescence laterally; mesepimeron with sparse white pubescence. Metanepisternum and posterior sides of metaventrite with yellowish-white pubescence not obscuring integument; remaining surface of metaventrite with short, very sparse white setae. Scutellum nearly glabrous basally, with short yellowish-white setae posteriorly. **Elytra.** Moderately flattened on anterior quarter, convex on posterior 3/4; slightly narrowed laterally after humeral area, gradually widened from this area to slightly past middle, then distinctly narrowed toward apex; apex rounded; with strongly elevated, nearly conical crest anteriorly, with short, sparse dark setae (distinctly not tuft-shaped); anterior third coarsely, somewhat abundantly punctate; remaining surface finely, sparsely punctate; anterior third with two white pubescent bands, one transverse, placed dorsally close to suture and near basal crest, and the other from middle of dorsal surface to epipleural margin, slightly oblique dorsally; remaining surface with short, decumbent, sparse yellowish-white setae, and long, erect, sparse, thick dark setae (slightly more abundant on posterior quarter). **Legs.** Femora with very sparse, decumbent white setae. Protibiae with very sparse yellowish-white setae, except posterior half of ventral surface with dense, bristly pale-yellow setae; mesotibiae with sparse, decumbent yellowish-white setae, slightly denser ventrally on posterior half, and dense, bristly yellowish-white setae dorsally on posterior half (slightly yellower toward apex); metatibiae with sparse, decumbent yellowish-white setae anteriorly, slightly, gradually more abundant toward apex, especially ventrally.

Abdomen. Ventrites with sparse, decumbent yellowish-white setae, more abundant close to apex of V; posterior margin of ventrite V truncate, slightly emarginate centrally.

Female (Fig. 14–17). Color differences: Head dark reddish-brown; pronotum and superior area of sides of prothorax dark-brown; basal third of elytra reddish-brown and remaining surface gradually dark reddish-brown toward apex; ventral surface of mesothorax dark reddish-brown, with some dark brown areas; tibiae entirely reddish-brown; scape entirely reddish-brown; antennomeres VIII–XI brown. Nearly identical to male.

Dimensions in mm (holotype/paratype). Total length, 2.05/2.35; prothoracic length, 0.45/0.60; anterior prothoracic width, 0.40/0.60; posterior prothoracic width, 0.45/0.50; widest prothoracic width, 0.50/0.65; humeral width, 0.60/0.70; elytral length, 1.30/1.50.

Type material. Holotype male from MEXICO, Tampico, E.A. Schwarz coll. (FSCA). Paratype female,

same data as holotype (ACMT, 1) There are places in several Mexican states named Tampico, thus it is not certain exactly where the specimens are from.

Etymology. Named after the late Warren S. Fisher, an early 20th century USDA coleopterist who studied West Indian Cerambycidae and described several new *Cyrtinus* species and *Sciocyrtinus*, a genus of Cyrtinini.

Remarks. Following the key from Howden (1959), *Cyrtinus fisheri* can be included in the alternative of couplet “11”, with *Cyrtinus opacicollis* (Bates, 1885), and *Cyrtinus fauveli* (Cameron, 1909). It differs from *C. opacicollis* by the antennomeres distinctly thicker, and their basal segments pedunculate-clavate (slender and not pedunculate-clavate in *C. opacicollis*); and from *C. fauveli* by the pronotum mostly longitudinally striate (smooth in *C. fauveli*).

After Howden (1959) 16 species were described. However, none of those species agree with *Cyrtinus fisheri* due to one or more of the following features: sculpturing of prothorax; presence of basal crest on elytra; shape of the antennomeres; elytral pubescent pattern.

***Cyrtinus howdeni* Wappes, Santos-Silva and Nascimento, new species**

(Fig. 18–21)

Description. Holotype male. Integument mostly dark-brown; apex of last segment of maxillary and labial palpi yellowish-brown; anterior area of labrum pale-yellow; scape light-brown; pedicel yellow basally, gradually brown toward apex; antennomeres III–IX yellow anteriorly, dark brown posteriorly (yellow area gradually constricted toward IX); elytra slightly lighter on anterior third, with small, rounded darkened maculae on inclined area (appearing to be punctures); ventral surface of thorax slightly dark reddish-brown; femoral peduncles yellowish-brown; tibiae dark-brown basally, gradually dark reddish-brown toward apex; tarsi reddish-brown; abdominal ventrites I–III nearly black, IV–V lighter, especially V.

Head. Frons slightly convex, finely rugose with fine punctures interspersed; with short, decumbent, sparse grayish-white setae, more yellowish centrally toward clypeus; with a few long, erect dark setae laterally. Vertex and area behind eyes with sculpturing as on frons, smoother on vertex close to prothorax; with short, decumbent, sparse grayish-white setae between antennal tubercles and upper eye lobes, glabrous on remaining surface of vertex and nearly all of surface behind upper eye lobes. Area between ocular lobes finely punctate, with grayish-white pubescence not obscuring integument; area behind this region nearly smooth, glabrous. Area behind lower eye lobes nearly smooth superiorly, slightly rugose close to eye inferiorly; with a few short grayish-white setae near eye, glabrous on remaining surface. Genae 1.5 times length of lower eye lobe, rugose, except smooth at apex; with a few short grayish-white setae toward clypeus, slightly longer toward inferior area. Postclypeus coarsely, shallowly, sparsely punctate; with a few short, decumbent yellowish setae on wide central area, and long, erect, sparse dark setae interspersed. Labrum with long, erect, sparse yellowish-brown setae posteriorly, long, erect, abundant pale-yellow setae anteriorly. Distance between upper eye lobes 0.40 times length of scape (0.38 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.70 times length of scape (0.67 times distance between outer margins of eyes). Antennae 1.8 times elytral length, reaching elytral apex at basal third of antennomere X. Scape gradually widened toward apex; with short, decumbent, sparse white setae dorsally and laterally, with a few short, erect dark setae ventrally; pedicel with a few white setae dorsally, and one long brownish seta directed backward ventrally. Antennomeres with sparse white setae dorsally and laterally, more abundant toward XI; III–VII with tuft of long yellowish setae directed backward on ventral apex (more brownish depending on light intensity); antennomeres III–IX slightly pedunculate-clavate; X–XI cylindrical. Antennal formula (ratio) based on length of antennomere III: scape = 2.50; pedicel = 0.50; IV = 1.15; V = 1.10; VI = 1.10; VII = 0.90; VIII = 0.90; IX = 0.90; X = 0.80; XI = 0.75.

Thorax. Pronotum finely, abundantly punctate on narrow area close to anterior margin, finely, somewhat rugose-punctate on posterior constriction, with a few coarse punctures on wide central area; with short, decumbent, sparse grayish-white setae close to anterior margin, abundant on posterior constriction, and

a few minute grayish-white setae on wide central area; with long, erect, sparse brownish setae. Sides of prothorax rugose anteriorly and posteriorly, smooth centrally; with a few grayish-white setae, slightly more abundant posteriorly; with one long, erect dark seta posteriorly. Prosternum rugose on wide central area, nearly smooth laterally; with short, decumbent, sparse grayish-white setae on wide central area, glabrous laterally. Prosternal process with sculpturing and setae as on wide central area of prosternum; narrowest area slightly shorter than 0.5 times width of procoxal cavity. Ventral surface of mesothorax with sparse grayish-white pubescence on center of mesoventrite, denser on sides of mesoventrite, with oblique white pubescent band on mesanepisternum (setae nearly scale-shaped). Metanepisternum and metaventrite with a few decumbent grayish-white setae, except transverse white band with nearly scale-shaped setae on posterior area of metanepisternum and sides of metaventrite (following that on elytra). Scutellum glabrous basally, with short, decumbent, abundant grayish-white setae posteriorly. **Elytra.** Nearly parallel-sided in anterior 2/3, then distinctly narrowed toward individually rounded apex on posterior third; moderately flattened on anterior quarter, convex on posterior 3/4; with elevated, subtriangular crest anteriorly, with a single long, erect dark seta at apex; anterior third coarsely punctate; remaining surface finely, sparsely punctate; with transverse white band of nearly scale-shaped setae close to suture on anterior quarter, another band with same type of setae starting dorsally slightly before middle of elytra (fragmented on this area), not reaching suture, following obliquely toward anterior quarter, then transverse on inclined area, not reaching epipleural margin; with long, sparse, erect dark setae dorsally, and short, erect, sparse yellowish-white setae on inclined area. **Legs.** Femora with sparse white pubescence (denser on longitudinal band along dorsal surface of femoral club). Tibiae with sparse white pubescence basally, gradually more abundant, bristly toward apex on meso- and metatibiae, distinctly denser on ventral posterior third of protibiae and dorsal third of mesotibiae.

Abdomen. Ventrites with a few decumbent yellowish-white setae. Apex of ventrite V nearly truncate.

Dimensions in mm. Total length, 2.40; prothoracic length, 0.60; anterior prothoracic width, 0.55; posterior prothoracic width, 0.45; widest prothoracic width, 0.60; humeral width, 0.70; elytral length, 1.50.

Type material. Holotype male from MEXICO, Cordoba, 21.III.1908, Frederick Knab col. (FSCA, formerly ACMT). There are places named Cordoba in at least three different Mexican states, besides the well-known city in Veracruz, thus it is not certain exactly where the specimens are from.

Etymology. Named after the late Henry Howden, who described several species and one genus in Cyrtinini.

Remarks. Following the key by Howden (1959), *Cyrtinus howdeni* can be included in the alternative of couplet "10", with *C. hubbardi* Fisher, 1926 (see photograph of the holotype at Bezark 2019) but differs by the notably thicker antennomeres (slender in *C. hubbardi*). It differs from *C. bordonii* Joly and Rosales, 1990, by the elytra with two white dorsal pubescent bands, the largest obliquely pointed backward (one, mostly transverse, in *C. bordonii*). The new species differs from *C. sandersoni* Howden, 1959 by the basal tubercle of the elytra strongly elevated (obsolete in *C. sandersoni*).

***Decarthria stephensii* Hope, 1834**

(Fig. 22–32)

Decarthria stephensii Hope 1834: 16.

Redescription. Female. Head mostly light brown; genae reddish-brown toward apex; apex of labrum yellowish-brown; palpi pale-yellow; scape and pedicel orangish-brown, slightly lighter toward apex; anterior area of antennomeres orangish-brown (this area gradually shorter toward antennomere X), dark brown on remaining surface. Prothorax mostly brown; narrow anterior area and most of posterior constriction of pronotum, posterocentral area of prosternum and prosternal process orangish-brown. Ventral surface of thorax mostly brown; central area of mesoventrite and posterior area of metaventrite yellowish-brown; metanepisternum mostly yellowish-brown. Elytra brown on base (this area widened toward epipleural margin), light yellowish-brown on remaining anterior third, brown, with irregular yellowish-brown maculae on central third, except yellowish-brown epipleural margin, light yellowish-brown,

with irregular light-brown macula dorsally on posterior third. Femoral peduncle pale-yellow; femoral club reddish-brown, more pale-yellow close to apex. Tibiae reddish-brown, slightly lighter toward apex. Ventral surface of abdomen reddish-brown basally, gradually orangish-brown toward ventrite V.

Head. Frons finely, abundantly punctate; with white, somewhat bristly pubescence not obscuring integument (slightly more yellowish white depending on light intensity), with one long, erect seta on each side close to eyes, brown basally, yellowish toward apex. Vertex and area behind upper eye lobes with sculpturing and pubescence as on frons, with one long erect brownish seta on each side of posterior area of vertex. Area between lobes smooth and glabrous. Area behind lower eye lobes finely rugose-punctate, with white pubescence not obscuring integument close to eye, smooth and glabrous on remaining surface. Genae 1.2 times length of lower eye lobe, rugose-punctate close to eye, gradually less so toward apex; with sparse white pubescence close to eye, distinctly sparser toward apex. Postclypeus with sculpturing and pubescence as on frons posteriorly, gradually less distinctly punctate, with sparser setae toward anterior margin; with long, erect yellowish-brown setae anteriorly. Labrum with long, erect yellowish-brown setae, shorter, more abundant on anterior half. Distance between upper eye lobes 0.48 times length of scape (0.36 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.95 times length of scape (0.72 times distance between outer margins of eyes). Antennae 1.95 times elytral length, reaching elytral apex near apex of antennomere VIII. Scape slightly, gradually widened toward apex; with white pubescence not obscuring integument, sparser ventrally. Pedicel and antennomeres III–IX with white pubescence not obscuring integument dorsally and laterally, glabrous ventrally; antennomere X with white pubescence not obscuring integument throughout; pedicel and antennomere III with a few short, erect dark setae ventrally; antennomeres III–IX with very long tuft of yellowish setae directed backward on apex of ventral surface; pedicel and antennomeres III–VII, slightly, gradually widened toward apex; antennomeres VIII–X cylindrical. Antennal formula (ratio) based on length of antennomere III: scape = 1.83; pedicel = 0.61; IV = 1.22; V = 1.11; VI = 1.11; VII = 1.11; VIII = 1.11; IX = 1.00; X = 1.11.

Thorax. Pronotum finely, abundantly punctate on sides of anterior half, sparsely punctate on center of anterior half, finer and sparser on each side of central area of posterior half before posterior constriction, smooth centrally and on remaining surface of posterior half before posterior constriction; posterior constriction finely, abundantly punctate laterally, smooth centrally; with white pubescence not obscuring integument on anterior half, slightly longer, sparser and yellowish centrally, distinctly sparser on posterior half, absent on smooth areas; with a few long, erect dark setae. Sides of prothorax finely, abundantly punctate; with white pubescence on anterior half, distinctly sparser on posterior half. Prosternum somewhat rugose-punctate on posterior 2/3, finely, sparsely punctate on anterior third; with sparse white pubescence on posterior 2/3, nearly glabrous on anterior third. Narrowest area of prosternal process 0.35 times width of procoxal cavity. Ventral surface of meso- and metathorax with white pubescence not obscuring integument. Scutellum with dense white pubescence. **Elytra.** Convex, strongly elevated from anterior quarter; coarsely, abundantly punctate on anterior quarter, distinctly finer, abundant on remaining surface; with white pubescence on light areas (noticeably denser along posterior margin of anterior light area, slightly denser on anterior area of posterior light area), yellowish-brown on dark areas; with a few long, erect, thick dark setae. **Legs.** With white pubescence not obscuring integument, distinctly denser, bristly on posterior third of ventral surface of protibia.

Abdomen. Ventrites I–IV with sparse white pubescence laterally, distinctly sparser centrally; ventrite V nearly glabrous on anterior third, with sparse white pubescence on remaining surface; apex of ventrite V nearly truncate.

Dimensions in mm. Total length, 1.95; prothoracic length, 0.55; anterior prothoracic width, 0.45; posterior prothoracic width, 0.40; widest prothoracic width, 0.50; humeral width, 0.60; elytral length, 1.20.

Material examined. DOMINICA (New country record), Springfield Estate, Fifi Trail, 398 m, Tropical deciduous forest, 1 female, 23.V–4.VI.2003, T. Decker & B. Wells col. (ACMT).

Remarks. *Decarthria stephensii* is distributed among the Lesser Antilles, from Saint Vincent and the Grenadines to Guadeloupe. Although Hope (1834) provided only a single length (“lin. $\frac{3}{4}$ ” = 1.59 mm)

and width (“lin. $\frac{1}{4}$ ” = 0.53 mm), there are three specimens (Fig. 26–28) at OUMNH with type label (not BMNH as reported by Monné (2019) and Tavakilian and Chevillotte (2019)). Even if the syntypes have slightly different dimensions, it is not possible to know if Hope (1834) assumed that they had the same dimensions. Accordingly, the proper assumption is that the species was originally described based on syntypes (ICZN 1999: Recommendation 73F).

Key to species of *Decarthria* (adapted from Howden 1959)

1. Antennomeres noticeably slender (Fig. 34). Puerto Rico *D. boricua* Micheli, 2003
- Antennomeres thicker (Fig. 22, 33) 2
- 2(1). Color pitchy black and shining; elytra with median narrow transverse band of white setae (Fig. 33). Grenada *D. albofasciata* Gahan, 1895
- Color pale testaceous; elytra maculated with black (Fig. 22–28). Saint Vincent, Guadeloupe, Montserrat, Martinique, Saint Lucia *D. stephensii* Hope, 1834

Acknowledgments

We express our thanks to Eugenio H. Nearn (NIS) for the photographs of the holotype of *Decarthria boricua*, and detailed information on antennal segments; to Michael Geiser and Keita Matsumoto (BMNH) for the photograph of the lectotype of *Decarthria albofasciata*; and to Amoret Spooner and Katherine Child (OUMNH) for the photographs of the syntypes of *Decarthria stephensii*. Special thanks to Bob Androw, Gibsonia, Pennsylvania, USA and Don Thomas, Weslaco, Texas, USA for their detailed and very helpful reviews of the pre-submission manuscript.

Literature Cited

- Bezark, L. G. 2019.** A Photographic Catalog of the Cerambycidae of the World. New World Cerambycidae Catalog. Available at <https://apps2.cdfa.ca.gov/publicApps/plant/bycidDB/wsearch.asp?w=n> (Last accessed August 26, 2019.)
- Fisher, W. S. 1926.** Descriptions of West Indian longicorn beetles of the subfamily Lamiinae. Proceedings of the United States National Museum 68(22): 1–40.
- Fisher, W. S. 1935a.** New Cerambycidae beetles from Puerto Rico. The Journal of the University of Puerto Rico 19(2): 51–63.
- Fisher, W. S. 1935b.** New West Indian cerambycid beetles. Proceedings of the United States National Museum 83: 189–210.
- Gilmour, E. F. 1965.** Catalogue des Lamiinaires du Monde (Col., Cerambycidae). Museum G. Frey, Tutzing bei München 8: 559–655.
- Haldeman, S. S. 1847.** Material towards a history of the Coleoptera longicornia of the United States. Transactions of the American Philosophical Society 10: 27–66.
- Hope, F. W. 1834.** Descriptions of some hitherto uncharacterized exotic Coleoptera, chiefly from New Holland. The Transactions of the Entomological Society of London 1: 11–20.
- Howden, H. F. 1959.** Descriptions of two new species of *Cyrtinus* LeConte, with a key to the New World Cyrtinini (Coleoptera, Cerambycidae). The Canadian Entomologist 91(6): 373–375.
- Howden, H. F. 1960.** Two new species of *Cyrtinus* LeConte (Coleoptera: Cerambycidae). The Canadian Entomologist 92(3): 173–177.
- Howden, H. F. 1970.** Jamaican *Cyrtinus*, with descriptions of two new species (Coleoptera: Cerambycidae). The Canadian Entomologist 102(10): 1312–1316.
- Howden, H. F. 1973.** New species of *Cyrtinus* LeConte from Mexico and Venezuela (Coleoptera: Cerambycidae). The Canadian Entomologist 105: 595–597.
- ICZN (International Commission on Zoological Nomenclature). 1999.** International Code of Zoological Nomenclature. London. xxx + 306 p.

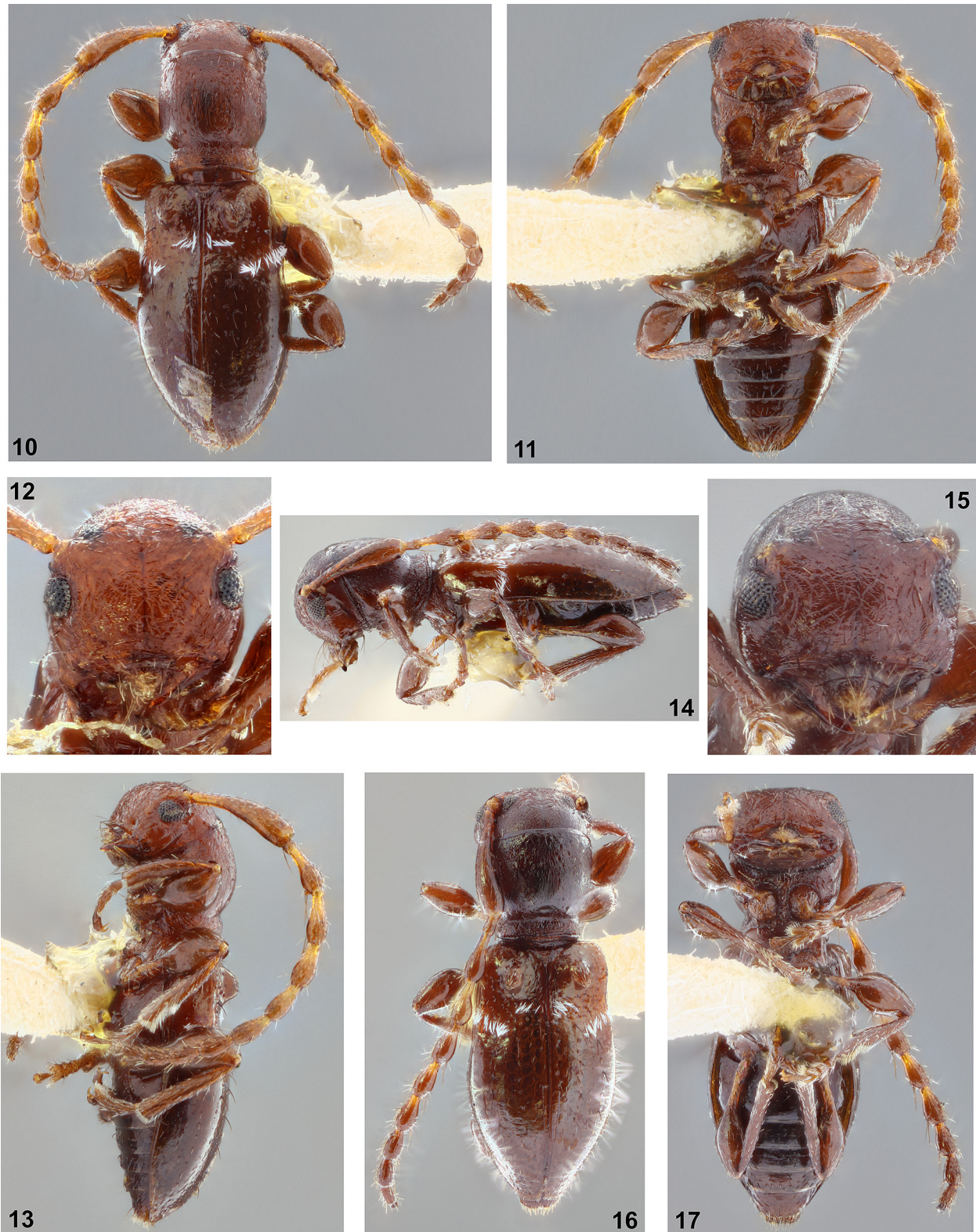
- Joly, L. J., and C. J. Rosales. 1990.** Los Cyrtinini (Coleoptera, Cerambycidae, Lamiinae) de Venezuela. *Boletín de Entomología Venezolana* (N.S.) 5(20): 205–211.
- LeConte, J. L. 1852.** An attempt to classify the longicorn Coleoptera of the part of America, north of Mexico. *Journal of the Academy of Natural Sciences of Philadelphia* (2)2: 139–178.
- Micheli, J. A. 2003.** New longhorn beetles from Puerto Rico (West Indies) (Coleoptera: Cerambycidae). *The Coleopterists Bulletin* 57(2): 191–204.
- Micheli, J. A. 2010.** Longicornios de Puerto Rico (Coleoptera: Cerambycidae). Pensoft Publishers; Sofia. 225 p.
- Monné, M. A. 2019.** Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part II. Subfamily Lamiinae. Available at <http://cerambyxcat.com/>. (Last accessed December 20, 2019.)
- Rice, M. E., R. H. Turnbow, and F. T. Hovore. 1985.** Biological and distributional observations on Cerambycidae from the southwestern United States (Coleoptera). *The Coleopterists Bulletin* 39(1): 18–24.
- Tavakilian, G. L., and H. Chevillotte. 2019.** Titan: base de données internationales sur les Cerambycidae ou Longicornes. Available at <http://titan.gbif.fr/index.html> (Last accessed August 26, 2019.)

Received January 8, 2020; accepted January 24, 2020.

Review editor M.J. Paulsen.



Figures 1–9. *Cyrtinus pygmaeus*. 1–4) Female. 1) Dorsal habitus. 2) Ventral habitus. 3) Lateral habitus. 4) Head, frontal view. 5–8) Male. 5) Dorsal habitus. 6) Lateral habitus. 7) Elytral crests. 8) Head, frontal view. 9) Prothorax, lateral view, female.



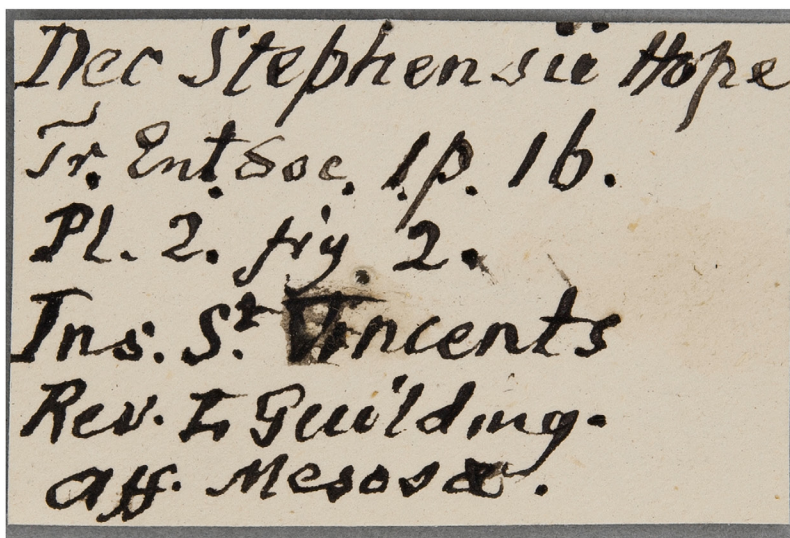
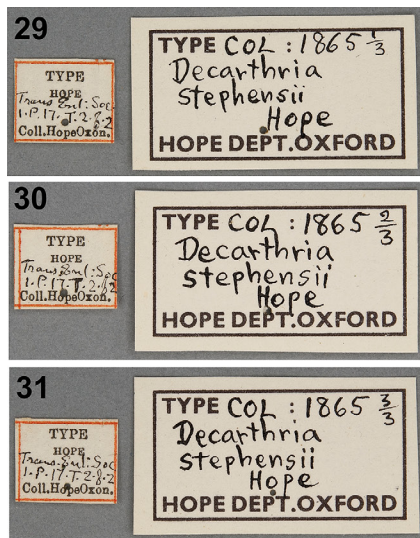
Figures 10–17. *Cyrtinus fisheri*. 10–13) Holotype male. 10) Dorsal habitus. 11) Ventral habitus. 12) Head, frontal view. 13) Lateral habitus. 14–17) Paratype female. 14) Lateral habitus. 15) Head, frontal view. 16) Dorsal habitus. 17) Ventral habitus.



Figures 18–21. *Cyrtinus howdeni*, holotype male. **18)** Dorsal habitus. **19)** Ventral habitus. **20)** Lateral habitus. **21)** Head, frontal view.



Figures 22–28. *Decarthria stephensii*. 22–25) Female. 22) Dorsal habitus. 23) Ventral habitus. 24) Lateral habitus. 25) Head, frontal view. 26–28) Syntypes, dorsal view.



32



33



34

Figures 29–34. *Decarthria* spp. 29–32) *Decarthria stephensii*, labels of the syntypes. 33) *Decarthria albofasciata*, lectotype, dorsal habitus. 34) *Decarthria boricua*, holotype male, dorsal habitus.

