

to distinguish *oenone*, but the name is valid. I have not been able to find the holotype of this species, it is apparently not in the USNM, AMNH, MCZ, or Hull's personal collection (now in CNC).

I have studied one male and four female specimens of a species of the *stenogaster* group from Jamaica. These may represent *oenone* Hull and are the basis of my interpretation of that name. The male differs from the female in being darker in overall coloration except that the midfacial vitta is not as distinct and in having the wing darker and more extensively microtrichose. Thus there may be two different species of the *stenogaster* group on Jamaica. However, without knowing what *oenone* is and knowing nothing of the variation of the above characters, it is futile to speculate further.

Ocyptamus species A

Distribution.—Lesser Antilles (St. Vincent).

I have studied a series of one male and four females of a species of the *stenogaster* group from St. Vincent Island. This species, which was recorded as feeding on a cassava mealybug, was determined by Knab as *stenogaster* Williston. The species is very closely related to *stenogaster* but can be contrasted with it as follows: 1) Face all yellow, not dark on the upper concavity of the facial tubercle; 2) alula distinct, about as wide as 2nd costal cell, not absent; and 3) 2nd basal cell bare on basal $\frac{1}{2}$ or more, not on basal $\frac{1}{8}$ or less. Due to the chaotic state of the taxonomy of *stenogaster* group, I hesitate to add more confusion by formally naming this species.

UNGROUPED SPECIES

Ocyptamus bromleyi (Curran)

Baccha bromleyi Curran, 1929: 490. Type-loc.: Cuba, Las Vegas, Santiago.

Holotype ♂ AMNH. Subsequent reference: Hull, 1949a: 100, 131, figs. 123 (abdomen), 362 (wing) (key ref., not placed in a species group).

Ocyptamus bromleyi: Thompson et al., 1976: 14.

Distribution.—Cuba*.

Ocyptamus costatus (Say)

Baccha costata Say, 1829: 161. Type-loc.: USA, Indiana. Type(s) lost.

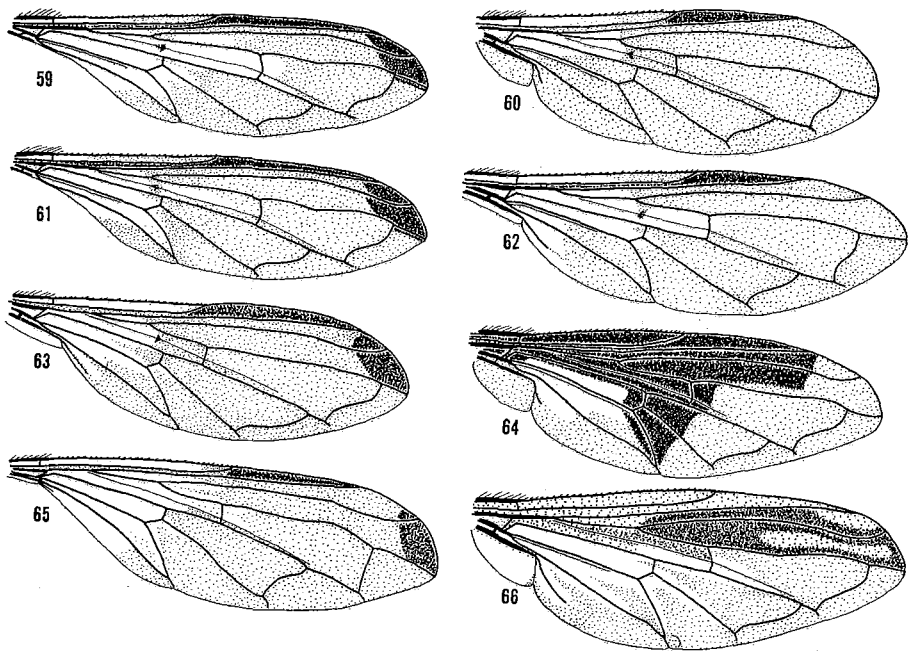
Ocyptamus costatus: Thompson et al., 1976: 15.

Distribution.—Canada (Ontario) to USA (New Hampshire, south to Louisiana and Florida); Cuba*.

Ocyptamus medina (Telford)

Baccha medina Telford, 1973: 531, fig. 4 (abdomen). Type-loc.: Puerto Rico, Arecibo, Cambalache Forest. Holotype ♀ WSU*.

Distribution.—Puerto Rico*.



Figs. 59–66. *Ocyptamus* wings. 59, *O. ferrugineus*. 60, *O. martorelli*. 61, *O. parvicornis*. 62, *O. deceptor*. 63, *O. iris*. 64, *O. fasciatus*. 65, *O. ornatipes*. 66, *O. capitatus*.

Ocyptamus martorelli (Telford)

Fig. 60

Baccha martorelli Telford, 1973: 230, fig. 3 (abdomen). Type-loc.: Puerto Rico, Castaner. Holotype ♀ WSU.

Distribution.—Puerto Rico*.

Ocyptamus cubensis (Macquart)

Baccha cubensis Macquart, 1850: 465. Type-loc.: Cuba. Lectotype ♀ MNHN, see Appendix B. Subsequent reference: Bigot, 1857: 339 (Cuba, *descript.*).

Ocyptamus cubensis: Thompson et al., 1976: 15.

Distribution.—Cuba?.

This species is known only from the lectotype, which is badly damaged. The type lacks the head, left wing, and most of the legs. Drs. Loïc Matile and Pierre Goeldlin have examined the type for me. Their notes indicate that: 1) *Ocyptamus cubensis* Macquart probably belongs to the *phaeopterus* (Schiner) group (= *Aulacibaccha* Hull, *obsoleta* species group of Hull, 1949a); 2) the species runs to *lineatus* (Macquart) (couplet #27) in my key

although the supplemental characters given in that couplet do not agree with *cubensis*; and 3) the abdominal pattern of *cubensis* is very similar to that of *summus* (Fluke) (Hull, 1949a: 214, fig. 13) and quite distinct from that of *lineatus* (Macquart). As no other species or specimens of the *phaeopterus* group are known from the West Indies, it is possible that *cubensis* may be based on a mislabeled specimen.

Genus *Salpingogaster* Schiner

Amathia Walker, 1852: 223 (preocc. by Lamouroux, 1812; Roux, 1828; Duponchel, 1829; Rathke, 1837). Type-species, *costalis* Walker (mono.).

Salpingogaster Schiner, 1868: 344. Type-species, *pygophora* Schiner (orig. des.).

Flexineura Bezzi, 1908: 294 (*nomen nudum*).

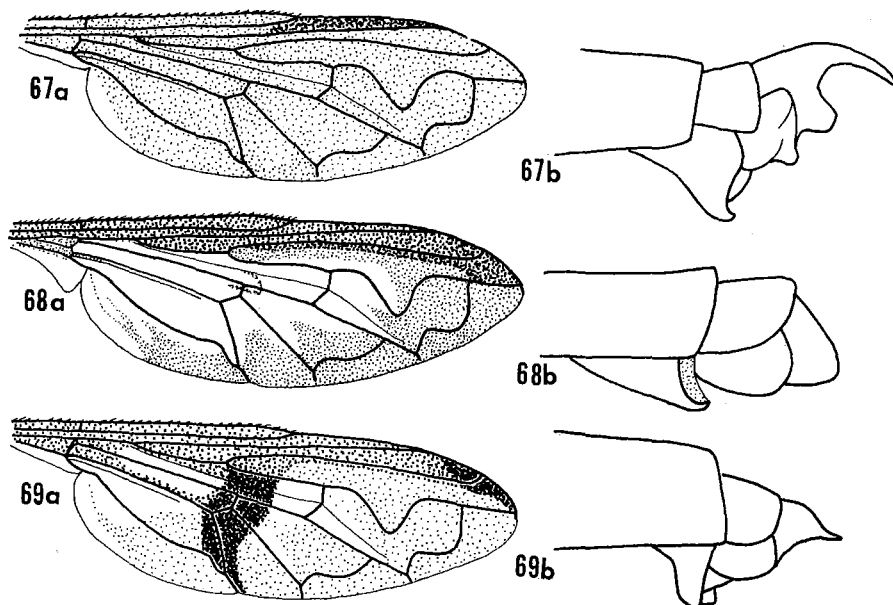
References: Sack, 1920 (rev., key); Curran, 1941: 283–284 (key).

Salpingogaster is primarily a Neotropical group with two species known from the southern Nearctic Region (Florida, Texas) and 35 species from the Neotropical Region. These species are divided among two subgenera (*Eosalpingogaster* Hull, non-typic subgenus), but only the typical subgenus is known from the West Indies.

KEY TO WEST INDIAN SPECIES OF *SALPINGOGASTER* SCHINER⁶

1. Pleurotergite with a broad yellow vitta like that on mesopleuron and sternopleuron; wing with a broad brown fascia reaching from anterior dark border to posterior wing margin (Fig. 69a); male abdominal apex produced into an acute point (Fig. 69b) (Cuba) .. *bruneri* Curran
 - Pleurotergite all dark, without a pale vitta; wing with only dark anterior border; male abdominal apex either rounded or produced into a hook 2
2. Wing extensively microtrichose, only alula and anal lobe behind Ax bare (Fig. 67a); alula narrow, slightly narrower than 2nd costal cell; male abdominal apex produced into a large hook-shaped process (Fig. 67b) (Central and South America) *pygophora* Schiner
 - Wing extensively bare, all of anal cell, most of basal cell, basal $\frac{1}{3}$ or more of apical and discal cells bare (Fig. 68a); alula broad, twice as broad as 2nd costal cell; male abdominal apex broadly rounded, not produced (Fig. 68b) 3
3. Facial tubercle and vitta reddish brown to yellow; abdomen rusty red (Cuba) *punctifrons* Curran

⁶ *Salpingogaster pygophora* Schiner, a non-Antillean species, has been included in the key because the name has been previously misapplied to some West Indian species (*v. punctifrons*).



Figs. 67-69. *Salpingogaster* spp. 67, *S. pygophora*. 68, *S. punctifrons*. 69, *S. bruneri*. a, Wing. b, Tip of male abdomen, lateral.

- Facial tubercle and vitta black; abdomen black (Mexico south to Brazil; Jamaica) *nigra* Schiner

Salpingogaster bruneri Curran

Fig. 69

Salpingogaster bruneri Curran, 1932: 6. Type-loc.: Cuba, Sierra Maestra, 600 to 900 m. Holotype ♂ AMNH*.

Distribution.—Cuba*.

Salpingogaster bruneri is apparently closely related to *limbipennis* Williston from Mexico. Both of these species are unique among the *Salpingogaster* species known to me because of the brown fascia on the wing. Williston's description suggests that the two species are very similar except that *limbipennis* is a much darker species, being largely black, whereas *bruneri* is largely rusty red.

Salpingogaster nigra Schiner

Fig. 81

Salpingogaster niger Schiner, 1868: 345, pl. 4, fig. 4. (habitus), 4a (wing). Type-loc.: "Süd-Amerika." Syntypes 3 ♂ 3 ♀ VMNH. Subsequent reference: Gowdey, 1926: 79 (Jamaica).

Distribution.—Mexico to Argentina (Jujuy, Tucumán); Jamaica*.

I have seen very few specimens of this species from the West Indies, all from Jamaica. *Salpingogaster nigra* is a common insect in sugar cane fields on the mainland where it preys on cercopid nymphs; thus, it is possible that *nigra* was introduced in Jamaica. The distribution of wing microtrichia and shape of the fifth sternum and abdominal apex of the male are the same as figured for *punctifrons* Curran.

Salpingogaster punctifrons Curran

Fig. 68

Salpingogaster punctifrons Curran, 1929: 493. Type-loc.: Cuba. Holotype ♂ Stanford Univ. Coll., California, now in CAS.

Salpingogaster relictata Curran, 1941: 285. Type-loc.: Cuba, Vinales. Holotype ♂ AMNH. NEW SYNONYMY.

Salpingogaster pygophora of Hine, 1914: 336 (Cuba).

Distribution.—USA (Florida*); Cuba*.

Salpingogaster punctifrons is very closely related to *nigra* Schiner, they being vicariant forms. The only differences between the two are a few slight differences in the male genitalia and the overall coloration. *Salpingogaster punctifrons* is a rusty red species, and *nigra* is a black species.

When Curran described *punctifrons* and *relictata*, he compared them to *pygophora* from which they are quite distinct as the above key indicates. Curran never compared his two Cuban species, and in his key to the species of *Salpingogaster* the only character that separates the two is the color of the facial vitta. The color of the facial vitta is variable, ranging from bright yellow to reddish brown in the material I have studied. In all other respects my material is virtually identical. Thus I consider the two names to represent the same taxon.

TRIBE TOXOMERINI ENDERLEIN

Genus *Toxomerus* Macquart

Toxomerus Macquart, 1855: 92. Type-species, *notatus* Macquart (orig. des.) = *geminatus* (Say).

Mesogramma Loew, 1866a: 157 (preocc. by Stephens, 1850). Type-species, *parvula* Loew (Williston, 1887: 98).

Mesograptus Loew, 1872: 114 (new name for *Mesogramma* Loew).

References: Curran, 1928b: 37 (key to Puerto Rican spp.), 1930b (key), 1934: 397–402 (key); Hull, 1943b (rev. key); Telford, 1973: 221–226 (Puerto Rican spp. reviewed).

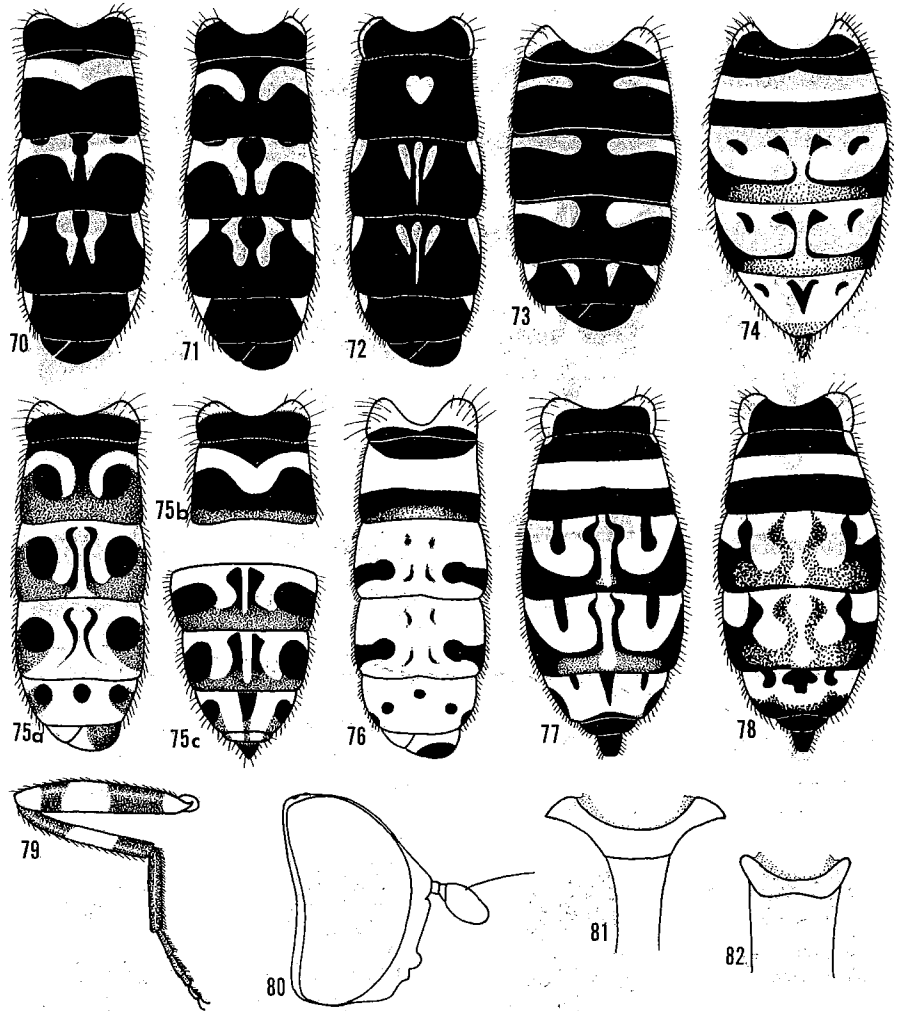
Toxomerus is a unique and characteristic element of the temperate and tropical portions of the New World. *Toxomerus* species are among the most abundant syrphids throughout their ranges, and more than 150 species of

Toxomerus are known (12 Nearctic, 145 Neotropical, 25 West Indies). *Toxomerus* is one of the most difficult groups of syrphids in which to make determinations. They are small flies with characteristic markings, and the taxonomy of these flies has previously been based almost exclusively on these markings. However, while each species does have a unique pattern, there is a marked tendency in many individuals to lose the pattern through the extension of either the dark or pale areas. Thus many individuals, particularly those of some of the most common species (*dispar* and *floralis*), cannot be identified on the basis of color pattern alone. Fortunately the male genitalia display excellent specific differences, and in some cases the female genitalia do likewise. Only Curran (1930b, for three species) and Harbach (1974, for two species) have previously used the male genitalia for the species taxonomy of *Toxomerus*. The male genitalia of most West Indian *Toxomerus* species are figured along with the female genitalia of six species.

KEY TO WEST INDIAN SPECIES OF *TOXOMERUS* MACQUART⁷

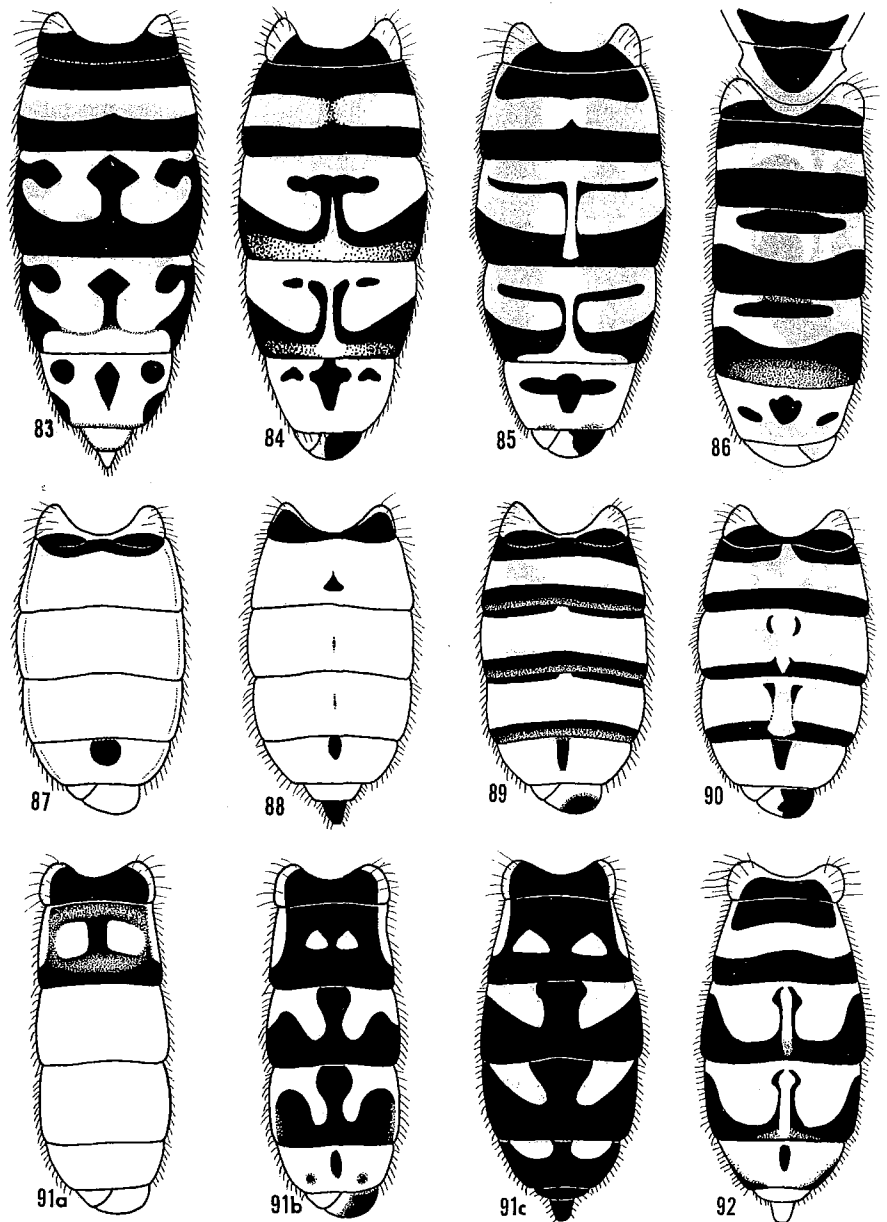
1. Mesonotum all dark [only humerus yellow] (Fig. 23), or with lateral yellow vitta interrupted, either between humerus and transverse suture or above wing (Fig. 22) or ending at transverse suture 2
 - Mesonotum with lateral yellow vitta continuous and extending beyond transverse suture to scutellum (Fig. 21) 5
2. Wing extensively bare on basal ½, costal and basal cells almost completely bare, between fork of Rs bare (as in fig. 100) 4
 - Wing more extensively microtrichose, apical ½ or more of 2nd costal cell, apical ⅓ or more of 1st basal cell, apical ¼ or more of 2nd basal cell, and between fork of Rs microtrichose (Fig. 95) 3
3. Scutellum yellow pilose (all islands). *dispar* (Fabricius)
 - Scutellum black pilose 28
4. Thorax with yellow spot above front coxa (Fig. 22); abdomen with yellow fasciate spots (Fig. 73) 27
 - Thorax without yellow supraprocoxal spot; abdomen with yellow arcuate spots (Jamaica, Hispaniola, Puerto Rico) *violaceus* (Curran)
5. Thorax with yellow spot above procoxa (Fig. 21) 6
 - Thorax without yellow supraprocoxal spot 15
6. Scutellum black pilose 7
 - Scutellum yellow pilose, ground color black on basomedial portion 14

⁷ *Toxomerus musicus* (Fabricius), presently unknown from the Antilles, is included in the key because I suspect that it may be found in the Lesser Antilles. The species is known from Trinidad. Separate keys to the species known from Jamaica and Dominica are included and follow the general key.



Figs. 70-78. *Toxomerus* spp., abdomens, dorsal. 70, *T. luna*, male. 71, *T. species A*, male. 72, *T. veve*, male. 73, *T. verticalis*, Puerto Rican population, male. 74, *T. pulchellus*, female. 75, *T. arcifer*. a, Typical male. b, 1st and 2nd terga of Dominican form of male. c, 3rd-9th terga of typical female. 76, *T. multipunctatus*, male. 77, *T. maculatus*, female. 78, *T. pictus*, female. Fig. 79. *T. valdesi*, hindleg, lateral. Fig. 80. *Xanthandrus cubanus*, lateral. Figs. 81-82. Abdominal bases. 81, *Salpingogaster nigra*. 82, *Ocyptamus cylindricus*.

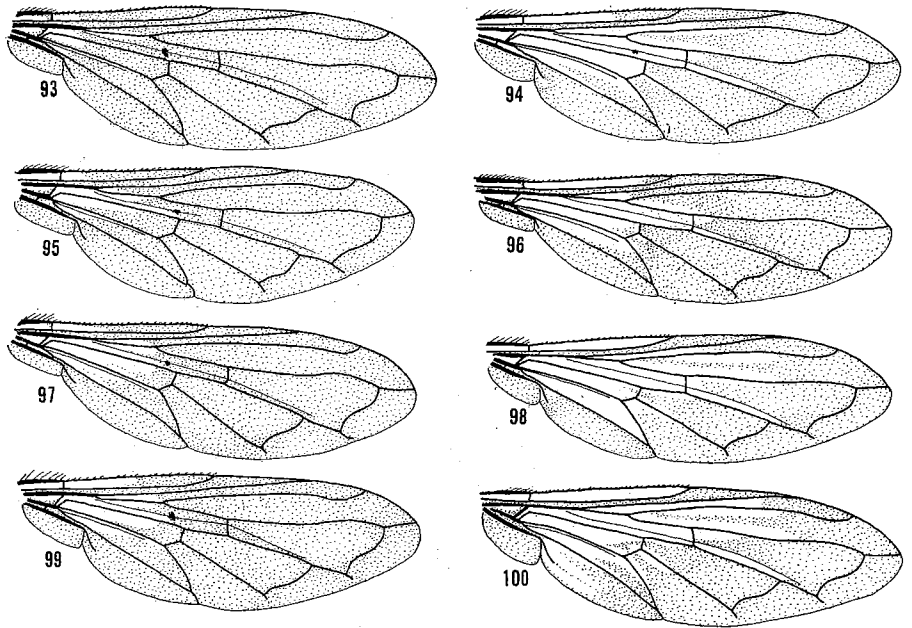
- 7. Hindfemur and tibia yellow with subbasal and subapical broad black annuli (Fig. 79); scutellum black with yellow basal and/or apical fascia 26
- Hindleg usually all yellow, rarely with brown subapical annulus on



Figs. 83-92. *Toxomerus* spp., abdomens, dorsal. 83, *T. una*, female. 84, *T. aeolus*, male. 85, *T. politus*, male. 86, *T. valdesi*, male. 87, *T. difficilis*, male. 88, *T. aurulentus*, female. 89, *T. puellus*, male. 90, *T. watsoni*, male. 91, *T. dispar*. a, Pale male. b, Dark male. c, Very dark male. 92, *T. floralis*, typical female.

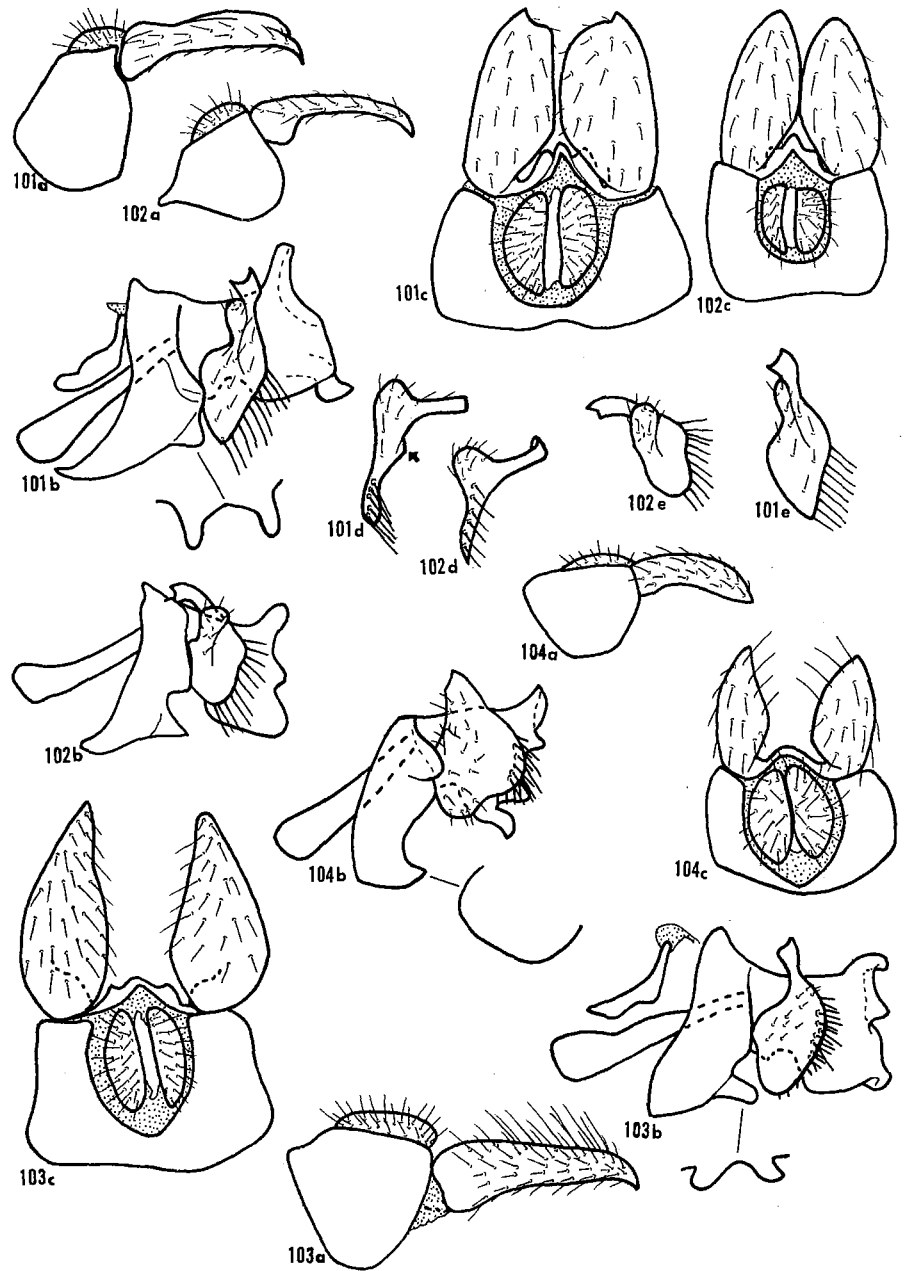
- femur; scutellum usually completely yellow to orange, rarely brownish to black basomedially (if with black medial spot, see *puella*) 8
8. Abdomen with 3rd and 4th terga with black medial vitta(e) and anterior submedial fasciate spots which may or may not be connected to adjacent black areas; 5th tergum with a medial and a pair of submedial black spots, which may be connected to form a T-shaped spot (Figs. 83–85); large flies, 6 mm or more in length, usually 8–10 mm 9
- Abdomen with 3rd and 4th terga with at most a pair of medial black vittae or vittate spots, never with anterior submedial spots or fasciae; 5th tergum either with a single medial black spot or with none (Figs. 87, 90); small flies, 6 mm or less 11
9. Abdomen with 3rd and 4th terga with anterior submedial fasciate spots connected to lateral dark margins, not medial vittae (Fig. 83) (Haiti) *una* (Hull)
- Abdomen with 3rd and 4th terga with anterior submedial fasciate spots either connected to medial black vitta(e) or isolated from adjacent black areas, not connected to lateral dark margins (Figs. 84, 85) 10
10. Pteropleuron with upper portion of anterior ½ yellow; abdomen with 5th tergum with black T-shaped spot (Fig. 85); hindfemur yellow (widespread?) *politus* (Say)
- Pteropleuron with anterior ½ all black; abdomen with 5th tergum with 3 separate spots (Fig. 84); hindfemur with brownish black subapical annulus (Cuba) *aeolus* (Hull)
11. Pteropleuron black 29
- Pteropleuron yellow on anterior ½; scutellum all yellow 12
12. Wing extensively bare on basal ½, all of 2nd costal and 1st basal cells, most of 2nd basal and anal cell bare (Fig. 100); frontal triangle and all of cheek black (Hispaniola) *buscki*, new species
- Wing more extensively microtrichose, apical ½ of costal and 1st basal, apical ¼ of 2nd basal and most of anal cell microtrichose; frontal triangle and anterior ½ of cheek yellow 13
13. Postalar callus yellow pilose; female 9th tergum with a strong dorsal spur (Fig. 112); male surstyle with posterior edge notched in dorsal view, with posteromedial corner extending beyond posterolateral corner (Fig. 105b) (Cuba, Jamaica, Puerto Rico) ... *difficilis* (Curran)
- Postalar callus extensively black pilose; female 9th tergum simple, without a spur; male surstyle with posterior edge straight, with posterolateral corner extending beyond posteromedial one (Fig. 106b) (Cuba, Jamaica, Hispaniola, Puerto Rico) ... *watsoni* (Curran)
14. Wing with 2nd costal cell microtrichose on apical ½ or less (Fig.

- 99); male genitalia with postanal process short, only $\frac{1}{4}$ as long as surstyle (Fig. 117a); female genitalia with 9th sternum broad and with only a shallow medial excavation (Fig. 118b) (all islands) *floralis* (Fabricius)
- Wing with 2nd costal cell microtrichose on apical $\frac{3}{4}$ or more (Fig. 95); male genitalia with postanal process long, more than $\frac{1}{2}$ as long as surstyle (Fig. 116a); female genitalia with 9th sternum narrow and with a deep medial excavation (Fig. 119b) (all islands) *dispar* (Fabricius)
15. Scutellum completely yellow or orange 16
- Scutellum black on basomedial $\frac{1}{3}$ or more 18
16. Scutellum black pilose on apical $\frac{1}{2}$ or more; abdomen with black spots in pale areas on 3rd and 4th terga oblique and isolated from surrounding black areas (Fig. 74); 2nd costal cell microtrichose on apical $\frac{1}{2}$ or more, basal cells usually partially microtrichose on apical $\frac{1}{4}$ or more (Fig. 94) (all islands) *pulchellus* (Macquart)
- Scutellum completely yellow pilose; abdomen with spots longitudinal (fasciate) and usually connected to surrounding black areas (Fig. 17); wing variable 17
17. Wing almost completely microtrichose, only extreme bases of 2nd costal and 2nd basal cells bare (Fig. 29); male genitalia with short but distinct pointed postanal process (Fig. 122c) (Trinidad, South America) *musicus* (Fabricius)
- Wing extensively bare, costal and basal cells bare, bases of apical, discal, cubital cells bare (Fig. 98); male genitalia without noticeable postanal process (Fig. 123c) (all islands) *maculatus* (Bigot)
18. Scutellum extensively yellow pilose, rarely with a few marginal black hairs; abdomen with maculate pattern (Fig. 78); wing extensively microtrichose (Fig. 93) (all islands) *pictus* (Macquart)
- Scutellum black pilose; abdomen without a maculate pattern 19
19. Wing extensively bare basally, basal $\frac{3}{4}$ or more of 2nd costal, basal $\frac{1}{2}$ or more of 1st basal, basoanterior $\frac{1}{2}$ or more of 2nd basal, anterior $\frac{1}{4}$ of anal cells bare (Fig. 96) 22
- Wing extensively microtrichose, basal $\frac{1}{5}$ or less of costal, basal and anal cells bare (Fig. 97) 20
20. Abdomen almost completely orange, only 1st tergum bluish black and rarely with small medial black spots on 2nd and 5th terga (Fig. 88); male genitalia with surstyle bilobed (Fig. 126c) (Hispaniola, Puerto Rico) *aurulentus* (Williston)
- Abdomen black with yellow arcuate markings, rarely pattern is obliterated by pale markings (Fig. 72, and like 75a, c) but only in male which has simple surstyle (Fig. 102a and like 103a) 21



Figs. 93-100. *Toxomerus* spp., wings. 93, *T. pictus*. 94, *T. pulchellus*. 95, *T. dispar*. 96, *T. arcifer*. 97, *T. ornithoglyphus*. 98, *T. maculatus*. 99, *T. floralis*. 100, *T. buscki*.

- 21. Abdomen largely black, only with yellow medial triangular spot on 2nd tergum, small yellow basolateral spots on 3rd through 5th terga and 3 fasciate yellow spots on 3rd and 4th terga forming a medial W-shaped spot (Fig. 72) (Hispaniola) *vevè* (Hull)
 - Abdomen black with arcuate yellow spots on 2nd through 5th terga, these spots reaching from sides and curving across bases of terga and extending posteriorly and submedially, with yellow medial vittae on 3rd and 4th terga (as in Fig. 75a, c) (Hispaniola) *ornithoglyphus* (Hull)
- 22. Abdomen with 3rd and 4th terga always with a medial pale vitta, frequently in male with whole medial area pale (Figs. 75a-c, 76) .. 23
 - Abdomen with 3rd and 4th terga without pale medial vitta (Figs. 70, 71) 25
- 23. Abdomen with 2nd tergum with a broad straight pale fascia (Fig. 76); male genitalia with surstyle rectangular (Figs. 109c, 115c); female 9th tergum without a distinct tubercle (Fig. 110a) (Lesser Antilles only) 30
 - Abdomen with 2nd tergum with arcuate pale spots or rarely with spots connected to form a sinuate fascia (Figs. 75a-c); male geni-



Figs. 101-104. *Toxomerus* spp., male genitalia. 101, *T. violaceus*. 102, *T. luna*. 103, *T. arcifer*. 104, *T. verticalis*. a, 9th tergum and associated structures, lateral. b, 9th sternum and aedeagus, lateral, with outline of ligula. c, Same as a, dorsal view. d, Superior lobe, posterior. e, Same as d, lateral.

- talia with surstyle triangular (Fig. 103c); female 9th tergum with a distinct medial tubercle (Fig. 111a) (widespread, all islands) 24
24. Wing with apical $\frac{1}{2}$ or more of 2nd costal cell microtrichose (Fig. 97) (Hispaniola) *ornithoglyphus* (Hull)
 – Wing with basal $\frac{1}{2}$ or more of 2nd costal cell bare (Fig. 96) (all islands except Hispaniola) *arcifer* (Loew)
25. Male with 2nd tergum with a pair of arcuate yellow spots, 3rd and 4th terga with large basomedial round black spot (Fig. 71); female same as male (Cuba, Hispaniola, (Puerto Rico) species A
 – Male with 2nd tergum with continuous straight yellow fascia, 3rd and 4th terga with a narrow basomedial triangular black spot (Fig. 70); female similar to male but fascia sometimes narrowly interrupted and basomedial black triangular spot sometimes broader and more rounded (Puerto Rico) *luna* (Hull)
26. Abdomen with 5th tergum black with yellow medial fascia or fasciate spots (Fig. 73); 2nd costal cell bare, marginal cell bare on basal $\frac{1}{2}$ (distal of end of Sc and anterior crossvein); cheek black; occiput all pale pilose 27
 – Abdomen with 5th tergum yellow with 3 medial brownish spots (Fig. 86); 2nd costal cell microtrichose on apical $\frac{1}{4}$; marginal cell microtrichose on apical $\frac{3}{4}$ (microtrichose basad of branching point of RS); cheek yellow; occiput with row of black cilia on upper $\frac{1}{4}$ (Cuba) *valdesi* (Fluke)
27. Scutellum yellow along basal and apical margins; mesonotum with continuous yellow lateral vitta; abdomen with complete yellow fasciae; female genitalia enlarged, 9th sternum with a deep median cleft and a pair of submedial teeth (Fig. 113) (Jamaica)
 *elinorae*, new species
 – Scutellum with only apical margin yellow; mesonotum usually with an interrupted yellow vitta (Fig. 22); abdomen usually with yellow fasciate spots (Fig. 73); female genitalia normal, small, without median cleft or submedian teeth (Bahamas, Jamaica, Puerto Rico) *verticalis* (Curran)
28. Mesonotum extensively black pilose; supraprocoxal yellow spot absent or very indistinct; male eyes narrowly contiguous; abdomen with complete black sublateral vitta on 3rd and 4th terga (Virgin Is.) *rohri*, new species
 – Mesonotum yellow pilose; supraprocoxal yellow spot present, distinct; male eyes broadly contiguous; abdomen with yellow on anterior $\frac{1}{2}$ of 3rd and 4th terga (Bahamas) *corbis* (Walker)
29. Scutellum with distinct medial brownish black spot; wing extensively bare on basal $\frac{1}{2}$, all of costal and basal cells, most of anal

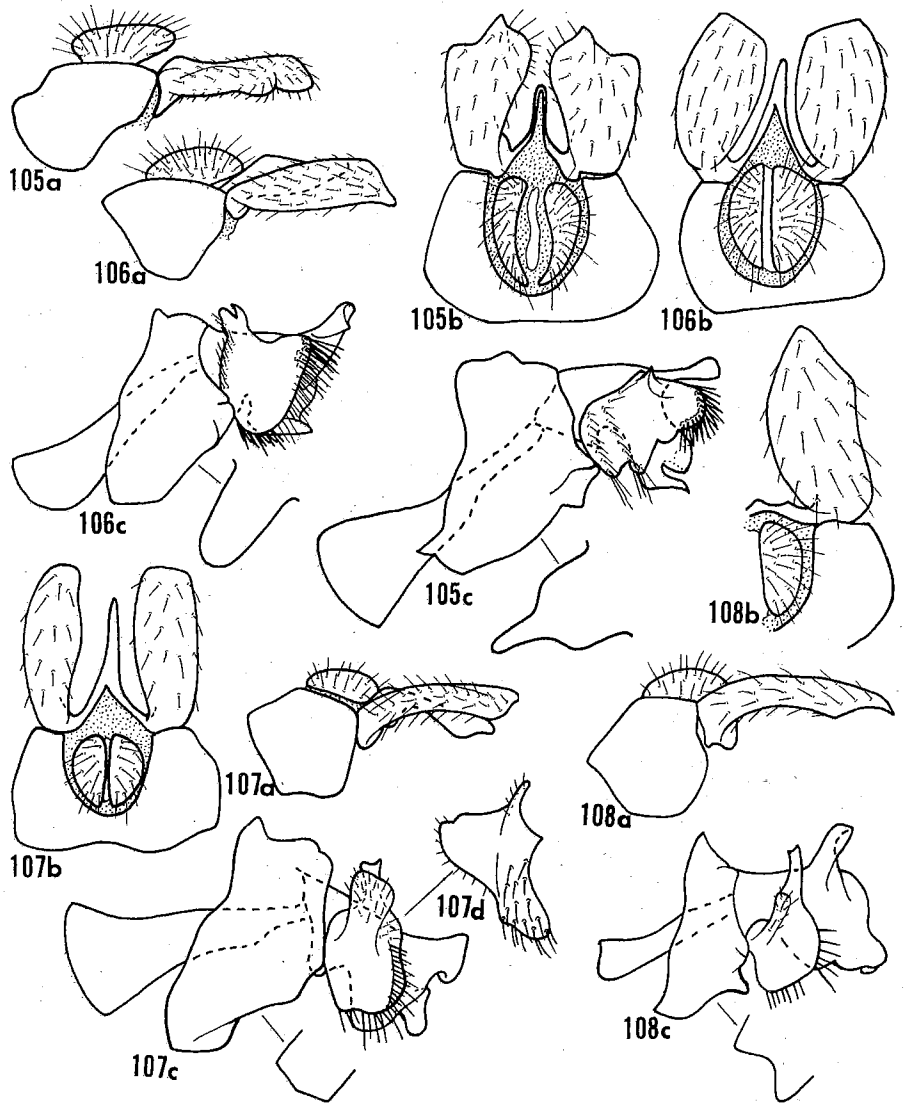
- cell and basal portions of submarginal, apical, discal, and cubital cells bare (Cuba) *puella* (Hull)
- Scutellum all yellow; wing extensively microtrichose on basal $\frac{1}{2}$, with only basal $\frac{1}{2}$ or less of 2nd costal and both basal cells bare (Bahamas) *corbis* (Walker)
30. Occiput black pilose on upper $\frac{1}{3}$; mesonotum extensively black pilose (Lesser Antilles) *multipunctatus* (Wulp)
- Occiput mainly yellow pilose, always with 1 row of yellow hairs on upper $\frac{1}{3}$; mesonotum yellow pilose (Lesser Antilles) *ferroxida* (Hull)

KEY TO DOMINICAN SPECIES OF *TOXOMERUS* MACQUART

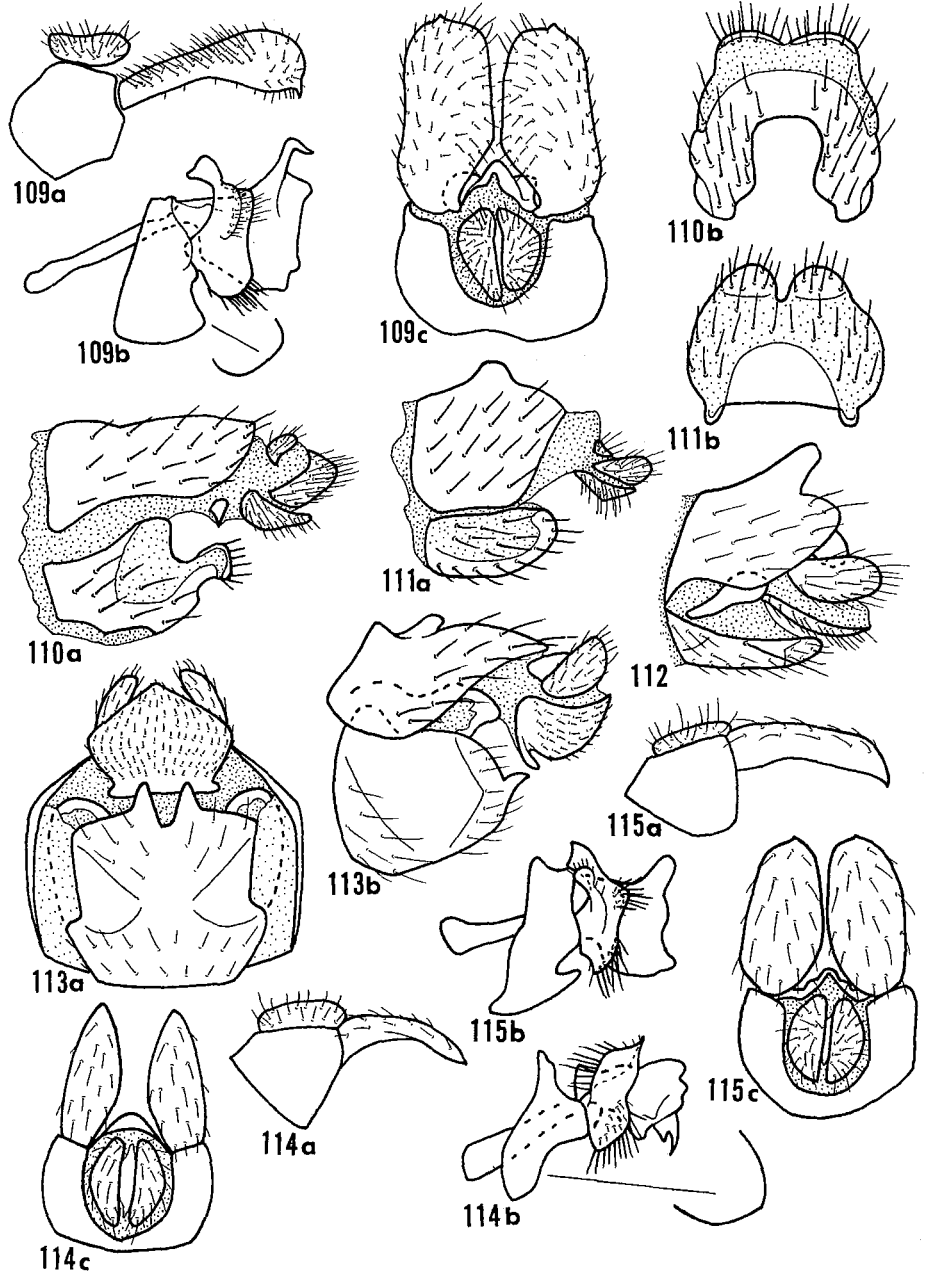
1. Mesonotum with yellow lateral vitta reduced, usually only humerus (male) yellow (Fig. 23) or vitta not extending beyond suture (female) *dispar* (Fabricius)
- Mesonotum with yellow lateral vitta extending beyond suture and to scutellum as in Fig. 21 2
2. Thorax with yellow spot above front coxa 3
- Thorax without yellow spot above front coxa 4
3. Scutellum completely orange; pteropleuron with upper portion yellow (Fig. 85) *politus* (Say)
- Scutellum black on basomedial portion; pteropleuron all black (Fig. 97) *floralis* (Fabricius)
4. Scutellum all orange *pulchellus* (Macquart)
- Scutellum black on basomedial $\frac{1}{3}$ or more 5
5. Wing extensively bare basally, basal $\frac{3}{4}$ or more of 2nd costal and 1st and 2nd basal cells bare, anterior $\frac{1}{4}$ of anal cell bare; scutellum black pilose 6
- Wing extensively microtrichose, basal $\frac{1}{5}$ or less of costal and basal and anal cells bare; scutellum yellow pilose *pictus* Macquart
6. Occiput partially black pilose on upper $\frac{1}{3}$ *multipunctatus* (Wulp)
- Occiput all yellow pilose *arcifer* (Loew)

KEY TO JAMAICAN SPECIES OF *TOXOMERUS* MACQUART

1. Mesonotum all dark [only humerus yellow] (Fig. 23), or with lateral yellow vitta interrupted, either between humerus and transverse suture or above wing (Fig. 22), or ending at transverse suture 2
- Mesonotum with lateral yellow vitta continuous and extending beyond transverse suture to scutellum (Fig. 21) 5
2. Wing extensively bare on basal $\frac{1}{2}$, costal and basal cells almost completely bare, area between fork of Rs bare (as in Fig. 98) 3
- Wing more extensively microtrichose, apical $\frac{1}{2}$ or more of 2nd



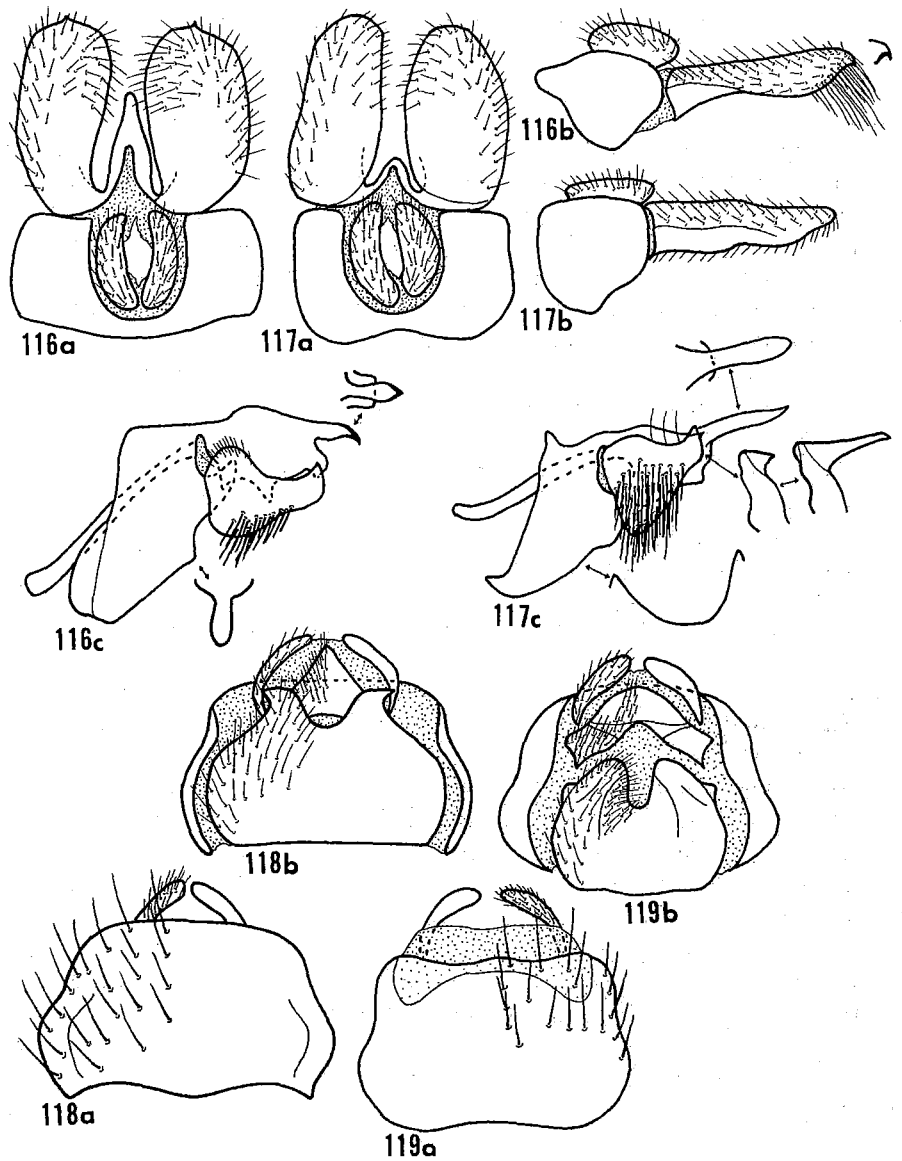
Figs. 105-108. *Toxomerus* spp., male genitalia. 105, *T. difficilis*. 106, *T. watsoni*. 107, *T. valdesi*. 108, *T. veve*. a, 9th tergum and associated structures, lateral. b, Same as a, dorsal. c, 9th sternum and aedeagus, lateral, with outline of ligula. d, Superior lobe, posterior.



- costal cell, apical $\frac{1}{3}$ or more of 1st basal cell, apical $\frac{1}{4}$ or more of 2nd basal cell, and between fork of Rs microtrichose (Fig. 95) ...
 *dispar* (Fabricius)
3. Thorax with yellow spot above front coxa (Fig. 22); abdomen with yellow fasciate spots (Fig. 73) 4
 – Thorax without yellow supraprocoxal spot; abdomen with yellow arcuate spots (similar to those in Figs. 70, 71) ... *violaceus* (Curran)
4. Scutellum yellow along basal and apical margins; mesonotum with continuous yellow lateral vitta; abdomen with complete yellow fasciae; female genitalia enlarged, 9th sternum with a deep median cleft and a pair of submedial teeth (Fig. 113)
 *elinorae* Thompson, new species
- Scutellum with only apical margin yellow; mesonotum usually with an interrupted yellow vitta; abdomen usually with yellow fasciate spots; female genitalia normal, small, without such a cleft or teeth
 *verticalis* (Curran)
5. Thorax with yellow spot above front coxae (Fig. 21) 6
 – Thorax without yellow supraprocoxal spot (as in Fig. 23) 11
6. Scutellum black pilose 7
 – Scutellum yellow pilose, ground color black on basomedial portion
 10
7. Hindfemur and tibia yellow, with subbasal and subapical broad black annuli (as in Fig. 79); scutellum black with yellow basal and/or apical fascia 4
 – Hindleg all yellow, scutellum completely yellow to orange 8
8. Abdomen with 3rd and 4th terga with black medial vitta and anterior submedial fasciate spots which are connected to medial black areas; 5th tergum with a medial T-shaped spot (Fig. 85); large flies, usually 8–10 *politus* (Say)
 – Abdomen with 3rd and 4th terga with at most a pair of medial black vittae or vittate spots, never with anterior submedial fasciae; 5th tergum either with a single medial black spot or with none; (Figs. 87, 90); small flies, 6 mm or less 9
9. Postalar callus yellow pilose; female 9th tergum with a strong dorsal

←

Fig. 109. *Toxomerus multipunctatus*, male genitalia. a, 9th tergum and associated structures, lateral. b, 9th sternum and aedeagus, lateral, outline of ligula. c, 9th tergum same as a, dorsal. Figs. 110–111. Female genitalia. 110, *T. multipunctatus*. 111, *T. arcifer*. a, Lateral. b, 9th sternum, ventral. Fig. 112. *T. difficilis*, female genitalia, lateral. Fig. 113. *T. elinorae*, female genitalia. a, Ventral. b, Lateral. Figs. 114–115. Male genitalia. 114, *T. rohri*. 115, *T. ferroxida*. a, 9th tergum and associated structures, lateral. b, 9th sternum and aedeagus, lateral. c, Same as a, dorsal.



Figs. 116-117. *Toxomerus* spp., male genitalia. 116, *T. dispar*. 117, *T. floralis*. a, 9th tergum and associated structures, dorsal. b, Same as a, lateral. c, 9th sternum and aedeagus, lateral, with outline of ligula and dorsal view of apex of aedeagus (117c, also with dorsal view of apex of superior lobe of 2 different individuals). Figs. 118-119. *Toxomerus* spp., female genitalia. 118, *T. floralis*. 119, *T. dispar*. a, Dorsal. b, Ventral.

- spur (Fig. 112); male surstyle with posterior edge notched in dorsal view, with posteromedial corner extending beyond posterolateral corner (Fig. 105) *difficilis* (Curran)
- Postalar callus extensively black pilose; female 9th tergum simple, without a spur; male surstyle with posterior edge straight, with posterolateral corner extending beyond posteromedial one (Fig. 106) *watsoni* (Curran)
10. Wing with 2nd costal cell microtrichose on apical $\frac{1}{2}$ or less (Fig. 99); male genitalia with postanal process short, only $\frac{1}{4}$ as long as surstyle (Fig. 117); female genitalia with 9th sternum broad and with only a shallow excavation (Fig. 118) *floralis* (Fabricius)
- Wing with 2nd costal cell microtrichose on apical $\frac{3}{4}$ or more (Fig. 95); male genitalia with postanal process long, more than $\frac{1}{2}$ as long as surstyle (Fig. 116); female genitalia with 9th sternum narrow and with a deep medial excavation (Fig. 119) *dispar* (Fabricius)
11. Scutellum completely yellow or orange 12
- Scutellum black on basomedial $\frac{1}{3}$ or more 13
12. Scutellum black pilose on apical $\frac{1}{2}$ or more; abdomen with black spots, in pale areas on 3rd and 4th terga, oblique and isolated from surrounding black areas (Fig. 74); wing extensively microtrichose, 2nd costal cell microtrichose on apical $\frac{1}{2}$ or more, basal cells usually partially microtrichose on apical $\frac{1}{4}$ or more (Fig. 94) *pulchellus* (Macquart)
- Scutellum completely yellow pilose; abdomen with fasciate spots and usually connected to surrounding black areas (Fig. 77); wing extensively bare, costal and basal cells all bare, bases of apical, discal, cubital cells bare (Fig. 98) *maculatus* (Bigot)
13. Wing extensively microtrichose, basal $\frac{1}{5}$ or less of costal, basal and anal cells bare (Fig. 93); scutellum extensively yellow pilose, rarely with a few marginal black hairs; abdomen with maculate pattern (Fig. 78) *pictus* (Macquart)
- Wing extensively bare basally, basal $\frac{3}{4}$ or more of 2nd costal, basal $\frac{1}{2}$ or more of 1st basal, basoanterior $\frac{1}{2}$ or more of 2nd basal, anterior $\frac{1}{4}$ of anal cells bare (Fig. 96); scutellum black pilose; abdomen with arcuate spots, frequently with whole medial area pale (Fig. 75) *arcifer* (Loew)

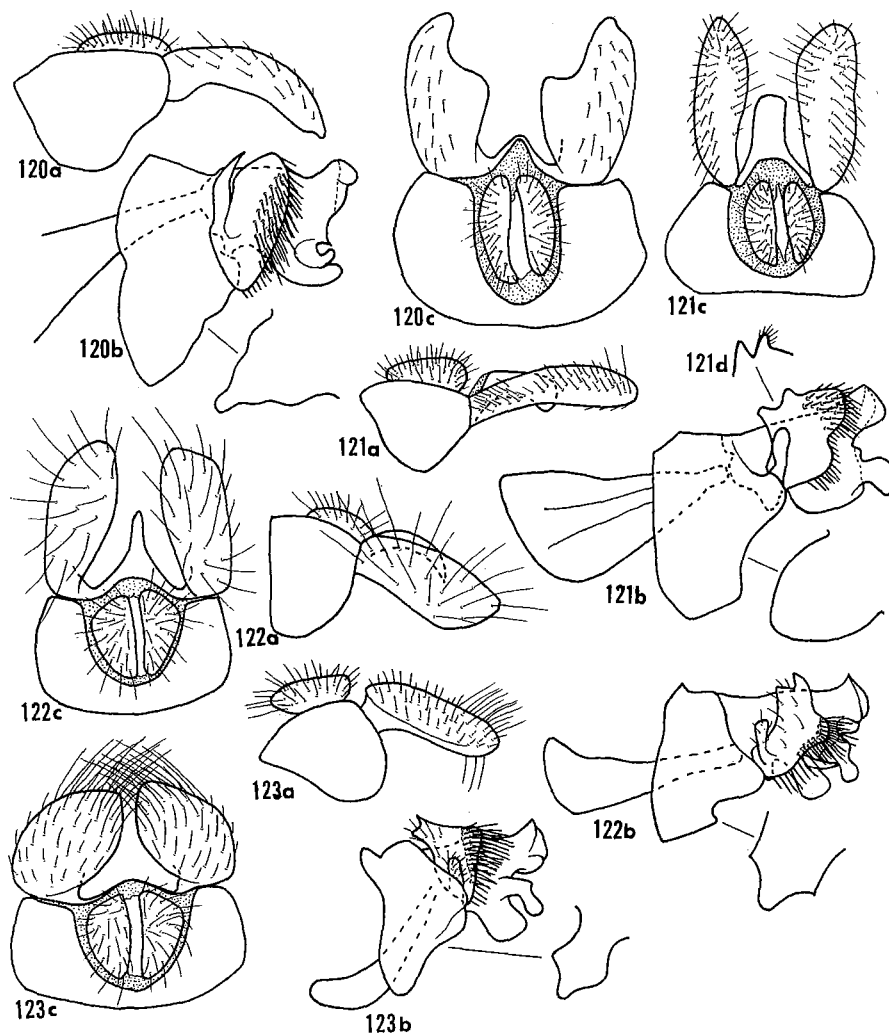
Toxomerus aeolus (Hull)

Figs. 84, 125

Mesogramma aeolus Hull, 1942a: 47. Type-loc.: Cuba, Soledad, Atkins Institute, Harvard Gardens. Holotype ♂ CNC.

Toxomerus aeolus: Thompson et al., 1976: 47.

Mesogramma pulchella of Hull, 1943b: 9, fig. 46 (abdomen) (key ref.).



Figs. 120–123. *Toxomerus* spp., male genitalia. 120, *T. puellus*. 121, *T. pictus*. 122, *T. musicus*. 123, *T. maculatus*. a, 9th tergum and associated structures, lateral. b, 9th sternum and aedeagus, lateral, with outline of ligula. c, Same as a, dorsal.

Distribution.—Cuba*.

Toxomerus aeolus was apparently once thought to be the same as *pulchellus* Macquart as Hull's concept of "*pulchella* Macquart" in 1943b was based on the specimen he later described *aeolus*. Also there are two females of *aeolus* in The American Museum of Natural History determined by Curran as "*pulchella* Macquart." While the abdominal pattern of *aeolus* is quite similar to that of *pulchellus* (= *laciniosa* Loew), *aeolus* is readily separated