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CARIBANOSIS GEN. NOV. FROM HISPANIOLA (PIMELIINAE: STENOSIINI) WITH TAXONOMIC NOTES ON THE TRIBES BELOPINI AND STENOSINI (COLEOPTERA: TENEBRIONIDAE)

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Abstract.— *Rhypasma* Pascoe, 1862 is transferred from the tribe Stenosini (Pimeliinae) to Belopini (Lagriinae). *Caribanosis* **gen. nov.** is described and placed in Stenosini (Tenebrionidae: Pimeliinae) to hold *Rhypasma quisqueyanus* Garrido et Varela, 2011. The following new combination is established: *Caribanosis quisqueyanus* (Garrido et Varela, 2011), comb. nov. *Caribanosis* is similar to the South American genus *Grammicus* Waterhouse, 1845 but differs in having a single central pronotal keel, not two lateral keels as in *Grammicus*. Both are members of the subtribe Stenosina.

Key words.— Coleoptera, *Rhypasma*, new genus, new species, Dominican Republic, Haiti, Hispaniola.

INTRODUCTION

The genus *Rhypasma* was treated for a long time (e.g. by Gebien, 1937) as a member of the pimeliine tribe Stenosini Lacordaire, 1859. However, Doyen and Lawrence (1979) listed the following features by which *Rhypasma* differs from the Stenosini: "mandibles massive, with large, trapezoidal or subquadrate mola; labrum elongate, with posterior tormal arms thick; medial tormal arms horizontal, then curving abruptly anterad; maxilla with galea lacking apical tooth; tentorium with short sides, bridge located posteriorly; metathoracic wings present, with complete venation without subcubital fleck." They stated that the aedeagus is normally disposed, i.e., the basal and apical lobes are dorsal, and not inverted (upside down) as in all tribes of Pimeliinae, including Stenosini. The absence of the abdominal defensive glands and the

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concealed intersegmental membranes between the last abdominal ventrites with tentyrioid type of hinging are shared with Stenosini. Later, Doyen and Tschinkel (1982) put the genera *Centorus* Mulsant, 1854, *Rhypasma* and *Adelonia* Laporte 1840 into Lagriinae believing that they are "probably specialized members of that lineage".

In 2005, Ferrer et Ødegaard incorrectly reassigned *Rhypasma* Pascoe, 1862 to the Stenosini based on no apparent reason citing "characters" that reflected a close relationship but without presenting any evidence. The genus *Rhypasma*, including 21 of 22 species, is here re-transferred to the tribe Belopini based a non-inverted aedeagus and a number other clearly Lagriine characters as outline in Doyen and Tschinkel back in 1982. *Rhypasma quisqueyanus* Garrido et Varela, 2011 from the Dominican Republic is maintained in the tribe Stenosini for which a new genus, *Caribanosis* is described.

Material and methods

The study is based on the examination of adult beetles from the following institutes, museums and private collections:

CASC – California Academy of Sciences, USA (Dave Kavanaugh);
BMNH – Natural History Museum, London, UK (Martin Brendell and Max Barclay);
RLAC – Rolf L. Aalbu Collection, El Dorado Hills, California, USA;
ADSC – Aaron Smith Collection, Flagstaff, Arizona, USA;
MSNG – Museo Civico di Storia Naturale Giacomo Doria, Genova, Italia.

Taxonomy

Subfamily **Pimeliinae** Latreille, 1802

Tribe **Stenosini** Lacordaire, 1859

Genus ***Caribanosis*** Nabozhenko, Kirejtshuk, Merkl, Varela, Aalbu & Smith, gen. nov.

Type species. *Rhypasma quisqueyanus* Garrido et Varela, 2011.

Composition. The genus includes only the type species, *Caribanosis quisqueyanus* (Garrido et Varela, 2011), comb. nov.

Diagnosis. Body (Fig. 1) matt, glabrous, without squamiform setae. Body dark brown to black. Body length 3.9–4.8 mm, width about 1.5 mm. Head broadened from base to genae, widest at level of antennal insertions. Surface covered with punctures, each with an elongate narrow yellow seta. Genae rounded, weakly sinuate at eye level. Inner side of eyes with reduced suborbital keel. Eyes divided into dorsal and ventral components but joined by deep furrow. Dorsal part of eyes elongate oval. Ventral part smaller, lunate. Anterior margin of frons truncate. Antennae 11-segmented, antennomeres 1–10 of subequal width. Antennomere 11 smaller than 10th. Pronotum 1.1 times as wide as head, cordiform. Anterior margin of pronotum widely emarginated, central aspect straight. Base of pronotum feebly arcuate to truncate. Anterior angles of pronotum protruding. Posterior corners rectangular Surface with punctures, each with scattered short yellow setae. Pronotum with longitudinal keel at midline, disc with coarse, abundant punctures consisting of round foveae. Scutellum small, triangular. Elytra subparallel-sided, with rounded humeral angles. Dorsal side of elytron with eight lines of large, deep foveae, intervals 3, 5, and 7 elevated, carinate, tuberculate. Intervals 1, 3, 5, and 7 on both sides with a row of small, thick setae. Ventral-lateral side of elytron with two lines of deep foveae. Each fovea bearing a short seta. Wingless. Tibiae and femora straight, setose. Femora broader than tibiae. Abdomen with rounded punctures gradually smaller towards apex. Punctures on ventrite 1–2 larger than punctures on ventral-lateral side of elytron. Aedeagus inverted.

Comparison. The new genus is similar to other genera of Stenosini in having the eyes seemingly divided by the genae and temples into upper and lower parts which are joined by a deep furrow. This places the genus in the subtribe Stenosina Reitter, 1916 in which the eyes are either not divided, or divided but connected by a deep furrow as above. Other South American genera placed into this subtribe include *Grammicus* Waterhouse, 1845, *Schizaraeus* Kulzer, 1955 and *Ecnomoderes* Gebien, 1928. The South American genera *Hexagonochilus* Solier, 1851 and *Discopleurus* Lacordaire, 1859 as well as the North American genus *Araeoschizus* LeConte, 1851 have the eyes completely divided, placing these in the subtribe Dichillina Reitter, 1916, although at present *Araeoschizus* is placed in its own subtribe, the Araeoschizina, Casey, 1907. This subtribe, as well as potentially others remain ambiguous necessitating clear characterization.

Caribanosis gen. nov. is distinct from these by the presence of a pronotal median longitudinal keel, other genera having lateral or no keels. The new genus differs from *Grammicus* by the shape of antennomere 11, which is smaller than antennomere 10 but separate. In this way it is similar to the genus *Schizaraeus* but in *Schizaraeus* antennomere 3 is very long (as long as the next 4 combined). In *Grammicus* and *Ecnomoderes* antennomere 11 is very small and positioned within and apically to an elongate and wider antennomere 10.

Etymology. The name derives from the Caribs (an indigenous people of the Caribbean) and *Stenosis* (type genus of the tribe Stenosini). Gender masculine.

Caribanosis quisqueyanus (Garrido et Varela, 2011), comb. nov.

Type locality. Dominican Republic, Cueva del Guano, carretera a Pedernales.

Type material indicated in Garrido et Varela (2011) was studied.

New material examined (13): Dominican Republic: Puerto Plata Prov. 3 km. E. Los Hidalgos I-3-1987 J. Doyen & J. Santiago (1) RLAC; (1) ADSC; same except Araeoschizina n. gen. n. sp. Det Doyen (1) CASC; St. Domingo (1) BMNH; *Adelostoma sericeicollis* Deyr. (Coll. Lacord.) (1) BMNH; *Adelostoma sericeicollis* Deyr. (F. Bates 81-19) (1) BMNH; *Adelostoma sericeicollis* Deyr. St. Domingo, (F. Bates 81-19) (1) BMNH; *Adelostoma* ? *sericeicollis* Deyr. Haiti (F. Bates 81-19) (1) BMNH; "Chili" "*Grammicus* Ro…" "Chili" JR, (Pascoe Coll. 93-60) (1) BMNH; same except Bani, II-3-1973, J. Klapperich, "*Dacoderus dominicensis* Horn", Museo Genova coll. G. Marcuzzi (acquisto 2000), (3) MSNG; Republica Dominica, Province San Juan, 50 km W Agua, by road, 18 December 1987, J. Santiago Blay col. (1) CASC.

Variation. There seems to be some variation between northern and southern populations of *C. quisqueyanus*. Northern populations (Fig. 1A, B) tend to be somewhat larger with specimens slightly more setose. Southern populations are smaller and less setose (Fig. 1C). Hispaniola was historically separated into two islands, the northcentral island dating from the Eocene and the south from the Miocene when they fused. (see Hart *et al*. 2016: 530–531). This pattern is found in other groups as the "sellio" species group (Hart *et al*. 2016: 530). We feel however that these variable characters do not justify the naming of an additional species.

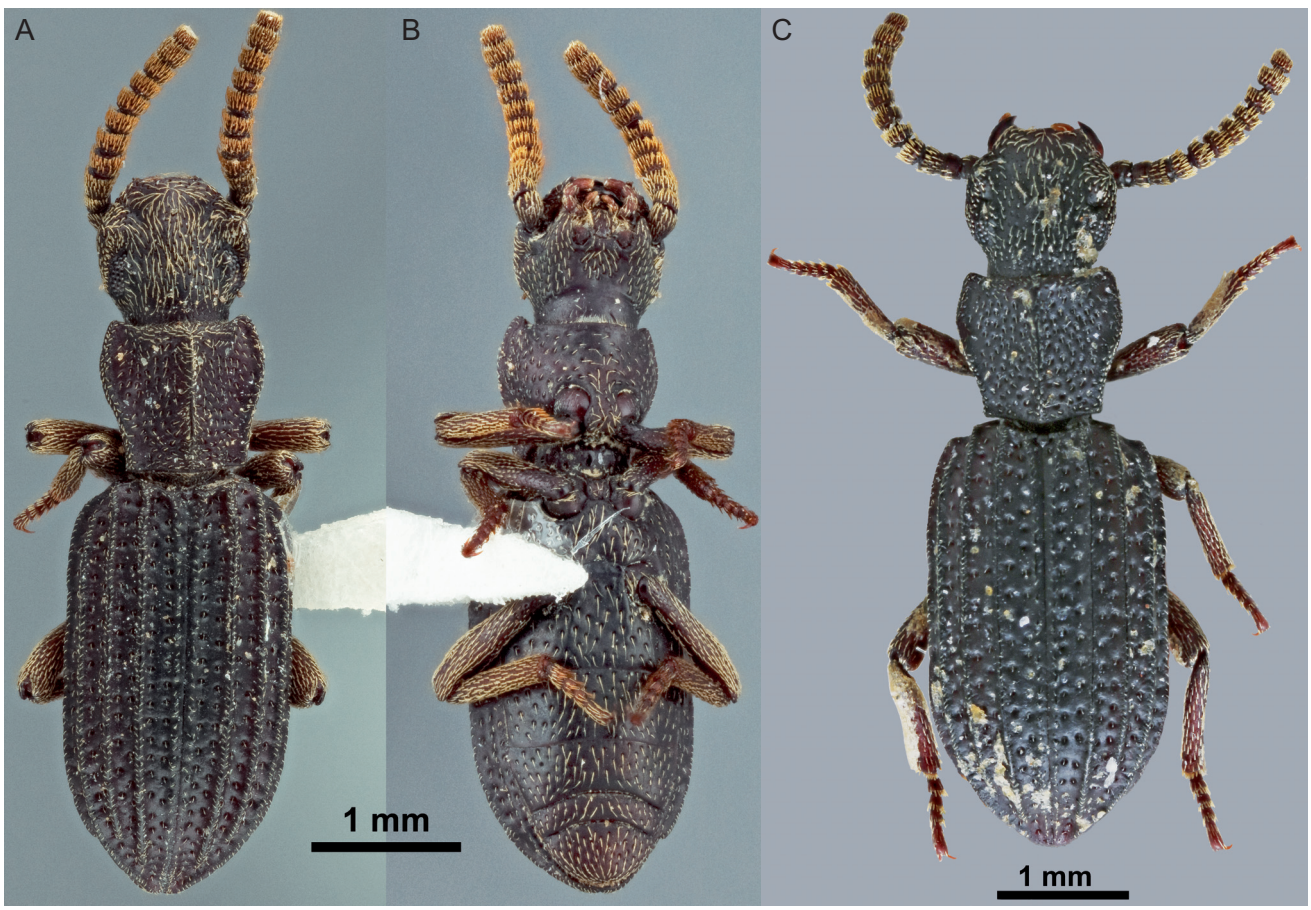

Figure 1. *Caribanosis quisqueyanus* (Garrido et Varela, 2011), gen. nov., comb. nov., (A, B) northern populations, habitus: dorsal (A), ventral (B) views, length of specimen 4.8 mm.; (C) southern populations, dorsal habitus, length of specimen 4.0 mm.

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