

- black; small flies, less than 6 mm (Puerto Rico)
 *martorelli* (Telford)
26. Face yellow; hindfemur yellow except for brown preapical annulus; hindcoxa yellow; front and middle femora and tibiae yellow; mesonotum with sides in front of suture yellow; scutellum yellow on basal $\frac{1}{3}$, black apically (Cuba) *bromleyi* (Curran)
- Face yellow with reddish-brown medial vitta; hindfemur black except reddish brown on base and apex; front and middle femora and tibiae brownish; mesonotal sides black except for yellow notopleura and postalar calli, scutellum black (Puerto Rico)
 *medina* (Telford)
27. Alula narrow, narrower than 2nd basal cell (Fig. 58) (Cuba, Jamaica) *notatus* (Loew)
- Alula broad, much broader than 2nd basal cell (Fig. 57) 28
28. Abdominal terga 3–5 with medial pale vittae (Bahamas, Jamaica) *lineatus* (Macquart)
- Abdominal terga without medial pale vittae (Cuba)
 *cubensis* (Macquart)

OCYPTAMUS CALDUS (WALKER) GROUP

Face yellow, usually with medial black vitta; vertex short, broad, with ocellar triangle about its length in front of hind margin of eye; occiput with 3 to 4 rows of scalelike cilia on lower part, 1–3 rows of thin cilia on upper $\frac{1}{3}$; metasternum pilose; postmetacoxal bridge incomplete; mesonotum dull pollinose, without distinct vittae; scutellum yellow or black, with 1 row of strong and long ventral hairs; plumula long; squama with strong fringes on lower edges; abdomen broad to oval, with broad yellow or opaque black fasciae; male genitalia small.

Wing with alula usually $1\frac{1}{2}\times$ as broad as 2nd basal cell and microtrichose, rarely narrower than 2nd basal cell and bare (*iris*); anterior crossvein at about basal $\frac{1}{3}$ of discal cell, slightly beyond termination of Sc; apical crossvein sinuate, ending beyond termination of 2nd vein; 3rd vein even.

Ocyptamus aequilineatus (Hull)

Fig. 42

Epistrophe aequilineata Hull, 1945: 71. Type-loc.: Cuba, Pico Turquino, 6000 ft., Summit. Holotype ♀ MCZ*.

Orphnabaccha aequilineata: Vockeroth, 1969: 121.

Ocyptamus aequilineatus: Thompson et al., 1976: 12.

Distribution.—Cuba*; Jamaica*.

Besides seeing the female types of *aequilineatus*, I have seen a single male from Jamaica which probably belongs to this species. The specimen

is slightly teneral, so the color is not fully developed. This male differs from the female types by having fasciate spots on the second tergum instead of a complete fascia.

Ocyptamus iris Austen

Fig. 63

Ocyptamus iris Austen, 1893: 133, pl. 4, fig. 1 (habitus). Type-loc.: Jamaica, Cinchona. Holotype ♂ BM(NH)*. Subsequent references: Townsend, 1895: 39 (Jamaica); Johnson, 1919: 434 (Jamaica); Gowdey, 1926: 79 (Jamaica).

Baccha iris: Hull, 1949a: 99.

Distribution.—Jamaica.*

Ocyptamus jactator (Loew)

Figs. 31, 40, 49

Syrphus jactator Loew, 1861: 40. Type-loc.: Cuba. Lectotype ♂ MCZ*, see Appendix B. Subsequent references: Loew, 1866a: 156 (redescript.); Williston, 1887: 88 (citation); Aldrich, 1905: 366 (cat. citation); Ragues, 1908: 313 (Cuba).

Ocyptamus jactator: Knab, 1914: 151 (Florida, descript. notes).

Epistrophe jactator: Fluke, 1942: 5, 15, 23, fig. 33 (abdomen) (Cuba, descript. notes).

Stenosyrphus (*Mercurymyia*) *jactator*: Fluke, 1950a: 140, fig. 133 (♂ genitalia).

Mercurymyia jactator: Wirth et al., 1965: 568.

Orphnabaccha jactator: Vockeroth, 1969: 121.

Distribution.—USA (Florida); Cuba.*

Ocyptamus superbus Thompson, NEW SPECIES

Fig. 30

Female.—*Head*: Face yellow, shiny medially, yellow pollinose and pilose laterally; cheek yellow; frontal lunule yellow with black medial spot; front yellow on lower $\frac{1}{4}$ becoming brownish black on upper portion, densely yellow pollinose below becoming more bronze pollinose above, with abbreviated medial black vittate spot on upper $\frac{1}{3}$, black pilose, with few scattered yellow lateral hairs; vertex black, black pollinose laterally, more brownish pollinose medially, black pilose; occiput dark, densely whitish-yellow pollinose below becoming more golden pollinose above, with 4 rows of yellow thin scalelike hairs on lower $\frac{1}{2}$, with 2–3 rows of golden-yellow hairs above. Eye bare. Antenna orange, black pilose on 1st 2 segments; 3rd segment oval, about twice as long as broad; arista orange except dark tip.

Thorax: Dorsum bluish black, mainly sparsely greenish-bronze pollinose, with very faint indication of submedial pollinose vittae, densely golden pol-

linose on humerus and extending to transverse suture, yellow pilose; scutellum yellow, dull yellow pollinose, yellow pilose on basal $\frac{1}{2}$, black pilose apically, with single ventral row of long yellow hairs; pleuron mainly bluish black, with posterior mesopleuron and upper sternopleuron orange, mainly sparsely grayish-yellow pollinose, more densely yellow pollinose on propleuron, very densely golden pollinose on posterior mesopleuron and upper sternopleuron, yellow pilose; squama, plumula, and halter yellowish orange. *Legs*: Mainly yellow and yellow pilose; front coxa greenish bronze and yellowish-gray pollinose on basal $\frac{4}{5}$; mid- and hindcoxae darker on basal edges; hindfemur with brown subapical annulus, black pilose on apical $\frac{2}{3}$; hindtibia with indistinct brown medial annulus, black pilose; hindtarsus black pilose. *Wing*: Yellowish brown anteriorly, more hyaline posteriorly, extensively microtrichose, bare as follows: Basal $\frac{1}{5}$ of 2nd costal cell, basal $\frac{1}{2}$ of 1st basal cell, basal $\frac{7}{8}$ of 2nd basal cell, anterobasal $\frac{1}{3}$ of anal cell; alula microtrichose, broad, distinctly broader than 2nd basal cell, about $\frac{1}{5}$ broader.

Abdomen: Dorsum mainly yellow and dull yellow pollinose, subshiny on apical margins of terga, black pilose except yellow pilose on 1st and basal $\frac{2}{3}$ of 2nd terga, marked with black as follows: Basomedial rectangle on 2nd tergum, apicomедial black triangles on 2nd and 3rd terga, subapicomедial black triangle on 4th, narrow medial black vitta on 5th tergum. Venter yellowish orange, short yellow pilose on 1st, 2nd, and basal $\frac{1}{3}$ of 3rd sterna, short black pilose elsewhere.

Holotype.—♀, JAMAICA, Portland, Hardwar Gap, 8 July 1962, T. H. Farr; deposited in the USNM.

Discussion.—*Ocyptamus superbis* is immediately separated from all known *Ocyptamus* species by its very distinctive abdominal pattern. It is probably the sister-species to *jactator* Loew, these species sharing a number of characteristics such as facial shape, general coloration of thorax and head, and wing venation. However, until the male genitalia of *superbis* is studied it is not possible to say more about the phylogenetic relationships of the species.

OCYPTAMUS CAPITATUS (LOEW) GROUP

Face yellow, with weak brownish vitta; front prominent; vertex short, broad, with ocellar triangle about $1\frac{1}{2}$ × its length in front of hind margin of eye; occiput with 2 rows of cilia, not scalelike on lower part; metasternum bare; postmetacoxal bridge incomplete; scutellum yellow, with 1 row of strong and long ventral hairs; plumula absent; squama with strong fringe only on lower edge; mesonotum with bright yellow pollinose vittae; abdomen clavate, constricted at base of 2nd segment and gradually widening apically, brown to black, with yellow fasciae; male genitalia greatly enlarged, with cercus and apicolateral corners of 9th tergum enlarged.

Wing with alula normal, about $\frac{1}{12} \times$ as broad as 2nd basal cell, bare medially, narrowly microtrichose along margins; anterior crossvein at basal $\frac{1}{3}$ of discal cell, slightly beyond termination of Sc; apical crossvein sinuate, ending approximately at termination of 2nd vein; 3rd vein with a shallow loop into apical cell.

Ocyptamus capitatus (Loew)

Figs. 44, 56, 66

Baccha capitata Loew, 1863: 14. Type-loc.: Cuba. Type ♂ MCZ*. Subsequent references: Roeder, 1885: 342 (Puerto Rico); Gundlach, 1887: 187 (Puerto Rico); Williston, 1887: 124 (Cuba, descript.); Ragues, 1908: 312 (Cuba); Hine, 1914: 335 (Cuba, descript. notes); Wolcott, 1923: 217, 1936: 346, 1948: 461 (Puerto Rico; descript., biol. notes); Drewry, 1970: E-147 (Puerto Rico); Telford, 1973: 227 (Puerto Rico).

Mimocalla capitata: Hull, 1943d: 54, fig. 22 (abdomen) (key ref.), 1949a: 98, 105, figs. 22, 223, 227 (abdomen), 330 (wing) (key ref.)

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

Doros insularis Bigot, 1883: 330. Type-loc.: Cuba. Holotype ♀ BM(NH).

NEW SYNONYMY.

Ocyptamus insularis: Thompson et al., 1976: 20.

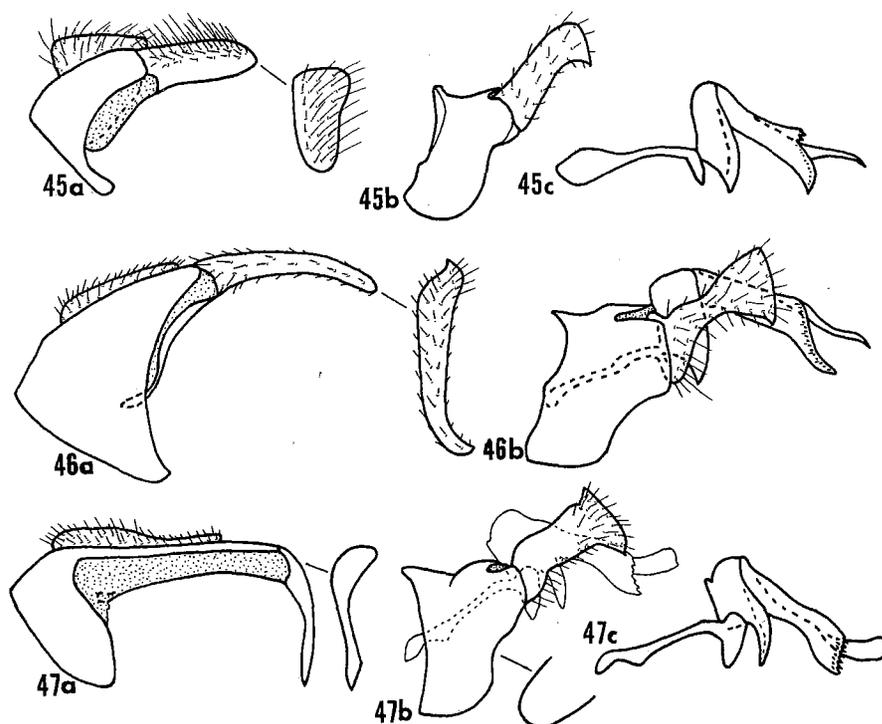
Baccha carlota Curran, 1929: 491. Type-loc.: Cuba, Trinidad Mountain, Mina Carlota. Holotype ♀ AMNH*. NEW SYNONYMY.

Mimocalla carlota: Hull, 1949a: 98, figs. 224 (abdomen), 340 (wing) (key ref.).

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

Distribution.—Cuba*, Puerto Rico*, Lesser Antilles (St. Croix*, Dominica*).

I strongly suspect that there is only one species of the *capitatus* group found on Cuba and perhaps in all of the West Indies. The senior synonym for this species is *capitatus* Loew. When Bigot and Curran described their species they were apparently unaware of Loew's species because neither made any comparisons. However, Curran listed his species as a synonym of *capitatus* in his card catalog. I have studied slightly more than a dozen specimens including Loew's and Curran's types and can find no significant differences among any of these specimens. The characters given by Hull (1949a: 105) for the separation of *carlota* and *capitatus* are variable. I have seen a specimen with a recurrent crossvein on one side and a perpendicular one on the other side. The scutellum may be all yellow or it may have a dark medial spot; the color of the abdomen can range from pale reddish brown to brownish black. J. R. Vockeroth studied the type of *insularis* Bigot and has provided me with his notes on it. On the basis of these notes I am certain *insularis* is also the same as *capitatus*.



Figs. 45-47. Male genitalia, lateral. 45, *Ocyptamus cylindricus*. 46, *O. fasciatus*. 47, *O. dimidiatus*. a, 9th tergum and associated structures with a medial view of surstyle. b, 9th tergum and aedeagus (except aedeagus removed in 45b). c, Aedeagus.

OCYPTAMUS CYLINDRICUS (FABRICIUS) GROUP

Face yellow, with or without medial dark vitta; front not prominent; vertex short, broad, with ocellar triangle twice or less its length in front of hind margin of eye; occiput with 3-6 rows of cilia, always scalelike below, always with 3 rows above; metasternum bare; postmetacoxal bridge incomplete; mesonotum dark, without vittae; scutellum usually dark, rarely yellowish brown, usually without a ventral hair fringe, rarely with a very weak one; plumula always distinct and long; squama usually with strong fringes on upper and lower edges, rarely with reduced fringe on upper edge; abdomen elongate or short, never petiolate, always all dark, with opaque markings; male genitalia small.

Wing always with dark marking or all dark; alula always broad, about $1\frac{1}{2}\times$ as broad as 2nd basal cell, bare or microtrichose; anterior crossvein position variable; apical crossvein sinuate; 3rd vein even.

Ocyptamus antiphates (Walker)

Fig. 1

Syrphus antiphates Walker, 1849: 589. Type-loc.: Jamaica. Lectotype ♂ BM(NH)*, see Appendix B. Subsequent reference: Johnson, 1894: 276 (Jamaica).

Ocyptamus antiphates: Austen, 1893: 134; Johnson, 1919: 434 (Jamaica); Gowdey, 1926: 79 (Jamaica).

Baccha antiphates: Hull, 1949a: 99 (placed in subgenus *Ocyptamus*).

Ocyptamus scutellatus Loew, 1866b: 39. Type-loc.: Cuba. Syntypes 1 ♂, 1 ♀ MCZ*. Subsequent references: Aldrich, 1905: 358 (cat. citation); Kertész, 1910: 168 (cat. citation); Hine, 1914: 336 (Cuba, diff. *dimidiatus*). NEW SYNONYMY.

Baccha scutellata: Curran, 1930a: 2; Hull, 1949a: 89 (placed in subgenus *Ocyptamus*); Maldonado and Navarro, 1967: 59 (Puerto Rico).

Baccha loewi Sedman, in Wirth et al., 1965: 573 (new name for *scutellatus* Loew). Subsequent reference: Telford, 1973: 230 (in part) (Puerto Rico).

Ocyptamus funebris of Bigot, 1857: 338 (Cuba, descript.).

Ocyptamus rufiventris Bigot, 1883: 325. Type-loc.: Cuba. Holotype ♀ BM(NH)*. NEW SYNONYMY.

Baccha latiuscula of Telford, 1973: 230 (in part, Puerto Rico).

Baccha dimidiata of Williston, 1887: 125 (in part, Hispaniola).

?*Baccha infuscatus* of Gowdey, 1928: 8 (Jamaica); Curran, 1928a: 37 (Jamaica, descript. notes).

Distribution.—USA (Florida), south to Argentina; Cuba, Hispaniola*, Jamaica*, Puerto Rico (?).

I have examined the types of *antiphates* Walker, *scutellatus* Loew, and *rufiventris* Bigot and find that they all are undoubtedly representatives of one species. I examined a syntype of *infuscatus* Bigot and find it is the same as *funebris* (Macquart, sensu Curran and Hull), a species unknown from the Antilles. Thus I suspect that Gowdey's and Curran's records of *infuscatus* refer to *antiphates* Walker.

Ocyptamus cylindricus (Fabricius)

Figs. 32, 45, 54, 82

Syrphus cylindricus Fabricius, 1781: 429. Type-loc.: "Americae meridionalis insulis." Lectotype wings KIEL now at MC*, see Appendix B. Subsequent reference: Zimsen, 1964: 474 (type).

Musca cylindracea Gmelin, 1790: 2873 (unjustified new name for *cylindricus* Fabricius).

Baccha cylindrica: Fabricius, 1805: 199; Wiedemann, 1830: 92 (redescript. based on types); Knab, 1916a: 91 (synonymy, descript. notes, diff. from *fuscipennis* Say); Curran, 1928b: 36 (Puerto Rico, St. Croix); Wolcott,

1936: 347, 1948: 462 (Puerto Rico); Hull, 1943d: 58 (key ref.), 1949a: 98, 120, figs. 130, 279 (abdomens), 380 (wing) (placed in subgenus *Ocyptamus*, key ref.); Beatty, 1944: 148 (St. Croix); Ramos, 1946: 57 (Puerto Rico); Doesburg, 1970: 94, 96, 99 (Lesser Antilles, variation, synonymy); Miskimen and Bond, 1970: 65 (St. Croix); Telford, 1973: 223 (Puerto Rico).

Ocyptamus cylindricus: Thompson et al., 1976: 16.

Ocyptamus conformis Loew, 1866b: 38. Type-loc.: Cuba. Syntypes 2 ♀♀ MCZ*. Subsequent references: Roeder, 1885: 342 (Puerto Rico); Gundlach, 1887: 187 (Puerto Rico). Synonymy by Knab, 1916a: 91.

Baccha conformis: Wolcott, 1923: 218, 1936: 347, 1941: 115, 1948: 462 (Puerto Rico, biol. notes); Beatty, 1944: 148 (St. Croix); Ramos, 1946: 57 (Puerto Rico); Hull, 1949a: 99 (placed in subgenus *Ocyptamus*); Miskimen and Bond, 1970: 65 (St. Croix); Telford, 1973: 228 (Puerto Rico, status).

Ocyptamus fuscipennis of Wulp, 1883: 9 (Guadeloupe, synonymy); Wolcott, 1936: 348 (Puerto Rico); Johnson, 1919: 434 (Jamaica; as a variety of *fuscipennis*); Gowdey, 1926: 79 (Jamaica, as variety of *fuscipennis*).

Baccha fuscipennis of Williston, 1887: 119 (San Domingo, in part); Wolcott, 1948: 463 (Puerto Rico); Boyes et al., 1971: 91, 23, fig. 6 (karyotype), pl. 25, fig. 8 (idiogram) (chromosomes, in part, Puerto Rican material refers to this species); Telford, 1973: 229 (Puerto Rico; status in).

Ocyptamus fuscipennis of Townsend, 1895: 39 (Jamaica, descript. notes, also var. *fuscipennis*); Johnson, 1908: 74 (Bahamas), 1919: 434 (Jamaica); Gowdey, 1926: 79 (Jamaica).

Baccha amissus of Ragues, 1908: 312 (Cuba).

Baccha vockerothi Telford, 1973: 234, fig. 7 (abdomen). Type-loc.: Puerto Rico, Arecibo, Cambalache Forest. Holotype ♂ WSU. NEW SYNONYMY.

Distribution.—Bahamas*, Cuba*, Jamaica, Hispaniola*, Puerto Rico*, Lesser Antilles (St. Croix*, St. Martin, Saba, St. Eustatius, Montserrat*, Nevis, Dominica*).

Many authors have confused this species with *fuscipennis* Say, its Nearctic component, as the above synonymy can attest. Knab, as early as 1916, pointed out the differences between these two species. *Ocyptamus cylindricus* is easily separated from *fuscipennis* by its partially bare anal cell (Figs. 52, 54), bright yellow bases of the legs, and more brilliant purplish-blue color. *Ocyptamus vockerothi* Telford is based on teneral specimens of *cylindricus* in which the wing and abdominal colors are not fully developed. Knab (1916b: 133) has discussed the variation in wing color due to age.

Ocyptamus dimidiatus (Fabricius)

Figs. 34, 38, 47

Syrphus dimidiatus Fabricius, 1781: 434. Type-loc.: "Americae meridionalis

- insulis." Types ? "Mus. Dom. Yeats" (Zimsen, 1964: 481, no information). Subsequent reference: Wiedemann, 1830: 140 (descript.).
- Ocyptamus dimidiatus*: Schiner, 1868: 346 (synonymy); Wulp, 1883: 10 (Guadeloupe, descript. notes); Townsend, 1895: 39 (Jamaica); Williston, 1896: 348 (St. Vincent, synonymy); Johnson, 1919: 434 (Jamaica); Gowdey, 1926: 79 (Jamaica).
- Baccha dimidiata*: Williston, 1887: 125, pl. 5, fig. 10 (wing) (San Domingo, descript. in part, mixed series with *antiphates*); Curran, 1928b: 36 (Puerto Rico, St. Croix); Wolcott, 1936: 347, 1948: 462 (Puerto Rico); Hull, 1943d: 54 (key ref.), 1949a: 98, 118, fig. 232 (abdomen) (placed in subgenus *Ocyptamus*, key ref.); Beatty, 1944: 149 (St. Croix); Miskimen and Bond, 1970: 65 (St. Croix); Doesburg, 1970: 94, 96, 99 (Lesser Antilles, descript. notes); Telford, 1973: 229 (Puerto Rico, suggest same as *latiuscula*).
- Ocyptamus latiusculus* Loew, 1866b: 39. Type-loc.: Cuba. Type ♀ MCZ*. Subsequent references: Roeder, 1885: 342 (Puerto Rico); Gundlach, 1887: 187 (Puerto Rico); Coquillett, 1900: 252 (Puerto Rico); Knab, 1916b: 133 (Puerto Rico, variation in wing color); Johnson, 1919: 434 (Jamaica); Gowdey, 1926: 79 (Jamaica). NEW SYNONYMY.
- Baccha latiuscula*: Williston, 1887: 122 (San Domingo, mixed series with *antiphates*); Johnson, 1894: 276 (Jamaica); Wolcott, 1923: 218, 1936: 348, 1941: 115, 1948: 463 (Puerto Rico, descript., biol. notes, prey recs.); Curran, 1930a: 5 (synonymy, key ref.); Hull, 1943d: 54 (key ref.), 1949a: 98, 118 (synonymy, key ref.); Beatty, 1944: 149 (St. Croix); Drewry, 1970: E-147 (Puerto Rico); Miskimen and Bond, 1970: 65 (St. Croix); Telford, 1973: 230 (Puerto Rico).
- Ocyptamus* sp., Jones, 1915: 14 (Puerto Rico, life history, prey recs.).
- Baccha loewi* of Boyes et al., 1971: 92, pl. 23, fig. 8 (karyotype), pl. 25, fig. 10 (idiogram) (chromosomes, based on Puerto Rican material); Telford, 1973: 230 (in part) (Puerto Rico).

Distribution.—Mexico south to Brazil; Cuba*, Jamaica*, Hispaniola*, Puerto Rico*, Lesser Antilles (St. Croix*, St. Thomas*, St. Martin, St. Kitts, Antigua*, Montserrat*, Guadeloupe, Dominica*, St. Lucia*, St. Vincent*, Barbados*, Grenadines*, Grenada*).

Ocyptamus dimidiatus and *antiphates* are very similar and have been usually confused. Almost all the determined material of these species I have examined has been a mixture of both species. *Ocyptamus dimidiatus* can be contrasted with *antiphates* as follows: 1) Face pale yellowish white to white with a median black vitta which may be indistinct from some angles of view, not bright yellow; 2) 3rd antennal segment all black, not yellow to reddish brown basoventrally; 3) front all dark, not broadly yellow on sides above antenna; 4) notopleuron grayish white and postalar callus brownish black, not bright yellow; 5) scutellum dull purplish black, not yellow to

yellowish brown; and 5) abdomen shiny purplish black, not brown to brownish black with large areas (or markings) of yellow to reddish brown. The wing color of these two species is variable; females usually have dark wings with the apical $\frac{1}{2}$ to $\frac{1}{2}$ hyaline; males usually have all dark wings, although the apical portion may be somewhat paler. I have studied a long series of both species (from Jamaica) in which all the females had completely dark wings and a number of individuals (from scattered localities) of both sexes which had the typical coloration of the opposite sex. *Ocyptamus latiusculus* Loew was based on a dark-winged female of *dimidiatus* and *scutellatus* Loew on a light-winged female of *antiphates*. This led subsequent workers to differentiate these species on wing color alone, thus confusing the issue rather than clarifying it. Loew clearly differentiated both his species, mentioning all the characters I have noted above, so there can be no question concerning the identity of his names. The type(s) of *Syrphus dimidiatus* Fabricius according to Fabricius is in "Mus. Dom. Yeats" and the Yeats material according to Horn and Kahle (1937: 308) is, what is left of it, "perhaps" now in University Museum, Glasgow. The Fabrician description could apply to either "*dimidiatus*" or *antiphates*; but Wiedemann's redescription of *dimidiatus* can only apply to "*dimidiatus*." Wiedemann based his redescription on material which was undoubtedly determined by Fabricius in "Königlichen Museum zu Kopenhagen" (now MC). Until the type(s) of *dimidiatus* is found, I accept Wiedemann's description as the basis of the Fabrician name.

Ocyptamus fasciatus Roeder

Figs. 43, 46, 64

Ocyptamus fasciatus Roeder, 1885: 342. Type-loc.: Puerto Rico. Type ♂ Zool. Univ. Mus., Halle an der Saale, Germany. Subsequent references: Gundlach, 1887: 187 (Puerto Rico); Aldrich, 1905: 357 (cat. citation); Kerész, 1910: 166 (cat. citation).

Baccha fasciata: Wolcott, 1923: 218, 1936: 347, 1941: 115, 1948: 463 (Puerto Rico, descript., biol. notes, prey recs.); Ramos, 1946: 57 (Puerto Rico); Hull, 1949a: 99 (cited as sp. of *Ocyptamus*); Boyes et al., 1971: 81, pl. 23, fig. 4 (karyotype), pl. 25, fig. 5 (idiogram) (chromosomes); Telford, 1973: 229 (Puerto Rico).

Baccha cylindrica of Curran, 1928b: 36 (in part) (Puerto Rico); Telford, 1973: 223 (in part) (Puerto Rico).

Distribution.—Hispaniola*, Puerto Rico*.

OCYPTAMUS ELNORA (SHANNON) GROUP

Face yellow, with narrow brown medial vitta; front not prominent; vertex short, broad, with ocellar triangle slightly less than its length in front of hind

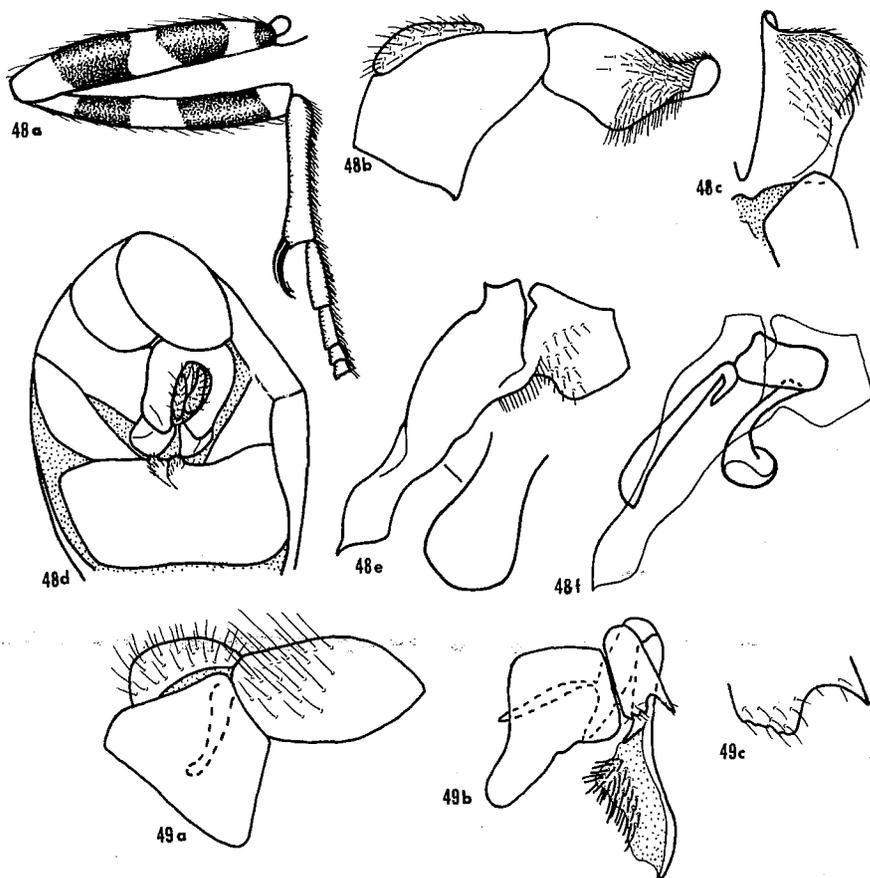


Fig. 48. *Ocyptamus ornatipes*, male. a, Leg, lateral. b, 9th tergum and associated structures, lateral. c, Surstyle, dorsal. d, tip of abdomen, ventral. e, 9th sternum, lateral, with outline of ligula area. f, Aedeagus, lateral on a outline of 9th sternum. Fig. 49. Male genitalia, *O. jactator*. a, 9th tergum and associated structures. b, 9th sternum and aedeagus, lateral. c, Enlargement of ventral edge of superior lobe, lateral.

margin of eye; occiput with 2 rows of cilia, slightly thickened on lower part, with anterior row much shorter than posterior row; metasternum bare; post-metacoxal bridge incomplete; mesonotum shiny, with medial and submedial pollinose vittae; scutellum shiny black except yellow basal and apical margins, without distinct ventral fringe; plumula absent; squama with fringe only on lower edge; hindbasitarsus with row of 4 strong apical bristles; abdomen short, shorter than wings, clavate, shiny brownish black, with yellow vittate markings; male genitalia greatly enlarged; 4th sternum with a pair of medial tubercles; 5th sternum divided into 2 separate plates.

Wing alula very narrow, much narrower than 2nd costal cell, bare; an-

terior crossvein at basal $\frac{1}{3}$ of discal cell, at level of termination of Sc; apical crossvein straight, perpendicular, ending about $\frac{3}{4}$ of its length before termination of 2nd vein; 3rd vein even; apical wing spot present.

This description will probably fit most of the species of the second subgroup (*v.i.*) except for the male sexual characters. Of the species I have studied of this second group, only *obliquus* Curran differs significantly from the above description in that it has a broad microtrichose alula and lacks the apical wing spot.

This species group is equivalent to *Calostigma* Shannon. Shannon based his genus on two "unique characters," the perpendicular apical crossvein and apical wing spot. Later, species were included in *Calostigma* that did not have the apical wing spots but were nevertheless otherwise typical of the group. Curran (1934, 1941) first suggested that this group was probably inseparable from *Ocyptamus* (as *Baccha*, *auctorum*). I agree with Curran and treat *Calostigma* as a species-group. This group is quite easily separated from all other *Ocyptamus* groups in the perpendicular apical crossvein and the very short abdomen. The only other *Ocyptamus* groups with similar venation have long and narrow abdomens. Within the *elnora* group there appear to be two distinct subgroups: One for those small, mainly yellowish flies that have yellow scutella, and brownish yellow and almost completely microtrichose wings (*panamensis* Curran, 1930; *neuralis* Curran, 1934; *hyalipennis* Curran, 1930 (= *?annulatus* Curran, 1941); and another for those larger, mainly black and yellow flies, that have partially black scutella and hyaline and extensively bare wings (*striatus* Walker, 1852; *exiguus* Williston, 1888; *elnora* Shannon, 1927; *ornatipes* Curran, 1927; *obliquus* Curran, 1941; *coreopsis* Hull, 1944). *Ocyptamus ornatipes* Curran is typical of this second subgroup but is different from any other species of it in that the male genitalia are greatly enlarged and the hindbasitarsus has prominent apical bristles.

Ocyptamus ornatipes (Curran)

Figs. 39, 48, 65

Baccha ornatipes Curran, 1927: 3, fig. 1 (hindleg). Type-loc.: Puerto Rico, Cayey. Holotype ♀ AMNH*. Subsequent references: Curran, 1928b: 35, fig. 4 (hindleg) (Puerto Rico); Wolcott, 1936: 348, 1948: 463 (Puerto Rico); Hull, 1943d: 57 (key ref.); Telford, 1973: 233 (Puerto Rico).

Ocyptamus ornatipes: Thompson et al., 1976: 24.

Calostigma ornatipes: Hull, 1949a: 94, 106, figs. 194 (abdomen), 306 (wing) (key ref.).

Distribution.—Puerto Rico*.

OCYPTAMUS LEPIDUS (MACQUART) GROUP

Face yellow; frontal triangle of male without median black spot; vertex

long, narrow, with ocellar triangle more than its length in front of hind margin of eye, greatly so in female; occiput with 2 rows of cilia on lower portion and only 1 row on upper portion, not scalelike; metasternum bare; postmetacoxal bridge incomplete; mesonotum yellow laterally, brownish pollinose and black medially, with very indistinct medial vittae; scutellum yellow, without ventral pile fringe; squama with strong fringe on lower edge; plumula absent; abdomen narrow to broad, without vittate markings, usually with sagittate or fasciate markings; male genitalia small.

Wing alula narrow, about as wide as 2nd costal cell, bare or microtrichose; anterior crossvein at about basal $\frac{1}{3}$ of discal cell, at termination of Sc; apical crossvein sinuate, ending approximately at termination of 2nd vein; 3rd vein even.

Ocyptamus cubanus (Hull)

Fig. 55

Baccha cubana Hull, 1943d: 62, fig. 25 (abdomen). Type-loc.: Cuba, Soledad (Hull, 1944a: 30). Holotype ♀ MCZ* (designated by Hull, 1944a: 31). Subsequent references: Hull, 1944a: 30 (Cuba, descript.), 1949a: 96, 132, fig. 25 (abdomen) (placed in *lepida* group, key ref.).

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

Baccha calypso Hull, 1944b: 60. Type-loc.: Florida, Orlando. Holotype ♀ AMNH*. Subsequent reference: Hull, 1949a: 96, 100, 127 (placed in *lepida* group (p. 96), as an aberrant species of uncertain affiliation (p. 100), key ref.). NEW SYNONYMY.

Distribution.—USA (Georgia to Florida), Cuba*.

I have studied the types of *cubanus* and *calypso* Hull and a long series of specimens from Florida and Georgia. I consider all this material to represent a single species. While the lone Cuban specimen (type of *cubanus*) does have the wings more extensively bare than a typical mainland specimen, the amount of difference is so slight that it is probably due to wear or individual variation. I also suspect that *neoparvicornis* Telford (q.v.) may eventually be considered to belong to this species.

Ocyptamus neoparvicornis (Telford)

Fig. 53

Baccha neoparvicornis Telford, 1973: 232, fig. 5 (abdomen). Type-loc.: Puerto Rico, Arecibo, Cambalache Forest. Holotype ♀ WSU*.

Distribution.—Puerto Rico*.

This species is very closely related to *cubanus* (Hull) and may be only a variant of it. I have compared the holotype and one female from Puerto Rico with a long series of *cubanus* from Florida and Georgia and the only significant differences I noticed were the more extensively bare wings and the lack of a dark suprametacoxal spot.

Ocyptamus oriel (Hull)

Baccha oriel Hull, 1943a: 96. Type-loc.: Dominican Republic, Loma Rucilla and Mts., 5–8000 ft. Holotype ♂ MCZ. Subsequent references: Hull, 1943d: 60, fig. 29 (abdomen) (key ref.), 1949a: 96, 130, 132, figs. 29, 126 (abdomen) (placed in *lepida* group, key ref.).

Ocyptamus oriel: Thompson et al., 1976: 24.

Distribution.—Hispaniola*.

Ocyptamus ricus (Curran)

Baccha rica Curran, 1939c: 6. Type-loc.: Puerto Rico, Mayaguez. Holotype ♀ AMNH. Subsequent references: Hull, 1949a: 96, 127, figs. 247 (abdomen), 351 (wing) (placed in *lepida* group, key ref.); Maldonado and Navarro, 1967: 59 (Puerto Rico); Telford, 1973: 234 (Puerto Rico).

Ocyptamus ricus: Thompson et al., 1976: 26.

Baccha sp., Curran, 1928b: 36 (Puerto Rico).

Baccha n. sp. 1, Boyes et al., 1971: 92, pl. 24, fig. 1 (karyotype), pl. 26, fig. 2 (idiogram) (chromosomes, based on Puerto Rican material).

Distribution.—Puerto Rico*.

Ocyptamus ricus and *lepidus* (Macquart, *sensu* Curran) are very closely related and I would regard them as the same species. Curran (1941: 262) keyed them out together and differentiated them on a rather weak character, the degree of mesonotal iridescence. I have examined the material upon which Curran based his interpretation of *lepidus* and have compared it with *ricus*. While the mesonotum is slightly more shiny in *lepidus* than *ricus*, the amount of difference is hardly sufficient to warrant even subspecific status for *ricus*. The character used by Hull (1949a: 127) to separate these two "species" is worthless, as the markings on the 3rd tergum are much more variable than shown by Hull.

The question remains whether Curran's interpretation of *lepidus* Macquart (1842: 169) is accurate and thereby whether *ricus* should be synonymized or not. Without examining the type(s) of *lepidus* Macquart, it is not possible to answer the question. *Ocyptamus lepidus* of Curran is very closely related to *crocatus* and *croceus* Austen. Austen clearly differentiated his two species, but he was apparently unaware that Macquart had described a species very close to his two. Curran (1930a: 2–3) was the first to distinguish all these species on the basis of material he collected on Barro Colorado Island, Panama. The species can be distinguished by the key below. It is quite clear by Austen's description that Curran properly delimited *crocatus* and *croceus*, but the same cannot be said of *lepidus* Macquart. Macquart's description does not permit one to distinguish among the above three species. However, Macquart's figure strongly suggests that his *lepidus* is the same as *crocatus* (Austen). Thus, if Macquart's figure is accurate,

then *lepidus* becomes the senior synonym of *croceus* Austen, and *ricus* Curran can be used for *lepidus* of authors.

KEY TO SPECIES RELATED TO *OCYPTAMUS LEPIDUS* (MACQUART)

1. Mesonotum with a pair of submedial reddish vittae; pleuron all yellow; 3rd abdominal tergum with basolateral corners yellow (Central America to Brazil) *croceus* (Austen) (1893: 157)
- Mesonotum without reddish vittae, if with vittae, then vittae formed by pollen on dark ground color; pleuron dark on posterior $\frac{1}{3}$; 3rd tergum with basolateral corners dark 2
2. Abdomen broad, as broad as thorax, gradually expanded from base of 2nd segment to apex of 3rd; 3rd tergum approximately rectangular, about as wide at base as at apex; wing dark brown (Central America) *ricus* (Curran)
- Abdomen narrower, at its narrowest narrower than thorax, strongly expanded from apex of 2nd segment to apex of 3rd; 3rd tergum trapezoid, about $1\frac{1}{2}$ to $2\times$ wider at apex than at base; wing pale brownish yellow (Central America to Brazil) [= *crocata* Austen 1893: 155, NEW SYNONYMY] *lepidus* (Macquart)

Ocyptamus species B

Baccha cubana of Telford, 1973: 228 (Puerto Rico).

Distribution.—Cuba*, Puerto Rico*.

The species identified as *cubana* by Telford is very similar to that species but differs in that the alula is bare, the occiput has black cilia on the upper half, and the sternopleuron is brownish black on the lower two-thirds. This species is apparently closely related to *oriel* (Hull) and *sagittifer* (Austen) but differs from them as noted in the key to species. I have seen a second headless specimen of this species from Soledad, Cuba in the Museum of Comparative Zoology.

Ocyptamus sagittifer (Austen)

Fig. 27

Baccha sagittifera Austen, 1893: 144, pl. 4, fig. 14 (habitus). Type-loc.: Jamaica, Cinchona. Holotype ♂ BM(NH)*. Subsequent references: Townsend, 1895: 38 (Jamaica); Johnson, 1919: 434 (Jamaica); Gowdey, 1926: 79 (Jamaica).

Ocyptamus sagittiferus: Thompson et al., 1976: 26.

Distribution.—Jamaica*.

OCYPTAMUS LINEATUS (MACQUART) GROUP

Face yellow; frontal triangle of male with medial black spot; vertex short,

broad, with ocellar triangle less than its length in front of hind margin of eye in male and only about twice its length in front in female; occiput with 2 rows of cilia on lower portion and only 1 row in upper portion, not scale-like; metasternum bare; postmetacoxal bridge incomplete; mesonotum yellow, greenish yellow pollinose medially, with black medial and submedial pairs of vittae; scutellum yellow, with row of strong black ventral hairs; squama with strong fringe on lower edge only; plumula long; abdomen long, slightly petiolate, with yellow vittate markings; male genitalia small.

Wing alula broad, about as wide as or wider than 2nd basal cell, microtrichose; anterior crossvein at basal $\frac{1}{3}$ of discal cell, slightly before termination of Sc; apical crossvein sinuate, ending slightly before termination of 2nd vein; 3rd vein even.

The *lineatus* group is very similar to the *lepidus* group but can be distinguished as follows: 1) Facial tubercle more prominent; 2) front with lower part produced more forward and much broader; 3) male frontal triangle dirty or dull yellow pollinose on upper $\frac{2}{3}$ and with black spot at angle of eyes; 4) male vertical triangle much broader and shorter; 5) female front broader, and with a broad and longer medial black vitta; 6) plumula distinct; 7) mesonotum with distinct black vittae; 8) scutellum usually with a strong ventral pile fringe; and 9) abdomen with vittate markings.

Ocyptamus lineatus (Macquart)

Fig. 57

Baccha lineata Macquart, 1846: 267. Type-loc.: Texas or Yucatan. Holotype ♀ MNHN(?). Subsequent reference: Hull, 1949a: 236, fig. 206 (abdomen).

Ocyptamus lineatus: Thompson et al., 1976: 21.

Distribution.—USA (Florida, Texas), south to Brazil (?); Jamaica*.

I have seen a pair of specimens from Jamaica which probably belong to this species. The identity of *lineatus* Macquart has not been definitely established since the type has never been critically examined. I use the name in the sense that it has been applied to the populations occurring in the United States.

Ocyptamus notatus (Loew)

Fig. 58

Baccha notata Loew, 1868b: 37. Type-loc.: Cuba. Type ♂ MCZ*.

Ocyptamus notatus: Thompson et al., 1976: 23.

Distribution.—Cuba*, Jamaica?.

This species was synonymized under *lineatus* (Macquart) by Wirth et al. (1965: 572) without explanation. I have examined the holotype of *notatus* and find that it is quite different from the species identified as *lineatus*

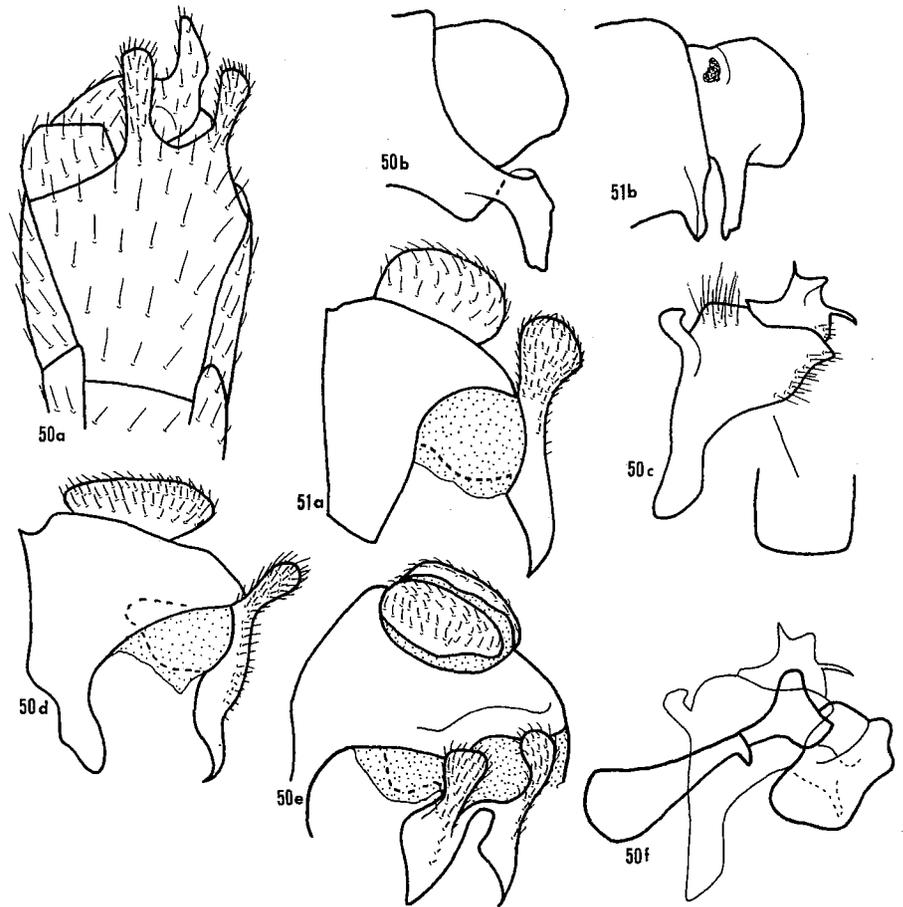


Fig. 50. *Ocyptamus ferrugineus*, male. a, Tip of abdomen, ventral. b, 7th and 8th segments, dorsal. c, 9th sternum, lateral, with outline of ligula. d, 9th tergum and associated structures, lateral. e, same as d, oblique posterior. f, Aedeagus, lateral on outline of 9th sternum. Fig. 51. *O. parvicornis*, male genitalia. a, 9th tergum and associated structures. b, 7th and 8th segments, dorsal.

Macquart in the United States (and probably *lineatus* Macquart). *Ocyptamus notatus* differs from *lineatus* in having the alula narrow, about $\frac{3}{4}$ as wide as 2nd basal cell, whereas *lineatus* has it about $1\frac{1}{3}$ times as wide as 2nd basal cell. *Ocyptamus notatus* of Hull (1949a: 96, 123, 124, figs. 211, 233, 294) is not the same as *notatus* Loew and appears to be *lineatus* Macquart.

I have examined male and female specimens of a species of the *lineatus* group from Jamaica. These specimens agree well with what remains of the

type of *notatus* (Loew), except the alula is only slightly narrower than 2nd basal cell. Unfortunately the abdomen of the type of *notatus* is missing. Loew described the abdomen as ochre color with black longitudinal lines, which suggests the abdomen was colored like *lineatus* (Macquart). The Jamaican specimens have the abdomen ochre color but with only a single middorsal brown line.

OCYPTAMUS PARVICORNIS (LOEW) GROUP

Face yellow; vertex long, narrow, with ocellar triangle about $3 \times$ its length in front of hind margin of eye; occiput with only 1 distinct row of cilia on upper $\frac{1}{3}$, with 2 rows of thin scalelike hairs on lower $\frac{2}{3}$, with anterior row irregular and with much shorter hairs; metasternum bare; postmetacoxal bridge incomplete; scutellum yellow, without ventral fringe; plumula absent; squama without a fringe, thorax and abdomen more or less uniformly reddish brown, without any distinct markings; abdomen long, very narrow, only slightly expanded apically; males with 5th sternum produced into 2 long apical prongs.

Wing alula greatly reduced, very narrow, narrower than costal cell, bare; anterior crossvein distinctly beyond middle of discal cell, more than its length before termination of Sc; apical crossvein slightly sinuate, ending distinctly before termination of 2nd vein.

Ocyptamus ferrugineus Thompson, NEW SPECIES

Figs. 50, 59

Male, female.—*Head*: Face shiny yellow, yellow pilose; cheek yellow; frontal lunule yellow except for large medial black spot; frontal triangle yellow, black pilose; vertical triangle black, black pilose, sparsely silvery gray pollinose behind ocellar triangle; occiput black, silvery white pollinose, with a posterior row of long white hairs which are scalelike on lower $\frac{2}{3}$ and thin on upper $\frac{1}{3}$, with irregular anterior row of short hairs on lower $\frac{2}{3}$ which are black at ocular notch and white below notch; antenna orange, black pilose; arista brownish black except extreme base orange.

Thorax and abdomen: Reddish orange except black posterior $\frac{1}{4}$ of pleurotergite; thorax very sparsely white pollinose, with very short and sparse white pile except black above wings and on postalar calli; scutellum with very short black pile; halter yellow with brown head; squama yellow. *Wing*: Hyaline except for dark brown anterior edge and apical spot, microtrichose except bare as follows: 1st costal cell, basal $\frac{1}{2}$ of 2nd costal cell, above Rs, both basal cell, basal $\frac{1}{3}$ of submarginal cell except at base (i.e. base with a few microtrichia), basal $\frac{1}{4}$ of apical and discal cells, basal $\frac{1}{3}$ of cubital cell, almost all of anal cell (which has only a few scattered microtrichiae in apex), and basal $\frac{1}{2}$ of anal lobe. Alula absent. *Legs*: Yellow, yellow pilose except black pilose dorsoapically on middle femur and on apical $\frac{2}{3}$ of hind-

femur; abdomen with very short black pile except longer and yellow on apical sterna and genitalia.

Holotype.—♂, PUERTO RICO, Isabela, A. Lugo's Farm; ex. *Psidium guajava* leaf infested with white flies, 14 June 1971, S. Medina Gaud, deposited in USNM. Paratypes: 4 ♂, 1 ♀, same data as for holotype except 1 ♂ emerged on 25 May (USNM); 1 ♂, Puerto Rico, Mayaguez, 27 July 1907, "feeding on whiteflies", W. V. Tower (USNM); 1 ♂, "P.R.S. 509" (USNM); 1 ♂, Puerto Rico, Cabo Rojo, "ex: whitefly on *Inga layrina*", 29 December 1918 (USNM).

Discussion.—*Ocyptamus ferrugineus* is very closely related to *parvicornis* (Loew) differing only in the extent of wing microtrichia and structure of the male genitalia (Figs. 50, 59). All specimens of *ferrugineus* for which we have data were reared from larvae feeding on whiteflies. *Ocyptamus parvicornis* (Loew) has been reared from an undescribed species of mealybug on *lignumvitae* in the Florida Keys (Eisner, personal communication). These facts suggest different host preferences.

Ocyptamus parvicornis (Loew)

Figs. 33, 36, 37, 51, 61

Baccha parvicornis Loew, 1861: 41. Type-loc.: Cuba. Lectotype ♂ MCZ*, see Appendix B. Subsequent references: Roeder, 1885: 342 (Puerto Rico); Gundlach, 1887: 186 (Puerto Rico); Wolcott, 1923: 213, 1936: 348, 1941: 115, 1948: 464 (Puerto Rico, prey reccs., descript., biol. notes); Hull, 1943d: 61 (key ref.), 1949a: 99, 133, 190, fig. 266 (abdomen) (placed in *victoria* group, key ref.); Miskimen and Bond, 1970: 65 (St. Croix, biol. notes); Telford, 1973: 234 (Puerto Rico; biol. notes).

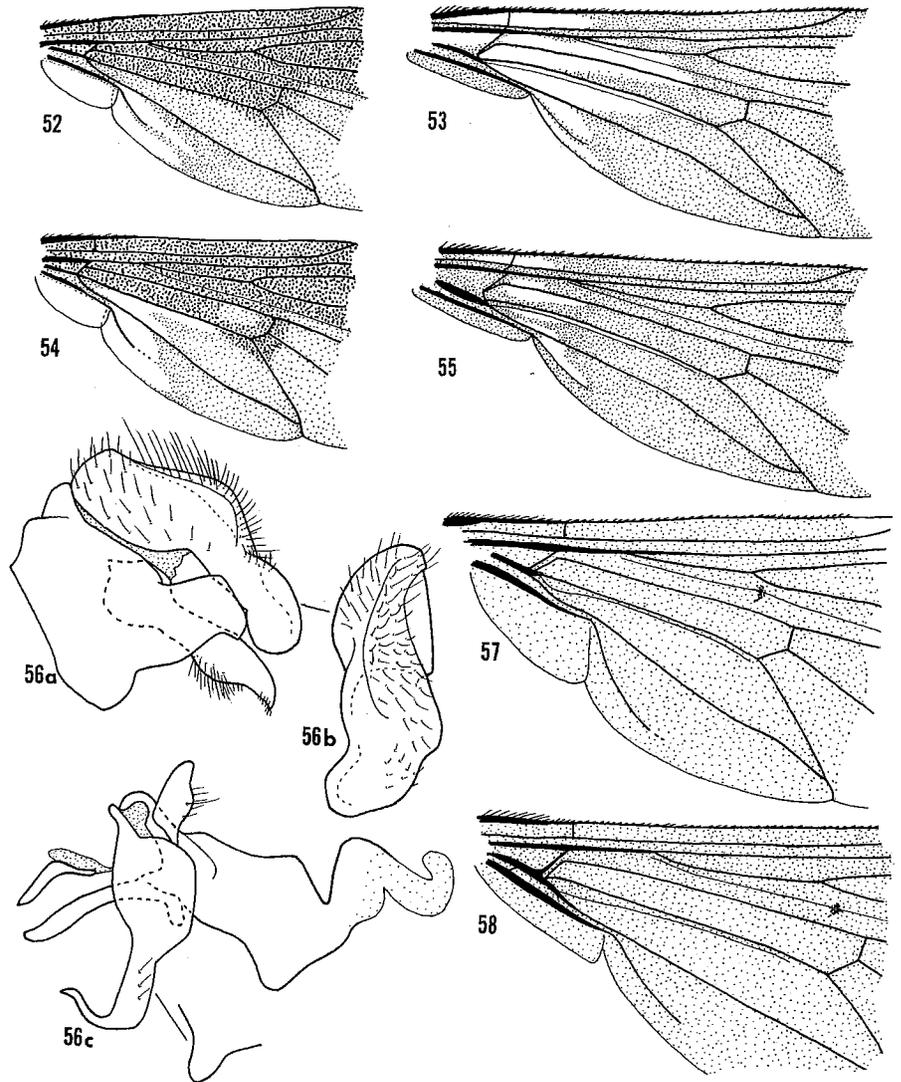
Ocyptamus parvicornis: Thompson et al., 1976: 24.

Distribution.—USA (Florida), Cuba*, Jamaica*, Puerto Rico*, Lesser Antilles (St. Croix).

OCYPTAMUS STENOGASTER (WILLISTON) GROUP

Face yellow, with or without a black medial vitta; vertex short, broad, with ocellar triangle about its length or less in front of hind margin of eye; occiput with 3–4 irregular rows of scalelike hairs on lower $\frac{1}{2}$, with 2 regular rows of cilia on upper $\frac{1}{2}$; metasternum bare; postmetacoxal bridge incomplete; mesonotum shiny, dark medially, yellow laterally, with indistinct pollinose vittae; scutellum yellow to dark bluish black, without ventral fringe; plumula absent; squama with strong fringe only on lower edge; abdomen long, narrow, petiolate, with distinct apical club, dark, with fasciae or fasciate spots; male genitalia small.

Wing alula greatly reduced, very narrow, about same width as or narrower than 2nd costal cell, bare; anterior crossvein at basal $\frac{1}{3}$ to $\frac{1}{2}$ of discal cell, slightly before termination of Sc; apical crossvein slightly sinuate, ending approximately at termination of 2nd vein.



Figs. 52-55, 57-58. Wing bases. 52, *Ocyptamus fascipennis*. 53, *O. neoparvicornis*. 54, *O. cylindricus*. 55, *O. cubanus*. 57, *O. lineatus*. 58, *O. notatus*. Fig. 56. Male genitalia of *O. capitatus*, lateral. a, 9th tergum and associated structures. b, Cercus, dorsal. c, 9th sternum and associated structures.

The *stenogaster* group is greatly in need of revision, but limited material prevents me from undertaking such a task. I have seen less than two dozen specimens belonging to this group from the Caribbean area. This material suggests that there is a distinct taxon on each major island group and possibly two on Jamaica.

Ocyptamus deceptor (Curran)

Figs. 35, 62

Baccha deceptor Curran, 1930a: 14. Type-loc.: St. Croix. Holotype ♂ AMNH*. Subsequent references: Hull, 1949a: 99, figs. 197 (abdomen), 287 (wing) (placed in *obscuricornis* group, key ref.); Maldonado and Navarro, 1967: 59 (Puerto Rico, correction of Wolcott's records of *stenogaster*); Doesburg, 1970: 94, 96 (Antigua); Miskimen and Bond, 1970: 65 (St. Croix); Telford, 1973: 228 (Puerto Rico).

Ocyptamus deceptor: Thompson et al., 1976: 16.

Baccha stenogaster of Wolcott, 1923: 218, 1936: 348, 1948: 464 (Puerto Rico, prey rec., descript., biol. notes); Curran, 1928b: 35 (Puerto Rico, St. Croix); Beatty, 1944: 149 (St. Croix).

?*Baccha* sp., Coquillett, 1900: 252 (Puerto Rico, prey rec.).

Distribution.—Puerto Rico*, Lesser Antilles (St. Croix, St. Thomas*, Antigua).

Ocyptamus hyacinthia (Hull)

Baccha hyacinthia Hull, 1947: 409. Type-loc.: Cuba, Soledad. Holotype ♀ CNC*.

Baccha hyacinthia: Hull, 1949a: 99, 132, fig. 252 (abdomen) (key ref., misspelling, correctly spelled on pp. 99, 246).

Ocyptamus hyacinthia: Thompson et al., 1976: 20.

Distribution.—Cuba*.

Ocyptamus oenone (Hull)

Fig. 41

Baccha oenone Hull, 1949a: 99, 109, fig. 198 (abdomen). Type-loc.: Jamaica. Holotype ♂, location unknown.

Ocyptamus oenone: Thompson et al., 1976: 24.

Distribution.—Jamaica*.

This species has never been described, Hull merely validated the name by including it in his key to the species of New World *Baccha*, along with a figure of the abdomen of the holotype male. Hull indicated that it was a member of what I here call the *stenogaster* group and keyed it out with *deceptor* Curran. Hull distinguished *oenone* from *deceptor* on the basis of the "Last section of this [=sixth] vein convex," but this character is worthless because this section is convex in *deceptor* and all *Ocyptamus* species known to me. The figure of the abdomen of the holotype of *oenone* appears to differ from that of typical *deceptor* by the smaller spots on the fourth tergum and the lack of opaque black color around these spots; these differences are insignificant as they can be found within the observed range of variation of *deceptor*. Thus Hull does not give a single character of any use