

NOTES ON AMERICAN PHYMATIDAE II (HEMIPTERA, REDUVIIDAE).

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ABSTRACT

The author discusses the status of the family Phymatidae, recently degraded by Carayon, Usinger and Wygodzinsky to the subfamily rank and included into the family Reduviidae. He comes to the conclusion that this is unfortunate since it was based on a couple of species belonging to only one genus of the subfamily Phymatinae compared with two aberrant subfamilies of the family Reduviidae, Holoptilinae and Elasmodeminae. The author proposes to conserve the well established family Phymatidae as a family and to include Themonocorinae as a new subfamily into it.

The species *Macrocephalus incisus* Stål 1862 is revalidated and separated from *Macrocephalus notatus* Westwood, 1843, into which synonymy it was put by Handlirsch in 1897 and a key for the separation of these two species and their respective subspecies is given. Three new species of the genus *Macrocephalus* (subgenus *Lophoscutus* Kormilev, 1951) are described: *M. margaritis* from Mexico, *M. drakei* from Cuba and *M. subproductus* from Puerto Rico.

Through the kind offices of Drs. Eva Halaszfy, Carl J. Drake, and J. F. G. Clark, I have had the opportunity of examining a certain number of American Macrocephalinae (Phymatidae) from the collections of the Hungarian Museum in Budapest, and the United States National Museum. To them I express my sincere thanks.

In 1958 Carayon, Usinger, and Wygodzinsky published a joint paper on the classification of the Reduviidae (1958:256), in which they proposed some cardinal changes in the status of the family Phymatidae, reducing it to sub-family rank and including it in the family Reduviidae. With all due respect to these eminent hemipterologists, I cannot concur with their proposition and think that it was most unfortunate. Instead of clarifying an already heterogenous family, with some 30 subfamilies, they unnecessarily made it more complicated. Their conclusions based mainly on the discovery of a new tribe, the Themonocorini, which possesses a certain number of characters present also in

the Phymatinae (as a subfamily of the Phymatidae), and others present in the Elasmodeminae and Holoptilinae, both subfamilies of the Reduviidae. From the Phymatinae they selected only a few species of the genus *Phymata* Latr., 1802, leaving other genera and both other subfamilies (the Macrocephalinae and Carcinocorinae) of the Phymatidae out of consideration. From the Reduviidae they separated the Holoptilinae, an aberrant subfamily itself, the systematic position of which within the family Reduviidae is not clear, and the Elasmodeminae, also an aberrant subfamily which at one time was considered an independent family by the third author (1944:193).

It is significant that almost at the same time when the paper in question was published, an american hemiperologist, N. T. Davis, published a very thorough piece of research on the internal genitalia of the Phymatidae, as a part of his comparative study of the morphology and phylogeny of the Reduviidae. He does not question the validity of the Phymatidae as a family. (1957: 432).

The three authors in discussing the relationship of their new "tribe" Themonocorini with the Reduviidae and Phymatidae, came to the conclusion that the Themonocorini with the Phymatinae (as a subfamily) made a natural grouping taxonomically equivalent to the Elasmodeminae and Holoptilinae; but they did not answer the question as to whether or not these are more closely related to one another than to the Reduviidae, and thus should not form a separate family equivalent to the rest of the Reduviidae.

Why was it necessary to degrade the long established family Phymatidae to subfamily status and place it in the already heterogenous and ill defined family Reduviidae before the latter has been brought out of chaos itself? Before the thorough comparative revision of the entire reduvioid complex, so badly needed, is done, I still propose to retain the Phymatidae as a family, and include the Themonocorini in it, not as a tribe but as a subfamily, the Themonocorinae.

China and Miller (1959:33) also consider the Phymatidae as a family and consider the Themonocorinae as primitive phymatids with subfamily status therein.

The subfamily Macrocephalinae is represented in America by two genera: a monotypic, archaic genus *Extraneza* Barber, 1939,

so far known by a single specimen from Porto Rico, and *Macrocephalus* Swederus, 1787. The latter was split by me into two subgenera: *Macrocephalus* sens. str., and *Lophoscutus* (1951) on the basis of differences in the shape of the paramere, the former having the paramere with a subapical branch more or less bifurcate at the tip and the apex of the main trunk bearing bristles, and the second having the main trunk bent at a different angle, and tapering to an acute apex without bristles. *Macrocephalus* sens. str. as far as I can establish has a spear-shaped or arrow-shaped, ivory spot on the base of a median carina which extends $\frac{1}{4}$ to $\frac{2}{3}$ the length of the scutellum. *Lophoscutus*, on the other hand, has only a thin median carina extending from the base to the apex of the scutellum. There are still to be studied some species with poorly defined spots on the scutellum. I have refrained from considering these two as separate genera as proposed by Maa (1956:109). The second type of paramere, i.e. as found in *Lophoscutus*, is also seen in some other genera of oriental Macrocephalinae.

Within *Macrocephalus* sens. str. there is a poorly defined grouping of species called the "notatus group." The first species of this group, *M. notatus* Westwood 1843, was described from Colombia. Later Stål described two species from Mexico, *M. incisus*, and *M. cliens*. Later, in the *Enumeratio Hemipterorum*, Stål placed the latter in synonymy with the former. Handlirsch, in his revision of the Phymatidae, could not separate *incisus* from *notatus* because of the pronounced variability of the ivory spot on the scutellum, the width of the connexiva, and the length of the antennal segments; he therefore synonymized all under the name *notatus*. I have always had a feeling that *notatus* and *incisus* are different, though closely related, species, but was unable to prove it, not having enough material for comparison. Only now, having accumulated a rather large series of *Macrocephalus* from Brownsville, Texas, Mexico, Honduras, Guatemala, Costa Rica, Panama, and Colombia, have I had the chance to verify my contention. As so often happens in the Phymatidae in general, some species distributed over large areas show an inclination to form geographical subspecies with poorly defined limits. Only after a large series of specimens taken from a wide range of distribution have been studied can valid conclusions be reached. It is particularly difficult to separate species, particularly in the

case of females, when only a single or a few specimens are available.

Genitalia are not of much help either, particularly in the females, being both similar and variable at the same time.

In the case of the "notatus group," the separation of the species, and subspecies, may be best shown with the key for the males:

1. Ivory spot of the scutellum shorter, reaching usually to the hind border of connexivum IV, or to the middle of connexivum V (IV visible); parameres with the lateral, subapical branch of the parameres more or less bifid at the tip *M. notatus* Westwood, 1843.
- . Ivory spot of the scutellum longer, reaching to the hind border of connexivum V, or to the middle of connexivum VI; lateral, subapical branch of the parameres is never bifid, more or less rounded at the tip *M. incisus* Stål, 1862

M. notatus may be tentatively separated into two geographical subspecies: *M. notatus* s.str., distributed in Colombia and Panama, and *M. notatus costa-riquensis* n.ssp., distributed in Costa Rica. These subspecies may be separated by the following key for the males:

1. Ivory spot of the scutellum spearshaped, produced, and pointed posteriorly; connexiva III, and IV, relatively wider, ratio between the length and width about 1:0.73, and 1:0.78 respectively; parameres only slightly bifid *M. notatus* s.str. (Fig. 1-2).
- . Ivory spot of the scutellum much abbreviated, arrow-shaped, more or less obtuse posteriorly; connexiva III, and IV, relatively narrower, ratio between the length and width being about 1:0.62-0.66 in both connexiva; parameres strongly bifide
M. notatus costaricensis n.ssp. (Fig. 3-5).

M. incisus Stål also may be tentatively separated into two geographical subspecies: *M. incisus* s.str., distributed in SW corner of Texas, and through Mexico; and *M. incisus maya* n.ssp., distributed in Guatemala and Honduras. This subspecies may be separated by the following key for the males:

1. Connexiva III, and IV, are relatively wider; the ratio between the length and width is about 1:0.73-0.74, and 1:0.71-0.85 respectively; lateral branch of the parameres is subtruncate apically
M. incisus s.str. (Fig. 6-7).
- . Connexiva III, and IV, are relatively narrower; the ratio between the length and width is about 1:0.58-0.61, and 1:0.53-0.66 respectively; lateral branch of the paramere is rounded apically
M. incisus maya n.ssp. (Fig. 8-9).

I confess, that I was unable to make a satisfactory key for the females, either of *M. notatus*, or *M. incisus*, they having not parameres, (the best character for separating the males) and lacking well defined ratio between the length and the width of connexiva III and IV. Only that the ivory spot of the scutellum in *M. notatus costa-riquensis* is mostly much shorter than in any other subspecies of this group, is what helps in separating it at first sight from the others. In *M. incisus* Stål the shape of the ivory spot ranges from fusiform to somewhat abbreviated posteriorly, but still pointed; its lateral sides are mostly rounded, but sometimes subangular. In *M. incisus maya* the ivory spot is always rounded laterally, and mostly more convex than in *M. incisus* s.str., though some specimens of the latter from Mexico also have very convex and relatively shorter spot, as in ssp. *maya*. In this case they can be separated by abdomen, which in *maya* is a little less flaring than in *incisus* s.str., connexivum being a little narrower. Ivory spot in *M. notatus* s.str. is similar to *incisus* s.str., but is easily separated, as stated, from the ssp. *costa-riquensis* by its form, which is in the former fusiform, and in the latter arrow-shaped, or spear-shaped, with a very abbreviated posterior part.

Material examined:

I. *Macrocephalus notatus* Westwood.

One ♂, Bonda, Colombia (Dr. C. = Drake collection in U.S.N.M.); 1 ♀, S. Marta, Colombia—Geo M. Green coll., XII. 26.10 (U.S.N.M. = U.S. National Museum, Washington, D.C.); 1 ♀, Santa Maria, Colombia—Santschi II, 1896 (H.N.M. = Hungarian National Museum, Budapest); 1 ♀, Rio Frio, Colombia, VI.28.25 (K.C. = Kormilev collection, Brooklyn, N.Y.); 2 ♂, Pedro Miguel, Panama (U.S.N.M. & K.C.); 1 ♂, Summit at Panama CZ, on Lantana,—N.L.N. Kraus coll., VI.53 (U.S.N.M.); 1 ♂, Panama, Panama—E. A. Schwarz coll IV.15.11 (K.C.); 1 ♂, Ancon, Panama CZ, E. A. Schwarz, IV.13.11 (U.S.N.M.); 1 ♀, Panama—Yale Peruvian Exp., with label "*Macrocephalus Bergrothi* Handl., det. E. H. Gibson" (U.S.N.M.).

II. *Macrocephalus notatus costa-riquensis* n.ssp.

Holotype male, Santa Ana, Costa Rica—Bierig, VI.13.46, deposited in the Kormilev collection.

Allotype female, Piedras Negras, Costa Rica—Schild-Burgdorf, collector, deposited in the U.S. National Museum, Washington, D.C.

Paratypes 1 ♂ & 4 ♀, Piedras Negras, Costa Rica—Schild-Burgdorf coll. (U.S.N.M. & K.C.); 1 ♂ & 1 ♀, Rosario, Cuzcatan VII.17.55, M.S.V. coll. (U.S.N.M.); 1 ♂, Turrialba, Costa Rica—Schild-Burgdorf coll. (H.N.M.); 1 ♀, Tucurrique, Costa Rica (H.N.M.); 1 ♀, Surrubres, Costa Rica (H.N.M.).

III. *Macrocephalus incisus* Stål.

3 ♂ & 4 ♀, Brownsville, Texas, U.S.A. (U.S.N.M.); 1 ♂, Mex(ico)—C. F. Baker coll. (U.S.N.M.); 1 ♂, Venodio, Sin., Mex(ico)—Kusche VI.19.18 (U.S.N.M.); 2 ♂, Vera Cruz, Mexico (U.S.N.M. & K.C.); 1 ♂ & 1 ♀, Cordoba, Vera Cruz, Mexico—F. Knab coll. (U.S.N.M.); 1 ♂, Tampico, Mexico—F. C. Bishopp coll. XII.5 (U.S.N.M.); 2 ♀, Calhoun Co (Texas?) (U.S.N.M.); 1 ♀, Vera Cruz, Mexico (K.C.); 2 ♀, Colima, Mexico—L. Conrad coll. (U.S.N.M.); 1 ♀, Tampico, Mexico—E. A. Schwarz coll. (U.S.N.M.); 1 ♂, Colima, Mexico—(H.N.M.); 1 ♀, Teapa, Tabasco, Mexico, with a label "B. C. A. Rhynch. II—*Macrocephalus notatus* Westw. ♀" (H.N.M.); 1 ♀, Mexico, with labels: "Coll Signoret," and "*notatus*, det. Handlirsch" (H.N.M.).

IV. *Macrocephalus incisus maya* n.ssp.

Holotype male, Trece Aguas, Alta V. Paz, Guatemala—Schwarz & Barber coll., deposited in the U.S. National Museum, Washington, D.C.

Allotype female, collected with the holotype; deposited in the same museum.

Paratypes 3 ♂, Trece Aguas, Alta V. Paz, Guatemala (U.S.N.M. & K.C.); 1 ♂, Tegucigalpa, Honduras—F. Dyar coll. IV.3.17 (U.S.N.M.); 1 ♀, Livingston, Guatemala—Barber & Schwarz coll. 11.5 (U.S.N.M.); 2 ♀, Morales, Guatemala—J. J. White coll. VIII.28 (U.S.N.M. & K.C.); 1 ♀, Mexico—Procopp coll., with label "*notatus*, det. Handlirsch" (H.N.M.).

Among the *Macrocephalus* species, which I have examined, were two new species from the collections of the U.S. National Museum, from Mexico, and Puerto Rico respectively, the first labeled by Dr. Reece I. Sailer as "*Macrocephalus sp.?*"; and one striking new species from Cuba, collected by Mr. Zayas, and kindly sent to me by Dr. Carl J. Drake for identification.

1. *Macrocephalus margaritis* n.sp.*

(Fig. 10-11).

Elongately ovate; male more than three times, and female almost three times as long as wide (♂—178:55, ♀—197:67); densely covered with round, shiny, pearl-like granulation.

MALE: HEAD much longer than wide through the eyes (♂—35:23, ♀—37:25); anteocular lateral border as long as the postocular (12:12); anterior border deeply cut out; ocelli dorso-lateral, placed on the small swellings. Antennae moderately slender; the 4th segment a little shorter than the 2d and 3d together (♂—15:17, ♀—13:16). Proportions of the antennal segments, 1 to 4, are: ♂—12½(7½):7(4):10(3½):15(7), ♀—12(8):7(4):9(4):13(7), the figures between brackets represent the width of the segment.

PRONOTUM elongate, rather flat, slightly declivous forward, shorter than wide across the humeri (♂—45:53, ♀—47:57); anterior border widely cut

* *Μαργαριτης* = pearl. This species is covered with a dense, shiny, pearl-like granulation.

out; anterior angles acute, slightly divergent; antero-lateral-anterior borders almost straight, with a blunt, semispiculoid granulation; antero-lateral-posterior also almost straight, angle between the first and the latter is about 68° ; lateral angles regularly rounded, neither reflexed, nor cut out; postero-lateral borders firstly convex, then concave; posterior border convex; posterior angles small, but prominent. Fore disc more convex, densely covered with blunt, semispiculoid granulation; the pit on the median line small, but deep. Interlobal depression deep and sharply marked. Posterior disc flatter; carina are blurred, discernible only on the first third of the disc. Hind disc covered with round, pearl-like granulation, and between the granules with fine, but deep punctures.

SCUTELLUM elyptoid in shape, more than twice (δ), or almost twice (φ) as long as wide (δ —98:46, φ —111:57), reaches to the tip of the abdomen. Its lateral borders are regularly convex from the base to the tip, without subbasal constriction. Median carina fine, low, but well marked up to the tip of the scutellum; its basal $\frac{1}{8}$ is slightly widened. Disc densely covered with round, pearl-like granulation, and between it with fine, but deep punctures.

HEMELYTRA reach to the tip of the abdomen; corium is narrow; in the basal half with two rows (lateral and on the vein) of very fine granules; in the apical half with a row of very fine punctures.

ABDOMEN elongate, with a narrow connexivum, which is partly seen from segments II to V (δ), or from II to VII respectively (φ). Abdomen is longer than wide (δ —78:55, φ —88:67). Connexiva granulate only on the border (δ), or also on the discs (φ).

STERNUM mesosternal cross slender and high, its fore branch with few small granules.

FORE FEMORA moderate in size, more than twice as long as wide (δ —35:16, φ —37:18).

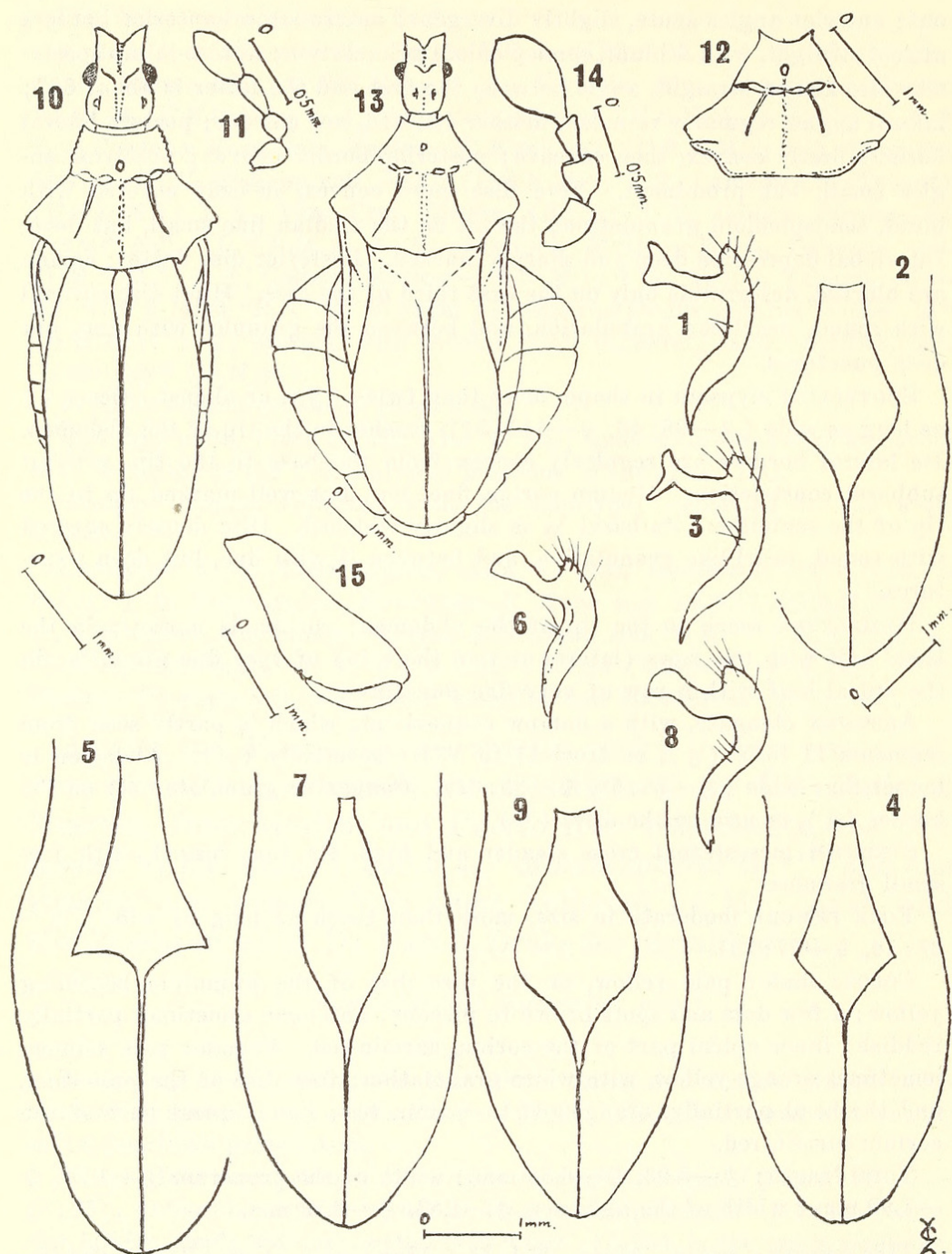
COLOR: male: pale yellow, on the fore disc of the pronotum becoming yellow; a few dots and spots brown to piceous; antennae sometimes partially reddish; inner apical part of the corium carmin-red. Female: pale salmon, sometimes orange-yellow, with white granulation; fore disc of the pronotum, and the head partially, orange red to carmin red; inner apical part of the corium carmin red.

Total length: δ —5.93, φ —6.56 mm.; width of the pronotum δ —1.76, φ —1.90 mm.; width of the abdomen δ —1.83, φ —2.23 mm.

HOLOTYPE: male, Malz, S.L.P., Mex(ico), Lar. Tex. 48446; 3.31.1949, on Orchids. Deposited in the U.S. National Museum, Washington, D.C.

ALLOTYPE: female, Arriaga, Chiapas, Mex(ico); Laredo, Tex. 55238; I.15.1955; on Orchids. Deposited in the same Museum.

PARATYPES: 1 δ , Mexico, on Bromeliads, 3.1.1955, and 1 δ , Tegucigalpa, Honduras, Febr. 13, 1918, F. J. Dyar; with a label "*Macrocephalus sp.*, det. H. G. Barber"; both in the U.S.N.M. 1



EXPLANATION OF DRAWINGS

1. *Macrocephalus notatus* Westwood, right paramere.
2. " " " , ♂, ivory spot on the scutellum.
3. *Macrocephalus notatus costa-riquensis* n.spp., right paramere.
4. " " " " , ♂, ivory spot on the scutellum.
5. " " " " , ♀, " " " "
6. *Macrocephalus incisus* Stal, right paramere.
7. " " " , ♂, ivory spot on the scutellum.
8. *Macrocephalus incisus maya* n.ssp., right paramere.

♂, Tegucigalpa, Honduras, F. J. Dyar, and 1 ♀, Ruxtla, Chiapas, Mex(ico), on Orchids; both in the collection of the author.

The new species stands rather isolated in the genus. It is somewhat similar to *M. insularis* Dudich, 1922, but is more elongate; scutellum without subbasal constriction, its median carina is only slightly widened at the basal $\frac{1}{8}$; the granulation is bigger; also the color is much lighter. *M. margaritis* n.sp. belongs to the subgenus *Lophuscutus*.

2. *Macrocephalus subproductus* n. sp.

(Fig. 12).

FEMALE Elongately ovate, with moderately flaring abdomen; granulation is fine, white, and dispersed.

HEAD longer than wide through the eyes (30:22), anteriorly deeply cut out; eyes big, semiglobose; ocelli dorso-lateral, placed together on a low elevation. Antennae thin, the 4th segment thick, ovate, longer than the 2d and 3d together. Proportions of the antennal segments, 1 to 4 are: 8(5):5(4):7(3):14(7½).

PRONOTUM shorter than wide across the humeri (42:65); fore border deeply cut out; anterior angles acute, and slightly divergent; antero-lateral-anterior borders slightly convex in the middle; antero-lateral-posterior borders firstly slightly concave, then slightly convex; lateral angles slightly raised, rounded at the tip, and slightly cut out behind the latter. Postero-lateral borders firstly convex, then concave; posterior border almost straight; all borders finely granulate. Fore disc convex, granulate; interlobal depression well marked; hind disc with rough punctures, and a few granules near the fore border, and on the borders. Carinae granulate anteriorly, run out at $\frac{3}{5}$ of the disc's length.

SCUTELLUM almost reaches the tip of the abdomen; more than twice as long as wide (97:46); in the basal $\frac{1}{4}$ roughly, then finely punctured; in its posterior $\frac{2}{3}$ with a fine, white, dispersed granulation. The maximal width of the scutellum is a little behind the middle. Looking from the side the median carina is a little depressed just behind the base, then straight. Carina is thin and low, but runs to the tip of the scutellum; at the basal $\frac{1}{6}$ is slightly widened.

HEMELYTRA. Corium finely punctured, and with scarce, dispersed granulation; the tip of the corium is smooth.

ABDOMEN almost as long as wide (78:77), from segments II to V partially seen from above. Connexivum moderately wide; connexiva III and IV longer

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9. " " " , ♂, ivory spot on the scutellum.
 10. *Macrocephalus margaritis* n.sp., ♂.
 11. " " " , ♂, antenna.
 12. *Macrocephalus subproductus* n.sp., ♀, pronotum.
 13. *Macrocephalus drakei* n.sp., ♀.
 14. " " " , ♀, antenna.
 15. " " " , ♀, fore femur & tibia.

than wide. Antero-lateral borders barely convex; postero-lateral straight; lateral angles widely rounded, and slightly raised; PE—angles (postero-exterior) of the connexiva slightly protruding.

Gonapophyses 3 are elevated, and compressed from the sides, forming a short, high ridge, split along the median line, a character which I have not seen in any other species of *Macrocephalus*.

FORE FEMORA less than twice as long as wide (42:23), with a white setigerous granulation at the upper side, the rest of the disc is smooth.

COLOR: pale orange-yellow; head, antennae, hind disc of the pronotum, the tips of the fore femora, and fore tibiae, are testaceous; the tip of the corium, and the transversal band of the abdomen are dark orange, partially carmin-reddish. Membrane brown.

FEMALE Total length 5.66 mm.; width of the pronotum 2.16 mm.; width of the abdomen 2.56 mm.

HOLOTYPE: female, Laras, Puerto Rico—G. N. Wolcott coll. 9.6.1921; deposited in the U.S. National Museum, Washington, D.C.

M. subproductus n.sp. is closely allied to *M. productus* Barber, 1939, but the head is relatively narrower, particularly behind the eyes; fore lobe of the pronotum less convex; lateral angles of the same are not produced into long, sharp, raised points, but only moderately extended and slightly cut out behind the tip; lateral angles of the abdomen are regularly rounded, and not produced into big, rounded lobes; fore femora relatively smaller. Belongs to the subgenus *Lophoscutus*.

3. *Macrocephalus drakei* n.sp.

(Fig. 13-15).

FEMALE Feebly convex, rather long, pronotum, with subtruncate lateral angles; wide, cordate abdomen. Color ferrugineous; granulation on the head, and antero-lateral borders of the pronotum yellowish.

HEAD cylindrical, much longer than wide through the eyes (31:20); finely granulate. Antennae slightly longer than the head (35:31); first segment subcylindrical, slightly widening toward the tip, seeing from above twice as long as wide; second subglobose, slightly longer than wide; third slender, tapering toward the base, more than twice as long as wide; fourth fusiform, inflated, less than twice as long as wide. Proportions from 1 to 4 are: 10(5):5(4):7(3):13(8). Jugae truncate anteriorly.

PRONOTUM relatively long, narrowed anteriorly, and strongly widening backward; shorter than wide across the humeri (55:75). Anterior border slightly and roundly cut out; antero-lateral angles short, acute, somewhat divergent; lateral borders of the fore lobe divergent backward, roughly and densely granulate; antero-lateral borders of the hind lobe more divergent, with granulation becoming finer toward the humeri; lateral angles obliquely subtruncate, almost rounded, horizontal, neither raised, nor cut out

Postero-lateral border cut out behind lateral angles; hind border slightly convex. Fore disc inflated, with sparse, fine granulation, but without punctation; a pit on the median line placed a little behind the middle; median line marked as very fine furrow. Hind disc roughly punctured, but without granulation; carinae low, but evenly marked on the whole length; parallel anteriorly, then divergent.

SCUTELLUM more than twice as long as wide (110:51), reaches to the middle of connexivum VIII; lateral borders sinuate at the first fifth of its length, then convex; disc triangularly inflated at the base; median carina thin and low, slightly inflated only at the basal 1/7 of its length. Basal fifth of the disc roughly, the rest of it finely, punctured.

ABDOMEN cordate, shorter than wide (100:113); connexiva from II to VII, and part of the tergum, are in the open; connexivum VIII is partly visible behind the scutellum; discs of the connexiva are finely granulate. PE- angles not protruding, but as the antero and postero-exterior angles of the connexiva are rounded, they are clearly marked. Venter strongly convex, finely granulate.

Mesosternal cross thin and high, smooth, without granulation. Propleura finer, meso and metapleura (in lower part) more roughly granulate. Antero-inferior angles of the propleura with a few, small, blunt teeth.

FORE FEMORA relatively small, almost three times as long as wide (47:17), very finely granulate, and with a few, scattered bigger granules.

COLOR ferrugineous, partly darker; granulation ivory; pleurae reddish yellow to testaceous; venter testaceous; fore femora blackish to ferrugineous; middle and hind legs black, with ivory granulation; middle and hind tarsi brown to ferrugineous.

FEMALE Total length 10.0 mm.; width of the pronotum 3.75 mm.; width of the abdomen 5.65 mm.

HOLOTYPE: female, Loma del Gato, Oriente, Cuba—F. de Zayas coll. VI.1959; deposited in the collection of Mr. Zayas.

The new species is rather isolated in the genus; should belong to the subgenus *Lophoscutus* Kormilev, (parameres ?).

It is a pleasure to dedicate this striking species to Dr. Carl J. Drake of the Smithsonian Institution.

REFERENCES

- Carayon, J., Usinger, R. L., & Wygodzinsky, P. 1958. Notes on higher classification of the Reduviidae, with the description of a new tribe of the Phymatinae (Hem. Het.); Rev. Zool. Bot. Afr., 57 (3-4): 256-281, figs 67.
- China, W. E., & Miller, N.C.E. 1959 Check-list and keys to the families and subfamilies of the Hemiptera Heteroptera; Bull. Brit. Mus., (N.H.) 8(1): 1-45.
- Davis, N. T. 1957 Contribution to the Morphology and Phylogeny of the Reduvioidae (Hem. Het.). Part I. The Morphology of the abdomen and genitalia of Phymatidae; Ann. Ent. Soc. Am., 50(5): 432-443, figs 21.

- Handlirsch, A. 1897 Monographie der Phymatiden; Ann. Nat. Hist. Hofm. Wien, 12: 127-230, figs 35, tab. 4-9.
- Kormilev, N. A. 1951 Phymatidae Argentinas (Hem.), con observaciones sobre Phymatidae en general; Rev. Ins. Nac. Inv. Cien. Nat., Bs. As., Zool. 2: 45-110, figs 8, tab. 1-14, maps 3.
- Maa, T. & Lin, K. 1956 A synopsis of the Old World Phymatidae (Hem.); Quart. Jour. Taiwan Mus., 9(2): 109-154, figs 41.
- Stål, C. 1862 Hemiptera Mexicana enumeravit speciesque novas descripsit. Steet. Ent. Zeit., 23: 437-462.
- Westwood, J. O. 1843 Observations upon the Hemipterous insects composing the genus *Syrtris* of Fabricius, or the family Phymatites of Laport, with a monograph of the genus *Macrocephalus*. Trans. Ent. Soc. London, (1) 3: 18-28, tab. 2.
- Wygodzinsky, P. 1944 Contribuição ao conhecimento do gênero *Elasmodema* Stål, 1860, Rev. Bras. Biol., 4(2): 193-213.

In The Field

During April, May and June 1962, Doctor Herbert Ruckes, Research Associate in the Department of Entomology of the American Museum of Natural History will carry on field work in Panama and Costa Rica. His major objectives will be to collect heteroptera and to make observations on their habitats and behavior. The hemipteran fauna of these areas, while previously studied, is still not completely understood and museum material from Central America is not plentiful. It is hoped that a considerable number of specimens will be brought back.



Kormilev, Nicholas A. 1962. "Notes on American Phymatidae II (Hemiptera, Reduviodea)." *Journal of the New York Entomological Society* 70, 47–58.

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