

**Five new species of *Catorhintha***  
**(Hemiptera: Heteroptera: Coreidae: Coreinae: Coreini)**  
**from Mexico and South America**

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**Abstract.** Five new species of *Catorhintha* Stål, 1859 (Coreidae), *Catorhintha bellatula* sp. nov. (French Guiana), *Catorhintha bicornigera* sp. nov. (Brazil, Peru, and Venezuela), *Catorhintha sticta* sp. nov. (Mexico), *Catorhintha tamaulipeca* sp. nov. (Mexico), and *Catorhintha tumula* sp. nov. (French Guiana), are described. Drawings of the abdomen in lateral view, male genital capsule and paramere, along with a dorsal view habitus of some adult species, are provided. The genus is reported for the first time in French Guiana.

**Key words.** Heteroptera, Coreidae, *Catorhintha*, new species, Neotropical Region

### Introduction

The genus *Catorhintha* Stål, 1859 belongs to the tribe Coreini of the family Coreidae, a well known group characterized by having the tibiae sulcate, hind tibiae not expanded and unarmed at apex, tylus not projecting beyond jugae, male hind femora not strongly incrassate, antenniferous tubercles not occupying most of anterior head width, distance between hind coxae much narrower than distance from coxa to lateral margin, antennal segment III usually shorter than II, and antennal segment IV not flattened (PACKAUSKAS 1994).

The species of the genus are abundant and diverse in the New World from southern Canada (MAW et al. 2000) to northern Argentina, including the Antilles. The genus is possibly missing in Chile for natural reasons, but in Belize, British Guyana and Uruguay certainly for lack of collected material (BRAILOVSKY & GARCIA 1987). In this contribution the genus is recorded for the first time to French Guiana.

*Catorhintha* was fully revised by BRAILOVSKY & GARCIA (1987), who treated 26 species in detail, and divided it in three species groups. The *selector* group has the antenniferous tubercles unarmed and includes three species: *C. divergens* Barber, 1926, *C. selector* Stål, 1859, and

*texana* Stål, 1870. The *guttula* group has the antenniferous tubercles armed externally with a small spine directed outward, never reaching 1/3 of antennal segment I, or well convoluted and sometimes touching the antennal plate and includes 15 species: *C. abdita* Brailovsky & Garcia, 1987, *C. apicalis* (Dallas, 1852), *C. borinquensis* Barber, 1923, *C. duplicata* Brailovsky & Garcia, 1987, *C. elongatula* Brailovsky, 1983, *C. festiva* Brailovsky & Garcia, 1987, *C. flava* Fracker, 1923, *C. guttula* (Fabricius, 1794), *C. lucida* Brailovsky & Garcia, 1987, *C. mendica* Stål, 1870, *C. ocreata* Brailovsky & Garcia, 1987 (included in two different groups), *C. pallida* Mayr, 1865, *C. perfida* Stål, 1859, *C. schaffneri* Brailovsky & Garcia, 1987, and *C. semialba* Walker, 1872. The third group, named *viridipes*, is characterized by having the antenniferous tubercles armed exteriorly with an long, sharp, and erect spine, directed outward and 1/3 or longer than antennal segment I, but never exceeding its total length, and includes eight species: *C. bos* Blöte, 1935, *C. kormilevi* Brailovsky & Garcia, 1987, *C. kifunei* Brailovsky & Garcia, 1987, *C. ocreata*, *C. omissa* Brailovsky & Garcia, 1987, *C. siblica* Brailovsky & Garcia, 1987, *C. sinuatipennis* Berg, 1891, and *C. viridipes* Blatchley, 1926. *Catorhintha ocreata* has two different conditions in the development of antenniferous tubercles spine and for this reason and because of the presence of intermediate forms, we included this species in two different species groups (BRAILOVSKY & GARCIA 1987). Since that contribution no other species have been described. Material deposited in the UNAM and other collections has revealed five new species, herein described.

## Materials and methods

The following abbreviations are used for the institutions cited in this paper:

JEEC	Joe E. Eger Collection, Tampa, Florida, USA;
FSCA	Florida State Collection of Arthropods, Gainesville, Florida, USA;
MEMC	Mississippi Entomological Museum, Mississippi, USA;
MNHN	Museum National d'Histoire Naturelle, Paris, France;
UNAM	Colección Entomológica, Instituto de Biología, Universidad Nacional Autónoma de México.

The descriptive terminology for external and internal structures follows that published in BRAILOVSKY & GARCIA (1987).

## Results

### Features in common with species described

All the species described below belong to the *guttula* group.

**Description.** Body moderate sized, oblong elongate.

Head wider than long across eyes, broad, pentagonal, slightly declivent anteriorly, dorsally flattened, shorter than pronotal length, and produced forward between bases of antennae; tylus unarmed, apically globose, weakly raised, extending anteriorly to and laterally weakly higher than jugae and antenniferous tubercles; jugae unarmed; antennal plate short, located below antenniferous tubercles; antennal segment I attenuated at base, stout, shorter than head; segments II and III much slender, cylindrical, and IV fusiform and barely thickened,

antennal segment IV the longest, I the shortest, II longer than III; preocellar pit obscure; ocelli conspicuously tuberculate, closer to eyes, set near posterior margins of eyes; eyes hemispherical, prominent, remote from anterior pronotal margin, and weakly higher than vertex in lateral view; postocular tubercle moderately protuberant; frontal area sulcate; bucculae raised, elongate, rectangular, projecting beyond antenniferous tubercles, reaching anterior or middle third of eyes, without teeth, and closed posteriorly; rostrum reaching posterior border of mesosternum.

Thorax. Pronotum wider than long, trapeziform, shallowly declivous, with posterior border subequal to base of scutellum in width; collar clearly demarcated; frontal angles tiny exposed, tuberculate; humeral angles obtusely rounded, not prominent; anterolateral borders obliquely straight, smooth; posterolateral borders sinuate, smooth; anterior and posterior borders nearly straight, smooth; triangular process absent; callar region slightly raised, not separated at midline; mesosternum slightly sulcate or sulcus inconspicuous; anterior lobe of metathoracic peritreme reniform, posterior lobe sharp, smaller; evaporative area well developed; posterior border of metapleura straight.

Legs. Metacoxae separated, the space between them about once the diameter of one coxa; male trochanter armed with short and stout spine; female trochanter unarmed; femora not incrassate, unarmed; tibiae unarmed, sulcate.

Scutellum. Triangular, wider than long, flat; apex truncate.

Hemelytra. Macropterous, reaching or extending beyond the apex of last abdominal segment; costal margin gently emarginated, smooth; apical margin sinuate; apical angle extending beyond middle third of hemelytral membrane; hemelytral membrane with simple venation, not branching or anastomosing.

Abdomen. Parallel-side; connexivum higher than tergum; posterior angle not spinate or exposed; abdominal spiracles circular, closer to anterior third of each sternite; abdominal sterna without median furrow.

### *Catorhintha bellatula* sp. nov.

(Figs. 1, 9–10)

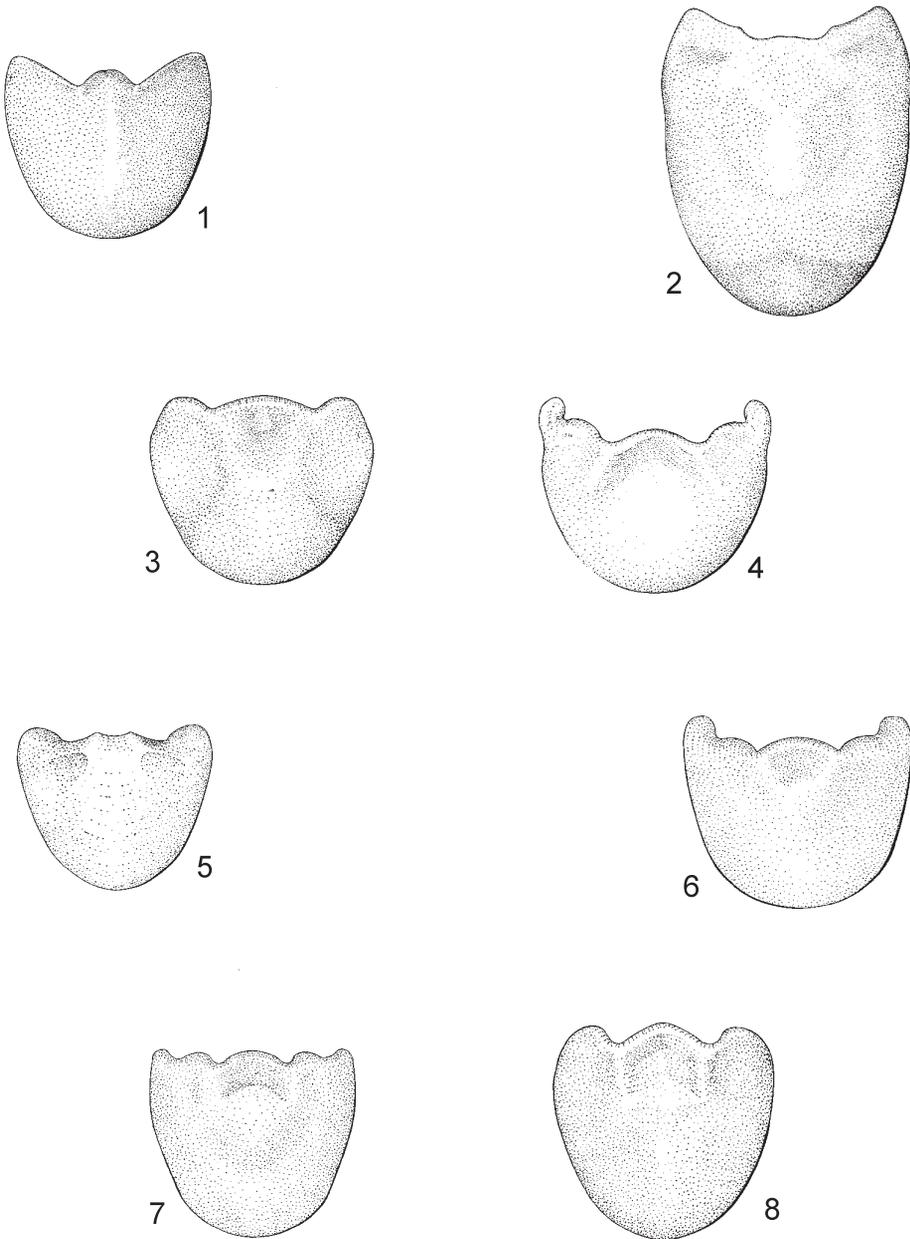
**Type locality.** French Guiana, 33 km SE Roura on Kaw Rd, 04°34'135"S 052°11'150"W.

**Type material.** HOLOTYPE: ♂, 'FRENCH GUIANA, 33 km SE Roura on Kaw Rd, 227 m, 04°34'135"S-052°11'150"W, 12–13.iv.2007, m. v. light, D. G. Hall and J. E. Eger' (UNAM). PARATYPES: 3 ♀♀, 'FRENCH GUIANA, Amazone Lodge, 30 km SE Roura on Kaw Rd, 300 m, 04°33'570"S-052°12'433"W, 10–23.iv.2007, u. v. light, D. G. Hall and J. E. Eger' (FSCA, MNHN, UNAM).

**Description.** Male. Head. Antenniferous tubercle armed exteriorly with a small spine, convoluted and far from antennal plate; antennal segment I slender, longer than 1.15 mm.

Genital capsule. Posteroventral margin at middle third with short, raised plate, laterally convex (Fig. 1). Paramere (Figs. 9–10).

Dorsal color. Head, pronotum, scutellum, clavus, and corium dull yellow, with reddish brown punctures; antennal segment I dark reddish brown with inner face dark yellowish orange, segment II dark reddish brown, III dark reddish brown with basal joint dark yellow,



Figs. 1–8. *Catorhintha* spp. Male genital capsule in caudal view: 1 – *C. bellatula* sp. nov.; 2 – *C. bicornigera* sp. nov.; 3 – *C. semialba* (Walker, 1872); 4 – *C. sticta* sp. nov.; 5 – *C. lucida* Brailovsky & Garcia, 1987; 6 – *C. tamaulipeca* sp. nov.; 7 – *C. flava* Fracker, 1923; 8 – *C. tumula* sp. nov.

and IV pale dark brownish orange with basal joint dark yellow; ocellar tubercle, postocular tubercle, head basally, and frontal angles of pronotum black to dark reddish brown; middle third of pronotal disk with pale yellow longitudinal stripe; apex of scutellum yellow; claval and corial veins pale yellow; hemelytral membrane yellowish translucent, veins darker; connexival segments III to VII dark brown to black with anterior third yellow; dorsal abdominal segments black.

Ventral color. Yellowish white; rostral segment I yellow with inner face black, and segments II to IV black; pro-, meso-, metapleura and abdominal sterna III to VII with prominent black discoidal spot; abdominal sterna III and IV with an additional black spot, lateral to midline and close to anterior margin; mesosternum yellow and laterally brown; coxae yellow with pale brown external spot; trochanters and femora yellow; tibiae yellow with distal third brown; first and second tarsomeres yellow with distal joint brown, and distal segment brown with basal joint yellow; genital capsule yellowish white with black mark at middle third; upper border of pleural abdominal sterna black with basal third yellow; abdominal spiracles yellow.

Integument. Head dorsally, pronotum, scutellum, clavus, and corium deeply punctate, with small to large punctures; connexivum impunctate; head ventrally, thorax, abdomen, male genital capsule, and female genital plates with small to large punctures; mesosternum impunctate; dorsal surface almost glabrous; ventral surface glabrous with middle third of mesosternum, metasternum, abdominal sterna III to VII, and genital capsule clothed with erect silver hairs; antennal and rostral segments and legs, clothed with short to long decumbent to erect silver hairs.

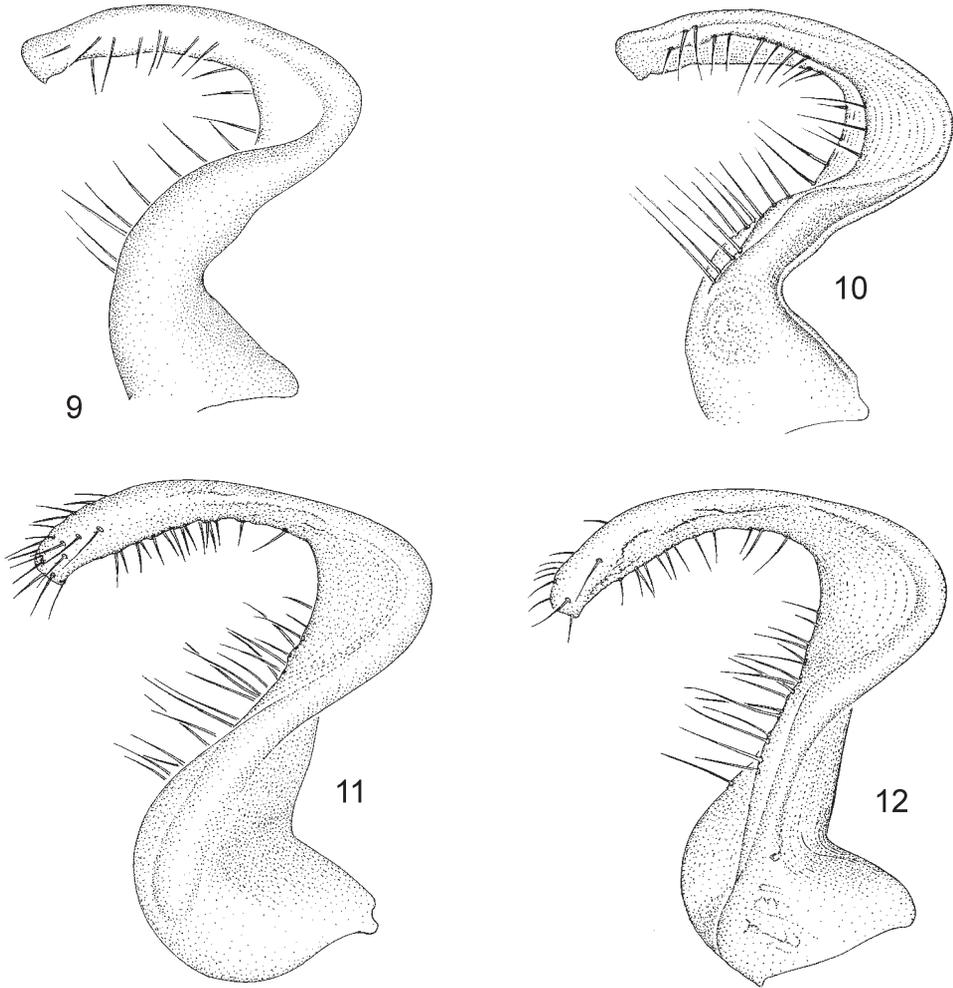
**Female.** Habitus and color similar to male holotype.

Genitalia. Fissura reaching anterior margin of abdominal sternite VII; plica 'U' shaped; gonocoxae I flat, triangular, inner margin barely overlapping, upper margin rounded. Antennal segment I entirely dark reddish brown; anterolateral margins of pronotum mostly black; apex of scutellum black; connexival segments VIII and IX black, with anterior angles yellow; dorsal abdominal segments VIII and IX black; punctures of pro-, meso-, metapleura, and abdominal sterna pale to dark pink.

**Measurements.** First male, then female (mm). Head length 1.40, 1.60; width across eyes 2.00, 2.04; interocular distance 1.00, 0.98; interocellar distance 0.52, 0.50; preocular distance 0.88, 0.88; length of antennal segments: I – 1.24, 1.26; II – 1.68, 1.72; III – 1.48, 1.48; IV – 2.40, 2.28. Pronotal length 2.68, 2.68; width across frontal angles 1.48, 1.60; width across humeral angles 2.96, 3.08. Scutellar length 1.28, 1.32; width 1.32, 1.36. Body length 12.12, 12.38.

**Differential diagnosis.** This species resembles *C. semialba* in having the antenniferous tubercle armed exteriorly with a convoluted spine, femora entirely yellow, thorax and abdominal sterna III to VII yellowish white with prominent black discoidal spot, and connexival segments VI and VII bicolorous, black with anterior third yellow.

In *C. bellatula* sp. nov., the external spine of antenniferous tubercle is shorter, not touching the antennal plate, antennal segment I and rostral segments I to IV black to dark reddish brown, and the posteroventral margin of male genital capsule has at middle third a short raised plate (Fig. 1). In *C. semialba* the external spine of antenniferous tubercle is elongate,



Figs. 9–12. *Catorhintha* spp. Paramere: 9–10 – *C. bellatula* sp. nov.; 11–12 – *C. bicornigera* sp. nov.

touching or extending beyond antennal plate, antennal segment I bicolorous with outer face reddish brown, and inner face dark yellow, rostral segments I to IV yellow (apex of IV black), and posteroventral margin of male genital capsule with broad, elongate and convex medial plate (Fig. 3).

**Etymology.** From the Latin adjective '*bellatulus*', meaning pretty, beautiful; adjective.

**Distribution.** French Guiana.

***Catorhintha bicornigera* sp. nov.**

(Figs. 2, 11–12, 21)

**Type locality.** Brazil, Roraima, environs of Caucalandia, 10°32'S 62°48'W.

**Type material.** HOLOTYPE: ♂, 'BRAZIL, Roraima, vic. Caucalandia, 160–350 m, 10°32'S–62°48'W, 30.x.1991, J. MacDonald' (MEMC). PARATYPES: 1 ♂, 'VENEZUELA, Territorio Federal, Amazonas, San Carlos de Rio Negro, 7–13.xi.1982, A. Chacon y G. Yopez Gil' (UNAM); 1 ♀, same label data as holotype (MEMC); 1 ♀, 'PERU, Madre de Dios, Rio Tambopata, res., 30 air km, SW Puerto Maldonado, 290 m, 16–20.xi.1979, J. B. Heppner' (UNAM).

**Description.** Male. Head. Antenniferous tubercle armed exteriorly with a small spine, convoluted and almost touching the antennal plate; antennal segment I longer than 1.15 mm.

Genital capsule. Posteroventral margin broadly concave; middle third with short mesial bilobed plate (Fig. 2). Paramere (Figs. 11–12).

Dorsal color. Head, pronotum and scutellum dull yellow with reddish brown punctures; antennal segments I and II dark black to reddish brown, III pale yellowish orange, and IV dark orange; inner face of jugae, ocellar tubercle, postocular tubercle, head basally, frontal angles and anterolateral borders of pronotum black; apex of tylus shiny castaneous orange; middle third of pronotal disk with dull yellowish longitudinal stripe; apex of scutellum pale yellow; clavus and corium dark orange, punctures reddish brown, and claval and corial veins dull yellow; hemelytral membrane yellowish translucent, veins darker and basal angle partially black; connexival segments II to IV black with upper margin yellow, and V to VII black with anterior third yellow; dorsal abdominal segments black.

Ventral color. Yellowish white; pro-, meso-, and metapleura and abdominal sterna III to VII with a prominent black discoidal spot; abdominal sterna III and IV with an additional black spot lateral to midline and close to anterior margin; mesosternum and metasternum yellow and laterally black; rostral segments I to IV, and middle third of head black; anterior and posterior lobe of metathoracic peritreme yellowish white; coxae yellow with external face brownish orange; trochanters yellow with apex brownish orange; femora pale yellowish orange with basal joint and distal third black; tibiae pale yellowish orange with basal and apical third black; tarsi pale yellowish orange with apical third of each tarsus black; pleural abdominal borders II to IV yellow and V to VII black with basal third yellowish white; abdominal spiracles yellowish white; genital capsule yellowish white with basal third black.

Integument. Head dorsally, pronotum, scutellum, clavus, and corium deeply punctate, with uniformly small punctures; connexivum impunctate; head ventrally, thorax, abdomen, male genital capsule and female genital plates with small to large punctures; mesosternum impunctate; dorsal surface almost glabrous; ventral surface glabrous, except middle third of mesosternum and metasternum, abdominal sterna III to VII, and genital capsule with erect silver hairs; antennal and rostral segments, and legs clothed with short to long decumbent to erect silver hairs.

Female. Habitus and color similar to male holotype.

Genitalia. Fissura reaching anterior margin of abdominal sternite VII; plica not visible; gonocoxae I raised, triangular, inner margin not overlapping, upper margin rounded. Antennal segments I, II, and IV dark reddish brown and III pale yellowish orange; connexival segments

VIII and IX black with anterior angle yellow; dorsal abdominal segments VIII and IX black; female genital plates yellowish white; clavus and corium dull yellow, punctures reddish brown, and claval and corial veins pale yellow.

**Measurements.** First male, then female (mm). Head length 1.40, 1.64; width across eyes 2.00, 2.00; interocular distance 1.00, 1.00; interocellar distance 0.50, 0.50; preocular distance 0.80, 0.96; length of antennal segments: I – 1.24, 1.16; II – 1.72, 1.64; III – 1.38, 1.52; IV – 2.44, 2.56. Pronotal length 2.68, 2.84; width across frontal angles 1.52, 1.52; width across humeral angles 3.04, 3.20. Scutellar length 1.28, 1.36; width 1.32, 1.40. Body length 12.20, 12.30.

**Differential diagnosis.** This species resembles *C. semialba* and *C. elongatula* in having the antenniferous tubercle armed exteriorly with a convoluted spine, thorax and abdominal sterna III to VII yellowish white with prominent black discoidal spot, and connexival segments VI and VII bicolorous, usually black with anterior third yellow.

In *C. bicornigera* sp. nov., the femora are bicolorous, pale yellowish orange with basal joint and distal third black, external spine of antenniferous tubercle shorter, not touching antennal plate, and antennal segment I and rostral segments I to IV black to dark reddish brown. In *C. semialba* the femora are entirely yellow, external spine of antenniferous tubercle elongate, touching or extending beyond antennal plate, antennal segment I bicolorous with outer face reddish brown, and inner face dark yellow, and rostral segments I to IV yellow (apex of IV black). In *C. elongatula* the femora are orange castaneous with or without red spots, the external spine of antenniferous tubercle shorter and not convoluted, and paramere as in Figs. 13–14.

**Etymology.** From the Latin adjective, '*bicorniger*', meaning 'bearing two horns', referring to the peculiar shape of male genital capsule; adjective.

**Distribution.** Brazil (Roraima), Peru and Venezuela.

### *Catorhintha sticta* sp. nov.

(Figs. 4, 15–16, 22)

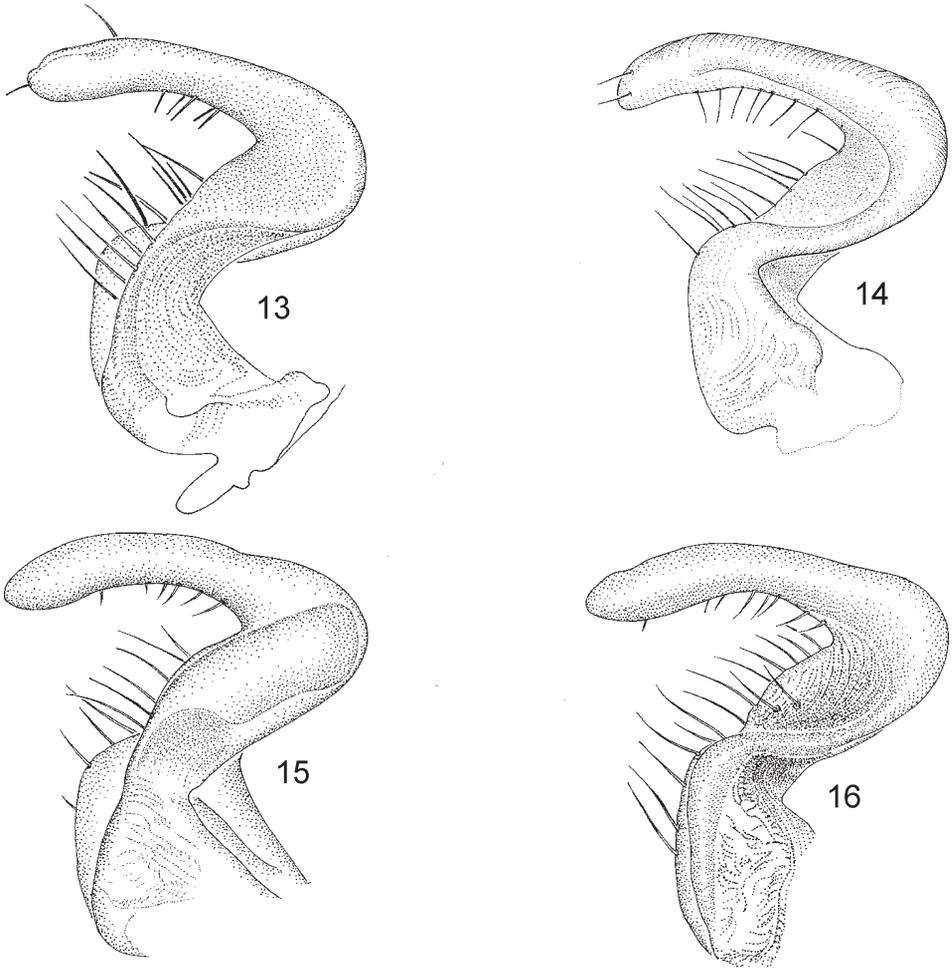
**Type locality.** Mexico, Veracruz, Estación de Biología Tropical Los Tuxtlas.

**Type material.** HOLOTYPE: ♂, 'MEXICO, Veracruz, Estación de Biología Tropical Los Tuxtlas, 160 m, 25.v.1985, A. Ibarra' (UNAM). PARATYPES: 2 ♂♂ 4 ♀♀, same label data as holotype (UNAM); 2 ♂♂, 'MEXICO, Veracruz, Estación de Biología Tropical Los Tuxtlas, 20 m, 23.vi.1985, L. Cervantes' (UNAM); 1 ♂, 'MEXICO: Quintana Roo, 17 km NW Felipe Carrillo Puerto, 17.vi.1990, M. C. Thomas' (FSCA).

**Description.** **Male.** Head. Antenniferous tubercles small, armed with short spine slightly curved around base of antennal segment I; antennal segment I longer than 1.15 mm.

Genital capsule. Posteroventral margin with broad, median convex shallow plate; lateral lobes rounded (Fig. 4). Paramere (Figs. 15–16).

Dorsal color. Head, pronotum, scutellum, clavus, and corium dull yellow, with reddish brown punctures: antennal segment I bicolor, outer face black, inner face castaneous orange, segments II and III castaneous orange and IV black with basal joint and apical third dark orange; apex of tylus and jugae pale yellowish white; antenniferous tubercles and spine black to dark reddish brown; ocellar tubercle, postocular tubercle, head basally, and frontal angles



Figs. 13–16. *Catorhintha* spp. Paramere: 13–14 – *C. elongatula* Brailovsky, 1983; 15–16 – *C. sticta* sp. nov.

black; humeral angles black; anterior and middle third of costal margin of corium yellowish white and apical third dull yellow; hemelytral membrane yellowish translucent with veins darker; connexivum yellowish white; dorsal abdominal segments black, except for dark yellow area around scent glands openings, and posterior margin of segment VII.

Ventral color. Yellowish white; propleura, mesopleura, metapleura and abdominal sterna III to VII with a prominent black spot; abdominal sterna III and IV with an additional prominent black spot, set lateral to middle line and close to anterior margin; rostral segments black; apical third of rostral segment I dark yellow; coxae yellowish white with black spot; trochanters yellowish white; femora, tibiae, and tarsi pale orange; anterior and posterior lobe of metathoracic peritreme yellowish white.

Integument. Head dorsally, pronotum, scutellum, clavus, and corium deeply punctate with small to large punctures; apical third of tylus, jugae, and connexivum impunctate; head ventrally, thorax, abdomen, male genital capsule and female genitalia with small, inconspicuous but definite punctures over entire surface; head dorsally, pronotal disk, pro-, meso-, and metasternum, middle third of abdominal sterna III to VII, male genital capsule, female genital plates, and upper border of connexivum densely clothed with erect to semi decumbent golden to silvery hairs; head ventrally, scutellum, clavus, corium, pro-, meso-, and metapleura, and lateral margins of abdominal sterna III to VII almost glabrous; antennal and rostral segments, and femora clothed with short to minute decumbent to erect silver hairs; tibiae and tarsi densely clothed with elongate silver hairs.

**Female.** Habitus and color similar to male holotype.

**Genitalia.** Abdominal sternite VII with plica and fissura; plica 'U' shaped; fissura almost reaching anterior margin of the sternite; gonocoxae I enlarged anteroposteriorly, in caudal view closed; paratergite VIII triangular, spiracle not visible; paratergite IX squarish, longer than VIII. Spermatheca. Receptacle spherical; duct heavy coiled; spermathecal duct with a large pumpkin-like dilation. Rostral segment I dark yellow with upper face black, and segments II to IV black; connexival segments VIII and IX and genital plates yellowish white; dorsal abdominal segments VIII and IX black; ventral punctures pale pink or yellowish white.

**Measurements.** First male, then female (mm). Head length 1.24, 1.52; width across eyes 1.84, 2.08; interocular distance 0.96, 1.12; interocellar distance 0.64, 0.73; preocular distance 0.80, 0.89; length of antennal segments: I – 1.20, 1.36; II – 1.80, 2.00; III – 1.48, 1.52; IV – 2.04, 2.22. Pronotal length 2.44, 3.00; width across frontal angles 1.55, 1.80; width across humeral angles 2.84, 3.48. Scutellar length 1.24, 1.52; width 1.28, 1.58. Body length 11.18, 13.52.

**Variation.** i) Rostrum reaching anterior border of metasternum. ii) Rostral segment I pale yellow with or without black marks. iii) Rostral segments II to IV black or with dark orange or dark yellow longitudinal stripes. iv) Frontal and humeral angles black or dull yellow.

**Differential diagnosis.** *Catorhintha sticta* sp. nov., resembles *C. lucida* in general aspects; these species have the antenniferous tubercle armed exteriorly with a convoluted spine, thorax and abdominal sterna III to VII yellowish white with black discoidal spot, connexivum entirely yellowish white, and dorsal abdominal segments black with scars IV–V, and V–VI and posterior margin of male segment VII dark or pale yellow.

In *C. sticta* sp. nov. the external spine of antenniferous tubercle is shorter, not reaching antennal plate, ocellar tubercle black, antennal segment I bicolorous, inner face yellowish orange, outer face black to reddish brown, antennal segment IV black with basal joint and apical third dark orange, black discoidal spots at thorax and abdominal sterna III to VII conspicuously prominent, and posteroventral margin of male genital capsule with median convex shallow plate (Fig. 4). In *C. lucida* the external spine of antenniferous tubercle is elongate, touching or extending beyond antennal plate, ocellar tubercle, antennal segment I and IV, and rostral segments II to IV (apex of IV pale brown) pale yellowish orange, black discoidal spots at thorax and abdominal sterna III to VII smaller, and posteroventral margin of male genital capsule entire, not exposed at middle third (Fig. 5).

**Etymology.** From the Greek, '*stictos*', meaning spotted, referring for the spotted ventral surface; adjective.

**Habitat.** Collected on *Neea psychotrioides* J. D. Smith (Nyctaginaceae).

**Distribution.** Mexico (Quintana Roo, Veracruz).

*Catorhintha tamaulipeca* sp. nov.

(Figs. 6, 19)

**Type locality.** Mexico, Tamaulipas, Alfredo V. Bonfil, Cañon de las Cucharas, 22°50'56"N 99°07'34"W.

**Type material.** HOLOTYPE: ♂, 'MEXICO, Tamaulipas, Alfredo V. Bonfil, Cañon de las Cucharas, 48 m, 22°50'56"N-99°07'34"W, 10.v.2007, H. Brailovsky, E. Barrera, and L. Cervantes' (UNAM). PARATYPES: 1 ♀, same label data as holotype (UNAM); 1 ♀, 'TAMAULIPAS, Juamave, 753 m, 23°24'26"N-99°22'37"W, 13.v.2007, H. Brailovsky, E. Barrera, and L. Cervantes' (UNAM); 2 ♀♀, 'TAMAULIPAS, KM 49 carr., Tampico-Ciudad Victoria, 138 m, 22°31'49"N-98°07'49"W, 9.v.2007, H. Brailovsky, E. Barrera, and L. Cervantes' (UNAM).

**Description.** Male. Head. Antenniferous tubercle armed externally with a small spine, convoluted and not touching the antennal plate; antennal segment I medium size, shorter than 1.20 mm, and relatively slender.

Genital capsule. Posteroventral margin with wide, slightly sinuate median plate, and laterally convexly sinuate (Fig. 6).

Dorsal color. Head, pronotum, scutellum, clavus, and corium dull yellow with reddish brown punctures; antennal segment I with outer face reddish brown, and inner face yellowish orange with red granules, segment II yellowish orange with basal and apical joint and granules reddish brown, III yellow with reddish brown granules and IV dark brown with basal and apical third yellow; tylus and jugae pale yellow with few reddish brown punctures; ocellar tubercle, postocular tubercle, and head basally black; claval and corial veins paler; hemelytral membrane yellowish translucent with veins darker; connexival segments with inner margin black and upper margin yellow; dorsal abdominal segments III to VI with scars IV–V and V–VI dark yellow, and VII black with posterior margin yellow.

Ventral color. Yellowish white; rostral segment I dark brown with yellowish mark at inner face, segments II to IV dark brown; pro-, meso-, metapleura and abdominal sterna III to VII with a prominent black discoidal spot (Fig. 19); abdominal sterna III and IV with an additional black spot lateral to midline and close to anterior margin; mesosternum yellowish white and laterally shiny orange; metasternum yellowish white and laterally shiny pink; anterior and posterior lobe of metathoracic peritreme yellowish white; coxae yellowish white with black to dark brown spot externally; trochanters yellowish white with black to dark brown spine; femur, tibiae, tarsi, abdominal spiracles, and genital capsule yellowish white

Integument. Head dorsally, pronotum, scutellum, clavus, and corium deeply punctate, with uniformly small punctures; connexivum impunctate; head ventrally, abdomen, male genital capsule and female genital plates finely punctate; mesosternum impunctate; bucculae, pro-, meso-, and metapleura punctate; dorsal surface almost glabrous; ventral surface glabrous, except middle third of mesosternum and metasternum, abdominal sterna III to VII, and genital capsule with erect silver hairs; antennal and rostral segments, and legs clothed with short to long decumbent to erect silver hairs.

Female. Habitus and color similar to male holotype.

Genitalia. Fissura reaching anterior border of abdominal sternite VII; plica visible, 'U' shaped; gonocoxae I triangular, flat, inner margin conspicuously overlapping, upper margin

rounded. Rostral segment I yellow with inner face pale brown; connexival segments VIII and IX with inner margin black and upper margin dull yellow; abdominal segments III to IX black with scars IV–V and V–VI pale brown; femur and tibiae shiny yellowish orange with pink marks; abdominal sterna with punctures usually pale pink.

**Measurements.** First male, then female (mm). Head length 1.52, 1.54; width across eyes 1.94, 2.00; interocular distance 1.02, 1.10; interocellar distance 0.56, 0.60; preocular distance 0.80, 0.88; length of antennal segments: I – 1.08, 1.16; II – 1.68, 1.80; III – 1.44, 1.48; IV – 2.04, 2.24. Pronotal length 2.72, 2.76; width across frontal angles 1.60, 1.68; width across humeral angles 3.04, 3.36. Scutellar length 1.32, 1.40; width 1.34, 1.44. Body length 11.80, 12.56.

**Differential diagnosis.** *Catorhintha tamaulipeca* sp. nov., like *C. flava*, has the antenniferous tubercle armed externally with a convoluted short spine and not touching the antennal plate, thorax and abdominal sterna pale yellowish white without numerous small black spots, dorsal abdominal segments black with scars IV–V and V–VI yellow and connexivum unicolorous, uniformly yellowish white.

*Catorhintha tamaulipeca* sp. nov. can be distinguished in having the antennal segment II yellowish orange with basal and apical joint and granules reddish brown, segment III yellow with reddish brown granules and IV dark brown with basal and apical third yellow; rostral segments II to IV dark brown, and black discoidal spots on thorax and abdominal sterna III to VII prominent (Fig. 19). In *C. flava* the antennal segments II to IV, and rostral segments II to IV (apex of IV dark brown), are pale yellowish orange and the black spots on thorax and abdominal sterna III to VII are quite smaller (Fig. 20). The male genital capsule of each species exhibit some differences on the sinuosity of the posteroventral edge (Figs. 6–7).

**Etymology.** This species is named for the state of Tamaulipas (Mexico) in which the type series was collected; adjective.

**Distribution.** Mexico (Tamaulipas).

### *Catorhintha tumula* sp. nov.

(Figs. 8, 17–18)

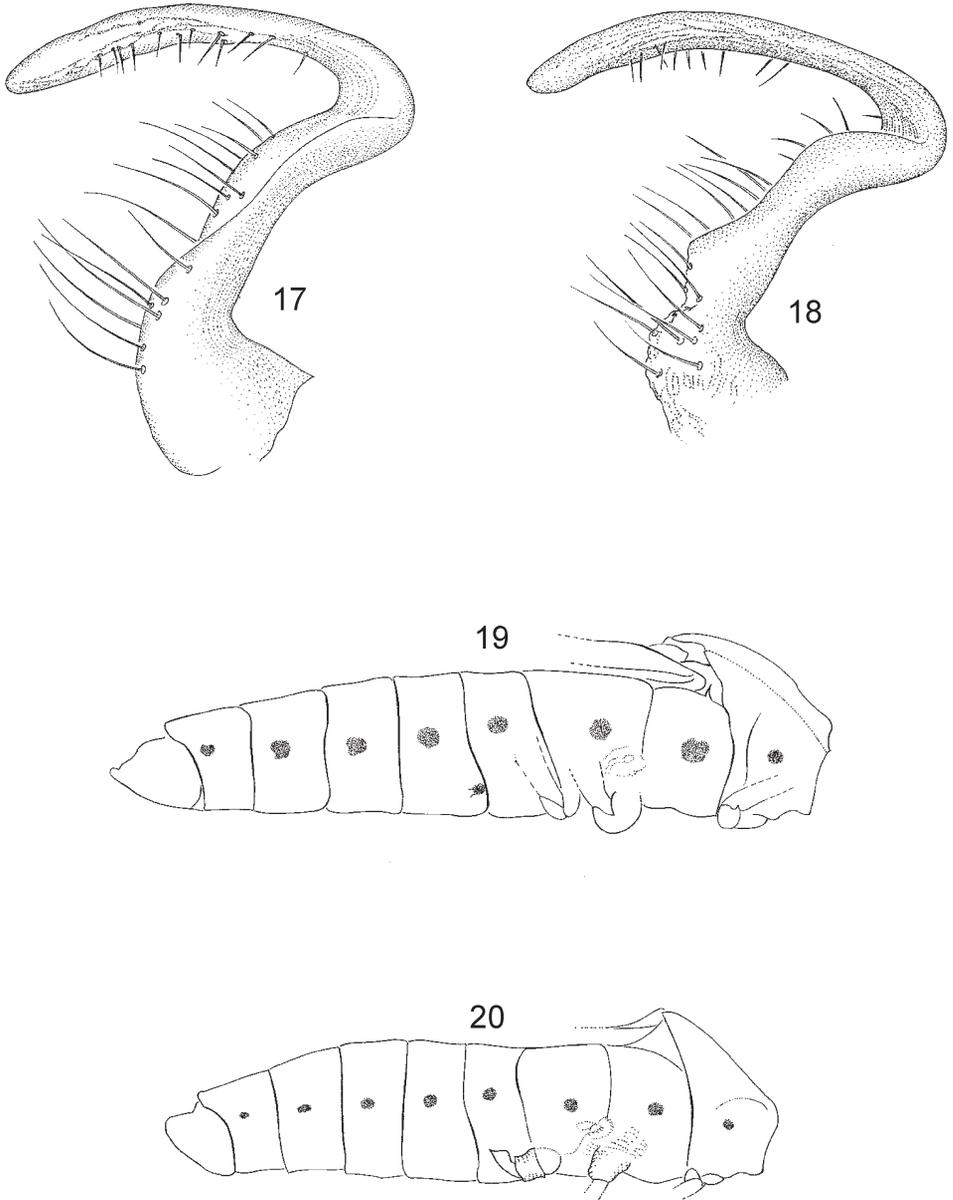
**Type locality.** French Guiana, 38 km SE Roura on Kaw rd, 04°34'214"S 052°09'556"W.

**Type material.** HOLOTYPE: ♂, 'FRENCH GUIANA, 38 km SE Roura on Kaw rd, 256 m, 04°34'214"S-052°09'556"W, m.v. light, 4.xii.2002, J. E. Eger' (UNAM). Paratypes: 1 ♂ 2 ♀♀, same label data as holotype (FSCA, UNAM).

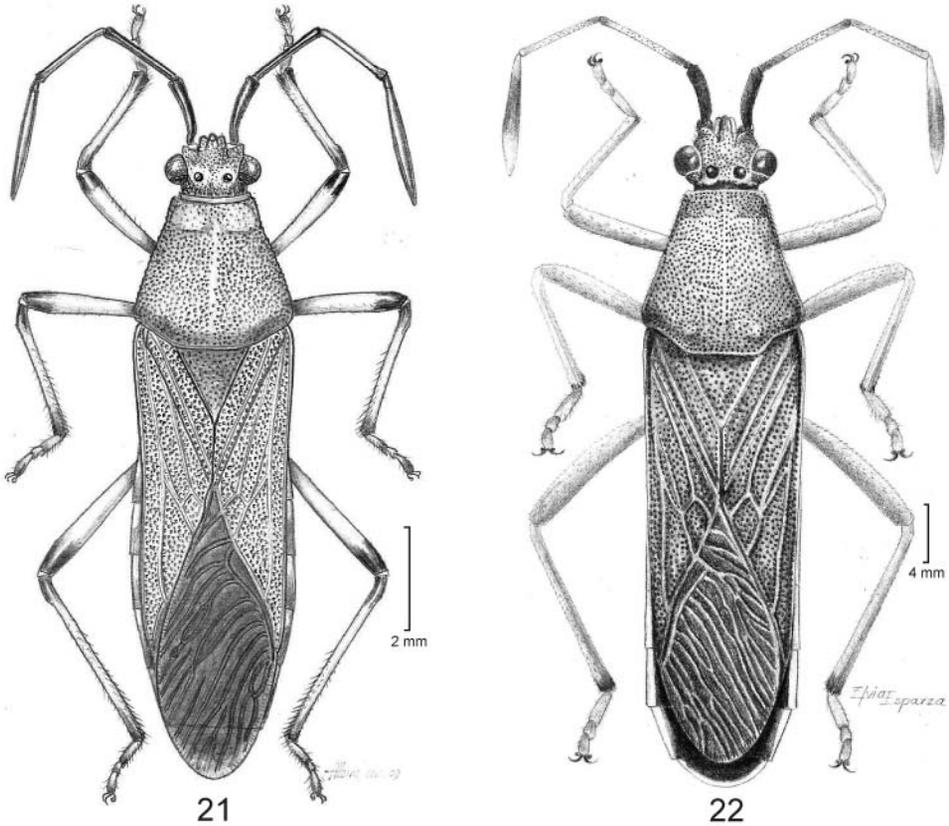
**Description.** Male. Head. Antenniferous tubercle armed externally with a small spine, convoluted, and far from antennal plate; antennal segment I medium size, shorter than 1.10 mm, and relatively slender.

Genital capsule. Posteroventral margin with broad sinuate middle plate, laterally convex (Fig. 8). Paramere (Figs. 17–18).

Dorsal color. Head, pronotum, and scutellum dull yellow with reddish brown punctures; antennal segment I with outer face reddish brown and inner face pale yellowish orange, segments II to IV pale yellowish orange; ocellar tubercle, postocular tubercle, head basally, frontal angles, anterolateral borders and humeral angles black; middle third of pronotal disk



Figs. 17–20. *Catorhintha* spp. 17–18 – *C. tunula* sp. nov., paramere; 19–20 – abdomen in lateral view: 19 – *C. tamaulipeca* sp. nov., 20 – *C. flava* Fracker, 1923.



Figs. 21–22. Dorsal view of *Catorhintha* species. 21 – *C. bicornigera* sp. nov. (female), 22 – *C. sticta* sp. nov. (male).

with dull yellowish longitudinal stripe; apex of scutellum yellow; clavus and corium dull yellow with reddish brown punctures; claval and corial veins paler; hemelytral membrane yellowish translucent, veins darker; connexival segment III yellow, and IV to VII yellow with posterior half or posterior third brown; dorsal abdominal segments black with scars IV–V and V–VI dark yellow.

Ventral color. Yellowish white; rostral segments I to IV yellow (apex of IV black); pro-, meso-, metapleura, and abdominal sterna III to VII with prominent black discoidal spot; abdominal sterna III and IV with an additional black discoidal spot, lateral to midline and close to anterior margin; mesosternum yellowish white and laterally shiny pale orange; metasternum yellowish white and laterally with brown spot; anterior and posterior lobe of metathoracic

peritreme yellowish white; coxae yellow with external pale brown spot; trochanter, femora, tibiae, and tarsi shiny yellowish orange; pleural abdominal margins II to IV yellow, V to VII yellow with posterior half or posterior third pale brown; genital capsule yellowish white with black spot at middle third.

**Integument.** Head dorsally, bucculae, pronotum, pro-, meso-, metapleura, scutellum, clavus, and corium deeply punctate with small punctures; connexivum impunctate; head ventrally (except bucculae), pro-, meso-, metasternum, abdominal sterna, genital capsule, and female genital plates impunctate or scattered with tiny punctures inconspicuous; dorsal surface almost glabrous; ventral surface glabrous except mesosternum, metasternum, middle third of abdominal sterna, genital capsule and female genital plates clothed with erect silver hairs; antennal and rostral segments and legs clothed with short to long decumbent to erect silver hairs.

**Female.** Habitus and color similar to male holotype.

**Genitalia.** Fissura reaching anterior margin of abdominal sternite VII; plica visible, 'U' shaped; gonocoxae I triangular, inner margin raised, not overlapping, upper margin rounded. Antennal segment IV dark orange with basal joint pale yellowish orange; anterior lobe of metathoracic peritreme pale brown or yellowish white, posterior lobe yellowish white; connexival segment III yellow with posterior third black; connexival segments VIII and IX black with anterior angle yellow; dorsal abdominal segments black; pleural abdominal margin III yellowish white, IV to VII yellowish orange with posterior third black to pale brown; and genital plates yellowish white.

**Measurements.** First male, then female (mm). Head length 1.34, 1.44; width across eyes 1.88, 1.90; interocular distance 0.98, 1.00; interocellar distance 0.50, 0.54; preocular distance 0.80, 0.81; length of antennal segments: I – 1.02, 1.04; II – 1.60, 1.60; III – 1.40, 1.40; IV – 2.16, 2.24. Pronotal length 2.48, 2.64; width across frontal angles 1.52, 1.56; width across humeral angles 2.80, 2.94. Scutellar length 1.20, 1.28; width 1.22, 1.32. Body length 10.46, 11.68.

**Differential diagnosis.** Closely related to *C. bellatula* sp. nov., described above. Both species recorded from French Guiana have the antenniferous tubercle armed exteriorly with a convoluted spine far from the antennal plate, femora entirely yellow, thorax and abdominal sterna III to VII yellowish white with prominent black discoidal spot, and connexival segments VI and VII bicolorous, black with anterior third yellow.

In *C. tumula* sp. nov., the antennal segment I is bicolorous with outer face reddish brown and inner face pale yellowish orange, antennal segments II to IV yellowish orange, rostral segments II to IV yellow (apex of IV black), and the posteroventral margin of male genital capsule with broad sinuate middle plate (Fig. 8). In *C. bellatula* sp. nov. the antennal segments I to IV and rostral segments II to IV are entirely black to dark reddish brown, and the posteroventral margin of male genital capsule at middle third with short, raised plate (Fig. 1).

**Etymology.** From the Latin '*tumulus*', meaning raised, referring to the stout spine raising on male fore trochanter; adjective.

**Distribution.** French Guiana.

### Acknowledgments

We thank the following colleagues and institutions for the loan of specimens and other assistance relevant to this study: Joe E. Eger (JEEC); Julieta Brambila (FSCA); and R. L. Brown (MEMC). Special thanks to Albino Luna (UNAM) and Elvia Esparza (UNAM) for the dorsal view illustrations. Support for the research reported in this paper was provided by UNAM-DGAPA, IN-223503-3.

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