

STUDIES ON THE FAUNA OF CURAÇAO AND OTHER
CARIBBEAN ISLANDS: No. 40.

**TENEBRIONID BEETLES OF CURAÇAO, ARUBA,
BONAIRE, AND VENEZUELA**

by

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with Plate VI

This contribution may be considered as an Appendix to my paper on "Tenebrionid Beetles of Curaçao, Aruba, Bonaire, and the Venezuelan Islands", which was published in the fifth volume of this series (1954).

The addition has proved to be justified after study of:

1. a collection of Tenebrionids gathered by Dr. H. J. MAC GILLAVRY, Professor of Geology at Amsterdam University, as a student member of an excursion that took place in 1930 under the direction of the late Prof. L. M. R. RUTTEN;
2. some additional material collected by Dr. P. WAGENAAR HUMMELINCK;
3. specimens from the collection of Ir. R. H. COBBEN, entomologist and agriculturist of Wageningen, in 1957;
4. material collected by B. DE JONG, biologist at Curaçao, and other sources.

Although this new material comprises only a small number of specimens, it contains some valuable additions to our knowledge of the Tenebrionid fauna of the region, as can be seen by comparison of Table 15 with the table given in my previous publication (1954). — New localities have been indicated by an exclamation mark.

Professor MAC GILLAVRY's material (here indicated by MacG.) and Dr. HUMMELINCK's (collector not indicated) have been presented to the Zoological Museum of Amsterdam and the State Museum, Leiden; Mr. COBBEN's material has been deposited at the Entomological Laboratory, Wageningen.

Species of <i>Tenebrionidae</i> dealt with in the present paper are indicated with an asterisk (*)	Los Testigos	Los Frailes	Margarita, Coche, Cubagua	Los Hermanos	Bianquilla	Orchila	Los Roques	Las Aves	Bonaire	Klein Bonaire	Klein Curaçao	Curaçao	Aruba	Pen. de la Goajira	Pen. de Paraguaná	La Guaira to Carúpano	other parts of Venez.	Trinidad
	<i>Alphitobius laevigatus</i>																	
<i>Ulosonia tricornis</i>																		
* <i>Zophobas atratus</i>	x		x	x								x	x					
* <i>Z. rugipes</i>												x						
* <i>Z. paraguanae</i> n.																		
* <i>Z. batavorum</i> n.									●									
<i>Isicrdes</i> sp.												●	●					
<i>Phymatestes</i> sp. gr. <i>tuberculatus</i>																		
<i>Anaeetus</i> sp.																		
<i>Pyanisia nebulosa</i>																		
* <i>Strongylium permodicum</i>																		
<i>S.</i> sp. gr. <i>costaricense</i>																		
* <i>S.</i> sp.																		

To be added to the species dealt with in the present paper: *Diastolinus chevrolati* n., Colombia, and *Zophobas latifollis*, Suriname.

x localities according to specimens studied by the author, and already mentioned in *Studies* 5, 1954.

• localities according to specimens studied by the author, and not mentioned in *Studies* 5, 1954.

● new localities.

TENTYRIINAE

Epitragus aurulentus Kirsch, 1866

KIRSCH, 1866, p. 189; CHAMPION, 1884, p. 23; MARCUZZI, 1949, p. 334; MARCUZZI, 1954, p. 2.

CURAÇAO: *Jongbloed*, 7.XI.1952 (1 ex., B. de Jong, Mus. Amsterdam); *Jongbloed*, 27.XI.1952 (1 ex., idem); *Santa Marta*, X.1956 (3 ex., Cobben).

ARUBA: *Eagle Colony*, 1.V.1955 (1 ex.); Aruba, V.1957 (1 ex., Cobben).

Central and South America; Venezuelan mainland and Margarita; Curaçao! Aruba!

Epitragus sp. ex grupo *angustiformis* F. (n.sp.?)

MARCUZZI, 1954, p. 2.

COLOMBIA: *La Goajira, Cabo de la Vela*, Sta. 289, 22.I.1937 (1 ex.).

Ecnomosternum vermiculatum Gebien, 1928

GEBIEN, 1928, p. 104; MARCUZZI, 1954, p. 2, Plate VI 4.

BONAIRE: *Pos Hoeba*, 26.V.1930 (1 ex.); *Dos Pos*, 24.V.-6.VI.1930 (6 ex., MacG.); *Playa Grandi* - Tanki Ventura, V.1930 (1 ex., MacG.); *Fontein*, Sta. 190A, 20.V.1930 (1 ex.); *Hofje Fontein*, 21-24.V.1930 (8 ex., MacG.);

Bonaire, V.1957 (2 ex., Cobben). CURAÇAO: *Scherpenheuvel*, I.1934 (1 ex., Brother Realino leg., Mus. Amsterdam); *Jongbloed*, 9.I.1953 (6 ex., B. de Jong, Mus. Amsterdam); *Porto Marie*, 15.IV.1930 (3 ex., MacG.); Hofje Porto Marie, 14-21.IV.1930 (4 ex., MacG.); *Santa Marta*, X.1956 (1 ex., Cobben); Hofje *Sint Kruis*, 21-27.IV.1930 (2 ex., MacG.).

Bonaire! Curaçao.

Tapinocomus subnudus Gebien, 1928

GEBIEN, 1928, p. 103; MARCUZZI, 1954, p. 4, Plate I 4.

BONAIRE: *Kralendijk*, 2.XII.1930 (1 ex.); Bolivia, 7.VI.1930 (10 ex., MacG.); Bonaire, V.1957 (13 ex., Cobben). ARUBA: *Eagle Colony*, 1.V.1955 (1 ex.); Eagle Petr. Co., Sta. 562, 11.VIII.1955 (11 ex.); *Oranjestad*, 22.VI.1930 (6 ex., MacG.); *San Barbola-Seroe Patrishi*, 16.VI.1930 (2 ex., MacG.); *Westpunt-Malmok*, 23.VI.1930 (7 ex., MacG.); *Altovista*, 20.VI.1930 (1 ex., MacG.); *Macuarina-Warawara*, 21.VI.1930 (10 ex., MacG.); *Santa Lucia-Andicuri*, 26.VI.1930 (6 ex., MacG.); *Fontein*, 27.VI.-5.VII.1930 (3 ex., MacG.); *Vader Piet*, 13.V.1955 (1 ex.); Vader Piet-Seroe Kadushi, 30.VI.1930 (10 ex., MacG.); *Seroe Colorado*, Sta. 254a, 2.V.1955 (25 ex.); Aruba, IV.1957 (5 ex., Cobben).

Bonaire, Curaçao, Aruba.

Stictoderia subseriata Gebien, 1928

GEBIEN, 1928, p. 101 & 102; MARCUZZI, 1954, p. 5, Plate I 6-7.

ORCHILA: 7-9.X.1950 (78 ex., Museo de Historia Natural La Salle, Caracas). BONAIRE: *Brazil*, 28.V.1930 (2 ex., MacG.); *Dos Pos*, 24.V.-6.VI.1930 (8 ex., MacG.); *Kibrá Guarati*, 21.V.1930 (7 ex., MacG.); Hofje *Fontein*, 21-24.V.1930 (5 ex., MacG.); *Lagoen*, 27.III.1955 (1 ex.); *Lima*, 23.IX.1930 (3 ex.); Bonaire, V.1957 (11 ex., Cobben). CURAÇAO: *Boca Santa Marta*, 3.III.1955 (1 ex.).

The sizes of the population from Orchila are: length 7.75, $\sigma = \pm 0.54$; width 3.46, $\sigma = \pm 0.26$ mm. Table 16 shows the variability of these characters. No sexual dimorphism was observed.

Los Hermanos, Orchila, Los Roques, Las Aves, Bonaire, Klein Bonaire, Klein Curaçao, Curaçao.

TABLE 16.

Variation in one single population of *Stictoderia subseriata* from Orchila

Length Width	6,25	6,50	6,75	7,00	7,25	7,50	7,75	8,00	8,25	8,50	8,75	9,00	Totals
2,75			1										1
3,00	1		4	1	2								8
3,25				2	5	7	3						17
3,50						5	17	4	6				32
3,75							1	5	4	4	1		15
4,00									2	1	1	1	5
Totals	1		5	3	7	12	21	9	12	5	2	1	78

ASIDINAE

Rhyasma maria-gratiae Marcuzzi, 1953

MARCUZZI, 1953, p. 80; MARCUZZI, 1954, p. 8, Plate III 2.

CURAÇAO: *Jongbloed*, 28.XII.1952 (1 ♀, B. de Jong, Mus. Amsterdam).

Bonaire, Curaçao!

TENEBRIONINAE

Diastolinus curtus curtus Mulsant & Rey, 1859

MULSANT & REY, 1859, p. 157; MARCUZZI, 1949, p. 335; MARCUZZI, 1954, p. 8, Plate II 6.

VENEZUELA mainland (Falcón): *Paraguáná*, *Santa Ana*, 4.VII.1956 (4 ex., Sanfilippo); *Coro*, on sand dunes, 3.VI.1956 (1 ex., Sanfilippo). CURAÇAO: *Willemstad*, 1934 (6 ex., Brother Realino leg., Mus. Amsterdam); *Seroe Domi*, Sta. 213A, 12.IV.1930 (1 ex.); *Pavera*, 13.II.1955 (2 ♂ 2 ♀); *Santa Maria-Hato*, 14.VI.1930 (1 ex., MacG.); *Santa Maria*, X.1956 (1 ex., Cobben). ARUBA: *Eagle Petr. Comp.*, Sta. 562, 11.VIII.1955 (1 ex.); *San Barbola-Seroe Patrishi*, 16.VI.1930 (1 ex., MacG.); *Westpunt-Malmok*, 23.VI.1930 (1 ♂ 1 ♀, MacG.); *Macuarina-Warawara*, 21.VI.1930 (2 ex., MacG.); *Arikok*, 28.VI.1930 (1 ex., MacG.); *Rooi Juditi-Piedra di Moelina*, 1.VII.1930 (2 ex., MacG.); *Vader Piet*, Sta. 252, 9.II.1937 (3 ex.); *Vader Piet-Seroe Kadushi*, 30.VI.1930 (3 ex., MacG.); *Seroe Colorado*, Sta. 254a, 2.V.1955 (11 ♂ 5 ♀).

Venezuelan mainland (Paraguáná), Bonaire, Curaçao, Aruba.

Diastolinus curtus goajirus Marcuzzi, 1954

MARCUZZI, 1954, p. 9, Plate II 4.

VENEZUELA mainland (Zulia): *Maracaibo*, 15.VII.1930 (1 ex., MacG.).

Venezuela!, Colombia (La Goajira).

Diastolinus chevrolati n. sp.

Plate VI

Black, with the exception of the antennae, palpi, labrum and tarsi, which are ferruginous red; relatively dull, slightly convex; sides of the body subparallel, but pronotum distinctly wider than elytrae. Head strongly convex, posteriorly with rather dense and strong punctation, anteriorly almost unpunctate, clypeus deeply sinuate, eyes small and wide apart, antennae very slender and elongate; pronotum strongly transverse, with strongly bent sides, widest at the middle, posteriorly more

or less parallel, anteriorly gradually narrowed, with the angles rather blunt and feeble; anterior angles somewhat acute, posterior ones quite rounded; anterior margin rather truncate, the posterior decidedly bisinuate; punctation very dense, confluent externally, the punctures are large and rather umbilicate. Elytrae sub-parallel, convex, punctation stronger than in *D. curtus goajirus*; interstriae I-II rather flat, from III onwards very convex ridge-like at the sides. Prosternum with a conspicuous interoxal process, in profile brusquely truncate posteriorly. Tibiae anterior ♂ much as in *D. fairmairei*, but longer and much more bent – more bent than in all other species of the genus; posterior tibiae ♂ long, rather straight, without any angulosity on the flexorial site; anterior femurs ♂ with a strong, long tooth on the flexorial site.

Length 5.5 mm; width on the elytrae 2.25 mm, width on the pronotum 2.50 mm.

COLOMBIA: "New Grenada" (1 ex., type, Brit. Mus.). Furthermore, 2 ex. from *Carthagena* catalogued as "coll. Laf. F. Bates, 81-19", one of which is labelled "*Iphthinius opatroides?*, *Diastolinus* n. sp. Chevrolat (?)".

Belongs to *curtus* group, from which the new species is easily distinguished by its ridge-like external elytral interstriae, the shape of the anterior tibiae ♂, and the fact that the pronotum is wider than the elytrae.

D. chevrolati and *D. curtus* must be considered to be two allopatric species, and most probably originated as a result of a process of geographical speciation, since one of them (*chevrolati*) is limited to western Colombia and the other (*curtus*) to eastern Colombia, Paraguaná and the westernmost part of the Leeward Islands (Aruba, Bonaire and Curaçao).

***Diastolinus impressicollis* Fairmaire, 1892**

FAIRMAIRE, 1892, p. 81; MARCUZZI, 1949, p. 341.

TRINIDAD: *St. Augustine*, Sta. 365, 8.VIII.1948 (4 ex.).

Venezuelan mainland, Trinidad!

D. impressicollis very probably belongs to a new genus. Its distribution is similar to that of some species of *Blapstinus* (e.g. *brunnipes*, *pseudoaeneus*, *relictus*), but to none of *Diastolinus*.

***Ulus margaritensis* Marcuzzi, 1954**

MARCUZZI, 1954, p. 10, Plate I 1-2.

VENEZUELA mainland: *Paraguaná*, *Santa Ana* (Falcón), 4.VII.1956 (2 ex., Sanfilippo); *Coro* (Falcón), sand dunes, 3.VI.1956 (10 ex.), 17.VI.1956 (8 ex., Sanfilippo); *Cumand* (Sucre), beach, IX.1948 (2 ex., Marcuzzi).

Northeastern and northwestern Venezuelan mainland!, Margarita.

***Blapstinus buqueti* Champion, 1885**

CHAMPION, 1885, p. 128; FAIRMAIRE, 1892, p. 82 (*piliiferus*); MARCUZZI, 1949, p. 345 (*piliiferus*); MARCUZZI, 1951, p. 75; MARCUZZI 1954, p. 12, Plate V 1-3.

COLOMBIA: *La Goajira, Rio Hacha*, Sta. 293, 18.I.1937 (1 ex.). BONAIRE: Hofje *Fontein*, 21–24.V.1930 (9 ex., MacG.); Bonaire, V.1957 (1 ex., Cobben). CURAÇAO: *Mahaai*, 22.XII.1951 (1 ex., B. de Jong, Mus. Amsterdam); Hofje *Porto Marie*, 14–21.IV.1930 (1 ex., MacG.); *Santa Marta*, X.1956 (1 ex., Cobben); Hofje *St. Kruis*, 21–27.IV.1930 (1 ex., MacG.); Hofje *Savonet*, 28.IV.1930 (4 ex., MacG.).

Central America, South America from Colombia to French Guiana, Margarita, Bonaire!, Curaçao, Aruba.

***Blapstinus margaritensis* Marcuzzi, 1951**

MARCUZZI, 1951, p. 68; MARCUZZI 1954, p. 13, Plate V 6.

VENEZUELA mainland: *Maracay* (1 ex., P. V. Vogl, Mus. München).

Venezuelan mainland (Maracay)!, Margarita, Coche.

The specimen belongs to a subspecies which differs from the typical *margaritensis* from Margarita Island in that it is more convex, and has longer pubescence, which is golden yellow instead of whitish.

***Blapstinus paraguanae* Marcuzzi, 1951**

MARCUZZI, 1951, p. 64; MARCUZZI, 1951, p. 435; MARCUZZI 1954, p. 13, Plate IV 3.

VENEZUELA mainland (Falcón): *El Mene*, B.C.O.fields, 29.VII.1930 (1 ex., MacG.); *Paraguandá, Santa Ana*, 4.VII.1956 (10 ex., Sanfilippo).

Venezuelan mainland (Falcón), Colombia (La Goajira).

***Blapstinus pseudoaeneus* Fairmaire, 1892**

FAIRMAIRE, 1892, p. 81; MARCUZZI, 1949, p. 346; MARCUZZI 1954, p. 13; MARCUZZI & ALBERTI, 1957, p. 74.

VENEZUELA mainland: *Maracaibo* (Zulia), 15.VII.1930 (1 ex., MacG.). — "Venezuela" (1 ex. classified as *virescens* Mrtz., Mus. Munich). COLOMBIA: (1 ex., "F. Bates, 81–19", Brit. Museum). "Colombia" (3 ex. labelled as "Columb. Moritz", Mus. Munich).

Venezuelan mainland, Margarita; Colombia?

***Blapstinus curassavicus* Marcuzzi, 1954**

MARCUZZI, 1954, p. 14, Plate IV 1–2.

BONAIRE: *Kibrá Guarati*, 21.V.1930 (1 ex., MacG.); *Playa Grandi* – Tanki Ventura, V.1930 (7 ex., MacG.); Hofje *Fontein*, 21–24.V.1930 (3 ex., MacG.); *Spelonk*, Sta. 187a, 15.IV.1955 (3 ex.); *Bolivia*, 7.VI.1930 (8 ex., MacG.); Bonaire, V.1957 (3 ex., Cobben). KLEIN BONAIRE: 9.VI.1930 (2 ex., MacG.);

30.V.1955 (1 ex.). CURAÇAO: *Pareva*, 12.III.1955 (17 ex.); Hofje *Porto Marie*, 14–21.IV.1930 (1 ex., MacG.); Seroe Cabajé, 17.IV.1930 (2 ex., MacG.); *Cas Abau*, 15.IV.1930 (1 ex., MacG.); Boca *Santa Marta*, 3.III.1955 (5 ex.); Playa Frankie, *Spaanse Put*, Sta. 560, 27.II.1955 (28 ex.); *Seroe di Cueba* (= S. Bartool), 29.IV.1930 (2 ex., MacG.).

Bonaire, Klein Bonaire, Curaçao.

Blapstinus orchilensis occidentalis Marcuzzi, 1954

MARCUZZI, 1954, p. 15, Plate V 8–9.

BONAIRE: *Dos Pos*, 24.V.–6.VI.1930 (8 ex., MacG.); *Kibrá Guarati*, 21.V.1930 (3 ex., MacG.); Hofje *Fontein*, 21–24.V.1930 (1 ex., MacG.); Bonaire, V.1957 (3 ex., Cobben). CURAÇAO: Hofje *St. Kruis*, Sta. 245, 24.X.1936 (1 ex.). ARUBA: 1930 (2 ex., MacG.); IV.1947 (2 ex., Cobben).

Venezuelan mainland (Paraguáná), Colombia (La Goajira), Bonaire, Curaçao, Aruba.

Blapstinus humboldti Marcuzzi, 1954

MARCUZZI, 1954, p. 16, Plate V 5.

COLOMBIA: *La Goajira*, South of *Rio Hacha*, Sta. 294, 18.I.1937 (1 ex.).

Venezuelan mainland (Dto. Federal), Colombia (La Goajira)!

Only very slightly different from the type material which was collected near Maiquetía, and possibly belonging to a different subspecies.

Trichoton curvipes Champion, 1885

CHAMPION, 1885, p. 136; MARCUZZI, 1949, p. 346.

CURAÇAO: Hofje *Savonet*, 28.IV–5.V.1930 (1 ex., MacG.); Playa Frankie, *Spaanse Put*, Sta. 560, 27.II.1955 (1 ♂ 1 ♀).

Panamá, Venezuela, Curaçao!

Ammodonus cayennensis (Champion, 1886)

CHAMPION, 1886, p. 222 (*Scaptles cayennensis*). — Cfr. *A. ciliatus*: MARCUZZI, 1954, p. 22.

VENEZUELA mainland: *Mene Grande* (Zulia), 23–24.VII.1930 (1 ex., MacG.).

French Guiana, Venezuela! — *A. ciliatus*: Margarita, St. Vincent, Guadeloupe(?).

The specimen is similar to two specimens in the Brême Collection from "Cayen-

ne", determined as *cayennensis*, and to two specimens in the same collection from "Col. Orinoco", determined as "*fritillus*". I am not sure that *A. ciliatus* (Champion, 1896) is a bona fide species, different from *cayennensis*.

Platydemia sp. (sp.n.?)

CURAAO: Hofje *St. Kruis*, Sta. 245, 24.X.1936 (8 ex.); Hofje *St. Kruis*, 21-27.IV.1930 (29 ex., MacG)..

Tribolium castaneum Herbst, 1797

SEIDLITZ, 1898, p. 581; MARCUZZI, 1949, p. 348; MARCUZZI 1954, p. 26, Plate II 5.

VENEZUELA mainland: *Colón* (Táchira), 21.VII.1930 (1 ex., MacG.). MARGARITA: 18.V.1936 (1 ex.). CURAAO: Willemstad, 2.X.1936 (4 ex.).

Venezuelan mainland, Margarita, Curaçao; cosmopolitan.

Tribolium confusum Jacquelin du Val, 1868

SEIDLITZ, 1898, p. 581.

VENEZUELA mainland: *San Juan de los Morros* (Guárico, near the northern Venezuelan llanos), in birds' nests. ARUBA: *Fontein*, 27.VI.1930 (8 ex., MacG.); 5.VII.1930 (7 ex., MacG.).

Venezuela, Aruba!, cosmopolitan.

Zophobas rugipes Kirsch, 1866

KIRSCH, 1866, p. 197; KRAATZ, 1880, p. 130; MARCUZZI, 1954, p. 27 (sub *Z. cfr. rugipes*).

VENEZUELA: *Morro de Esmeralda* (Sucre), Sta. 124, 10.VI.1936 (2 ♂). CURAAO: *Willemstad*, 2.II.1939 (1 ♂ 1 ♀); 10.II.1949 (43 ♂♂); I.1934 (1 ♂, Brother Realino, Amsterdam); *Groot Piscadera*, Sta. 335, 27.I.1949 (1 ♂). ARUBA: *Oranjestad*, Sta. 561, poultry-run, 4.V.1955 (23 ♂♂ ♀♀).

Venezuela, Curaçao, Aruba!; Central and South America, Antilles.

Zophobas paraguanae n.sp.

Plate VI

Large, black, dull. Head rather prominent; eyes large; clypeus perfectly truncate (♂), all the upper surface closely punctate, the punctures being very large, mixed with others of smaller size, and tending to confluence. Antennae wide and short; VIII antennal joint as long as wide, IX-X transverse (♂). Pronotum rather flat, widest in the middle, sides regularly rounded, although less than in *Z. batavorum*;

the surface is sparsely scattered with large punctures, which are more abundant posteriorly. Elytral striae with large, coarse punctures, which are close together and therefore very numerous (nearly 45 on internal striae). Interstriae rather flat; only the sides are slightly convex, unpunctate. Anterior tibiae longer and more strongly bent in ♂ than in ♀, middle femurs closely granulated, the granules tending to confluence and more abundant than in *Z. rugipes*. Interspaces almost dull. Middle tibiae closely but finely punctate, the punctures tending to confluence only distally, and gradually becoming granulated towards the flexory edge. Prosternum slightly punctate, in profile brusquely truncate, but with no angularity.

Measurements: length 21 (♂)–23 (♀) mm.

♀ as in ♂, but antennae shorter, with transverse VIII antennal joint, anterior tibiae short and almost straight, middle femurs sparsely and finely punctate, middle tibiae more sparingly punctate, the punctures still more superficial.

VENEZUELA mainland (Falcón): *Paraguand, Santa Ana*, X.1948 (1 ♂, Marcuzzi); *Pueblo Nuevo*, 1.I.1939 (1 ♀, G. Vivas Berthier). — Material in author's collection.

Easily distinguishable from *Z. rugipes* because of the clypeus, which is completely truncate in ♂; the extremely close punctuation of the head; the shorter antennae; the rather flat pronotum; the differing sides of the pronotum (see Plate VI); the coarser and closer punctures of elytral striae, which are as numerous as in *Z. rugipes*; and the flatter interstriae. It can also be recognized by the granularity of the middle femurs, which are closer than in *Z. rugipes* (♂), or by the absence of granules, replaced by fine scattered punctures (♀), and by the different punctuation of the middle tibiae, which in *rugipes* are more strongly punctate, both in ♂ and ♀.

The new species should be distinguishable from *Z. macretus* by the wider antennae, the truncate clypeus in ♂, the rounded sides of the pronotum, and the flat interstriae;

from *kirschi* by the punctuation of head and pronotum, the truncate clypeus in ♂, the obtusely angular hind angles of the pronotum, the stronger punctuation of the legs;

from *laticollis* by the punctuation of the head, the shape of the pronotum, and the punctuation of the femurs;

from *kraatzi* by the absolutely dull upper surface, the truncate clypeus in ♂, the distinctly rounded sides of the pronotum.

Zophobas batavorum n. sp.

Plate VI

MARCUZZI, 1954, p. 27 (sub *Zophobas* sp. (sp.n. ?)), Plate VI 1.

Small, black, somewhat nitidous. Head not prominent, eyes small; clypeus more or less deeply emarginate, with an inconspicuous median tooth, more or less as in *Z. rugipes*. Upper surface with very close, small, circular points. The punctures are situated more particularly anteriorly and on the sides; posterior to the eyes they are exceptionally large and close together. Each puncture is provided with a short, golden seta — an extremely peculiar feature. Antennae rather slender, VIII antennal joint longer than wide, IX and X as long as wide (♂). Pronotum very convex, particularly in ♂, the sides perfectly rounded, widest in the middle. On the

surface are scattered some large punctures mixed with smaller ones, more abundant posteriorly. Elytral striae with small, closely contiguous punctures (nearly 53 on internal striae); interstriae very convex, extremely finely but densely punctate. Anterior tibiae longer and more strongly bent in ♂ than in ♀. Middle femurs with very large granules, sparser than in *Z. rugipes*; the interspaces are somewhat nitidous (♂), middle tibiae very densely punctate, the punctures being confluent. Prosternum rugulose, in profile regularly rounded posteriorly.

Measurements: length 17.5–23.0 mm.

♀: as in ♂, but head with smaller and more irregular punctures, clypeus truncate, antennae shorter, VIII–X antennal joints slightly transverse. Anterior tibiae short and slightly bent, middle femurs only with sparse, asperate punctures, middle tibiae with less dense punctures, tending to confluence.

BONAIRE: *Playa Grandi* – Tanki Ventura, V.1930 (2 ♂♂, MacG.); Fontein, Sta. 191, 30.III.1937 (1 ♀); Hofje Fontein, Sta. 193A, 11.IX.1948 (1 ♀); Boca Onima, Sta. 310, 19.IX.1948 (1 ♂); Bonaire, V.1957 (1 ♂ 3 ♀♀, Cobben).
CURAÇAO: Tafelberg *Santa Barbara*, Sta. 206, 4.IX.1936 (1 ex.); Newport, *Santa Barbara*, Sta. 207, 2.IX.1936 (1 ex.); *Piscadera Bay*, 8.IX.1936 (1 ex.);

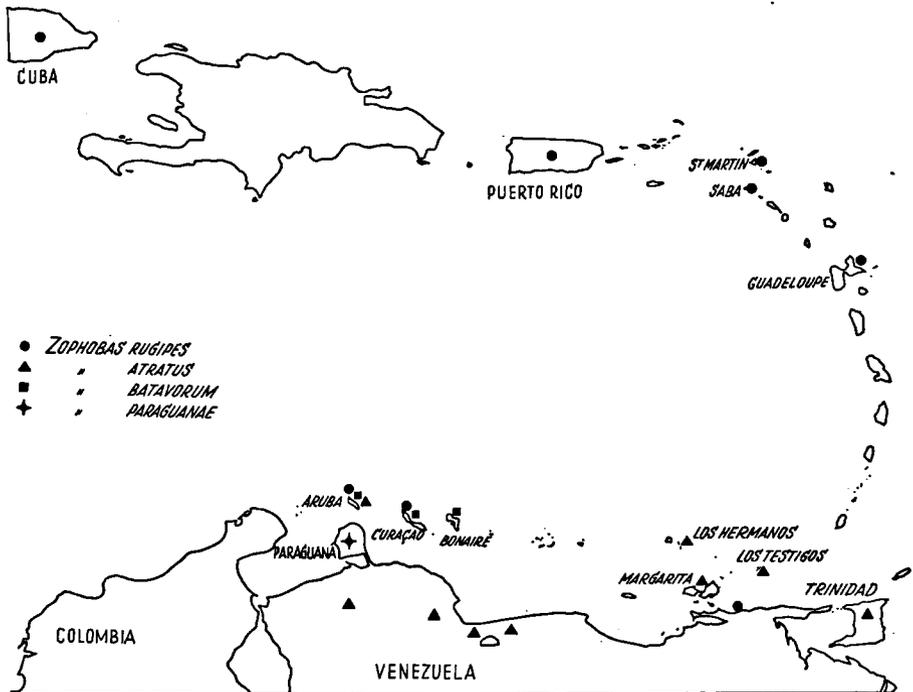


Fig. 87. Distribution of the species of *Zophobas* occurring on the islands of the Leeward Group and the peninsula of Paraguaná.

To be added: *Z. rugipes* on St. Croix, W of Saba.

Santa Marta, old cistern near bay, 3.III.1955 (remnants of many specimens, both ♂♂ and ♀♀); *Santa Marta*, X.1956 (1 ♀, Cobben). ARUBA: *Fontein*, 27.VI-5.VII.1930 (1 ♂ 1 ♀, MacG.). — Holotype in author's collection: Bonaire, leg. Cobben.

Zophobas batavorum is easily distinguishable from *Z. rugipes* by its smaller size; punctuation of the head (which, in *rugipes*, is represented by sparse, large punctures mixed with other, smaller and closer punctures); more slender antennae; more convex pronotum; quite different sides of pronotum; different punctuation of pronotum (in *rugipes*, the pronotum has sparse, large punctures); the punctuation of elytral striae (in *rugipes* the punctures are small and numerous, but not so contiguous); the interstriae (which, in *rugipes*, are very convex, almost crenate, and completely unpunctate). Furthermore, it is distinguishable from *rugipes* by the middle femurs, which are more closely granulated in the latter species, with interspaces rather dull (♂), or finely granulate with a tendency to transverse rugosity (♀).

The new species should be distinguishable from *Z. macretus* (which I have not seen in nature) by the rounded sides of the pronotum;

from *hirschi* by the punctuation of the head and pronotum (which in *hirschi* should be "vix punctatis"), the strongly rounded sides of the pronotum, and the punctuation of the legs, which in *hirschi* should be almost absent;

from *laticollis* by the punctuation of the head (in particular the punctures posterior to the eyes), the shape of the pronotum (which in *laticollis* is narrowed posteriorly), and the punctuation of the femurs;

from *kraatzii* by the punctuation of the head, and by the sides of the pronotum, which are strongly rounded.

***Zophobas atratus* Fabricius, 1775**

KRAATZ, 1880, p. 128 (*Z. morio*); MARCUZZI, 1949, p. 350; MARCUZZI, 1954, p. 27 (*Z. cfr. atratus*), Plate VI 2.

TRINIDAD: *St. Augustine* (2 ex., I.C.T.A.). LOS TESTIGOS: *Tamarindo*, Sta. 162, 16.VI.1936 (1 ♀). MARGARITA: *El Piache*, Sta. 140, 10.VII.1936 (1 ♂); Sta. 141, 10.VII.1936 (1 ♂ 4 ♀♀); Sta. 141A, 10.VII.1936 (1 ♀); Sta. 142, 10.VII.1936 (16 ♂♂ 6 ♀♀). LOS HERMANOS: *Morro Pando*, Sta. 170, 20.VII.1936 (1 ♀). ARUBA: *Oranjestad*, 12.XII.1936 (1 ♀).

Venezuelan mainland, Trinidad, Los Testigos, Margarita, Los Hermanos, Aruba; Antilles, Central and South America; St. Helena, Guinea.

***Zophobas laticollis* Motschulsky, 1872**

KRAATZ, 1888, p. 131; CHAMPION, 1884-'93, p. 105.

SURINAME: *Republiek*, Sta. 563, 3.IX.1955 (2 ♂♂ 3 ♀♀).

México to Brasil and Perú, Guyana, Suriname!

Strongylium permodicum Mäklin, 1864

Plate VI

CHAMPION, 1888, p. 376.

TRINIDAD: *Las Cuevas*, VIII.1905 (1 ex., F. Birch, Brit. Museum).

Central America, Colombia, Trinidad!

The specimen has been compared with a determined specimen in the Gebien-Collection (Museum Frey, Munich).

Strongylium sp. ex grupo costaricense Champion, 1888

Plate VI

CHAMPION, 1888, p. 353 (*S. costaricense*).

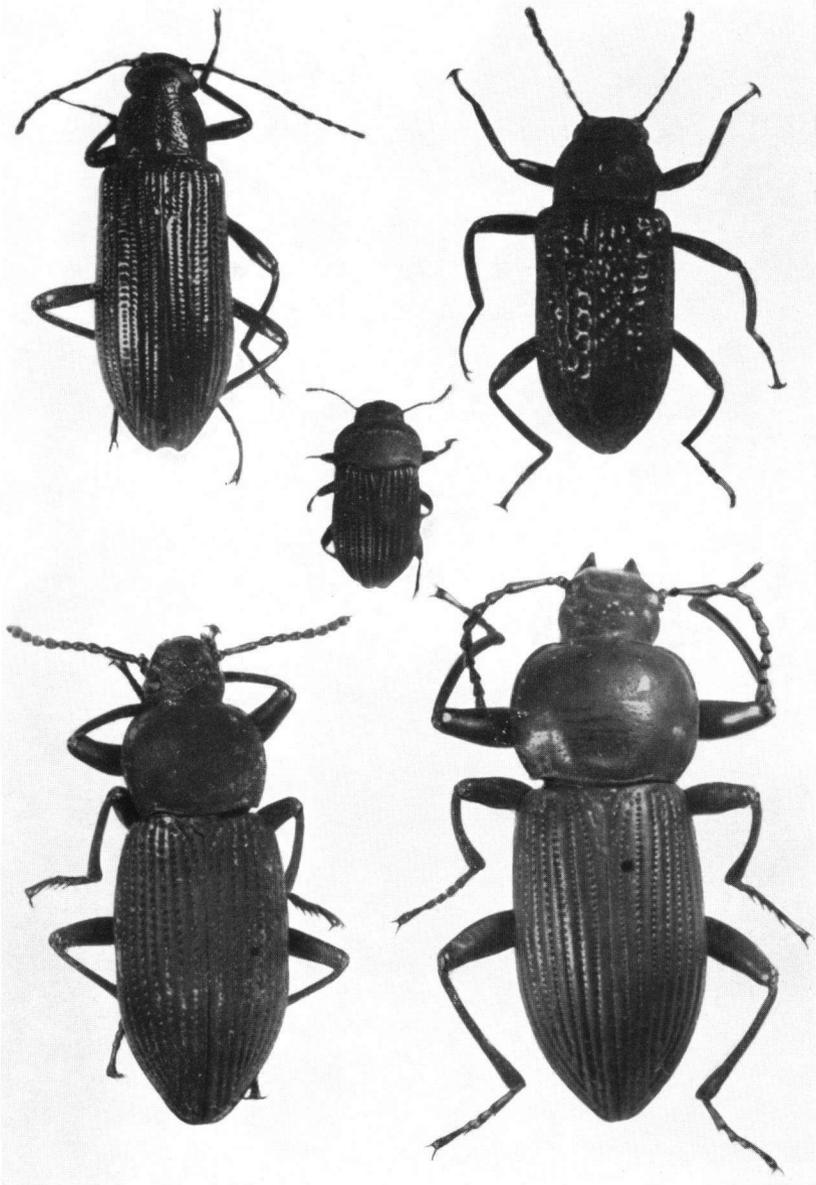
TRINIDAD: XI.1903 (1 ex., G. Bryant, Brit. Museum).

Belonging to CHAMPION's XI group, and precisely near to *S. costaricense*, of which he says: "other allied undescribed forms inhabit tropical South America".

ADDITIONAL REFERENCES,

continued from *Studies* 5, 1954, p. 35-36:MARCUZZI, GIORGIO, 1954. Tenebrionid Beetles of Curaçao, Aruba, Bonaire, and the Venezuelan Islands. *Studies fauna Curaçao* 5, p. 1-36, fig. 1-13, plate I-VII excl.MARCUZZI, GIORGIO & ALBERTI, GIORGIO, 1957. Osservazioni microsistematiche sul coleottero tenebrionide "Blapstinus pseudoaeneus" Fairm. *Monitore zool. Ital.* 65, p. 74-78, 3 figs.

PLATE VI



VI. *Strongylium permodicum* Mäklin from Trinidad; (top left) fig. 1. — *Strongylium* sp. ex grupo *costaricense* Champion from Trinidad; (top right) fig. 2. --- *Zophobas paraguanae* n.sp. from Paraguaná, type; (bottom left) fig. 3. — *Zophobas balavorum* n. sp. from Bonaire, type; (bottom right) fig. 4. — *Diastolinus chevrolati* n.sp. from Colombia, type; (centre) fig. 5.