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Five new species of *Chrysina* Kirby
(Coleoptera: Scarabaeidae: Rutelinae)

David C. Hawks
Department of Entomology, University of California
Riverside, California 92521 USA

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Five new species of *Chrysina* Kirby (Coleoptera: Scarabaeidae: Rutelinae)

David C. Hawks

Department of Entomology, University of California
Riverside, California 92521 USA
hawkscd@gmail.com

Abstract. Five **new species** of *Chrysina* Kirby (Coleoptera: Scarabaeidae: Rutelinae) are described from Costa Rica, Panama, and Mexico: *Chrysina falcifera* Hawks, *C. galbina* Hawks, *C. juxtaprasina* Hawks, *C. paulseni* Hawks, and *C. sagacita* Hawks.

Key Words. Rutelini, North America, Central America

Introduction

The ruteline scarab genus *Chrysina* includes about 120 valid species (Monzón 2017), including five species described herein. Commonly known as ‘jewel scarabs’ for their bright iridescent and metallic coloration, they occur exclusively in the New World from the southwestern United States south to northwestern South America. Hawks (2001) provided the most recent taxonomic and nomenclatural assessment of the genus, and included a synonymic checklist of species divided into informal species groups. In 2001, about 100 species were recognized, and many more have been described during the past 15+ years. A key to species groups and species of *Chrysina* does not exist, and it is beyond the scope of the present work to include such a key. However, five new species are herein described in preparation for additional revisionary work and a molecular phylogenetic analysis of the genus.

Materials and Methods

Five new species of *Chrysina* are described and diagnosed based on a template of morphological characters used by Morón (1990), and expanded by Hawks (e.g., Hawks 1999). Measurements are to the nearest 0.5 mm. Brief remarks are presented for each species. Holotype deposition is provided in the descriptions, and paratypes have been or will be deposited in several public and private collections when appropriate. Type depositories include the following institutions:

The Natural History Museum, London, UK (BMNH)

The California Academy of Sciences, San Francisco, CA, USA (CASC)

National Museum of Natural History, Smithsonian Institution, Washington, D. C., USA (USNM)

Genus *Chrysina* Kirby

Chrysina Kirby, 1828 (1827): 522. Type-species: *Chrysina peruviana* Kirby, by monotypy

Plusiotis Burmeister, 1844: 417. Type-species: *Pelidnota victorina* Hope, 1840: 11, by subsequent designation (Ohaus, 1934: 16)

Pelidnotopsis Ohaus, 1915: 257. Type-species: *Pelidnota plusiotina* Ohaus, 1912: 304, by monotypy.

Plusiotina Casey, 1915: 84. Type-species: *Plusiotina aeruginis* Casey, 1915: 85

Chrysina falcifera Hawks, new species

Figures 1, 6–8.

Type data. Holotype male (deposited at BMNH), labeled: a) handwritten “Pirris / Costa Rica / June 1901”; b) “Nevinson Coll. / 1918-14”; c) handwritten “*Plusiotis / marginatus* / Waterh.”; d) on red paper,

“*Chrysina / falcifera* male symbol / Hawks, 2017 / HOLOTYPE”. Paratype female labeled: a) handwritten “Savanillas / de Pirris / C. Rica 5.1900”; b) “Nevinson Coll. / 1918-14”; c) handwritten “*Plusiotis / marginatus* / Waterh.”; d) on yellow paper, “*Chrysina / falcifera* female symbol / Hawks, 2017 / PARATYPE”. Paratype male (Fig. 1) labeled: a) handwritten “Costa Rica”; b) on yellow paper, “*Chrysina / falcifera* male symbol / Hawks, 2017 / PARATYPE”.

Description, holotype male. Length 22.5 mm, width 11.5 mm. Color of dorsal surface of head, pronotum, elytra, and pygidium mostly iridescent yellowish green; clypeus and pronotum edged with golden green; elytral margin with well-defined metallic golden band (includes apical calli); ventral surface of body iridescent green; femora and tibiae iridescent yellow-green; tarsi iridescent cupreous; antennal scape iridescent yellowish green dorsally; remainder of antennomeres present brown (clubs missing).

Head. Form broadly rounded. Dorsal surface of head with small, weakly impressed punctures, mixed with fine punctures. Clypeus convex in lateral view. Anterior border of labrum bisinuate, with 2 emarginations. Mandibles hidden in dorsal view. Eye size moderate with ratio of interocular distance to width of pronotum at base = 1 : 2.1.

Thorax. Pronotal basal margin absent in central region adjacent to scutellum. Pronotal surface with small punctures larger, more deeply impressed than those of head; punctures sparse, becoming denser laterally. Mesosternal process long, slightly dorsoventrally compressed, rounded at apex. Each elytron with striae nearly obsolete, only sutural and 3 discal striae at all visible, interstriae weakly punctate as pronotum; epipleural fold narrow, terminating just posterior to first abdominal sternite.

Abdomen. Surface smooth with several short, fine hairs at apex. *Genitalia:* Genital capsule length 7.5 mm. Parameres (Fig. 6–8) fused into dorsoventrally flattened, ventrally reflexed, narrow hook, apex weakly notched; each side near base with 1 short triangular spine; ventral keel absent. Ventral plates asymmetrical, narrow, apices acute.

Male paratype variation (n= 1). Length 22 mm, width 11 mm. Male paratype (Fig. 1) differs from the holotype in the following ways. Ratio of antennal club length to interocular distance = 1 : 2.2. Tibiae and tarsi coppery orange.

Female paratype variation (n= 1). Length 27 mm, width 14 mm. Female differs from the holotype in the following aspects. Female with clypeal margin, tibiae, tarsi, and elytral margin purplish red. Elytral margin thickened in basal 2/3. As is common in the genus, the female body is slightly more convex in lateral view, legs and tarsi are relatively slightly smaller, and the antennal club is shorter. Ratio of interocular distance to width of pronotum at base = 1 : 2.1. Ratio of antennal club length to interocular distance = 1 : 2.4. Inferior genital plates subcircular, strongly convex, irregularly emarginate along apical margin.

Diagnosis. *Chrysina falcifera* is most similar to *C. marginata* (Waterhouse) and other members of the marginata group (Hawks 2001). It differs most conspicuously in the form of the male genitalia. The parameres of all other species of the marginata group possess very long lateral processes (Hawks 1999; Curoe 2011).

Etymology. The specific epithet is derived from the Latin *falcifer*, meaning sickle-bearing, in reference to the strongly falcate male genitalia. It is used as a feminine adjective in the nominative singular.

Remarks. Savanilla de Pirris is in San José Province, Costa Rica, located in the foothills of the Pacific Coast Range near Rio Grande de Pirris. To my knowledge, there are no recently collected specimens of this species, and it would be worthwhile to survey for it, and assess its habitat and potential conservation issues in this region of Costa Rica.

***Chrysina galbina* Hawks, new species**
Figures 2, 9–11.

Type data. Holotype male (deposited at USNM), labeled: a) "PANAMA: El / Valle, Cocle Prov. / 22.IV.65 / SS & WD Duckworth"; b) on red paper, "*Chrysina / galbina* male symbol / Hawks, 2017 / HOLOTYPE". Paratype male labeled: a) as holotype; b) on yellow paper, "*Chrysina / galbina* male symbol / Hawks, 2017 / PARATYPE".

Description, holotype male. Length 25 mm, width 13 mm. Color of dorsal surface of head, pronotum, elytra, and pygidium mostly iridescent pale avocado green; pronotum, scutellum, and elytra edged with golden yellow; apical calli golden yellow; ventral surface of body iridescent pale blue-green; femora and tibiae iridescent yellow green; tarsi metallic copper; antennal scape coppery yellow dorsally; remainder of antenna brown.

Head. Form broadly rounded. Dorsal surface of head with moderate to small punctures, mixed with fine punctures visible only with magnification; punctures dense, becoming subcontiguous laterally. Clypeus strongly convex in lateral view. Anterior border of labrum sinuate either side of acuminate apex. Mandibles not visible in dorsal view. Eye size moderate with ratio of interocular distance to width of pronotum at base = 1 : 2.2. Ratio of antennal club length to interocular distance = 1 : 1.8.

Thorax. Pronotal basal margin entire. Pronotal surface like that of head; punctures dense, becoming contiguous laterally. Mesosternal process moderately long, rounded at apex. Each elytron with 8 distinct, weakly impressed striae; interstriae irregularly punctate, punctures as on pronotum; epipleural fold broad near base, narrowing posteriorly, terminating just posterior to first abdominal sternite.

Abdomen. Surface finely rugose. *Genitalia:* Genital capsule length 8.0 mm. Parameres (Fig. 9–11) reflexed ventrally, asymmetrical, weakly notched at true apex, but left paramere with long ventrally-hooked spine; ventral keel absent. Ventral plates nearly symmetrical, triangular.

Male paratype variation (n= 1): Length 25.5 mm, width 13 mm. Male paratype differs from the holotype in the following ways. Head, pronotum, and venter with overall color lighter yellowish green with somewhat purplish yellow areas. Pronotum with basal margin less distinct medially.

Diagnosis. *Chrysina galbina* is most similar to *C. veraguana* (Ohaus). *Chrysina veraguana* differs conspicuously from *C. galbina* in aspects of coloration (e.g., pinkish tibiae, blue tarsi) and very different parameres with a long, ventrally-hooked projection on each side (Morón 1990).

Etymology. The specific epithet is derived from the Latin *galbus*, meaning greenish-yellow, and *galbina*, pale green garments, in reference to its pale coloration. It is used as a plural noun in apposition.

Remarks. Females are unknown.

Chrysina juxtaprasina Hawks, new species

Figures 3, 12, 13, 19.

Type data. Holotype male (deposited at CASC), labeled: a) "MEXICO: Oaxaca / Sierra de Juarez / 2-4. vi.1995; 1750 m / G. Nogueira, coll."; b) on red paper, "*Chrysina / juxtaprasina* male symbol / Hawks, 2017 / HOLOTYPE". Paratypes (17M, 1F) labeled: a) as holotype. Paratype female labeled: a) "7000', 32 mi. S. / Valle Nacional, / Oax. Mex. V.21-24. / 1971 H. Howden". Paratypes (4M) labeled: "Mex: Oaxaca / 45 rd km S of Valle / Nacional 2100m / 28 vi-2 vii-1992 / Curoe, Blackaller col./ Metal halide light". Paratypes (1M, 1F) labeled: a) handwritten "MX: Oaxaca / 5 km S. of / Totontepec / 27 June 1995 / 2000 m". Paratype male labeled: a) "MEX: Oaxaca / 5 km S Totontepec / N 17° 15.8' 2000 m / W 96° 02.828' / 27 VI 1995 / D. Curoe, Hopkins". Paratype male labeled: a) handwritten "MEX: OAXACA / 10 km S La Espe- / ranza 1900 m / 8 VII 94 Curoe col.". Paratype female labeled: a) "Mex Oaxaca / La Esperanza / VII.92 / Curoe col.". Paratype female labeled: "Mex: Oaxaca / 10 Km S La Esperanza / N 17° 35.452' / W 96° 25.879' 2042m/ 27 vi 95 Curoe, Hopkins". Paratypes (6m, 1F) labeled: "Mex: Oaxaca / 10 Km S La Esperanza / 2040m 8 vii 94/ D. Curoe col.". Paratype male labeled: a) handwritten "MX: Oaxaca / 5 km S. of / Totontepec / 27 June 1995 / 2000 m Hopkins". Paratypes (6M 1F) labeled: "Mex: Oaxaca/ 5 Km S Totontepec / N 17° 15.8' / W 96° 02.828' 2000m/ 27 vi 95/ Curoe, Hopkins". All paratypes (37M,

7F) with paratype label on yellow paper, "*Chrysina / juxtaprasina* male or female symbol / Hawks, 2017/ PARATYPE".

Description, holotype male. Length 29 mm, width 16 mm. Color of dorsal surface of head, pronotum, elytra, apical calli, and pygidium mostly iridescent green and yellowish green; pronotal and elytral margins yellow; ventral surface of body, femora iridescent green; tibiae pinkish purple; tarsi gold; antennal scape iridescent gold on dorsal surface; remainder of antenna brown.

Head. Form narrowly rounded. Dorsal surface of head with sparse, small punctures mixed with fine punctures (visible only with magnification). Clypeus almost flat in lateral view. Anterior border of labrum simply emarginate at center. Mandibles externally rounded, dorsally concave, slightly asymmetrical with internal tooth; visible in dorsal view. Eye size moderate with ratio of interocular distance to width of pronotum at base = 1 : 2.4. Ratio of antennal club length to interocular distance = 1 : 2.

Thorax. Pronotal basal margin entire. Pronotal punctures like that of head, somewhat finer. Mesosternal process moderately short, rounded at apex. Each elytron with distinct sutural, marginal striae; 5 discal striae becoming less distinct laterally; interstriae irregularly punctate, punctures subequal to striae punctures, larger than on pronotum; epipleural fold broad, terminating near elytral apex.

Abdomen. Surface punctate, setose; punctures dense, moderately large; long, pale setae abundant on disc. **Genitalia:** Genital capsule: Length 9.5 mm. Parameres (Fig. 12, 13) not reflexed ventrally, slightly asymmetrical, distinctly notched (0.7 mm) at apex; sinuate in lateral view; ventrally-projecting keel absent. Ventral plates nearly symmetrical, gradually expanding to truncate apex; weakly sclerotized.

Male paratype variation (n= 37). Length 27–30.5 mm, width 14–15.5 mm. Male paratypes (Fig. 3) differ from the holotype in the following ways. One specimen with elytral punctation deeper, surface appearing subrugose, but with pygidium and pronotum appearing less punctate, smoother. The ventral plates in some specimens are acutely produced externally as a small tooth at truncate apex.

Female paratype variation (n= 7). Length 28.5–29.5 mm, width 15.5–16 mm. Females are virtually identical to males in terms of gross morphological and coloration characteristics. As is common in the genus, the female body is slightly more convex in lateral view, legs and tarsi are relatively slightly smaller, and the antennal club is shorter. Ratio of interocular distance to width of pronotum at base = 1 : 2.3. Ratio of antennal club length to interocular distance = 1 : 2.4. Inferior genital plates (Fig. 19) subcircular, strongly convex, irregularly emarginate along apical margin.

Diagnosis. *Chrysina juxtaprasina* is a member of the *peruviana* group (Hawks 2001), and is most similar to *C. prasina* (Boucard). It can be distinguished by its smaller average size, lighter yellowish-green coloration, more conspicuous elytral punctation and striae, more densely setose venter and pygidium, and more slender legs. Parameres are somewhat variable in both species, and are difficult to distinguish with consistency. *Chrysina juxtaprasina* and *C. prasina* are not known to be sympatric.

Etymology. The name is formed from the Latin preposition *juxta-*, meaning 'near to' or 'almost the same as', in combination with the epithet of *C. prasina*, with which the species had been confused (Morón 1990). It is used as a feminine adjective in the nominative singular.

Remarks. A photograph of a male specimen of *Chrysina juxtaprasina* was included in Morón (1990) as a "male of the «yellow» variety obtained in the Sierra de Juarez, Oaxaca."

***Chrysina paulseni* Hawks, new species**

Figures 4, 14–16, 19.

Type data. Holotype male (deposited at CASC), labeled: a) "MEXICO: Chiapas / Cinco Cerros / vii.1995/ T.W. Taylor"; b) on red paper, "*Chrysina / paulseni* male symbol / Hawks, 2015 / HOLOTYPE". Paratypes (9M, 4F) labeled: a) as holotype. Paratype male labeled: a) handwritten "MEX: Chiapas / 1 km W Cinco Cerros / 9 Aug. 1988 / T.W. Taylor". Paratype male labeled: a) "MEXICO: Chiapas, / Cinco Cerros, km

30 / on Hwy 190 1500 m, / 19. VI. 1989, H. Howden"; b) "at light"; c) "H. & A. Howden / Collection"; d) "[*Plusiotis / psittacina* (Sturm) / Bates] / M.A. Morón, det. [1990]". Paratype male labeled: a) "MEXICO: Chiapas / 1 km N Cinco Cerros / 25-VI-1990 / M.C. Thomas". Paratypes (2M) labeled: a) "MEX: Chiapas / Cinco Cerros / 860 m, 9. VI. 1990 / H. & A. Howden"; b) "at light". Paratype male labeled: a) handwritten "*P. psittacina* / 10 – Agosto – 90 / Chiapas, Mex.". Paratype male labeled: a) handwritten "MEX: Chiapas / Las Minas / 7 Aug. 1992 / T.W. Taylor". Paratype male labeled: a) handwritten "MX: Chiapas / 27 km W of / Cintalapa / 9 July 1990". Paratype male labeled: a) handwritten "los Chimalapas / OAXACA, MEX. / 1200 m 10-Ag-90 / Col. G. Nogueira"; b) handwritten "*Plusiotis / psittacina* / M". Paratype male labeled: a) handwritten "*P. psittacina* F. / 9 – Agosto – 90 / Chiapas, Mex.". Paratype male labeled: a) "MEXICO: Chiapas : Mpio. Villa Flores / Rd. to Agronomis Mexicanos, 36 -37 / km. E. Jct. Hwy 195, 1200 m. / 19-June-1992, Tropical Deciduous / Pine-Oak Trans., B.D. Streit + R.A. / Cunningham Colls. MV, BL, BLB". Paratype female labeled: a) handwritten "MX: Chiapas / 29 mi SW of / Cintalapa / 7 July 1971". Paratype (1M) labeled: a) "Mex: Chiapas / Las Minas / 20 July 1991 / T. Taylor collector". Paratype (1M) labeled: a) "Mex: Chiapas / near Rizo de Oro / VII-93 / Nogueira col.". All paratypes (22M, 5F) with paratype label on yellow paper, "*Chrysina / paulseni* male or female symbol / Hawks, 2015 / PARATYPE".

Description, holotype male. Length 32 mm, width 17 mm. Color of dorsal surface of frons, pronotum, apical calli, and pygidium mostly iridescent bluish green, pronotal and elytral margins, parts of elytral disc somewhat more yellowish green; clypeus green at base becoming cupreous near black anterior margin; ventral surface of body, femora iridescent green; tibiae yellowish green to almost cupreous; tarsi iridescent emerald green; antennal scape iridescent yellowish green to cupreous dorsally; remainder of antenna brown.

Head. Form almost semicircular. Dorsal surface of head with dense, large punctures on clypeus, becoming smaller and sparser on frons towards posterior. Clypeus slightly convex in lateral view. Anterior border of labrum strongly emarginate, deeply notched at center. Mandibles nearly symmetrical semicircular, convex dorsally, lacking internal teeth; visible in dorsal view. Eye size moderate with ratio of interocular distance to width of pronotum at base = 1 : 3.7. Ratio of antennal club length to interocular distance = 1 : 1.8.

Thorax. Pronotal basal margin entire. Pronotal surface with sparse, small and fine mixed punctures on disc, becoming denser laterally. Mesosternal process short, laterally compressed, rounded at apex. Each elytron with 9 distinct striae, punctures similar to those on pronotum; interstriae 2 with similarly large punctures, other interstriae weakly punctate; epipleural fold narrow, terminating just posterior to first abdominal sternite.

Abdomen. Surface smooth, densely, micropunctate; margin with short, fine, pale setae. *Genitalia:* Genital capsule length 11.0 mm. Parameres (Fig. 14–16) reflexed ventrally, slightly asymmetrical, short, subtrapezoidal, apical margin produced (right acutely, left obtusely) at anterolateral corners; ventral keel present. Ventral plates nearly symmetrical, acute, apices curved inward.

Male paratype variation (n= 22). Length 28–32 mm, width 15.5–16.5 mm. Male paratypes differ from the holotype in the following characters. Two specimens exhibit a uniformly purple color form. Color of clypeus varying from green to cupreous green.

Female paratype variation (n= 5). Length 30–35 mm, width 17–20.5 mm. Females are similar to males in terms of gross morphological and coloration characteristics, except with clypeus more distinctly cupreous, sharply demarcated from green frons. As is common in the genus, the female body is slightly more convex in profile, legs and tarsi are relatively slightly smaller, and the antennal club is shorter. Ratio of interocular distance to width of pronotum at base = 1 : 2.3. Ratio of antennal club length to interocular distance = 2.1. Inferior genital plates (Fig. 19) broadly falcate.

Diagnosis. *Chrysina paulseni* is a member of the auripes group (Hawks 2001), and is most similar to *Chrysina auripes* Gray based on the form of the male parameres and female inferior genital plates. The parameres in *C. paulseni* are strongly asymmetrical, unlike those of *C. auripes*. The female inferior plates are distinctive from those of *C. auripes*, with the disc extending further apically before terminat-

ing in the thicker, falcate processes. All other members of the auripes group are smaller on average, and typically of a lighter yellowish green color. *Chrysina paulseni* previously had been incorrectly identified as *Plusiotis psittacina* (Sturm) in the unrelated (*Chrysina*) psittacina group *sensu* Hawks 2001 (Morón 1990; see discussion under *C. auripes* in Hawks (2001)).

Etymology. This new species is named for my friend, Dr. M. J. Paulsen of the University of Nebraska State Museum. M.J. is an expert on several groups of scarabaeoids, and is my main colleague and collaborator in all projects related to scarabaeoid research. He contributed greatly to the preparation of this publication.

Remarks. Photographs of *Chrysina paulseni* specimens were included in Morón (1990), identified as *Plusiotis psittacina*. They consist of “One male of the «typical [green] form» and a female of the «red form» collected in Finca Prusia, Albino Corzo, Chiapas, Mexico.”

***Chrysina sagacita* Hawks, new species**
Figures 5, 17, 18.

Type data. Holotype male (Fig. 5; deposited at CASC) labeled: a) “MEXICO: Oaxaca / Sierra Juarez, near / San Concepcion / Papalo; 24.iv.1995 / Alfredo Lau, coll.”; b) on red paper, “*Chrysina / sagacita* male symbol / Hawks, 2017 / HOLOTYPE”. Paratypes (11M) labeled: a) as holotype. Paratypes (4M) labeled: a) “MEXICO: OAXACA / La Esperanza / 2 April 1995 / D. Thomas & D. Robacker”. Paratypes (2M) labeled: a) “Mex: Oaxaca / San Juan Papalo / 8500' 24 V 95 / A. Lau”. All paratypes (17M) with paratype label on yellow paper, “*Chrysina / sagacita* male symbol / Hawks, 2017 / PARATYPE”.

Description, holotype male. Length 26 mm, width 12.5 mm. Color of dorsal surface of head green with golden reflection; pronotum and elytra mostly iridescent yellowish green; pronotum and elytral margins gold; apical calli metallic green; pygidium green with cupreous reflection; ventral surface of body and femora iridescent golden green to cupreous; tibiae purplish brown with green iridescence; tarsi brown with weak green iridescence; antennal scape brown with weak green iridescence dorsally; remainder of antenna brown.

Head. Form overall narrow, clypeus subtriangular with rounded apex; almost flat in lateral view. Dorsal surface of frons with coarse, setose punctures laterally, becoming fine, impunctate on disc. Clypeus with surface rugopunctate. Anterior border of labrum deeply emarginate medially. Mandibles oval, convex; visible in dorsal view. Eye size large, with ratio of interocular distance to width of pronotum at base = 1 : 3. Ratio of antennal club length to interocular distance = 1 : 0.9.

Thorax. Pronotal basal margin entire. Pronotal surface densely punctate with mixed small and fine punctures. Mesosternal process nearly obsolete. Each elytron with 9 distinct punctate striae; punctures larger than on pronotum; interstriae with only fine punctures not visible without magnification; epipleural fold narrow, terminating at middle of metacoxae.

Abdomen. Pygidium finely rugopunctate. Venter densely setose with long golden brown setae. **Genitalia:** Genital capsule length 7.5 mm. Parameres almost symmetrical, subspatulate, weakly notched at apex; sinuate in lateral view; ventral keel absent. Ventral plates fused into parabola with rounded apex; weakly emarginate medially.

Male paratype variation (n= 17). Length 23.5–26.5 mm. Width 12–13 mm. Male paratypes differ from the holotype in the following characters. Five specimens are a pinkish or purplish brown color morph. Mesosternal process usually present as small knob. Ventral plates more strongly rounded, not emarginate medially.

Diagnosis. *Chrysina sagacita* is most similar to *C. orizabae* (Bates), but averages smaller and more slender as viewed both dorsally and laterally. *Chrysina sagacita* tends to be a lighter green. The clypeus is more triangular, the legs are much more slender, the pygidium is more coarsely rugopunctate, and the parameres more slender than in *C. orizabae*.

Etymology. The specific epithet is derived from the Latin *sagax*, meaning “of quick perception, of acute senses,” in reference to the distinctive large eyes and antennal club. It is used as a feminine adjective in the nominative singular.

Remarks. Females are unknown. Like *C. orizabae*, which is distributed throughout the Transverse Volcanic Range in Mexico, *C. sagacita* is a high elevation, spring-emerging species. Both species are unique within the genus in that the adults do not feed, and possess atrophied digestive tracts (Hawks, pers. obs.).

Acknowledgments

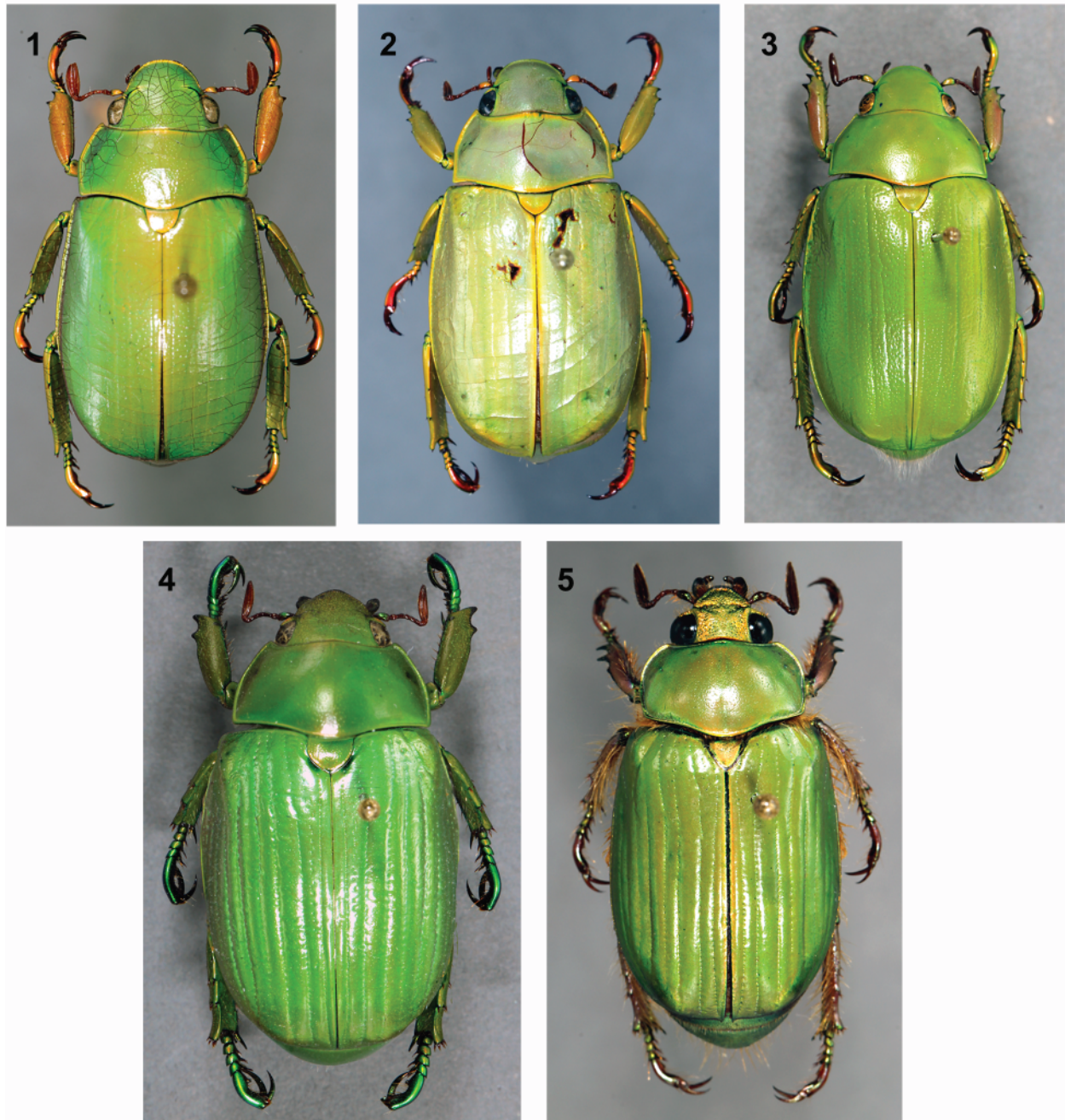
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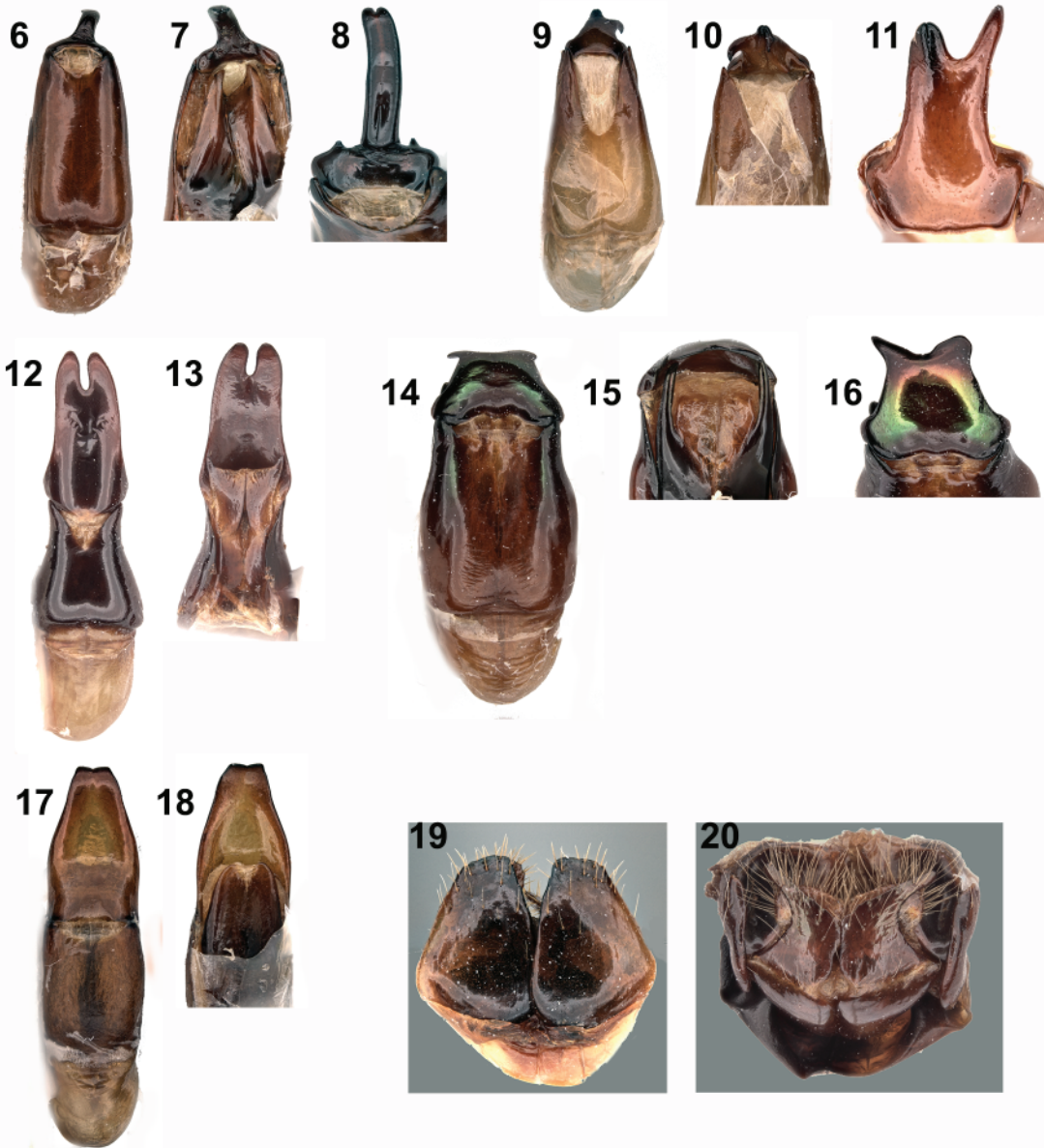
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Figures 1–5. *Chrysina* adult dorsal habitus photographs (not to scale). 1) *Chrysina falcifer* Hawks, new species. 2) *Chrysina galbina* Hawks, new species. 3) *Chrysina juxtaprasina* Hawks, new species. 4) *Chrysina paulseni* Hawks, new species. 5) *Chrysina sagacita* Hawks, new species.



Figures 6–20. *Chrysina* genitalia photographs (not to scale). **6–8)** *Chrysina falcifer* Hawks, new species, male genital capsule. **6)** Dorsal view. **7)** Ventral view. **8)** Apical view. **9–11)** *Chrysina galbina* Hawks, new species, male genital capsule. **9)** Dorsal view. **10)** Ventral view. **11)** Apical view. **12–13)** *Chrysina juxtprasina* Hawks, new species, male genital capsule. **12)** Dorsal view. **13)** Ventral view. **14–16)** *Chrysina paulseni* Hawks, new species, male genital capsule. **14)** Dorsal view. **15)** Ventral view. **16)** Apical view. **17, 18)** *Chrysina sagacita* Hawks, new species, male genital capsule. **17)** Dorsal view. **18)** Ventral view. **19)** *Chrysina juxtprasina* Hawks, new species, female inferior plates. **20)** *Chrysina paulseni* Hawks, new species, female inferior plates.

