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A new Mexican species of *Chrysina* KIRBY (Coleoptera, Melolonthidae, Rutelinae)

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A new Mexican species, *Chrysina gorda* **sp. n.** from Querétaro State is described and its male genitalia are illustrated. This species is related with *C. prasina* (BOUCARD), and its diagnostic features and distribution are commented.

Keywords: Melolonthidae, Rutelinae, *Chrysina*, new species, Mexico.

INTRODUCTION

As currently recognized, the American genus *Chrysina* Kirby includes 95 described species which are distributed from the United States to Ecuador, with the greatest diversity in Mexico (Morón 1990; Hawks 2001). Due to their shining, metallic and iridescent colors, these beetles have been named as the jewel scarabs and have been the favourites of many collectors for a long time. For this reason, professional and amateur taxonomists have devoted considerable effort to discover unknown and geographically isolated species. The first described species of this genus was *C. macropus* (Francillon, 1795), originally placed in the genus *Scarabaeus* LINNAEUS. Subsequently the species of this genus were described in three periods: the first from 1828 to 1859 (with 11 described species representing 12% of all species), the second from 1871 to 1930 (with 44 described species representing 46% of all species) and the third from 1981 to 1999 (with 39 described species representing 41% of all species). Nevertheless, the collecting and taxonomic work carried out, particularly in the last decade, still leaves several regions unexplored which likely house unknown species.

The purpose of this work is to describe a new species collected in the Mexican states of Querétaro, Hidalgo and Veracruz.

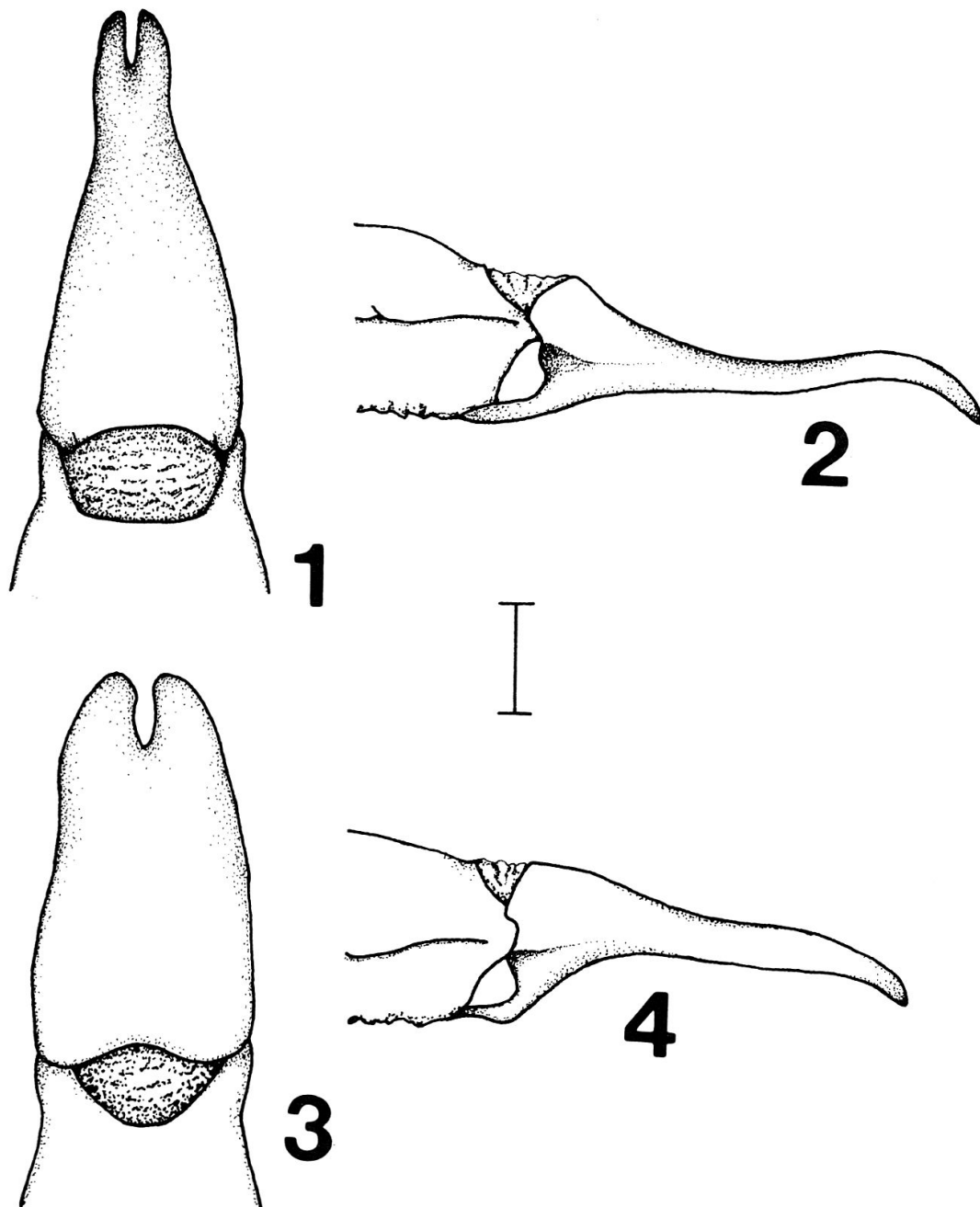
DESCRIPTION

Chrysina gorda **sp. n.** (Figs 1–2)

Type material. Holotype male labeled: México, Querétaro, Sierra Gorda, Pinal de Amoles, Chuveje, 15-XI-1997, Alt. 1,400 m, encinar, A. Ibarra col. Holotype deposited in the Instituto de Ecología, A.C. (Xalapa, Mexico). Paratypes (6 males): 4 labeled: México, Hidalgo, Zacualtipán, camino a Santo Domingo, 30-VIII-2003, Alt. 1830 m, bosque mesófilo de montaña, trampa de luz, J. Asiain, J. Canales y J. Márquez cols; 2 labeled: México, Veracruz, Huayacocotla, 2 km antes de Zicaltepec, 27-VI-2003, Alt. 1765 m, bosque mesófilo de montaña, trampa de luz, J. Asiain, J. Canales y J. Márquez cols. Paratypes deposited in the collections of Coleoptera de la Universidad Autónoma del Estado de Hidalgo (CC-UAEH Pachuca, Mexico), J. Vargas/C. Sánchez (Distrito Federal, Mexico) and L. Delgado (Distrito Federal, Mexico).

Diagnosis. The new species is recognized by the following combination of characters: dorsal coloration without metallic shine, elytral striae slightly impressed, meso-metasternal process medium sized, metafemora and metatrochanters without projections and the shape of male genitalia (Figs 1-2).

Holotype male. Total length 26,1 mm; maximum width (at middle of elytra) 14,0 mm. Dorsal coloration, including apical calla of elytra and pygidium, bright yellowish-green; inner third of epipleural fold golden, thoracic sternites green with golden shine, abdomen green, femora iridescent pinkish-green, tibiae dark pink and tarsi pink with blue metallic tint. Clypeus semicircular, marginate, scarcely convex; clypeus and frons with



Figs 1–4. Parameres of male genitalia of *Chrysina* spp. 1–2. *C. gorda* sp. n. 3–4. *C. prasina*. 1, 3. Dorsal view. 2, 4. Lateral view. Scale = 1 mm.

small and moderately dense punctures, becoming confluent toward apex of clypeus. Interocular distance equal to 3.7 transverse diameters of an eye. Antennal club shorter than interocular distance (0.55:1). Dorso-lateral border of mandibles very slightly sinuate. Anterior border of labium sinuate with two central, large, rounded teeth.

Pronotum with anterior angles slightly acute, the posterior ones obtuse, lateral borders bent just in front of middle; basal margin of pronotum effaced in central region adjacent to scutellum; pronotal punctuation small and moderately dense, becoming denser to lateral borders. Elytral striae slightly impressed, interstriae with moderately dense and medium-size punctures; epipleural fold wide, extending just to level of third sternite. Meso-metasternal process medium sized, subconical with apex rounded. Pygidium convex toward apex, without metallic shine, with long setae at apical third, disc fine and moderately densely punctuated. Venter with fine, moderately dense, whitish setae. Apex of metatrochanter not projecting beyond metafemoral margin. Metafemora not enlarged, their posterior border without projections. Genitalia with parameres slightly asymmetrical, elongated, narrowed to apex, with the apex deeply notched, distinctly sinuate in lateral view (Figs 1-2); ventral plates of phallobase with acute laterodistal projections.

Variation in the series of paratypes. The total length varies from 22.6 to 25.0 mm, and the maximum width from 12.8 to 13.7 mm. Coloration of femora and tibiae varies from dark pink to pinkish-green. Elytral striae and punctures are shallower than holotype.

Female. Unknown.

Comments. Because *C. gorda* presents the dorsal coloration completely green without metallic shine, the elytra with striae slightly impressed and interstriae with moderately dense and medium-size punctures, the meso-metasternal process of medium-size, the pygidium with long setae, the males with metatrochanters not projecting beyond metafemoral margin, the metafemora not enlarged with posterior border without projections and the genitalia with ventral plates of phallobase with laterodistal projections, we consider it to be closely related to *C. prasina* (BOUCARD, 1878). However, *C. gorda* differs from males of this species in having the clypeus semicircular, not semitrapezoidal; the disc of clypeus with dense punctures, not with rugose punctuation; the punctures of head and pronotum smaller and more sparse; it differs principally in the genitalia with parameres narrowed to apex and distinctly sinuate in lateral view (Figs 1-2), not parameres nearly sides-parallel and almost straight in lateral view as in *C. prasina* (Figs 3-4).

Distribution. *Chrysina gorda* is known from the states of Querétaro, Hidalgo and Veracruz. The collecting localities present altitudes from 1400 to 1830 m and cloud or oak forests. In the localities of Hidalgo and Veracruz, *C. gorda* is sympatric with *C. prasina* and *C. sallaei* (Boucard, 1875).

Etymology. The specific epithet *gorda* refers to the Sierra Gorda, the mountainous system where this species was collected.

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