

STUDIES ON THE FAUNA OF CURAÇAO AND OTHER
CARIBBEAN ISLANDS: No. 28.

CARIBBEAN TIGER BEETLES OF THE GENUS
MEGACEPHALA

by

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The small collection of tiger-beetles, belonging to the genus *Megacephala*, which is the subject of this paper, was incidentally made by the author during his visits to the Lesser Antilles in 1936-'37 and 1948-'49.

The greater part of the material has been deposited at the "Zoölogisch Museum" of *Amsterdam* and the "Rijksmuseum van Natuurlijke Historie" at *Leiden*. Some specimens (27 *M. sobrina* from *Porlamar*, *Margarita*, and *Deenterra*, *Bonaire*) were presented to the collections of the *American Museum of Natural History*, *British Museum*, *Deutsches Entomologisches Institut*, incl. *Coll. Horn*, *Hope Department of Entomology at Oxford*, *The Imperial College of Tropical Agriculture in Trinidad*, *Institut Royal des Sciences Naturelles de Belgique at Brussel*, *United States National Museum*, the *Zoological Museum at Copenhagen*, and the *Zoologisches Museum der Humboldt Universität at Berlin*, whose keepers kindly entrusted me with some material included in this study. The specimens presented by the *U. S. Nat. Mus.* were given to *Amsterdam*, those from the *Amer. Mus.* to *Leiden*.

The writer is indebted to F. VAN RIJCKEVORSEL for his help during the initial stages of this study, and to H. VAN KOOTEN for his expert aid in making the photographs and in preparing the colour schemes.

All localities indicated by station numbers have been described in the 4th and 17th papers of this series.

TABLE 1
Geographical distribution of the Megacephalids treated in this paper.

Species of <i>Megacephala</i>	Aruba	Curacao	Klein Bonaire	Bonaire	Margarita	Cubagua	Los Testigos	Patos	Trinidad	Antigua	St. Barts	St. Martin	Aneгада	St. John	St. Thomas	St. Croix	Puerto Rico	Hispaniola	Cuba	Grand Cayman	U.S.A.	Mexico	Honduras	Nicaragua	Costa Rica	Panama	Colombia	Venezuela	Guyana	Brasil	Argentina				
<i>acutipennis</i>									X																						X				
<i>affinis affinis</i>											X												X								X				
<i>affinis gracilis</i>		X																								X	X								
<i>carolina carolina</i>																								X											
forma typica																																			
forma <i>occidentalis</i>																																			
<i>sobrina sobrina</i>								X		X																									
forma typica								X																											
forma <i>antiguana</i>									X	X																									
forma <i>bonaircana</i>																																			
<i>sobrina infusca</i>																																			

* according to material collected by the author

X according to specimens from other sources

! as before, from localities which should be confirmed

: from literature, Antillean records only

? as before, but considered as doubtful

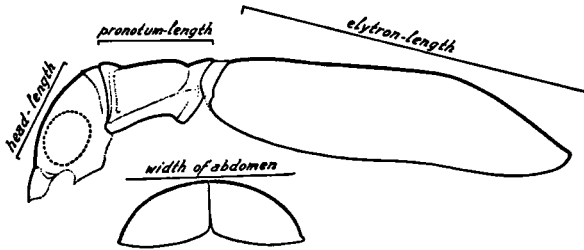


Fig. 2. Some measurements taken in *Megacephala*.

***Megacephala acutipennis* Dejean, 1825**
[Plate VI; fig. 3-5]

DEJEAN 1825, p. 13 ["Saint-Domingue" = Haiti, ins. Hispaniola]; LAPORTE 1834, p. 83 [*adonis*, Cuba]; CHEVROLAT 1834, p. 83-84 [*laportei*]; DUVAL 1857, p. 4 [var. *adonis*]; THOMSON 1857, p. 36, pl. VI fig. 5-6 [*Tetracha*]; CHEVROLAT 1863, p. 184 [*T. adonis*]; HORN 1910, p. 142; LENG & MUTCHLER 1914, p. 393 [*Tetr.*; "St. Thomas, Porto Rico, Haiti, Cuba"]; LENG & MUTCHLER 1916, p. 685, pl. XII fig. 1 [*Tetr.*; Cuba and Hispaniola]; LENG & MUTCHLER 1917, p. 193 [*Tetr.*; Hispaniola and Cuba]; HORN 1926, p. 75; BLACKWELDER 1944, p. 12.

HISPANIOLA: Haiti (Leiden, 6 ♂♂ 3 ♀♀; plate VI bottom left, fig. 3c-e, h, 4c, 5b); Haiti (D. Ent. Inst., 1 ♂; plate VI top left); Port-au-Prince (Leiden, 2 ♂♂ 1 ♀; fig. 3h); Port-au-Prince (D. Ent. Inst., "Tetracha adonis Cast., Deyrolle", 1 ♂; fig. 3f); Port-au-Prince, Natal (Leiden, 1 ♂); Santo Domingo (Amsterdam, 1 ♂; fig. 3a, 4a, 5a); S. Domingo (Oxford, "acutipennis. var. /7199. S: Domingo/ Miers coll." 1 ♂; fig. 3b); "Antilles S.^o Dom.^o" (Brit. Mus., 1 ♀; fig. 3j).

CUBA: (Leiden, "Dohrn", 1 ♂; fig. 3g); (Leiden, "Cuba A. Deyr.", 1 ♀; fig. 3m); (Brit. Mus., "Adonis De L. Cuba", 1 ♀; fig. 3n).

UNKNOWN LOCALITY: (D. Ent. Inst., coll. Kraatz "Acutipennes de Antilles", 1 ♀; fig. 3i); (Leiden, 1 ♂; fig. 4b, 5c); (Amsterdam, 1 ♀; fig. 3l, 4d, 5d).

Characteristics: See table 2 and 6 (measurements), fig. 3-5 (labrum, mandibles), plate VI, and Key.

Colour of Hispaniolan specimens, from above: Dorsal area of elytron blue, purplish or greenish, often in very dark shades, the base usually with more green; laterodorsally a bright indigo-blue; lateral area green, greenish blue or purple, often in very dark shades, sometimes a bright blue.

Colour of Cuban specimens, from above: Dorsal area of elytron a bright purplish blue, not reaching the base, following the suture towards its end, bordering the lunula at its inner side; latero-dorsal area and base a bright green.

Remarks

The ♂♂ are generally more slender than the ♀♀ (see tables 2 and 6); the apex of the elytron in the ♀ is a little less narrow than in the ♂ (fig. 3).

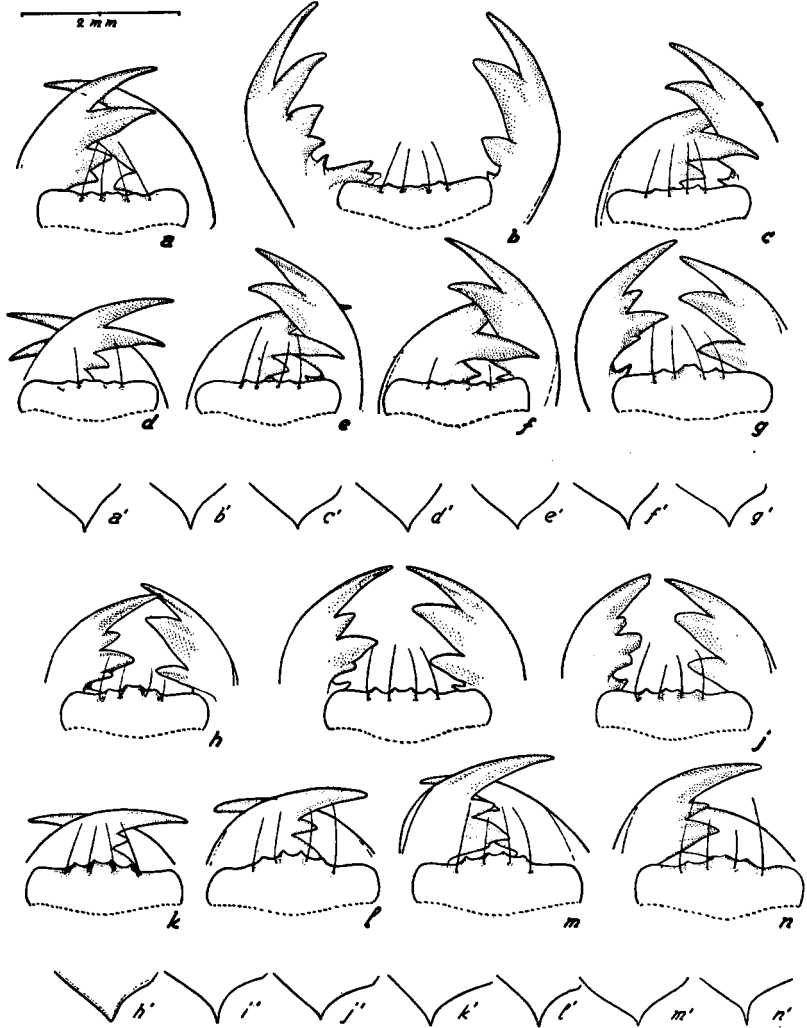


Fig. 3. Labrum and mandibles of *Megacephala acutipennis* in situ, with apex of left elytron of same specimens (*a' b'* etc.), from above; *a-g* ♂♂ *h-n* ♀♀. — From *a-f h j-k* Hispaniola, *g m-n* Cuba, *i l* unknown locality. — *g* as regards abdomen and forefeet ♂, as to labrum and mandibles ♀!

There are distinct sexual differences in the dentition of the mandibles (fig. 3-4):

♂ — Left mandible — ♀	
2nd tooth much larger than 3rd	2nd tooth smaller than 3rd
3rd tooth distinctly larger than 4th	3rd tooth much larger than 4th
bases of 3rd and 4th teeth as a rule distinctly fused	bases of 3rd and 4th teeth fused
♂ — Right mandible — ♀	
2nd tooth much larger than 3rd (no 4th apical tooth present)	2nd tooth distinctly larger than 3rd (no 4th apical tooth present)

One specimen from Cuba is ♂ as regards abdomen and forefeet, ♀ as to labrum and mandibles (fig. 3g).

In all specimens the right mandible is covered by the left one when closed, possibly with exception of 3 ♂♂ from Hispaniola (fig. 3c e-f).

The occurrence of *M. acutipennis* in Puerto Rico and St. Thomas (LENG & MUTCHLER 1914, HORN 1926, and BLACKWELDER 1944) looks very improbable.

A single specimen labelled "Petit Mexico" (Leiden 1 ♂, 15.4 × 5.2 mm, elytron 9.1 mm) shows full resemblance to the Cuban specimens.

Megacephala affinis affinis Dejean, 1825

[Plate VII; fig. 6-7, 9-10]

DEJEAN 1825, p. 12-13 [Cayenne]. — Literature and synonymy of the species in: HORN 1910, p. 143; 1926, p. 76.

HORN 1907, p. 263 [Prioritätsform *affinis*, "Mexico bis Argentinien"]; HORN 1910, p. 143 [Trinidad]; HORN 1926, p. 76 ["(? S. Domingo), Trinidad"]; BLACKWELDER 1944, p. 12 [*M. aff.*; "Trinidad, ? R. Dominicana"].

As belonging to the typical subspecies may be considered the specimens which agree with the description of the Prioritätsform as given by HORN (1907). In this special case the specimens cited below are generally blue in colour, and corresponding to the data given in tables and figures.

TRINIDAD: Point Fortin, 11.VI.1944, coll. by B. Caudri (ICTA, 1 ♂ 2 ♀♀; plate VII bottom right, fig. 6b, g); St. Augustine, 12.V.1942, coll. by A. M. Adamson (ICTA, 1 ♂ 2 ♀♀; fig. 6a, h); Trinidad, 10.VI.1891? (Brit. Mus., 1 ♀; fig. 6e); (Brit. Mus., 1 ♂ 1 ♀; fig. 6c, f).

HISPANIOLA: "S. Domingo / Coll. v. dePol" (Coll. Horn, 1 ♂; fig. 6d).

VENEZUELA: Valencia, 29.XII.1904 (Berlin, F. Kummerow S.V., 1 ♂ 1 ♀); Valencia (Berlin, 1 ♂; fig. 7b); Caracas (Copenhagen, Stjörup, Horn det., 1 ♀; plate VII bottom left; fig. 7f); "Caracc. Isaacs." (Brit. Mus., 1 ♀); "Venez. St. Cruxis" (D. Ent. Inst., violacea, 1 ♀; fig. 7g); "La Vuelta et Corosito, Cauca Valley, S. Klages, May 1903 et 1904" (Leiden, 1 ♂; fig. 7c); Venezuela

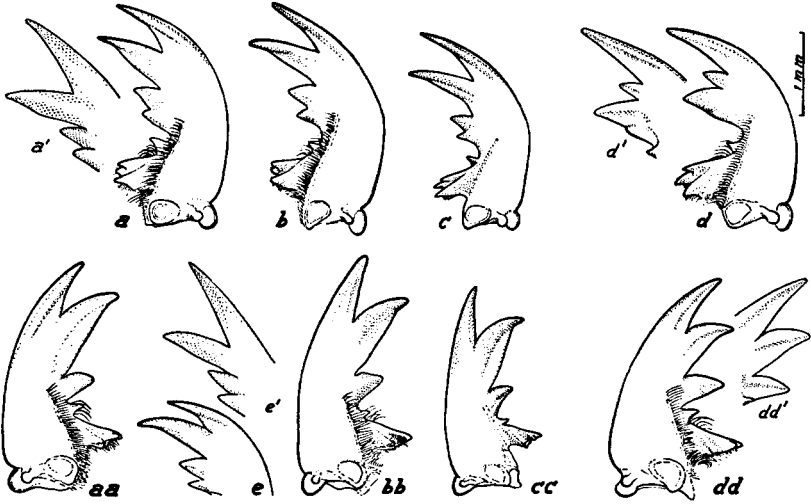


Fig. 4. Mandibles of *Megacephala acutipennis*, ventral view; *a b* etc. left, *aa bb* etc. right mandibles; *a-c* ♂♂ *d* ♀. — From *a c e* Hispaniola, *b d* unknown locality. — All specimens strikingly concave; *a' d'-dd' e'* showing apex in horizontal position so as to show real dimensions of apical and subapical teeth.

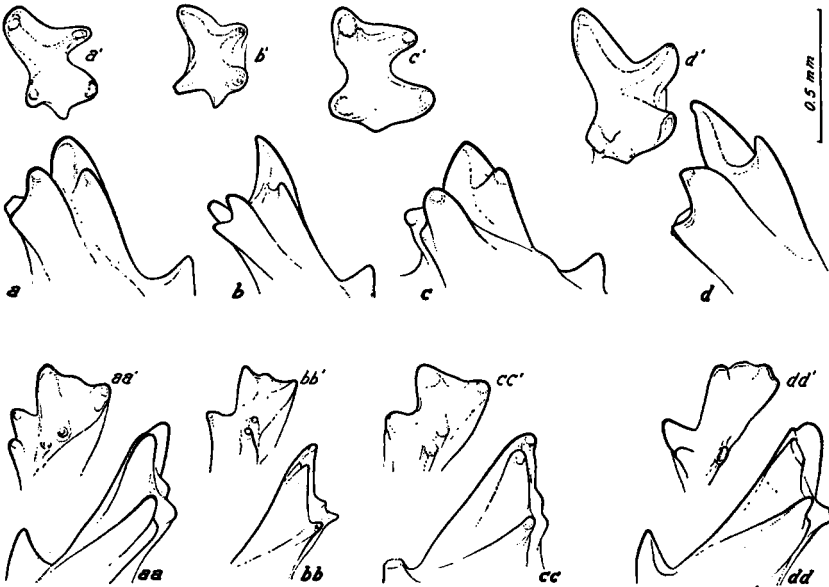


Fig. 5. Dental column of *Megacephala acutipennis*, ventral view, and apical view (*a' aa'* etc.) so as to elucidate position of denticles; *a b* etc. from left, *aa bb* etc. from right mandibles; *a-c* ♂♂ *d* ♀. — From *a-b* Hispaniola, *c-d* unknown locality.

(Oxford, Miers coll., 1 ♀); (D. Ent. Inst., 1 ♂); (Brit. Mus., 1 ♀); (Amsterdam, 1 ♀; fig. 9a, 10a).

COLOMBIA: "Colombia / violacea Reiche / ex coll. Dokurov", 1 ♂; fig. 7d) (Berlin, 1 ♂ 1 ♀).

HONDURAS: Honduras (Brussel, Coll. Nonfried, 1 ♀; fig. 7h).

GUIANA: coll. by Lansberg (Copenhagen, 1 ♀; fig. 7e).

BRASIL: Bahía (Brit. Mus., 1 ♂; fig. 7a).

Characteristics: See table 4 and 7 (measurements), fig. 6-7, 9-10 (labrum, mandibles), plate VII, and Key.

Megacephala affinis gracilis Reiche, 1842

[Plate VII; fig. 8-10]

REICHE, 1842, p. 240 [*M. gracilis*; Colombia]; THOMSON 1857, p. 40, pl. VII fig. 2-3 [*Tetr. gr.*]; NEERVOORT VAN DE POLL 1886, p. 225-226 [diagnosis and detailed descr. of *Tetracha curaçaoica*; ♂ ♀, Curaçao, Brievengat, Jan.-Febr. 1885]; HORN 1907, p. 263-264 [*T. curaçaoica* in synonymy]; HORN 1910, p. 143; HORN 1926, p. 76; BLACKWELDER 1944, p. 12.

As belonging to this subspecies may be considered the specimens which agree with the description of the subspecies *gracilis* as given by HORN (1907): "Oberlippe etwa wie bei der Prioritätsform, nur stehen die 2 Mittelzähne etwas genähert und sind gemeinschaftlich beim ♀ etwas vorgezogen. Hsch. vorn breiter, Seitenrand ganz vorn mehr abstehend... Spitzenfleck breit die Naht berührend; vorn lateral reicht die Metalfarbe etwas weniger tief zwischen gelber Makel und freiem Rand abwärts. Fid.-Spitze selbst nicht trunziert, sondern einfach gerundet zum Nahtwinkel (welcher fast rechtwinklig ist) verlaufend. Oberseite grün, stark glänzend."

However, some of these characters are also to be observed in mainland specimens of *affinis affinis*, while the 3 Curaçao specimens at hand appeared to be different in some respects.

CURAAO: "Brievengat, Curaçao 1885, Neerv. v. d. Poll" (Coll. Horn, 1 ♀: type of *Tetracha curaçaoica* v. d. Poll; plate VII top right, fig. 8d); Hato, XII.1948 (1 ♂ 1 ♀; pure green in colour; plate VII centre, fig. 8c, e, 9b-c, 10b-c).

COLOMBIA: "T. gratiosa Reiche Colombia" (Brit. Mus., 1 ♂); "Nov. Granad. Coll. Schaum" (Berlin, 1 ♂; plate VII bottom centre, fig. 8a).

UNKNOWN LOCALITY: (Amsterdam, Horn det., 1 ♂; fig. 8b).

Characteristics: See table 4 and 7 (measurements), fig. 8-10 (labrum, mandibles), plate VII, and Key.

Remarks

The ♂♂ are generally only slightly more slender than the ♀♀ (see tables 4 and 7); the apex of the elytron in the ♀ is, as a rule, less narrow than in the ♂ (fig. 6, 8).

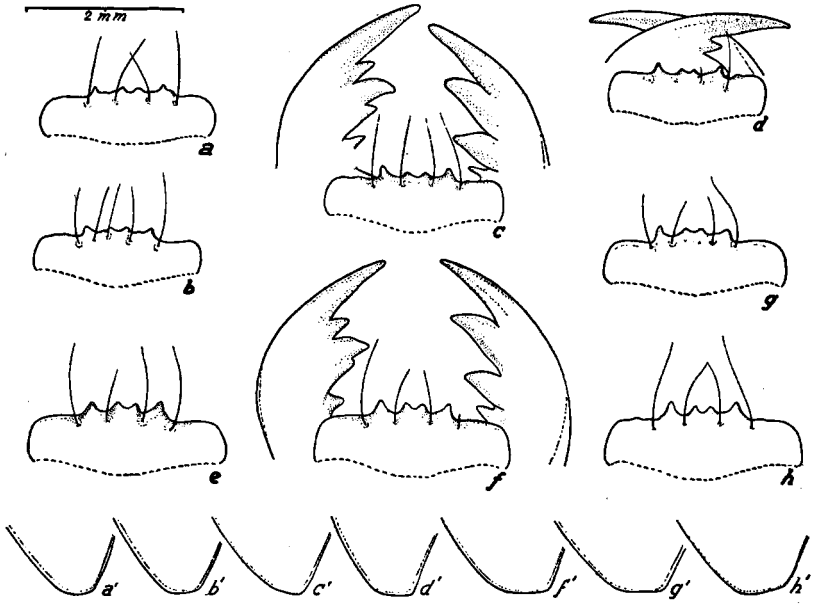


Fig. 6. Labrum and mandibles of *Megacephala affinis affinis* in situ, with apex of left elytron of same specimens (*a' b' etc.*), from above; *a-d* ♂♂ *e-h* ♀♀. — From *a-c e-h* Trinidad, *d* Hispaniola.

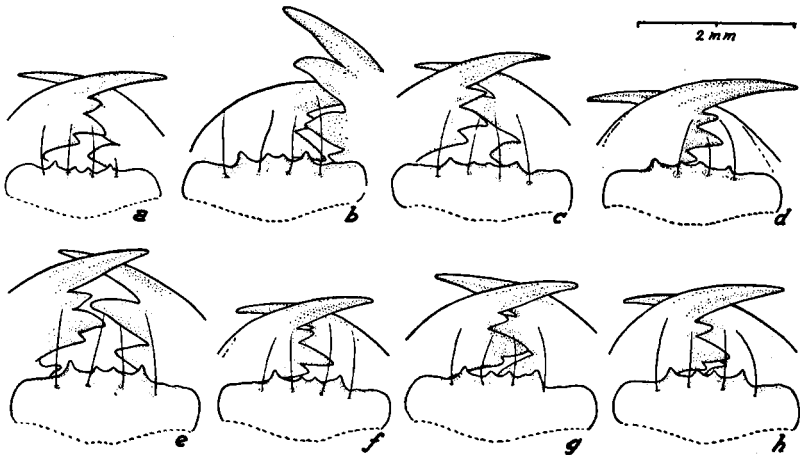


Fig. 7. Labrum and mandibles of *Megacephala affinis affinis* in situ; *a-d* ♂♂ *e-h* ♀♀. — From *a* Brasil, *b-c f-g* Venezuela, *d* Colombia, *e* Guiana, *h* Honduras.

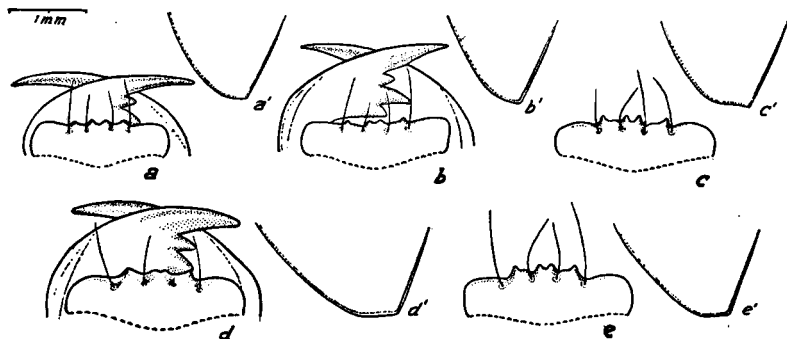


Fig. 8. Labrum and mandibles of *Megacephala affinis gracilis* in situ, with apex of left elytron of same specimens (*a'* *b'* etc.), from above; *a-c* ♂♂ *d-e* ♀♀. — From *a* Colombia, *b* unknown locality, *c-e* Curaçao.

There are some sexual differences in the dentition of the mandibles (fig. 6-9):

♂ — Left mandible — ♀

2nd tooth distinctly smaller than 3rd	2nd tooth much smaller than 3rd
3rd tooth much larger than 4th, the latter often very small	3rd tooth much larger than 4th, the latter often very small or even, rarely, indistinct
bases of 3rd and 4th teeth more or less fused	bases of 3rd and 4th teeth distinctly fused

♂ — Right mandible — ♀

2nd tooth slightly larger than 3rd	2nd tooth slightly larger than 3rd, rarely subequal
(no 4th apical tooth present)	(no 4th apical tooth present)

In all specimens the right mandible is covered by the left one when closed, with exception of 1 ♂ from Venezuela (fig. 7*b*).

***Megacephala carolina carolina* (Linné, 1767)**

[Plate VI; fig. 11, 14, 16]

LINNAEUS 1767, p. 657-658 [*Cicindela*; Carolina, U.S.A.]. — Literature and synonymy of the species in: HORN 1910, p. 140; 1926, p. 71.

The delimitation of the species, which comprises a number of more or less doubtful subspecies, races, varieties, etc., throughout the neotropics, is often very vague.

The following characteristics may be more or less successfully used in recognizing specimens of *M. carolina carolina*, especially in distinction with *M. sobrina*: (1) Elytra punctured beyond the middle, leaving the apical part smooth and almost without traces of punctures and of imbricated granules. (2) Apical lunula more or less rounded at base and as a rule sharply sinuated on its inner edge, and abruptly narrowing towards the suture. (3) Hinder part of head occasionally with small

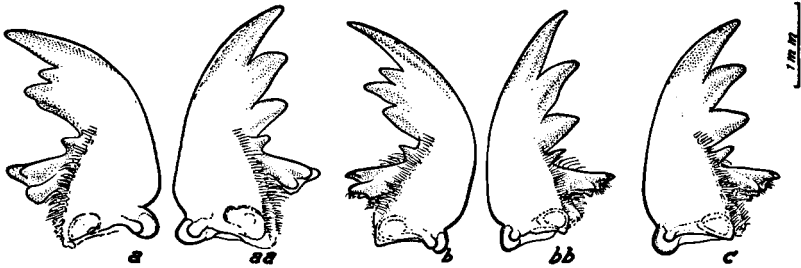


Fig. 9. Mandibles of *Megacephala affinis affinis* (a) and *M. aff. gracilis* (b-c), ventral view; a-c left, aa-bb right mandibles; b ♂ a c ♀♀. — From a Venezuela, b-c Curaçao. — All specimens strikingly concave.

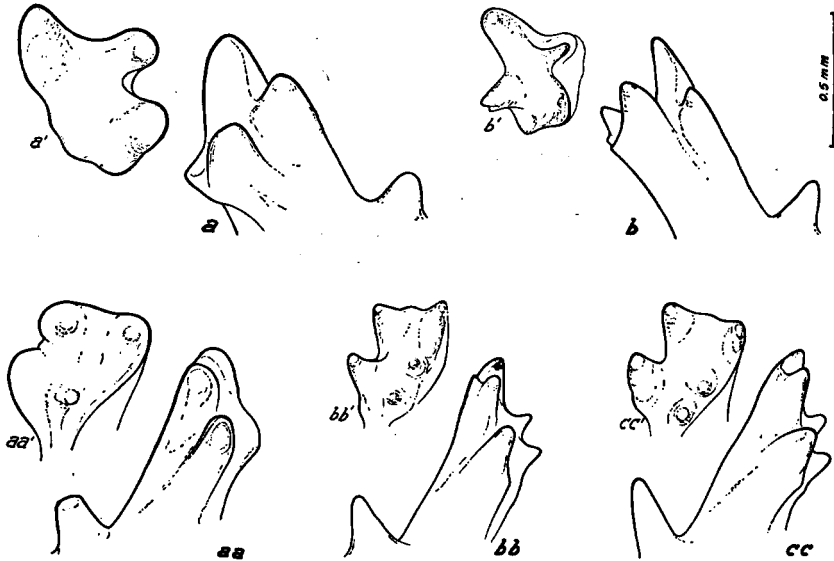


Fig. 10. Dental column of *Megacephala affinis affinis* (a) and *M. aff. gracilis* (b-c), ventral view, and apical view (a' aa' etc.) so as to elucidate position of denticles; a-b from left, aa-cc from right mandibles; b ♂ a c ♀♀. — From a Venezuela, b-c Curaçao.

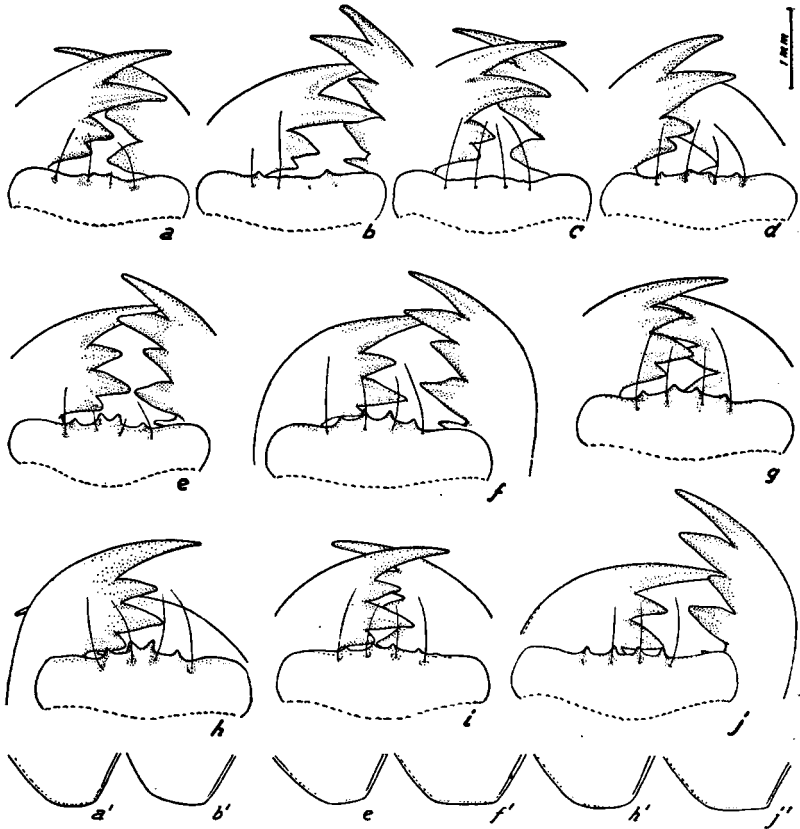


Fig. 11. Labrum and mandibles of *Megacephala carolina carolina* in situ, with apex of left elytron of same specimens (*a' b'* etc.), from above; *a-d* ♂♂ *e-j* ♀♀. — From U.S.A.; *a e* South Carolina, *b* Georgia, *c f-g* Texas, *d* Florida, *h j* Arizona, *i* California.

wrinkles. (4) Margin of labrum beyond the marginal teeth as a rule somewhat protruding before curving backwards into the side margin.

Specimens which agree with *M. carolina carolina* from the southeastern part of U.S.A. have been found as far as Mexico, or probably still further southward. The following specimens, which might be considered as representing the typical form, could be studied.

U.S.A.: South Carolina (fig. 16*a, c*), Meredith, 19.VII. & VIII.1927, coll. by O. L. Cartwright (U.S. Nat. Mus., 1 ♂ 1 ♀; fig. 11*a, 14a*); Florence, 16.VIII. 1929, coll. by O. L. Cartwright (D. Ent. Inst., 1 ♀); McClellanville, 13.VIII.1945,

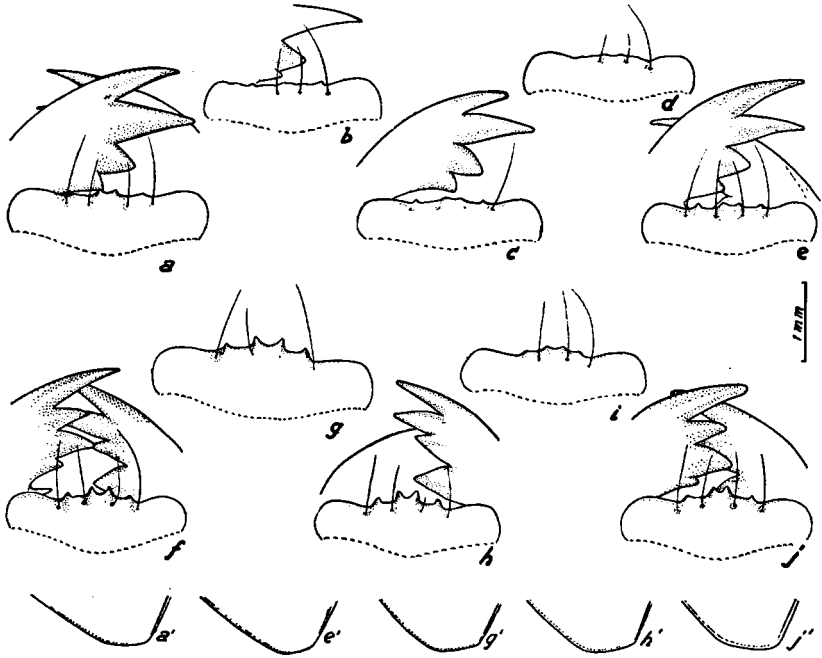


Fig. 12. Labrum and mandibles of *Megacephala carolina carolina* f. *occidentalis* in situ, with apex of left elytron of same specimens (*a' e'* etc.), from above; *a-e* ♂♂ *f-i* ♀♀. — From Cuba.

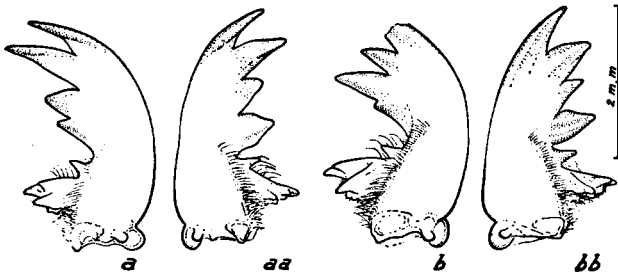


Fig. 13. Mandibles of *Megacephala car. carolina* f. *occidentalis*, ventral view; *a-b* left, *aa-bb* right mandibles; *a* ♂ *b* ♀. — From Cuba. — All specimens strikingly concave.

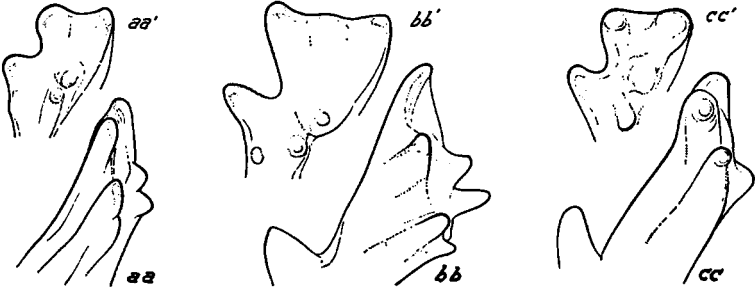
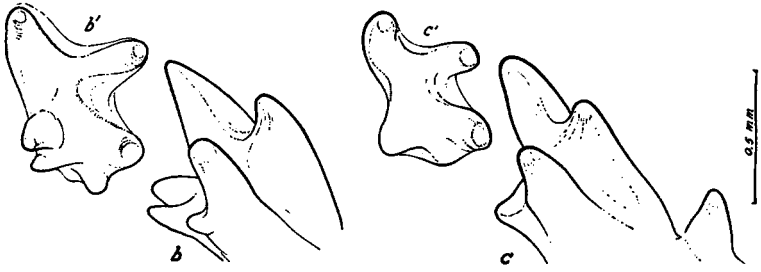


Fig. 14. Dental column of *Megacephala carolina carolina*, ventral view, and apical view (*aa'-c' cc'*) so as to elucidate position of denticles; *b-c* from left, *aa-cc* from right mandibles; *aa* ♂ *b-c* ♀♀. — From U.S.A.; *aa c* South Carolina, *b* Arizona.

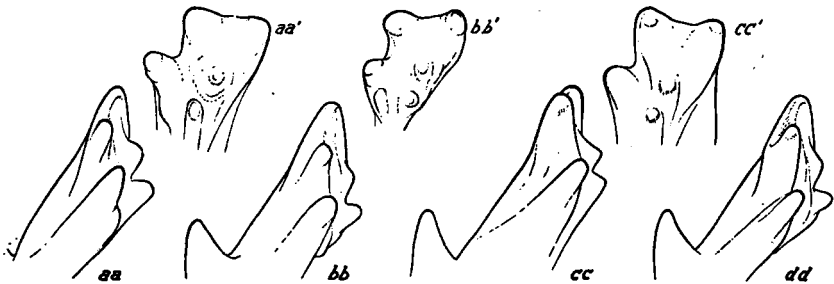
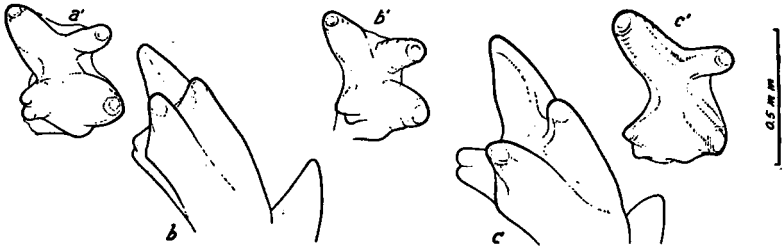


Fig. 15. Dental column of *Megacephala car. carolina f. occidentalis*, ventral view, and apical view (*a' aa'-c' cc'*) so as to elucidate position of denticles; *a-c* from left, *cc-cc* from right mandibles; *a-b* ♂♂ *c-dd* ♀♀. — From Cuba.

coll. by P. Vaurie (Amer. Mus., 1 ♀; fig. 11e, 14c). Georgia (fig. 16c), (Brussel, 1 ♂; fig. 11b), (D. Ent. Inst., 1 ♀), (Leiden, 1 ♂). Florida (fig. 16b, c), (Leiden, 1 ♂ 1 ♀; fig. 11d), (Amsterdam, 1 ♀). Texas (fig. 16f), (Leiden, 1 ♂), (D. Ent. Inst., 1 ♀), (D. Ent. Inst., 1 ♀, "Tetracha mexicana" Coll. Kraatz; fig. 11f); Cameron Co. (Berlin, 1 ♂ 1 ♀; fig. 11c, g). Arizona (fig. 16a, d, f-g), Maricopa Co., Gila Bend, 22.VII.1948, coll. by C. & P. Vaurie (Amer. Mus., 5 ♀♀; fig. 11h, j, 14b). California (fig. 16e), Palm Springs, 27.VI.1936, coll. by M. Cazier (Amer. Mus., 1 ♀; fig. 11i).

MEXICO: Coahuila, Torreon (D. Ent. Inst., 1 ♂ 1 ♀, Purpus, Coll. Kraatz); Torreon (Leiden, 1 ♀). Durango, Villa Lerdo, coll. by Höge (Leiden, 1 ♀). Mexico (Berlin, 1 ♂).

Characteristics: See table 3 and 8 (measurements), fig. 11, 14 and 16 (labrum, mandibles, colour), and plate VI.

Megacephala carolina carolina L. forma **occidentalis** Klug, 1829

[Plate VI; fig. 12-13, 15-16]

KLUG 1829, p. 11 [*M. occidentalis*; Cuba]; DUVAL 1857, p. 3 [*car. var. occ.*]; THOMSON 1857, p. 30 [*Tetracha car.*]; CHEVROLAT 1863, p. 184 [*Tetr. occ.*]; HORN 1910, p. 141 [*car.*]; LENG & MUTCHLER 1917, p. 193 [*Tetr. car. var. occ.*; Cuba and Grand Cayman]; HORN 1926, p. 72 [*car.*]; BLACKWELDER 1944, p. 13 [*car.*].

CUBA (fig. 16h-i): Habana, 1908, coll. by v. Eckardt (D. Ent. Inst., 1 ♂; fig. 12a); Pinar del Rio, at light, 16-29.V.1933, coll. by H. J. MacGillavry, (Amsterdam, 4 ♂♂ 4 ♀♀; plate VI, fig. 12d-f, j, 13a-b, 15a-c); Puerto de Golpe, Marco Vasquez, at light, 18.V.1933, coll. by H. J. MacGillavry (Amsterdam, 1 ♀); Guantanamo (Brussel, 2 ♂♂ 1 ♀; fig. 12b, h); Cuba (Oxford, 1 ♀); (Leiden, 2 ♂♂; fig. 12c); (Amsterdam, 1 ♂); (D. Ent. Inst., Staudinger, 1 ♀); (Berlin, 1 ♀; fig. 12g).

Characteristics: See table 3 and 8 (measurements), fig. 12, 13, 15 and 16 (labrum, mandibles, colour), plate VI, and Key.

Remarks

LENG & MUTCHLER (1916, p. 687) are of opinion that the variety *occidentalis* "is readily distinguished by the dark color of the tips of the first three antennal joints, the darker femora, especially towards the knees, and the greater extent of the area of the elytra suffused by black". These authors, therefore, are considering some specimens from Guantanamo, "in which the dark color of the legs is not at all apparent and the tips of the first three antennal joints are rarely fuscous" as belonging to the typical form of *M. carolina*.

As, on the other hand, some female specimens from S. Carolina, Arizona and California appeared to have more or less corresponding dark areas on the distal parts of the femora, we might consider the use of the var. *occidentalis* as of practical value only.

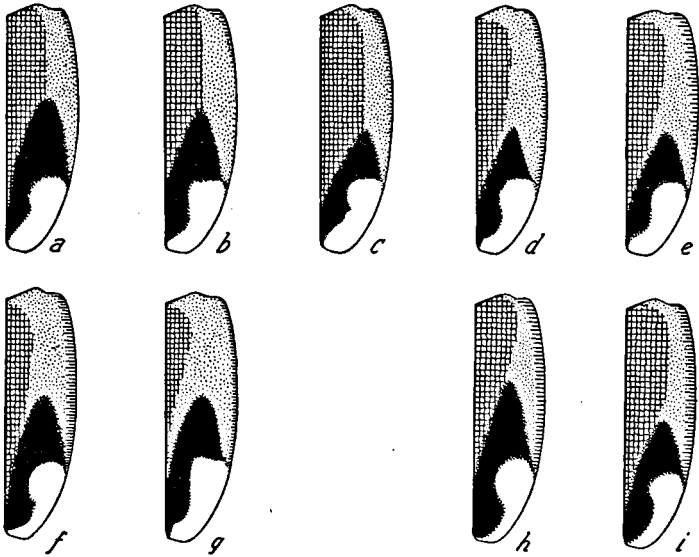


Fig. 16. Colour scheme of right elytron of *Megacephala carolina carolina*, from above. — Dorsal area a bright purple, often distinctly reddish; laterodorsal area usually a brilliant green; lateral area as a rule a brilliant greenish blue or blue. — From a-g U.S.A., h-i Cuba (f. *occidentalis*).

The specimens from Florida, without further indication of locality, do not agree with the description of *M. carolina* var. *floridana* LENG & MUTCHLER (1916, p. 688), from southern Florida.

The ♂♂ are generally only slightly more slender than the ♀♀ (see tables 3 and 8); the apex of the elytron in the ♀ is a little less narrow than in the ♂ (fig. 11-12).

There are distinct sexual differences in the dentition of the mandibles (fig. 11-13), which are the same as in *M. sobrina sobrina*.

In all specimens of *M. carolina carolina* the right mandible is covered by the left one when closed, with exception of 1 ♀ from Cuba (fig. 12h) and 1 ♂ 2 ♀♀ from U.S.A. (fig. 11b, e-f).

Megacephala sobrina Dejean, 1831

Megacephala sobrina DEJEAN, 1831, p. 202 [“*Viridi-cuprea, nitida; ore, antennis, ano, pedibus maculaque elytrorum apicali communi lunata flavis; elytris confertissime punctatis.* —| *M. Carolina.* var. *Species.* 1. p. 10. —| Long. $5\frac{1}{2}$, 7 lignes. Larg. $1\frac{3}{4}$, $2\frac{1}{2}$ lignes. —| Elle ressemble beaucoup à la *Carolina*, dont elle n'est peut-être qu'une variété. Elle est ordinairement plus petite, proportion-

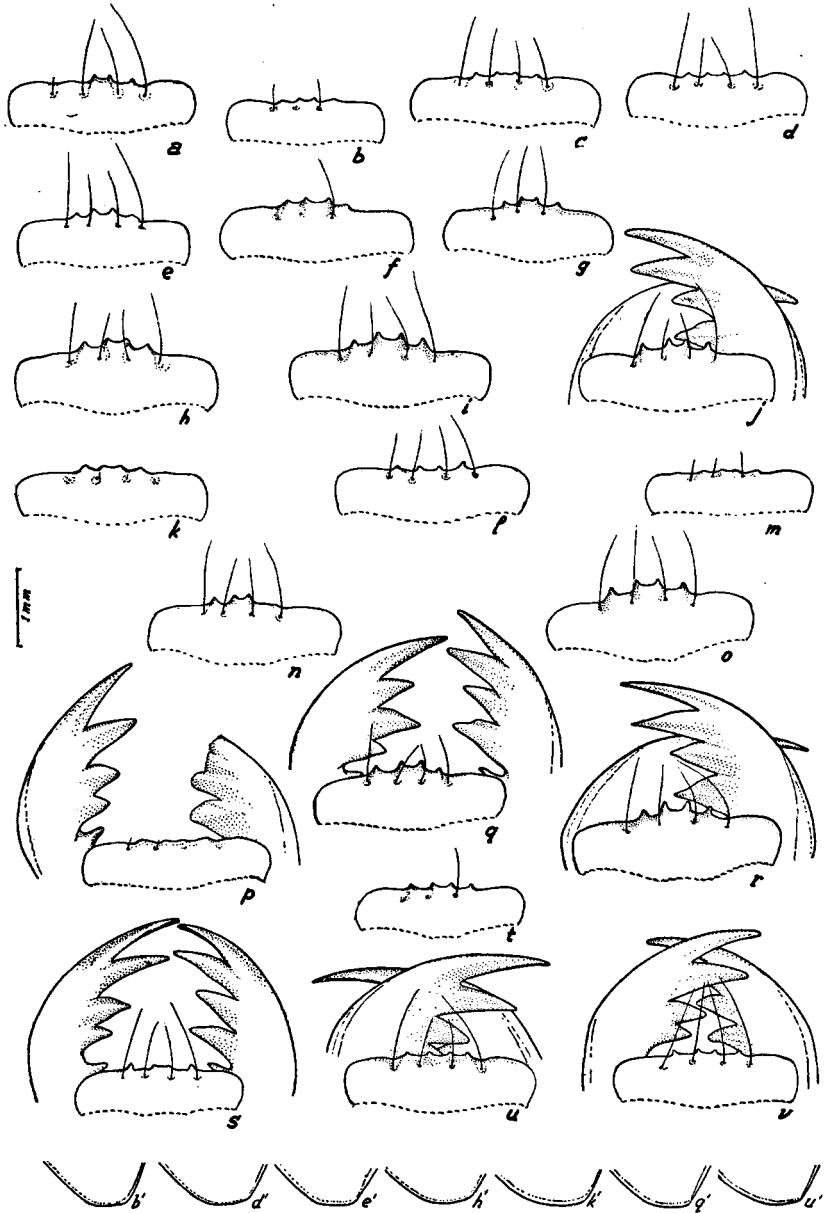


Fig. 17. Labrum and mandibles of *Megacephala sobrina sobrina* in situ, with apex of left elytron of same specimens (*b' d'* etc.), from above; *a-j* forma typica, *k-r* forma *bonaireana*, *s-v* forma *antiguana*; *a-d k-m p s-v* ♂♂ *e-j n-o q-r* ♀♀. — From *a c f h-j* Margarita, *b e* Isla Patos, *d* Los Testigos, *g* Cubagua, *k-m o-p r* Bonaire, *n q* Curaçao, *s v* St. Martin, *t* St. Barts, *u* Antigua.

nellement un peu plus étroite, et sa couleur est endessus moins cuivreuse et quelquefois même entièrement d'un vert-bronzé plus ou moins brillant. La ponctuation des élytres est un peu moins forte vers la base, mais elle est plus serrée, et se prolonge jusqu'à l'extrémité; la tache jaune qui les termine est moins large par le haut, moins en virgule, moins étroite à l'extrémité, et les deux réunies forment une espèce de fer à cheval. Le dessous du corps et les pattes sont comme dans la *Carolina*. /—/ Elle se trouve au Brésil, dans la Colombie et dans les Antilles. /—/ Elle doit être placée après la *Carolina*.”]

The delimitation of this species, which comprises a number of more or less doubtful subspecies, races, varieties, etc., throughout the neotropics (cf HORN 1910, p. 142; 1926, p. 75), is often very vague.

The following characteristics may be more or less successfully used in recognizing specimens of *M. sobrina*, especially in distinction with *M. carolina*: (1) Elytra punctured and asperate with imbricated granulus as far as the apex; the hind margin as a rule microscopically serrated. (2) Apical lunula usually more or less flattened at the base, as a rule weakly sinuated on its inner edge, and slightly narrowing towards the suture. (3) Hinder part of head with many, irregular, small wrinkles. (4) Margin of labrum beyond the marginal teeth as a rule gradually curving backwards into the side margin.

The typical subspecies may be characterized by the shape of the black spot on the elytra which is not fusing with the bright yellowish-red or purple dorsal area, while the latero-dorsal area shows a brilliant green with a metallic shine, and the lateral area a brilliant greenish blue.

Admitting the very vague delimitation of the lower categories, in this paper a certain subdivision of the species *sobrina* in subspecies and varieties has been maintained, which may give some insight into its distribution and differentiation on the West-Indian islands.

As the first description of the species prevents any classification of the type-specimens in minor systematic categories, a part of the newly collected material — that which come from the Venezuelan islands Margarita and Los Testigos, whose fauna may be taken as a recent although impoverished fauna of the opposite mainland coast — has been considered as representing the typical form of the subspecies *sobrina*.

Megacephala sobrina sobrina Dejean, 1831 (forma typica)

[Plate VIII; fig. 17–20]

MARGARITA: *Povlamar*, Hotel Central, quite near sea, 17.V.1936 (1 ♂ 1 ♀; fig. 20a); Hotel Central, at light, 21.V.1936 (9 ♂♂ 14 ♀♀; plate VIII top left, fig. 17a, c, h–j, 20a, c–e); Patio of Hotel Central, under flowerpot in damp soil, Sta. 155, 25.V.1936 (1 ♀; plate VIII top right, fig. 17f, 20a); Hotel Central, at light, 28.V.1936 (1 ♂; fig. 20c).

LOS TESTIGOS: *Morro de la Iguana*, under rocks and between plant decay, Sta. 158, 14.VI.1936 (6 ♂♂ 3 ♀♀; plate VIII bottom, fig. 17d, 18c, 19a, 20a–b). *Chiwo*, under stones with very little plant decay, Sta. 159, 15.VI.1936 (2 ♂♂ 3 ♀♀, fig. 20b–c).

CUBAGUA: *Northwestern part*, under rock debris with hardly any plant decay, Sta. 130, 21.V.1936 (1 ♀; fig. 17g, 20a).

PAROS (small island near the Paria peninsula): 10.XI.1934 (I.C.T.A., 1 ♂ 1 ♀; fig. 17b, e).

Description (based on 19 ♂♂ and 23 ♀♀ from Margarita, Los Testigos and Cubagua).

Body length (without labrum) ♂ 13.8–15.4–16.3 ♀ 14.1–16.1–17.0 mm; body width ♂ 4.8–5.25–5.6 ♀ 4.7–5.6–6.0 mm; ♂ 2.85–2.95–3.05 ♀ 2.80–2.90–2.95 times as long as wide.

Antenna with its four basal joints brownish yellow or brown, the innerside

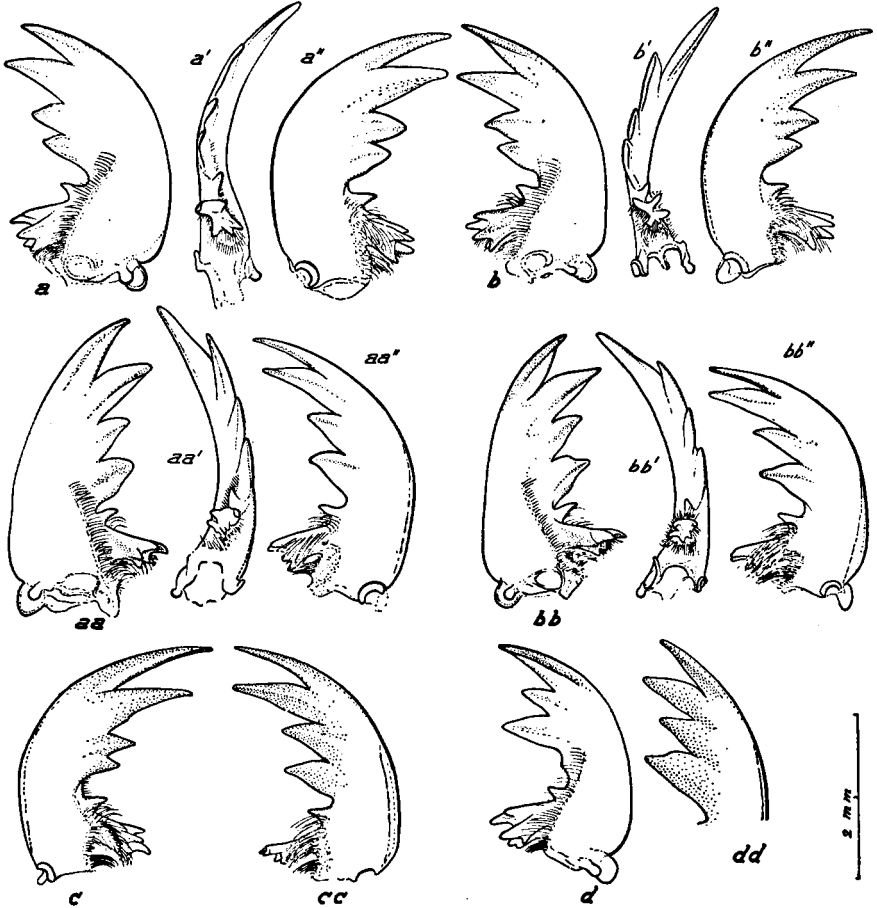


Fig. 18. Mandibles of *Megacephala sobrina sobrina*, ventral view, dorsal view (a'' aa'' b'' bb'' c cc dd), and as seen from the edge (a' aa' b' bb'); a – d left, aa – dd right mandibles; a – c ♂♂ d ♀. — From a d Bonaire. b Curaçao, c Los Testigos.

usually with dark brown; the other joints a pale brownish yellow or yellowish brown.

Labrum (see fig. 17) brownish yellow to brown; central part more or less convex. Frontal margin dark brown chitinized, with 4 teeth curved somewhat frontalwards; in ♂♂ these teeth are usually very weakly developed or, rarely, even indistinct, in ♀♀ they are strongly developed on a more or less protruding central part. On each side of these teeth the margin may be rather straight, but soon curves gradually backwards into a slightly convex sidemargin. Submarginal setae 4; one or more of these may sometimes be reduced or even not present, especially in ♂♂.

Head (from above) ♂ 2.75 ♀ 2.85 mm long and ♂ 4.0 ♀ 4.1 mm wide (across the eyes), 1.45 as wide as long; hind part distinctly convex. Colour usually a glossy green, with a more or less distinct reddish shine. Central and hind part covered with a very fine irregular network of microscopical wrinkles.

Mandibles (see figg. 17-19).

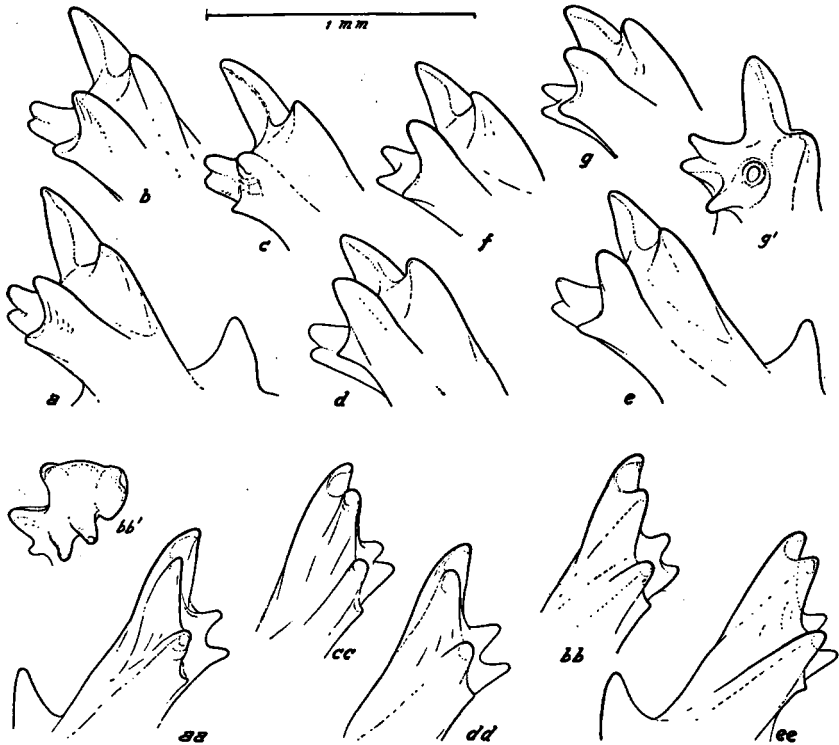


Fig. 19. Dental column of *Megacephala sobrina sobrina*, ventral view, and apical view (*bb' g'*) so as to elucidate position of denticles; *a-g* from left, *aa-ee* from right mandibles; *a-b e-g* ♂♂ *c-d* ♀♀. — From *a* Los Testigos (*f. typica*), *b-d* Curacao and *e* Bonaire (*f. bonaireana*), *f-g* St. Martin (*f. antiguana*).

Pronotum (from above) ♂ 3.0–3.5–3.8 × 3.4–3.75–4.0 ♀ 2.9–3.6–3.9 × 3.2–3.95–4.2 mm; 1.05–1.1–1.15 as wide as long. Colour a glossy green with a yellowish red to purple shine (according to the intensity of the different colours on the body). Central parts as a rule covered with very fine, often indistinct wrinkles. Usually widest near the frontal margin. All furrows deep, especially the distal and medial ones.

Elytron (from above, in situ) ♂ 8.3–9.1–9.5 × 2.4–2.6–2.8, ♀ 8.7–9.5–10.0 × 2.35–2.8–3.0 mm, ♂ 3.5 ♀ 3.4 times as long as wide.

Elytron punctured and asperate with imbricated granules (15–20–25 per mm² in the central part) towards the apex (: a distinct tiled sculpture, with in each corner a depression which vanishes towards the apex, and on top of every scale a thickening that is becoming more or less granular to the apex); the apical margin, therefore, shows a more or less distinct microscopical serration. Rarely the granulation is obsolete beyond the middle, never leaving, however, the apical part without distinct traces of punctures or granules.

Apical *lunula* yellowish, $\frac{1}{3}$ – $\frac{2}{5}$ sutural length, $1\frac{2}{3}$ – $2\frac{1}{4}$ as long as wide, usually more or less flattened but sometimes rounded at base. Sutural part of lunula and greater part of its base bordered by a deep *black spot*, as far as $\frac{2}{5}$ – $\frac{3}{5}$ – $\frac{2}{3}$ sutural length, mostly narrowly or rather broadly bordering the lunula at sutural side; the latter part as a rule abruptly pointed and, some cases excepted, just reaching the sutural apex. *Dorsal area* a bright yellowish-red, often with a purple touch (when covering both elytra: ovate, with acute or acuminate tip) often reaching the base, usually following the suture as far as the level of the lunula, or more, only rarely touching, but not fusing with the black spot. *Lateo-dorsal area* a brilliant green with a metallic shine, as a rule enclosing base and both lateral sides of the black spot, covering or nearly covering the entire base of the elytron. *Lateral area* a brilliant greenish blue (see fig. 20).

Megacephala sobrina sobrina Dejean, forma *antiguana* Leng & Mutchler, 1916

[Plate IX; fig. 17, 19–20]

Megacephala sobrina, HORN 1910, p. 142 [locality only: St. Barthélemy].

Tetracha sobrina var. *antiguana* LENG & MUTCHLER 1916, p. 686 ["Head and thorax as in *sobrina*; elytra coppery with greenish reflection but devoid of the black suffusion ascribed by description to *sobrina* and the dark portion enclosing the apical lunule does not ascend as far towards the base of the elytra. Length 15–16 mm. — Under stones at edge of brackish marsh, St. John, Antigua, June 5, 1911 (R. W. Miner)"]; LENG & MUTCHLER 1917, p. 193 [reference].

Megacephala sobrina geogr. race *confusa* Chaud., HORN 1926, p. 75 [localities only: "Ins. Antigua, Ins. Sta. Marta"; *antiguana* in synonymy].

Megacephala sobrina confusa Chaud., BLACKWELDER 1944, p. 13 [loc. only: Anegada, St. Martin, Antigua].

ANTIGUA: St. John, under stones at edge of brackish marsh, collected by R. W. Miner (fide Leng & Mutchler 1916) (Brit. Mus., paratype, 1 ♂; fig. 17*u*, 20*f*)
 ST. BARTHÉLEMY: "S:t Barthelemi / Forsström" (Oxford, 1 ♂; fig. 17*t*, 20*g*)
 ST. MARTIN: *Great Saltpond*, under stones on salty mud, Sta. 463, 25.V.1949 (4 ♂♂; plate IX bottom left, fig. 17*s*, *v*, 19*f*, *g*, 20*h*, *i*). ST. MARTIN?: "S. Mt.

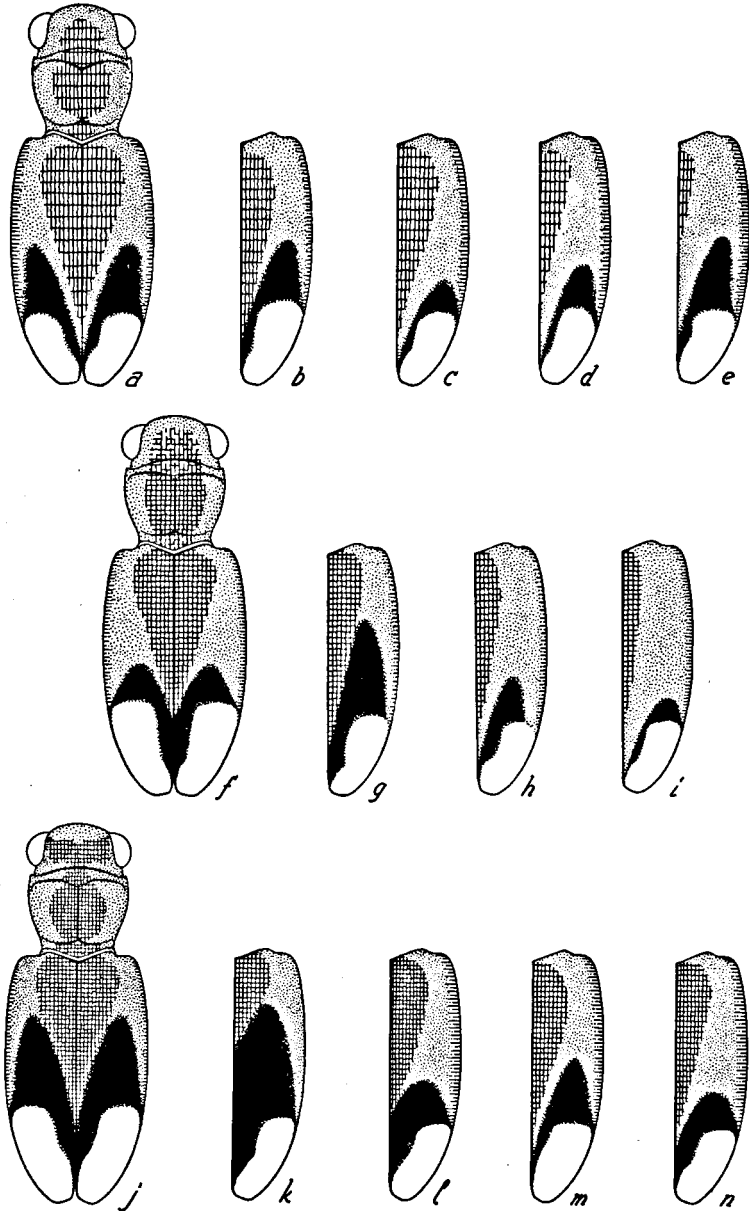


Fig. 20. Colour scheme of *Megacephala sobrina sobrina*, from above; *a-e* forma typica, *f-i* forma *antiguana*, *j-n* forma *bonaireana*. — Dorsal area of elytron a bright yellowish red (in typical form) or purple (in *f. antiguana* and *f. bonaireana*); laterodorsal area a brilliant green; lateral area a brilliant greenish blue. — From *a c-e* Margarita, *b* Los Testigos, *f* Antigua, *g* St. Barts, *h-i* St. Martin, *j-k* n Curaçao, *l* Bonaire, *m* Aruba.

Rma" (Coll. Horn, from Stockholm Museum, 1 ♂; 14.3 × 4.9 mm, elytron 8.2 mm in length; fig. 20h).

HISPANIOLA: "S. Domingo /T. confusa/ Coll. v. de Poll" (Coll. Horn, 1 ♀; 14.8 × 5.0 mm, elytron 8.7 mm; fig. 20h or 20m).

Description (compared with that of typical form; based on 6 ♂♂ from St. Martin, St. Barts and Antigua)

Body length ♂ 13.6–15.0–16.6 mm; body width ♂ 4.6–5.0–5.6 mm; ♂ 2.95–3.0–3.05 times as long as wide.

Labrum, see fig. 17.

Head ♂ 2.8 mm long and ♂ 3.9 mm wide; ♂ 1.4 as wide as long. Greenish in colour, often with a purple glow.

Mandibles, see fig. 17.

Pronotum ♂ 3.1–3.5–3.8 × 3.5–3.7–4.0 mm; ♂ 1.05–1.10–1.15 as wide as long. Purple colours dominating in central part; lateral parts green.

Elytron ♂ 7.9–8.4–9.8 × 2.3–2.45–2.8 mm; ♂ 3.5 times as long as wide.

Apical lunula $\frac{2}{5}$ sutural length, $\frac{2}{4}$ as long as wide, more or less flattened or rounded at base. Black spot as far as $\frac{2}{5}$ – $\frac{3}{5}$ – $\frac{3}{4}$ sutural length, broadly or rather narrowly bordering the lunula at sutural side; the latter part abruptly pointed and just reaching the sutural apex. Dorsal area a bright purple, most intensive near the suture (when covering both elytra: broadly or narrowly ovate, with acute tip), reaching or almost reaching the base, mostly following the suture as far as the level of the lunula, sometimes touching but never fusing with the black spot. Latero-dorsal area mostly not covering the entire base of the elytron (see fig. 20).

Megacephala sobrina sobrina Dejean, forma **bonaireana** nov.

[Plate VII, IX; fig. 17–20]

Tetracha sobrina (Dej.), NEERVOORT VAN DE POLL 1886, p. 226–227 ["*Tetracha sobrina*, Dej. — Feu Madame van den Brandhof me donna un exemplaire de cette espèce, capturé par elle-même dans le corridor de l'hôtel du Gouverneur, situé à l'entrée du port. Pourtant je doute que cette espèce soit originaire de Curaçao; vu les circonstances dans lesquelles elle fut attrapée, il me semble assez vraisemblable qu'elle est importée par quelque navire."]; WERNER, 1925, p. 555 ["*Tetracha sobrina* Klug. Central- und Südamerika, Antillen (Cuba, Haiti, Portorico, St. Thomas usw.)"; refers to material collected by Alphons Gabriel, and named by Dr Karl Holdhaus. Bonaire!].

Megacephala sobrina, HORN 1910, p. 142 [loc. only: Curaçao].

Tetracha sobrina confusa Chd., HORN 1925, p. 133–134 ["*Tetracha sobrina* (Curaçao) van de Poll. . . ist identisch mit *T. sobrina* subsp. *confusa* Chd. (W. Horn). Das Original exemplar liegt mir vor: Es hat die kürzeren, weniger parallelen Flügeldecken, deren ganze Oberseite eigenartig ölig glänzt; das dritte Fünftel ihrer Länge weitläufiger skulptiert und geringe (aber deutlich wahrnehmbare) Anlage zur Querrunzelbildung im vorderen, lateralen (Schulter-) Quadranten der Flügeldecken wahrnehmbar."]; BLACKWELDER 1944, p. 13 [loc. only: Curaçao].

Megacephala sobrina geogr. race *confusa* Chaud., HORN 1926, p. 75 ["Venezuela, Columbia, Ins. Antigua, Ins. Sta. Marta, Curaçao"].

BONAIRE: *Cay*, abandoned saltpan, under pieces of coral rock, Sta. 303, 25.II.1949 (6 ♂♂ 1 ♀; fig. 17*m*, 18*d*, 20*l*); *Salinja Martinus*, saltlake S of Kralendijk, 2.IX.1949 (1 ♂ dead; fig. 17*l*, 18*a*, 19*f*, 20*j*); *Kralendijk*, in Pasanggrahan, at light, 24.X.1930 (1 ♀; fig. 17*r*); *Deenterra*, Tanki George, under pieces of rock on weathered soil, Sta. 186, 25.III.1937 (4 ♂♂ 2 ♀♀; plate IX top right; fig. 17*h*, *o-p*, 20*j*); *Goto*, SW shore, under rocks with decay of Ephydra-pupae, Sta. 315, 22.II.1949 (3 ♂♂; fig. 20*l*); *Salinja Tam*, between pieces of rock on shore of saltlake, 23.X.1930 (1 ♀).

KLEIN BONAIRE: *Salinja*, N. shore, under pieces of limestone on salty mud, Sta. 320, 7.IX.1948 (4 ♂♂ 2 ♀♀; fig. 20*j*, *l*).

CURAÇAO: *Groot St. Joris*, under stones in damp soil, 20.X.1936 (2 ♀♀; plate IX top left; fig. 17*n*, 19*b*); Plantersrust. XII.1923, coll. by G. J. H. Molengraaff (Amsterdam, 1 ♀ "Tetracha sobrina v. confusa Chd. / Dr. W. Horn det. 1925"); *Groot St. Martha*, near saltlake, 4.XII.1948 (4 ♂♂ 3 ♀♀; fig. 17*n*, 18*b*, 19*c-d*, 20*j-k*, *n*); *Plaja Djerimi* (Jeremiebaai), 13.I.1952, coll. by B. de Jong (1 ♀; fig. 20*n*); Willemstad, in house of Mrs van den Brandhof, coll. by J. R. H. Neervoort van de Poll (Coll. Horn, 1 ♀, "Tetracha confusa"; plate VII top left); Curaçao (Amsterdam, 1 ♀).

ARUBA: *Savaneta*, 29.XI.1951, coll. by B. de Jong (2 ♂♂; fig. 20*m*); SE of *Pos Grandi*, abandoned saltpan, Sta. 360, 2.I.1949 (elytra only).

Description (compared with those of typical form; based on 24 ♂♂ and 16 ♀♀ from Bonaire, Klein Bonaire, Curaçao and Aruba)

Body length ♂ 14.0–15.4–17.3 ♀ 14.9–15.8–17.0 mm; body width ♂ 4.7–5.2–5.8 ♀ 5.0–5.5–5.8 mm; ♂ 2.9–2.95–3.2 ♀ 2.85–2.87–3.1 times as long as wide.

Labrum (see fig. 17).

Head ♂ 2.8 ♀ 2.8 mm long and ♂ 4.0 ♀ 4.15 mm wide; ♂ 1.03 ♀ 1.5 as wide as long. Purple colour dominating in central part, without there often with green.

Mandibles (see figg. 17, 19).

Pronotum ♂ 3.0–3.45–4.0 × 3.1–3.68–4.1 ♀ 3.1–3.57–3.0 × 3.3–3.88–4.2 mm; ♂ 1.0–1.05–1.1 ♀ 1.05–1.085–1.15 as wide as long. Purple colour dominating in central part, lateral parts green.

Elytron ♂ 8.4–9.15–10.0 × 2.35–2.6–2.9 ♀ 9.0–9.4–10.0 × 2.5–2.75–2.9 mm, ♂ 3.52 ♀ 3.42 times as long as wide.

Apical lunula yellowish, $\frac{1}{2}$ – $\frac{2}{5}$ elytron length, 2 – $2\frac{1}{4}$ – $2\frac{1}{2}$ as long as wide, rounded or more or less flattened at base. Sutural part of lunula and greater part of its base bordered by a deep black spot as far as $\frac{1}{2}$ – $\frac{3}{4}$ – $\frac{4}{5}$ sutural length, broadly bordering its sutural side; the latter part as a rule abruptly pointed and just reaching the sutural apex. *Dorsal area* a bright purple, most intense near the suture (when covering both elytra: broadly ovate, apex acute or acuminate), reaching or almost reaching the base, mostly following the suture as far as the level of the lunula, as a rule touching but never fusing with the black spot. *Latero-dorsal area* a brilliant green with a metallic shine, as a rule enclosing the base and only one lateral side of the black spot, as a rule not covering the entire base of the elytron. *Lateral area* a brilliant greenish blue (see fig. 20).

Megacephala sobrina infuscata Mannerheim, 1837
[Plate IX; fig. 21–22]

Megacephala infuscata MANNERHEIM 1837, p. 6–7 [„Viridi-cuprea, nitida, ore, antennis, ano, pedibus maculaque elytrorum apicali communi lunata flavis, elytris apicem usque crebre punctatis, dorso nigro-violaceis. — Habitat in insula Porto-Rico. *D. Moritz*. Longit. 7 lin. Latit. $2\frac{1}{2}$ lin. — Elle ressemble beaucoup pour la forme et la grandeur à la *M. Carolina*. La tête paraît plus large entre les yeux et les stries le long des yeux sont beaucoup plus nombreuses et plus fortement marquées. Le corselet est un peu plus convexe et les élytres sont très-fortement ponctuées et presque rugueuses jusqu'à l'extrémité; elles sont d'un noir bleuâtre avec une bordure assez large d'un vert brillant qui n'atteint pas l'extrémité et qui, à la base, se prolongue un peu sur la suture; mais la marge latérale elle-même est d'un beau bleu. La tache qui termine

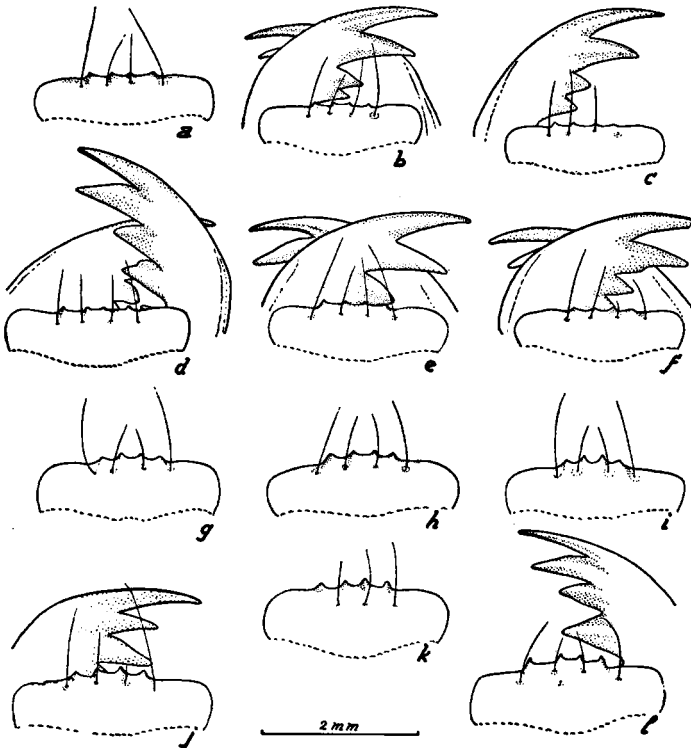


Fig. 21. Labrum and mandibles of *Megacephala sobrina infuscata* in situ, from above; *a-f* ♂♂ *g-l* ♀♀. From *a* Puerto Rico, *b-c* *i-j* St. Croix, *d-e* *k-l* Hispaniola, *f* unknown locality, *g* Cuba, *h* St. John.

chaque élytre est presque de la forme de celle de la *Carolina*, seulement un peu plus large, moins en forme de virgule, et les deux taches sont / plus distinctement séparées à l'extrémité. La milieu de l'abdomen est noir; l'anus et les bords latéraux des derniers anneaux de l'abdomen sont plus largement testacés et d'une couleur plus pâle que dans la *Carolina*."]; DUVAL 1857, p. 3-4 [Cuba considered as doubtful; "M. Chaudoir l'indique de Porto-Rico, et M. Chevrolat la possède des îles Saint-Thomas et Saint-Domingue].

Tetracha infuscata (Mann.), CHAUDOIR 1850, p. 5 [compared with *T. sommeri*]; THOMSON 1857, p. 32, Pl. V fig. 2 [compared with *carolina*; Saint-Domingue, coloured plate]; CHEVOLAT 1863, p. 184 [diagnosis, "Cuba, Porto-Rico, Santo-Domingo, Saint-Thomas"]; HORN 1892, p. 219 [*chevrolati* in synonymy]; GUNDLACH 1893, p. 290 [Puerto Rico, "no le he observado en cinquenta y tres años de mi residencia en Cuba, y visitando toda la isla."]; HORN 1897, p. 185 [Mexico considered as doubtful].

Tetracha sobrina infuscata (Mann.), HORN 1903, p. 333 [regards *chevrolati* as quite distinct]; BLACKWELDER 1944, p. 13 ["Cuba, Hispaniola, Puerto Rico, St. Thomas, St. John, St. Croix, St. Martin, St. Barthélemy, U.S.A."].

Megacephala sobrina geogr. race *infuscata*, HORN 1910, p. 142 ["Cuba, Haïti, Portorico, St.-Thomas, Santa Cruz"]; HORN 1926, p. 75 ["Cuba, Haïti, Porto Rico, St. Thomas, St. John, St. Cruz, St. Martin, St. Barthélémy, ?S. Florida"].

Tetracha sobrina var. *infuscata*, LENG & MUTCHLER 1914, p. 393 [localities only: "St. Croix, St. Thomas, Porto Rico, Haiti, Cuba(?)"]; LENG & MUTCHLER 1916, p. 686, Pl. XII fig. 2 [characters of specimens from Hispaniola, Puerto Rico and St. Croix]; LENG & MUTCHLER 1917, p. 193 [loc. only: "Hispaniola, Porto Rico, St. Croix, St. Bartholomew"]; WOLCOTT 1936, p. 184-185 [specimens from Puerto Rico]; WOLCOTT, 1941, p. 81 [the same].

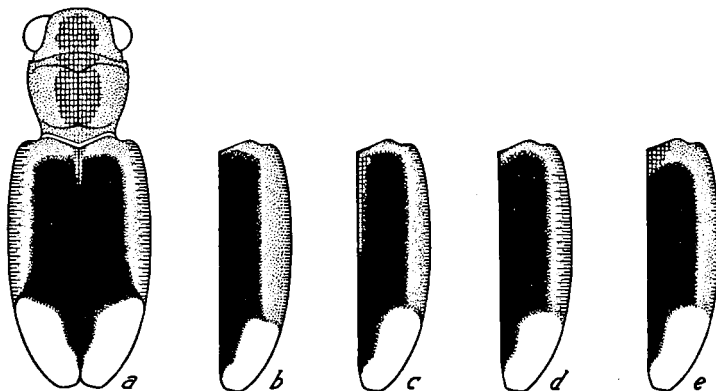


Fig. 22. Colour scheme of *Megacephala sobrina infuscata*, from above. Dorsal area of elytron indistinct, fused with, or possibly superseded by black area, the remnants a bright purple; laterodorsal area narrow, a brilliant green which may become dominated by the blue of the lateral area. — From *a* Puerto Rico, *b* Cuba, *c-d* St. Croix, *e* Hispaniola.

ST. CROIX: Christianstead, coll. by H. A. Beatty 1941, (U.S. Nat. Mus., 2 ♂♂; fig. 21*b-c*, 22*d*); "St. Crucis / Mus. Drews / T. infuscata Mannh. / Dr. W. Horn det." (Copenhagen, 1 ♀; fig. 21*i*, 22*d*); "St. Cruz / Moritz" (Berlin, 1 ♀; fig. 21*j*, 22*c*).

ST. JOHN: "St.: Johannis / Ørsted / T. infuscata Mannh. / Dr. W. Horn det." (Copenhagen, 1 ♀; plate IX top centre, fig. 21*h*).

PUERTO RICO: "Portorico / Krug" (Berlin, 1 ♂; plate IX bottom right, 21*a*, fig. 22*a*); "Porto Ric / coll. Ruge" (Coll. Horn, 1 ♂; fig. 22*a*).

HISPANIOLA: "St. Domingo" (Brit. Mus., 1 ♂; fig. 21*d*); "Deyr. / S. Domin / 90" (Leiden, 1 ♂; fig. 21*e*); "S. Dom. / Deyr." (Brit. Mus., 1 ♀; fig. 21*h*); "Antilles / S. Dom" (Brit. Mus., 1 ♀; fig. 21*b*); all cf fig. 22*e*.

CUBA: "Cuba / infuscata Mann. / Coll. Kraatz." (D. Ent. Inst., 1 ♀; fig. 21*g*, 22*b*).

WEST INDIES: "Meg. infuscata. / Moritz. / St. 1. / Ind. occ. / Meg. infuscata Motch. / det. J. Putzeys" (Brussel, 1 ♂; fig. 21*f*).

MEXICO: "Mexico / Tetracha infuscata" (Coll. Horn, 1 ♂; fig. 22*b*; 14.9 × 5.1 mm, elytron 8.9 mm).

Description (compared with that of typical form; based on 6 ♂♂ and 6 ♀♀ from St. Croix, St. John, Puerto Rico, Hispaniola and Cuba)

Body length ♂ 14.2–15.0–15.9 ♀ 14.9–16.0–16.6 mm; body width ♂ 4.9–5.2–5.5 ♀ 5.1–5.7–6.0 mm; ♂ 2.8–2.9–3.0 ♀ 2.75–2.8–2.9 times as long as wide.

Labrum, see fig. 21.

Head ♂ 2.8 ♀ 2.95 mm long and ♂ 4.0 ♀ 4.2 mm wide; 1.43 as wide as long. Bluish green; central part often with purple, according to the intensity of the several colours on the body.

Mandibles, see fig. 21.

Pronotum ♂ 3.2–3.35–3.5 × 3.5–3.75–4.0 ♀ 3.3–3.53–3.8 × 3.7–4.0–4.2 mm; 1.05–1.13–1.2 as wide as long. Colour bluish green with purple according to the intensity of the several colours on the elytra.

Elytron: ♂ 8.5–8.9–9.4 × 2.5–2.6–2.7 ♀ 8.8–9.5–9.9 × 2.55–2.85–3.0 mm, ♂ 3.4 ♀ 3.35 times as long as wide.

Apical *lunula* $\frac{2}{5}$ – $\frac{3}{7}$ sutural length, 2 – $2\frac{1}{3}$ – $2\frac{2}{3}$ as long as wide, more or less flattened or rounded at base. Sutural part of lunula and a large part of its base bordered by a *black area* — fused with or superseding the dorsal area — as far as $\frac{7}{10}$ sutural length or more, sometimes almost reaching the base of the elytron. *Dorsal area* indistinct, fused with or possibly more or less superseded by the black area; the remnants a bright purple which may reach the base, following the suture in the basal half of the elytron. *Latero-dorsal area* narrow, only enclosing a part of the base and one lateral side of the black area, a brilliant green which may become dominated by the lateral blue, covering or leaving the base of the elytron. *Lateral area* a brilliant blue or greenish blue (see fig. 22).

TABLE 2.
Measurements in *Megacephala acutipennis*, in m.m.

Locality	Specimens	Elytrae length	Elytrae width	Pronotum length	Pronotum width	Head (without labrum) length	Head (without labrum) width	Total length (without labrum)
Hispaniola	♂ 12	6.9-7.45-8.5	3.8-4.15-4.8	2.5-2.8-3.2	2.5-2.8-3.25	2.2-2.4-2.7	3.0-3.2-3.8	11.6-12.4-14.4
	♀ 6	7.5-7.9-8.9	4.4-4.75-5.2	2.9-3.1-3.5	2.9-3.15-3.5	2.3-2.55-3.0	3.2-3.6-4.1	12.7-13.5-15.4
Cuba	♂ 1	8.2	4.6	3.0	3.1	2.7	3.7	13.9
	♀ 2	8.8-	9.2 5.3-	5.4	3.1- 3.2 3.2	2.6-	2.8 3.2-	14.5- 15.2

TABLE 3.
Measurements in *Megacephala carolina carolina*.

Locality	Specimens	Elytrae length	Elytrae width	Pronotum length	Pronotum width	Head (without labrum) length	Head (without labrum) width	Total length (without labrum)
U.S.A.	♂ 6	9.9-9.6-10.0	5.0-5.4-5.8	3.1-3.43-3.6	3.5-3.83-4.0	2.8-2.9-3.0	4.0-4.1-4.3	15.3-16.0-16.4
	♀ 14	9.0-10.25-11.0	5.4-5.8-6.3	3.3-3.5-3.9	3.8-3.95-4.3	2.8-3.0-3.2	4.0-4.4-4.7	15.2-16.8-18.2
<i>forma occidentalis</i>								
Cuba	♂ 10	7.8-9.1-9.8	4.8-5.15-5.5	2.8-3.25-3.5	3.2-3.6-4.0	2.4-2.75-2.8	3.7-4.0-4.2	13.2-15.07-15.6
	♀ 11	9.0-9.7-10.9	5.3-5.65-6.3	3.0-3.25-3.8	3.6-3.75-4.2	2.7-2.9-3.2	3.9-4.15-4.6	14.8-15.85-16.0

TABLE 4.
Measurements in *Megacephala affinis*, in mm.

Locality	Specimens	Elytrae length	Elytrae width	Pronotum length	Pronotum width	Head (without labrum) length	Head (without labrum) width	Total length (without labrum)
<i>M. affinis affinis</i>								
Trinidad	♂ 3 ♀ 5	8.8-9.0-9.2 9.8-10.7-13.0	4.6-4.65-4.8 5.1-5.4-5.5	3.2-3.3-3.4 3.5-3.7-3.8	3.3-3.4-3.5 3.8-4.2-5.0	2.9-3.0-3.1 3.0-3.1-3.3	3.8-3.9-4.0 4.0-4.3-4.5	15.0-15.3-15.7 16.4-17.5-19.8
Hispaniola	♂ 1	8.3	4.2	2.95	3.1	2.5	3.5	13.75
Venezuela	♂ 3 ♀ 7	8.9-9.3-10.1 9.1-9.7-10.5	4.4-4.8-5.1 4.8-5.1-5.5	3.0-3.5-3.7 3.0-3.3-3.5	3.2-3.6-3.8 3.4-3.7-4.0	2.6-2.8-3.0 2.8-3.0-3.2	3.9-4.0-4.2 3.8-4.0-4.3	14.5-15.5-16.8 14.9-16.0-17.2
Colombia	♂ 2 ♀ 1	9.1- 9.0	4.7- 4.9	3.2- 3.4	3.3- 3.5	2.9 2.7	4.0- 3.8	15.2- 15.1
Honduras	♀ 1	10.0	5.3	3.7	3.8	3.0	4.4	16.7
Guiana	♀ 1	10.2	5.2	3.6	3.9	3.0	4.5	16.7
Brasil	♂ 1	8.0	4.0	2.9	3.0	2.6	3.5	13.5
<i>M. affinis gracilis</i>								
Curacao	♂ 1 ♀ 2	8.0 8.8-	4.4 5.0-	3.2 3.4-	3.6 3.9-	2.6 2.7-	3.7 4.0-	13.8 14.9-
Colombia	♂ 2	7.0-	7.3 3.8-	4.0 2.7-	2.8 3.0	2.3- 2.4	3.1- 3.4	12.0- 12.5

TABLE 5.
Measurements in *Megacephala sobrina*, in mm.

Locality	Specimens	Elytrae length	Elytrae width	Pronotum length	Pronotum width	Head (without labrum) length	Head (without labrum) width	Total length (without labrum)	
<i>M. sobr. sobrina forma typica</i>									
Margarita	♂ 11 ♀ 16	9.1-9.35-9.5 9.2-9.7-10.0	5.2-5.4-5.6 5.5-5.75-6.0	3.4-3.65-3.8 3.4-3.7-3.9	3.6-3.9-4.0 3.8-4.05-4.2	2.5-2.8-3.0 2.6-2.9-3.2	4.0-4.1-4.3 4.0-4.2-4.5	15.4-15.8-16.3 15.2-16.3-17.0	
Testigos	♂ 8 ♀ 6	8.3-8.7-8.9 8.8-9.05-9.4	4.8-4.95-5.1 5.0-5.3-5.5	3.0-3.25-3.5 3.2-3.45-3.6	3.4-3.55-3.8 3.6-3.85-4.0	2.5-2.7-2.9 2.4-2.7-3.0	3.7-3.9-4.0 3.9-4.05-4.2	13.8-14.7-15.2 14.6-15.2-15.9	
Cubagua	♀ 1	8.7	4.7	2.9	3.2	2.5	3.4	14.1	
Patos	♂ 1 ♀ 1	8.0 9.0	4.4 5.2	2.8 3.2	3.3 3.7	2.3 2.4	3.5 4.1	13.1 14.6	
<i>M. sobr. sobrina forma bonairensis</i>									
Bonaire	♂ 14 ♀ 5	8.4-9.25-10.0 9.1-9.5-10.0	4.8-5.25-5.8 5.2-5.5-5.8	3.0-3.5-4.0 3.3-3.6-3.9	3.1-3.7-4.1 3.7-3.9-4.2	2.5-2.9-3.5 2.5-2.85-3.1	3.7-4.05-4.6 3.9-4.15-4.5	14.0-15.65-17.3 14.9-16.0-17.0	
Klein Bonaire	♂ 4 ♀ 2	8.4-8.6-9.0 9.0-	4.7-4.9-5.1 5.0-	3.2-3.3-3.5 3.3-	3.4-3.5-3.7 3.5-4.0	2.4-2.7-2.8 2.8-	3.8-3.8-3.9 3.9-	14.1-14.6-15.3 15.1-16.4	
Curacao	♂ 4 ♀ 9	9.0-9.4-9.7 9.0-9.35-9.9	5.0-5.2-5.4 5.3-5.55-5.8	3.4-3.5-3.6 3.1-3.55-3.9	3.6-3.65-3.8 3.3-3.9-4.2	2.5-2.7-2.9 2.4-2.75-2.9	4.0-4.05-4.1 3.9-4.15-4.3	14.9-15.6-16.2 15.0-15.65-16.7	
Aruba	♂ 2	9.1-	9.2	5.1-5.2	3.4-3.5	3.8-3.9	2.6-2.9	4.0-4.1	15.1-15.6
<i>M. sobr. sobrina forma antiguana</i>									
Antigua	♂ 1	9.8	5.6	3.8	4.0	3.0	4.2	16.6	
St. Barts	♂ 1	8.2	4.8	3.3	3.6	2.8	3.8	14.3	
St. Martin	♂ 4	7.9-8.4-8.9	4.6-4.8-5.0	3.1-3.55-3.5	3.5-3.7-3.9	2.6-2.75-2.9	3.8-3.93-4.1	13.6-14.7-15.3	
<i>M. sobr. infuscula</i>									
St. Croix	♂ 2 ♀ 2	8.4-8.8-	8.5 4.9- 9.9 5.1-6.0	3.2-3.3- 3.8 3.7-4.1	3.3 3.5- 3.8 3.7-4.1	2.6-2.7 2.8-2.9	3.6 3.8- 4.1 3.9-4.3	14.2-14.5 14.9-16.6	
St. John	♀ 1	9.5	5.7	3.6	4.0	3.0	4.1	16.1	
Puerto Rico	♂ 2	8.8-	9.0	5.0-5.3	3.3 3.7-3.8	2.7-2.8	3.8-4.0	14.7-15.1	
Hispaniola	♂ 2 ♀ 2	9.0-9.6-	9.4 5.4- 9.7 5.8-5.9	3.4-3.4- 3.7 4.0-4.2	3.5 3.9-4.0	2.9-3.0	4.2 4.4	15.3-15.9 16.0-16.4	
Cuba	♀ 1	9.6	5.7	3.6	4.0	3.0	4.3	16.2	

TABLE 6.
Relative measurements in *Megacephala acutipennis*

Locality	Specimens	Elytron length width (from above)	Pronotum width length	Head width length	Total length Width
Hispaniola	♂ 12	3.6	1.0	1.33	3.0
	♀ 6	3.13	1.0	1.4	2.85
Cuba	♂ 1	3.55	1.03	1.37	3.0
	♀ 2	3.37	1.0	1.3	2.8

TABLE 7.
Relative measurements in *Megacephala affinis*.

Locality	Specimens	Elytron length width	Pronotum width length	Head width length	Total length Width
<i>M. affinis affinis</i>					
Trinidad	♂ 3	3.87	1.03	1.3	3.3
	♀ 5	4.0	1.13	1.4	3.2
Hispaniola	♂ 1	4.0	1.05	1.4	3.3
Venezuela	♂ 3	4.0	1.03	1.43	3.2
	♀ 7	3.8	1.13	1.33	3.13
Colombia	♂ 2	3.9	1.05	1.4	3.25
	♀ 1	3.7	1.03	1.4	3.1
Honduras	♀ 1	3.77	1.03	1.47	3.15
Guiana	♀ 1	4.0	1.07	1.5	3.2
Brasil	♂ 1	4.0	1.03	1.35	3.4
<i>M. affinis gracilis</i>					
Curaçao	♂ 1	3.63	1.13	1.4	3.13
	♀ 2	3.53	1.15	1.43	3.0
Colombia	♂ 2	3.65	1.07	1.4	3.15

TABLE 8.
Relative measurements in *Megacephala carolina carolina*.

Locality	Specimens	Elytron length width	Pronotum width length	Head width length	Total length Width
U.S.A.	♂ 6	3.57	1.1	1.43	2.95
	♀ 14	3.55	1.13	1.47	2.9
<i>forma occidentalis</i>					
Cuba	♂ 10	3.53	1.1	1.45	2.93
	♀ 11	3.45	1.15	1.43	2.8

TABLE 9.
Relative measurements in *Megacephala sobrina*.

Locality	Specimens	Elytron	Pronotum	Head	Total length
		length width	width length	width length	Width
<i>M. sobr. sobrina</i> forma <i>typica</i>					
Margarita	♂ 11	3.5	1.1	1.45	2.95
	♀ 16	3.4	1.1	1.45	2.9
Testigos	♂ 8	3.5	1.1	1.45	3.0
	♀ 6	3.4	1.1	1.5	2.9
Cubagua	♀ 1	3.6	1.1	1.5	3.0
Patos	♂ 1	3.6	1.2	1.5	3.0
	♀ 1	3.5	1.2	1.7	2.8
<i>M. sobr. sobrina</i> forma <i>bonaireana</i>					
Bonaire	♂ 14	3.5	1.05	1.4	3.0
	♀ 5	3.4	1.1	1.45	2.9
Kl. Bonaire	♂ 4	3.5	1.05	1.4	3.0
	♀ 2	3.5	1.05	1.4	2.95
Curaçao	♂ 4	3.6	1.05	1.5	3.0
	♀ 9	3.4	1.1	1.5	2.8
Aruba	♂ 2	3.5	1.1	1.4	3.0
<i>M. sobr. sobrina</i> forma <i>antiguana</i>					
Antigua	♂ 1	3.5	1.05	1.4	3.0
St. Barts	♂ 1	3.4	1.1	1.4	3.0
St. Martin	♂ 4	3.5	1.1	1.4	3.0
<i>M. sobr. infuscata</i>					
St. Croix	♂ 2	3.4	1.1	1.45	2.9
	♀ 2	3.4	1.1	1.45	2.8
St. John	♀ 1	3.3	1.15	1.4	2.8
Puerto Rico	♂ 2	3.4	1.15	1.45	2.9
Hispaniola	♂ 2	3.4	1.15	1.4	2.9
	♀ 2	3.3	1.15	1.45	2.8
Cuba	♀ 1	3.3	1.15	1.4	2.8

Remarks

Several mainland specimens of *M. sobrina sobrina* could be studied, which were almost indistinguishable from those from the island localities. From these the following may be advanced:

VENEZUELA: "P. Cabella" [= Puerto Cabello, Ven.?] (Coll. Horn, "Tetracha antiguana", ♀, elytron 8.4 mm in length; not quite identical with Curaçao specimens, but similarly coloured); "Nov. Valenc." (Berlin, "Moritz / Tetr. v. confusa Chd. / Dr W. Horn det.", ♂, 15.3 × 5 mm, elytron 9.0 mm; as from Bonaire). COLOMBIA: "Mine Purino, 280–350 m, 28.X–21.XI.1896" (Berlin, ♀, 15.8, elytron 9.5 mm; as from Margarita, but with more lateral blue); Colombia (D. Ent. Inst., coll. Eidam, ♂ ♀, resembling specimens from Margarita); Villavincencio (Brussel, ♂, 15.2 × 5.2 mm, as from Margarita). PANAMÁ: Matachin, Dr O. Thieme, VII.1877 (Amsterdam, 14.8 × 5.0 mm, elytron 8.8 mm, ♂; design as from Testigos, colour as from St. Barts or Curaçao). BRASIL: "Brasile Acq. E. Deyrolle 1870" (Coll. Horn, "T. confusa Chaud./Kirby", 14.0 × 4.8 mm, elytron 8.1 mm, ♂; with some typical features, colour more similar to Margarita-specimens than to those from Bonaire, concentration of black on femora); Ega (Amsterdam, ♂; similar to specimens from Bonaire); Brasil (D. Ent. Inst., Coll. Kraatz, 15.6 × 5.6 mm., elytron 9.4 mm, ♀). ARGENTINA: El Crespo (Amsterdam, 16.5 × 5.6 mm, elytron 10.0 mm, ♀; resembling specimens from Testigos or St. Barts).

One specimen from MEXICO (Coll. Horn, 14.9 × 5.1 mm, elytron 8.9 mm, ♂) looks identical with *M. sobrina infuscata*.

Some specimens show only small differences between South American mainland forms, which could be named *M. sobrina sommeri*, and specimens from Bonaire and Curaçao, thus showing the very difficult conception of the *sommeri*-group; e.g. those from VENEZUELA, Fernando de Apure, L. Laglaise, 5.X.1897 (Brit. Mus. and Berlin, 1 ♂ 2 ♀♀), COLOMBIA, Orocuè, S. Bürger, IV.1897 (Berlin, ♂), or MEXICO (in which the labrum beyond the frontal teeth is more or less protruding). Other specimens are only differing from the typical subspecies, in having the margin of the labrum beyond the frontal teeth somewhat protruded: Mexico (D. E. Inst., 2 ♂♂, Berlin ♀), Oaxacá (Berlin, ♂), and Antioquia, Col. (Brussel, 1 ♂ 2 ♀♀).

CHAUDOIR (1865, p. 63–65) described *Tetracha confusa* from "l'intérieur du Brésil", "d'une belle couleur vert-clair avec un léger reflet cuivreux sur la partie antérieure de la suture, et une ombre noire près des taches postérieures... plus petite que la sobrina... les élytres sont un peu plus courtes et plus ovalaires; la ponctuation du dessus est bien moins serrée" — which, from the beginning, appeared almost indistinguishable from the *Megacephala sobrina* which DEJEAN (1831, p. 202) had already described from such a vast territory as Brasil, Colombia and the Antilles.

HORN (1923, p. 94) considers "diese *confusa*-Form... für eine grosse geographische Rasse, deren Verbreitungsgebiet sich vielleicht zum Teil mit dem von *sobrina* und *infuscata* decken könnte." "Die Farbe dieser Rasse variiert stark, nie ist sie aber so hell leuchtend-kupfrig wie bei der echten *sobrina* und nie so tief dunkel wie die Rasse *infuscata* Mannh., mit der die in der Skulptur (und manchmal auch im düsteren Glanz) recht ähnlich werden kann. Sie steht in Wirklichkeit wohl ziemlich in der Mitte zwischen diesen beiden Formen; vielleicht der letzteren noch etwas näher. Keines meiner Exemplare ist auf der Oberseite ganz ohne kupfrigen

Schimmer; wenigstens etwas davon findet sich auf der Scheibe von Stirn und Pronotum, sowie nahe der Naht auf den vordern Flügeldecken. Bei den meisten meiner Stücke herrscht sogar eine düstere Kupferfarbe vor, wie sie sich so oft auf Stirn und Pronotum von subsp. *infuscata* zeigt. Die Flügeldecken sind . . . kürzer und ovaler als bei *sobrina*."

HORN identified several specimens from Brasil, Venezuela, Colombia and Curaçao as pertaining to this form *confusa*, considering LENG & MUTCHLER's subsp. *antiguana* as a synonym.

It may be worth being recommended not to label Antillean material — with its well-defined finding places from which more topotypical material is easy to obtain — as *confusa*, until some monographer has successfully undertaken the painstaking trouble of revising the neotropical *Megacephala*.

The ♂♂ are generally more slender than the ♀♀ (see tables 5 and 9); the apex of the elytron in the ♀ is a little less narrow than in the ♂ (fig. 17).

There are distinct sexual differences in the dentition of the mandibles (fig. 17-18, 21):

♂ — Left mandible — ♀	
2nd tooth much larger than 3rd	2nd tooth smaller than 3rd
3rd tooth somewhat larger than 4th	3rd tooth much larger than 4th
bases of 3rd and 4th teeth as a rule distinctly fused	bases of 3rd and 4th teeth more or less fused
♂ — Right mandible — ♀	
2nd tooth larger than 3rd	2nd tooth much larger than 3rd
3rd tooth as a rule slightly smaller than 4th, or subequal	3rd tooth somewhat or distinctly smaller than 4th

In 1 ♀ specimen from Margarita the 2nd tooth of the left mandible is subequal to the 3rd one. Fig. 18*d* shows an abnormal left ♀ mandible from Bonaire, in which the 4th tooth is almost completely lacking.

In all island-specimens the right mandible is covered by the left one when closed, with exception of 1 ♀ from Margarita, 1 ♀ from Los Testigos, 1 ♀ from Bonaire, 1 ♀ from Curaçao and 1 ♂ 1 ♀ from Hispaniola, in which the right mandible is the upper one. Among the above cited continental specimens this exceptionally case has been observed in 2 ♂♂ from Colombia.

The occurrence of *M. sobrina sobrina* in Anegada (BLACKWELDER 1944) and in Hispaniola, and that of *M. sobrina infuscata* outside the Virgin Islands, Puerto Rico and Hispaniola (CHEVROLAT 1863, LENG & MUTCHLER 1917, HORN 1926) should be confirmed.

KEY and SYNOPTICAL TABLE
to Antillean *Megacephala*

(Measurements and colours in dorsal view, roughly stated. Based on Antillean material, U.S.A. specimens of typical *carolina* excepted.)

- 1a Elytron acuminate at apex *M. acutipennis*
Right mandible with 3 apical teeth. Central teeth of ♀ labrum exceeding the lateral ones; lateral teeth usually not larger than central ones, weakly developed. Plainly coloured, green or blue predominating, without black spot. Apical part of elytron smooth; hind margin smooth. Hinder part of head without many small wrinkles. Margin of labrum as a rule gradually curving backwards into the side margin. Apical lunula more or less rounded at base and hardly sinuated on its inner edge, not narrowing towards the suture. Elytron about ♂ $3\frac{1}{2}$ ♀ $3\frac{1}{4}$ as long as wide. (Body $11\frac{1}{2}$ -♂ $12\frac{1}{2}$ ♀ $13\frac{1}{2}$ - $15\frac{1}{2}$ × $3\frac{3}{4}$ -♂ $4\frac{1}{4}$ ♀ $4\frac{3}{4}$ - $5\frac{1}{2}$ mm.) — Hispaniola, Cuba.
- 1b Elytron rounded at apex 2
- 2a Right mandible with 3 apical teeth. Central teeth of ♀ labrum not exceeding the lateral ones; lateral teeth larger than central ones, well developed. Plainly coloured, blue or green predominating, without black spot. *M. affinis* 3
Apical part of elytron with imbricated granules; hind margin almost smooth, not serrated. Hinder part of head without wrinkles. Margin of labrum as a rule not protruding before curving backwards into the side margin. Apical lunula rounded at base and only slightly sinuated on its inner edge, narrowing towards the suture.
- 2b Right mandible with 4 apical teeth. Central teeth of ♀ labrum exceeding the lateral ones; lateral teeth usually not larger than central ones, often weakly developed. In most cases vividly coloured, brilliant green predominating, usually with purple, with a black spot 4
- 3a Generally blue, often with greenish or brownish shades
Elytron about 4 times as long as wide . . . *M. affinis affinis*
(Body 15-♂ $15\frac{1}{4}$ ♀ $17\frac{1}{2}$ -20 × $4\frac{1}{2}$ -♂ $4\frac{3}{4}$ ♀ $5\frac{1}{2}$ - $5\frac{1}{2}$ mm.) — Trinidad, ?Hispaniola. (Mainland.)
- 3b Generally green, often with bluish sides. Elytron about $3\frac{2}{3}$ as long as wide *M. affinis gracilis*
(Body ♂ $13\frac{3}{4}$ ♀ $14\frac{1}{2}$ -16 mm.) — Curaçao. (Mainland.)
- 4a Apical part of elytron almost smooth, without traces of imbricated granules; hind margin smooth. Hinder part of head only occasionally with irregular, small wrinkles. Margin of labrum as a rule slightly protruding before curving backwards into

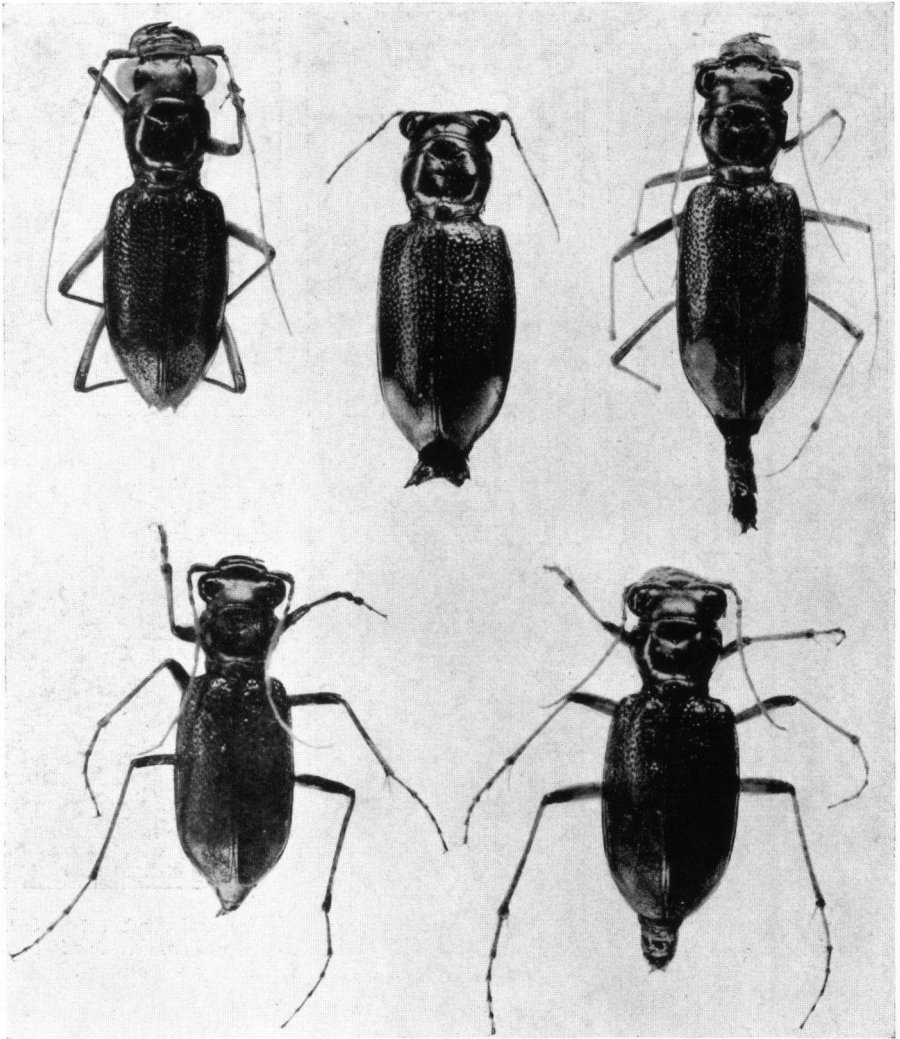
- the side margin. Apical lunula rounded at base and sharply sinuated on its inner edge, abruptly narrowing towards the suture. *M. carolina carolina* 5
- 4b Apical part of elytron with imbricated granules; hind margin microscopically serrated. Hinder part of head with many, irregular, small wrinkles. Margin of labrum as a rule not protruding before curving backwards into the side margin. Apical lunula usually more or less flattened at base and only weakly sinuated on its inner edge, slightly narrowing towards the suture. *M. sobrina* 6
- 5a Outer part of hind femora rarely blackish. Elytron about $\frac{3^3}{5}$ as long as wide *M. car. carolina* f. *typica*
(Body 15-♂ 16 ♀ 17-18 $\frac{1}{4}$ × 5-♂ 5 $\frac{1}{2}$ ♀ 6-6 $\frac{1}{2}$ mm.) — ?Cuba. (Mainland.)
- 5b Outer part of hind femora, towards the knees, usually distinctly blackish. Elytron about 3 $\frac{1}{2}$ as long as wide. .
M. car. carolina f. *occidentalis*
(Body 13-♂ 15 ♀ 16-16 × 4 $\frac{3}{4}$ -♂ 5 $\frac{1}{4}$ ♀ 5 $\frac{3}{4}$ -6 $\frac{1}{2}$ mm.) — Cuba.
- 6a Reddish dorsal area well separated from the black spot. Elytron about 3 $\frac{1}{2}$ as long as wide. *M. sobrina sobrina* . . . 7
- 6b Reddish dorsal area fused with or superseded by the much larger black spot. Elytron about 3 $\frac{2}{5}$ as long as wide
M. sobrina infuscata
(Body 14-♂ 15 ♀ 16-16 $\frac{3}{4}$ × 4 $\frac{3}{4}$ -♂ 5 $\frac{1}{4}$ ♀ 5 $\frac{3}{4}$ -6 mm.) — Virgin Islands, Puerto Rico, Hispaniola, Cuba.
- 7a Dorsal area as a rule yellowish-red, sometimes touching the black spot. Black spot usually extended as far as about $\frac{3}{5}$ sutural length . . *M. sobr. sobrina* f. *typica*
(Body 13-♂ 15 $\frac{1}{4}$ ♀ 16-17 × 4 $\frac{1}{2}$ -♂ 5 ♀ 5 $\frac{1}{2}$ -6 mm.) — Margarita, Los Testigos, Cubagua, Patos. (Mainland.)
- 7b Dorsal area purplish, sometimes touching the black spot. Black spot usually extended as far as about $\frac{3}{5}$ sutural length. *M. sobr. sobrina* f. *antiguana*
(Body 14 $\frac{1}{4}$ -♂ 15-16 $\frac{3}{4}$ × 4 $\frac{1}{2}$ -♂ 5-5 $\frac{3}{4}$ mm.) — Antigua, St. Barts, St. Martin.
- 7c Dorsal area purplish, generally touching the black spot. Black spot usually extended as far as $\frac{3}{4}$ sutural length .
M. sobr. sobrina f. *bonaireana*
(Body 14-♂ 15 $\frac{1}{2}$ ♀ 16-17 $\frac{1}{2}$ × 4 $\frac{1}{2}$ -♂ 5 ♀ 5 $\frac{1}{2}$ -6 mm.) — Bonaire, Curaçao, Aruba.

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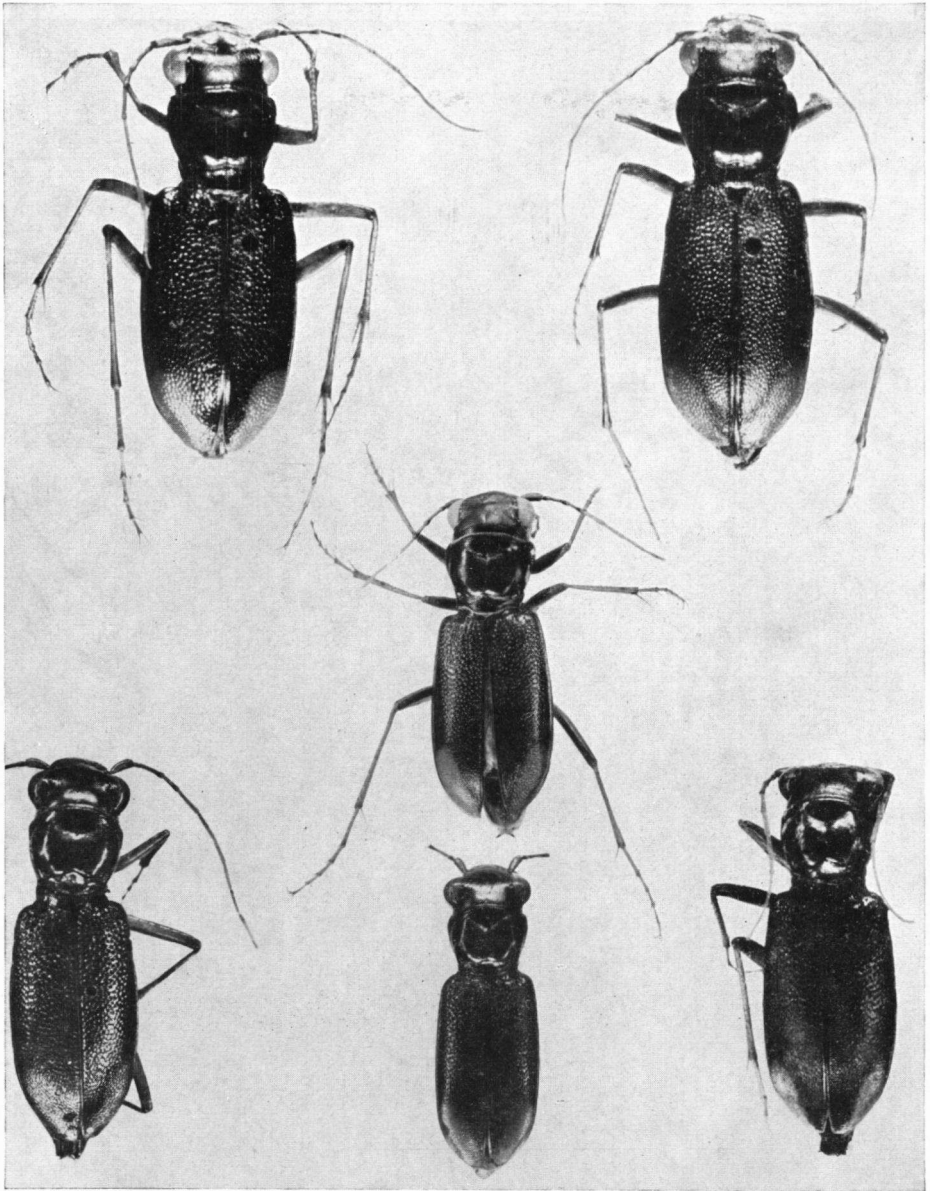
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PLATE VI

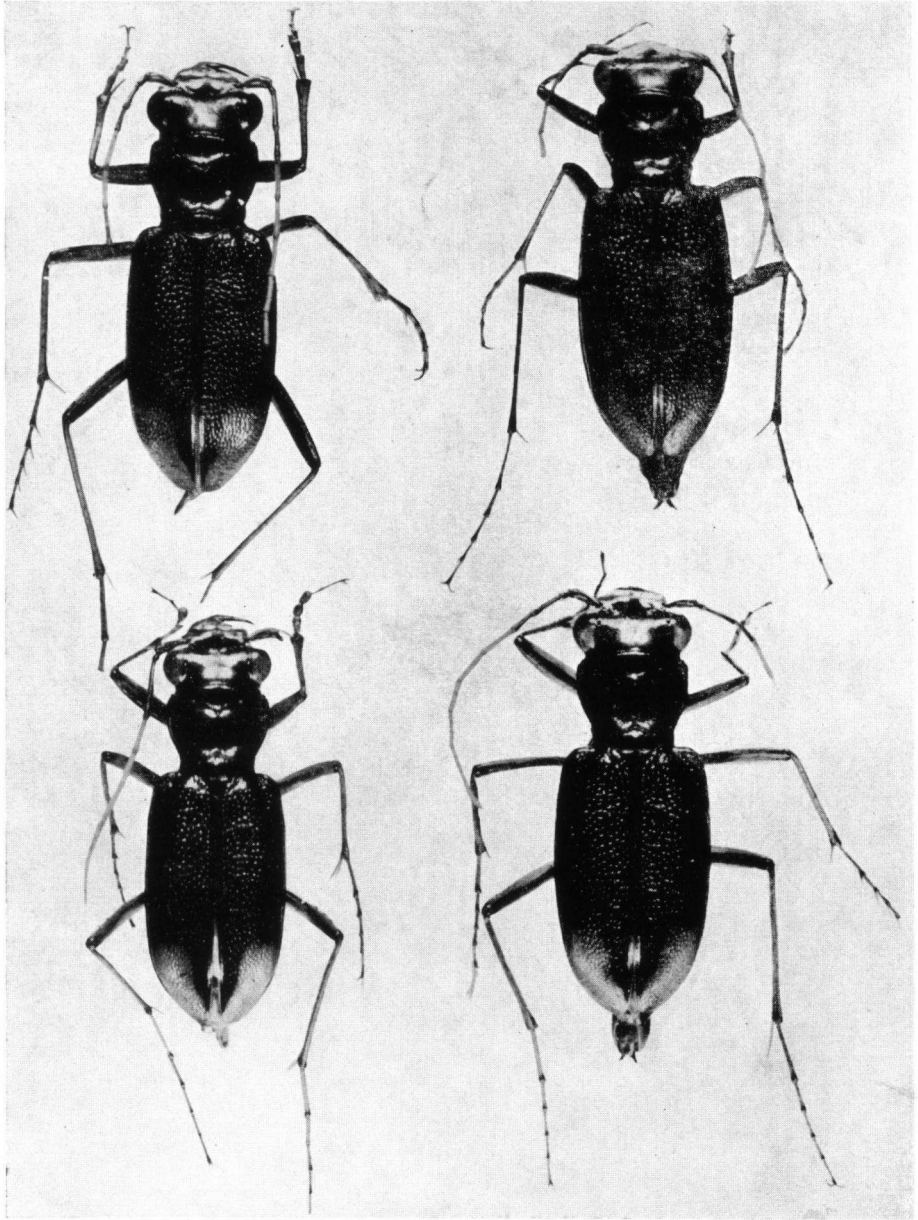


VI. *Megacephala acutipennis* from Haiti, ♂ (top left) and ♀ (top centre). *M. carolina carolina* from Arizona, ♀ (top right). *M. car. carolina* f. *occidentalis* from Cuba, ♂ (bottom left) and ♀ (bottom right). — All figures $\times 4$.

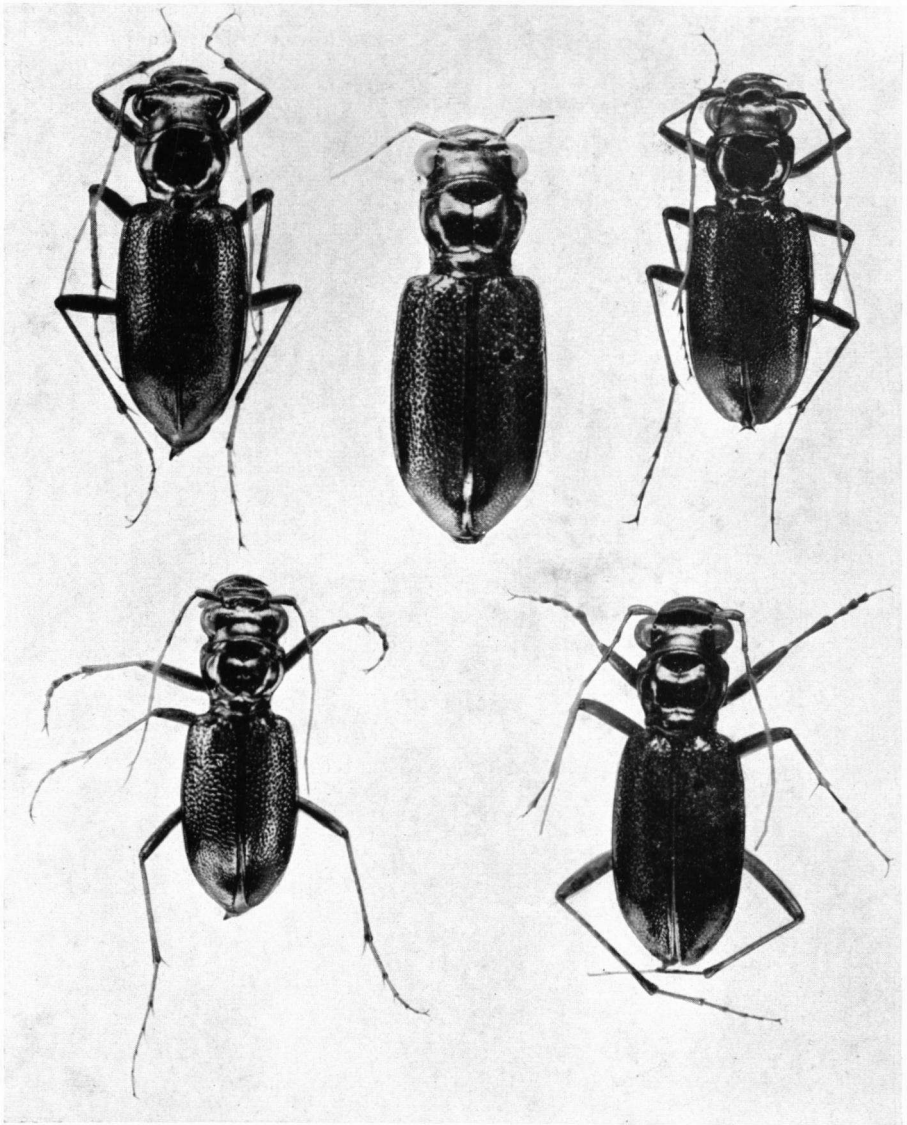


VII. *Megacephala sobrina sobrina* f. *bonaireana* from Curaçao, ♀ (top left). *Megacephala affinis affinis* from Caracas, Venezuela, ♀ (bottom left), and from Trinidad, ♀ (bottom right). *Megacephala affinis gracilis* from Curaçao, ♀♀ (top right, type of *Tetracha curacaoica*, and centre), and from Colombia, ♂ (bottom centre). — Top figures × 4.

PLATE VIII



VIII. *Megacephala sobrina sobrina* f. *typica* from Margarita, ♂ (top left) and ♀ (top right), and Morro de la Iguana, Los Testigos, ♂ (bottom left) and ♀ (bottom right). — All figures $\times 4$.



IX. *Megacephala sobrina sobrina* f. *bonaireana* from Curaçao, ♂ (top left), and Bonaire, ♀ (top right). *M. sobrina* f. *antiguana* from St. Martin, ♂ (bottom left). *M. sobrina* f. *infuscalata* from St. John, Virgin Islands, ♀ (top centre), and Puerto Rico, ♂ (bottom right). — All figures $\times 3$.