

RECORDS OF SYRPHIDAE (DIPTERA)  
FROM THE LESSER ANTILLES

by

P. H. VAN DOESBURG, Sr.

(Baarn, Nederland)

Having terminated his term of office as a Director of the Suriname Museum at Paramaribo, Dr. D. C. GEIJSKES returned to Holland. Accompanied by Mrs. GEIJSKES he availed himself of the opportunity to make a collecting-trip to several islands of the Windward Group of the Lesser Antilles, situated in a curved line between Trinidad and Puerto Rico. The islands of Grenada, Barbados, St. Vincent, St. Lucia, Martinique, Dominica, Guadeloupe, Antigua, Barbuda, Montserrat, St. Kitts, St. Eustatius, St. Martin, Saba and Anguilla were visited in succession.

Though Dr. GEIJSKES himself is especially interested in Odonata and aquatic Neuroptera, he and Mrs. GEIJSKES have been kind enough to catch also the Syrphidae they came across. In total 170 Syrphid flies were taken representing 13 species. The flies are in very good condition with full data.

The author is greatly indebted to Dr. and Mrs. GEIJSKES for their kind collecting, and also for the generous donation of the specimens. Some duplicates have been placed in the collection of the Rijksmuseum van Natuurlijke Historie at Leiden.

Firstly the specimens captured by Dr. and Mrs. GEIJSKES are listed below, followed by other records from the Lesser Antilles by previous authors. Finally a list of the known Syrphidae from each island apart is given. For the sake of brevity Dr. D. C. GEIJSKES and Mrs. E. GEIJSKES-SOLLEWIJN GELPKE are indicated as collector by their respective initials of G and GS.

TABLE 3

DISTRIBUTION OF SYRPHIDAE IN THE LESSER ANTILLES' WINDWARD GROUP  
based on specimens from the GEIJSKES Collection (O) and  
data from literature (X)

Species	Grenada	Barbados	St. Vincent	St. Lucia	Martinique	Dominica	Guadeloupe	Antigua	Barbuda	Montserrat	St. Kitts	St. Eustatius	Saba	St. Martin	Anguilla	St. Croix	St. Thomas	(Virgin Islands)
<i>Allograpta fuscisquama</i>																		
— <i>venusta</i>																		
<i>Mesograpta basilaris</i>																		
— <i>boscai</i>			X															
— <i>duplicata</i>			X															
— <i>ferroxida</i>			X															
— <i>floralis</i>			X															
— <i>laciniosa</i>			X															
— <i>multipunctata</i>			X															
— <i>ornithoglypha</i>			X															
— <i>picta</i>			X															
— <i>pulchella</i>			X															
— <i>variabilis</i>			X															
<i>Baccha clavata</i>			X															
— <i>cylindrica</i>			X															
— <i>deceptor</i>			X															
— <i>dimidiata</i>			X															
<i>Volucella discalis</i>			X															
— <i>unipunctata</i>			X															
<i>Ornidia obesa</i>			X															
<i>Eristalis agrorum</i>			X															
— <i>guadeloupensis</i>			X															
— <i>hortorum</i>			X															
— <i>vinetorum</i>			X															
<i>Meromacrus flukei</i>			X															
— <i>unicolor</i>			X															
<i>Malesia virginienensis</i>			X															
Total 27:	4	2	12	6	5	7	17	3	1	2	2	3	3	5	1	4	6	(8)

Genus *Allograpta* Osten-Sacken

OSTEN-SACKEN 1876, Bull. Buff. Soc. Nat. Hist. 3: 49.

*Allograpta fuscisquama* Curran

*Allograpta fuscisquama* CURRAN, 1927, Amer. Mus. Novit. 245: 4.

ST. EUSTATIUS, The Quill (slope), 27.VI.1965, 1 ♂, G. - Oranjestad (on *Carolita*), 28.VI.65, 3 ♀, G.

ST. MARTIN, Cul de Sac, Reward, 1.VII.65, 1 ♂, GS.

SABA, Ladder Bay, 4/5.VII.65, 6 ♂, 3 ♀, G. - The Bottom, 5.VII.65, 1 ♂, G.

Genus *Mesograpta* Loew

LOEW 1872, Berl. Ent. Zeitschr. 16: 114.

*Mesograpta basilaris* (Wiedemann)

*Syrphus basilaris* WIEDEMANN, 1830, Auss. Zweifl. Ins. 2: 143.

MARTINIQUE, near Medaille, 23.V.1965, 2 ♂, GS.

DOMINICA, Springfield Estate, 28.V.65, 2 ♂, G; 29.V., 2 ♂, GS.

GUADELOUPE, Point-à-Pitre, 5.VI.65, 5 ♂, 1 ♀, G. - Prise d'Eau, 5.VI.65, 2 ♂, 1 ♀, G. - Deshaies (Port Royal), 6.VI.65, 1 ♀, GS.

ANTIGUA, All Saints Village, 12.VI.65, 2 ♂, GS.

*Mesograpta basilaris flavocuneus* (Hull)

*Mesogramma basilaris flavocuneus* HULL, 1940, J. Wash. Acad. Sci. 30: 433; 1943a, Ent. Amer. 23: 9, fig. 53.

DOMINICA, Fresh Water Lake, 2200 ft., 31.V.1965, 2 ♀, GS.

*Mesograpta duplicata* (Wiedemann)

*Syrphus duplicatus* WIEDEMANN, 1830, Auss. Zweifl. Ins. 2: 142.

ST. VINCENT, Greathead River near Airfield, 12.V.1965, 1 ♀, G.

GUADELOUPE, Prise d'Eau, 5.VI.65, 2 ♀, G.

*Mesograpta floralis* (Fabricius)

*Scaeva floralis* FABRICIUS, 1798, Ent. Syst. Suppl.: 563.

ST. VINCENT, Greathead River, 12.V.1965, 1 ♀, G. - Leewardside Cumberland River, 13.V.65, 1 ♀, G.

ST. LUCIA, Union Agric. Station, 17.V.65, 1 ♂, GS.

DOMINICA, Springfield Estate, 28.V.65, 1 ♀, G.

GUADELOUPE, Point-à-Pitre, 5.VI.65, 3 ♂, 2 ♀, G. - Prise d'Eau, 5.VI.65, 1 ♂, 1 ♀, G. - Deshaies (Port Royal), 6.VI.65, 1 ♂, 1 ♀, GS.

*Mesograpta ornithoglypha* (Hull)

*Mesogramma ornithoglypha* HULL, 1942, Proc. New Engl. Zool. Club 20: 17; 1943a, Ent. Amer. 23: 14, fig. 69 (*Mesogramma*).

DOMINICA, Springfield Estate, 28/29.V.1965, 2 ♂, G. - Fresh Water Lake, 2200 ft., 31.V.65, 3 ♂, GS.

*Mesograpta picta* (Macquart)

*Syrphus pictus* MACQUART, 1842, Dipt. Exot. 2: 99, tab. 16 fig. 11.

ST. LUCIA, Windwardside Dennery, 18.V.1965, 2 ♀, G.

MARTINIQUE, near Medaille, 23.V.65, 1 ♂, GS.

Genus *Baccha* Fabricius

FABRICIUS, 1805, Syst. Antl.: 199.

*Baccha clavata* (Fabricius)

*Syrphus clavatus* FABRICIUS, 1794, Ent. Syst. 4: 298.

ST. LUCIA, Union Agric. Station, 17.V.1965, 1 ♂, GS.

DOMINICA, Springfield Estate Valley, 29.V.65, 2 ♂, 1 ♀, GS.

GUADELOUPE, Deshaies, strandvegetation, 6.VI.65, 1 ♀, GS.

BARBUDA, Godrington Village, lagoon, 20.VI.65, 1 ♀, GS.

MONTserrat, Belham River, 14/15.VI.65, 2 ♂, 1 ♀, GS; 16.VI., 1 ♂, 1 ♀, G.

ST. EUSTATIUS, Oranjestad (on *Carolita*), 28.VI.65, 2 ♂, G. - The Quill (slope), 27.VI.65, 3 ♂, G.

ST. MARTIN, Colombier Ravine, 30.VI.65, 3 ♂, 1 ♀, G. - Cul de Sac, Reward, 1.VII.65, 9 ♂, 1 ♀, GS.

SABA, Ladder Bay, 4.VII.65, 1 ♂, 1 ♀, G.



**Baccha cylindrica** (Fabricius)

*Syrphus cylindricus* FABRICIUS, 1781, Spec. Ins. 2: 249.

ST. EUSTATIUS, The Quill (slope), 27.VI.1965, 1 ♀, G.  
ST. MARTIN, Colombier Ravine, 30.VI.65, 1 ♂, 2 ♀, G. – Cul de Sac, Reward,  
1.VII.65, 9 ♂, 1 ♀, GS.  
SABA, Ladder Bay, 4.VII.65, 10 ♂, 9 ♀, G.

**Baccha deceptor** Curran

*Baccha deceptor* CURRAN, 1930, Amer. Mus. Nov. 403: 14.

ANTIGUA, All Saints Village, 12.VI.1965, 1 ♀, GS.

**Baccha dimidiata** (Fabricius)

*Syrphus dimidiatus* FABRICIUS, 1781, Spec. Ins. 2: 434.

BARBADOS, brackish water swamp, 10.V.1965, 1 ♂, 1 ♀, G.  
ST. LUCIA, Union Agric. Station, 17.V.65, 1 ♀, GS.  
DOMINICA, Springfield Estate, 28.V.65, 2 ♀, G.  
GUADELOUPE, Prise d'Eau, 5.VI.65, 1 ♀, G.  
ST. KITTS, Wingfield Estate River, 24.VI.65, 1 ♂, G.  
ST. MARTIN, Colombier Ravine, 30.VI.65, 1 ♂, G.

Genus **Ornidia** Lepel. & Serv.

LEPELETIER & SERVILLE, 1825, Encycl. Meth. 10: 768.

**Ornidia obesa** (Fabricius)

*Syrphus obesus* FABRICIUS, 1775, Syst. Ent.: 763.

ST. LUCIA, Union Agric. Station, 17.V.1965, 2 ♂, GS.  
DOMINICA, Springfield Estate, 28.V.65, 1 ♀, G.  
GUADELOUPE, Deshaies (Port Royal), 6.VI.65, 1 ♀, GS.

Genus **Eristalis** Latreille

LATREILLE, 1805, Hist. Nat. Crust. Insect. 14: 363.

**Eristalis agrorum** (Fabricius)

*Syrphus agrorum* FABRICIUS, 1787, Mant. Insect. 2: 335.

GRENADA, windwardside Antoine Bay, 5.V.1965, 2 ♀, G.  
GUADELOUPE, Prise d'Eau, 5.VI.65, 1 ♂, G.  
ANGUILLA, 7/8.VII.65, 2 ♀, G.

**Eristalis vinetorum** (Fabricius)

*Syrphus vinetorum* FABRICIUS, 1798, Ent. Syst. (Suppl.): 562.

GRENADA, Woodlands Estate, 3.V.1965, 2 ♂, 1 ♀, G.  
BARBADOS, St. Lawrence, brackish water swamp, 10.V.65, 2 ♂, G.  
ST. VINCENT, Greathead River near Airfield, 12.V.65, 1 ♀, G.  
ST. LUCIA, Union Agric. Station, 17.V.65, 2 ♂, GS.  
MARTINIQUE, La François, brackish water swamp, 25.V.65, 3 ♀, G. – near  
Medaille, 23.V.65, 1 ♂, 1 ♀, GS.  
DOMINICA, Springfield Estate, 28.V.65, 2 ♂, GS.  
GUADELOUPE, Prise d'Eau, 5.VI.65, 1 ♂, G. – Deshaies, beach, 6.VI.65, 3 ♂,  
1 ♀, GS.  
ANTIGUA, Belmont Hill Farm, 11.VI.65, 2 ♂, 3 ♀, G. – All Saints Village,  
12.VI.65, 1 ♀, GS. – Ant. Sugar Fact., 13.VI.65, 4 ♂, 2 ♀, GS.  
MONTERRAT, Plymouth, 15/17.VI.65, 2 ♂, GS.  
ST. KITTS, Wingfield Estate River, 24.VI.65, 2 ♂, 1 ♀, G.  
ST. MARTIN, Colombier Ravine, 30.VI.65, 2 ♂, 1 ♀, G.

## REMARKS

*Allograpta fuscisquama* Curr. The type-specimens came from Puerto Rico. The other localities recorded by CURRAN are St. Thomas, St. Croix and Mona Island which are lying comparatively close to Puerto Rico, just as do Saba, St. Eustatius, St. Martin and the Virgin Islands.

*Mesograpta basilaris* (Wied.) is a rather common species in Central and South America and is also recorded from Texas. *Flavocuneus* (Hull) is one of the numerous varieties credited to the synonymy of *basilaris*. HULL's type female and three paratypes (♀) came from Spanish Honduras, one paratype (♀) from México. Females of *flavocuneus* from Brasil, Suriname, Trinidad and Costa Rica are in my collection.

VAN DER WULP (1883) described *Mesograpta variabilis* after several males from Guadeloupe (p. 6) and gave a coloured figure of it (pl. 1 fig. 9). Undoubtedly this is the same species as *flavocuneus* Hull (1940). NEW SYNONYMY. A closer examination of the male genitalia should settle whether *variabilis* Wulp is a proper species or a variety of *basilaris* (Wied.). The types of *variabilis* were in the Museum at Brussels, together with much more Diptera collected on Guadeloupe by a Mr. DELAUNAY. The Syrphidae have been recorded by VAN DER WULP (1882, 1883).



*Mesograpta duplicata* (Wied.). Frequent in the Tropical region. Also known from Puerto Rico.

*Mesograpta floralis* (F.). Common in the neotropical region and just as variable as *basilaris*. The species has been recorded by CURRAN (1928) and by WOLCOTT (1948) from Puerto Rico, St. Thomas, and the Virgin Islands.

*Mesograpta ornithoglypha* (Hull). HULL (1942) described the species after one ♂ and two ♀ from the Dominican Republic, collected at an altitude of 3000/7000 ft., and one ♂ from the Trinidad Mountains, Cuba. Since three of our specimens have also been found at an altitude of 2000 ft., *ornithoglypha* should presumably be a mountain-species; the two other males, however, have been collected near Springfield Estate, which is lying in the mountains only a few hundred feet above sea-level (according to GEIJSKES). - HULL (1943a) gave a clear drawing after a female. In our males the transverse markings on the second abdominal segment are narrowly separated in one specimen, in the others they are touching. The black spots on the fore and middle femora agree with HULL's description of the female. - VAN DER WULP (1883) recorded 11 ♂ and 3 ♀ from Guadeloupe in the Brussels Museum collection as being *Mesograpta arcifera* Loew. He gave a coloured figure of a male. There is no doubt that VAN DER WULP's specimens belonged to *ornithoglypha* Hull. The markings upon the second abdominal segment are quite different from those in *arcifera* Loew.

*Mesograpta picta* (Macquart). Frequent in the Neotropical region. Also recorded from Puerto Rico by CURRAN (1928). MACQUART's type ♀ was from Cayenne.

*Baccha clavata* (F.). A very common species in the Neotropics, and also recorded from the southern part of North America. On account of the face and epistoma which project beyond the antennal base, HULL (1949) erected the monotypical subgenus *Dioprosopa*. - In most of the males recorded above, and in one of the females from St. Martin (Cul de Sac), the abdomen has a pale yellowish fading upon the third segment, sometimes also over the fourth segment. The author did not find such a fading in nearly fifty specimens from the continent of South America.

*Baccha cylindrica* (F.). Up till now known only from the Westindian Islands and apparently not rare there. The blackish wing-markings of the males are somewhat more extensive than in the females. The length of the specimens is ranging from 7 to 12 mm, on the whole, however, the males are obviously longer than the females.

*Baccha deceptor* Curran. The holotype male came from St. Croix, the allotype female from St. Thomas. Moreover, CURRAN recorded three females from Adjuntas, Puerto Rico, and another female from St. Thomas. Antigua, somewhat remote from Puerto Rico, is a new locality.

*Baccha dimidiata* (F.). Very common in the neotropical region. On account of the hair-collar along the mesonotal front-margin, the not constricted abdomen, and the dark coloration, the species may be placed into the sub-genus *Ocyptamus* Macq., just as *B. cylindrica* (F.).

*Ornidia obesa* (F.). Very common in the neotropical region and from there it spread over the tropical parts and islands of Africa and Asia, presumably by old-time sailing-ships on board of which the tidiness often left much to be desired. Dr. ZÜRCHER found in Paraguay the larvae on putrefying fruits, but also in the excreta of a latrine (SACK, 1921, with figures of larva and pupa). The species also occurs in the southern states of the U.S.A.

*Eristalis agrorum* (F.) has been recorded from South and Central America, the West Indies and the southern part of the U.S.A., and is also recorded from Cuba, Puerto Rico and the Virgin Island under the synonymous name *cubensis* Macquart.

*Eristalis vinetorum* (F.) is very common in the neotropics; also recorded from Central America, the southern states of the U.S.A., México, Cuba, and Puerto Rico.

#### PREVIOUS STATEMENTS OF SYRPHIDAE FROM THE LESSER ANTILLES

##### *Milesia virginiensis* (Drury)

*Musca virginensis* Drury, 1773. - Guadeloupe.

##### *Mesograpta pulchella* (Macquart)

*Syrphus pulchellus* Macquart, 1846.

*Mesograpta pulchella* (Macq.), VAN DER WULP, 1883 (2 ♀). - Guadeloupe (Delaunay coll.).

##### *Eristalis guadeloupensis* Macquart

MACQUART, 1942. - Guadeloupe.

##### *Ornidia obesa* (F.)

*Volucella obesa* F., VAN DER WULP, 1882. - Guadeloupe (Delaunay).

##### *Eristalis vinetorum* (F)

VAN DER WULP, 1882 (both sexes). - Guadeloupe (Delaunay).

##### ? *Eristalis unicolor* Wulp

VAN DER WULP, 1882 (1 ♀). - Guadeloupe (Delaunay).

VAN DER WULP himself was in doubt about the genus in which the species had to be placed, viz. *Eristalis* or *Plagiocera*. *Plagiocera* Macquart, 1842, appeared to be preoccupied by KLUG, 1834, for a Hymenopterous genus, and has been replaced by *Meromacrus* Rondani, 1848, by all recent authors. - After a detailed study of VAN DER WULP's description, it is beyond doubt that the name should be *Meromacrus unicolor* (Wulp) (NEW COMBINATION). - The description of *unicolor* (♀ only) agrees very well with CURRAN's (1936) description of *Meromacrus bruneri* from Cuba (also 1 ♀). The third antennal segment, however, was described as egg-shaped, not



transversal in *unicolor*, as transverse in *bruneri*. — The type ♀ of *unicolor* should be in the Brussels Museum.

#### *Allograpta exotica* (Wiedemann)

*Syrphus exotica* Wiedemann, 1830. VAN DER WULP, 1883 (8 ♀). — Guadeloupe (Delaunay).

According to VAN DER WULP's full description these specimens cannot belong to *exotica*; presumably they are belonging to *fuscisquama* Curran. Their scutellum was "yellow with a central, semicircular, black spot" and the face with "a shining, black, median band."

#### *Allograpta venusta* Curran

Recorded by CURRAN, 1927, from St. Thomas.

#### *Mesograpta arcifera* (Loew)

*Mesogramma arcifera* Loew, 1865. VAN DER WULP, 1883 (11 ♂, 3 ♀). — Guadeloupe (Delaunay).

As stated above, these specimens are recognized as *M. ornithoglypha* Hull.

#### *Mesograpta multipunctata* Wulp

VAN DER WULP, 1883 (1 ♂). — Guadeloupe (Delaunay).

#### *Mesograpta ferroxida* (Hull)

*Mesograpta ferroxida* (Hull) 1942, from St. Vincent, Grenada and Guadeloupe, is very much alike *multipunctata* Wulp, if not identical. The third and fourth abdominal segments each bear four black dots ranged as the four angular points of a rectangle. *M. ferroxida* should have there "a pair of narrow, linear, submedial vittae which are centrally evanescent" (HULL, 1942: 21). Possibly only the four remainders of the two sub-medial vittae were visible in VAN DER WULP's specimen. Expansion of the yellow ground-colour is a common phenomenon in male *Mesograpta*. When the synonymy appears to be correct, VAN DER WULP's *multipunctata* should have priority.

#### *Mesograpta basilaris* (Wiedemann)

*Syrphus basilaris* Wiedemann, 1830. VAN DER WULP, 1883 (Many specimens, but only males). — Guadeloupe (Delaunay).

#### *Mesograpta variabilis* Wulp

VAN DER WULP, 1883. Many specimens (males only). — Guadeloupe (Delaunay).

According to description and figure given by VAN DER WULP, this species is identical with *M. basilaris flavocuneus* Hull (1940). However, the latter described females only from Spanish Honduras and México. (See above under *M. basilaris* Wied.).

#### *Volucella unipunctata* Curran

Described by CURRAN, 1926, after specimens from Desecheo Island, near Puerto Rico; recorded by WOLCOTT (1948) also from St. Croix and St. Thomas.

#### *Baccha cylindrica* (F.)

*Ocyptamus fuscipennis* Macq. (1834). VAN DER WULP, 1883 (3 ♀). — Guadeloupe (Delaunay).

Under the latter name VAN DER WULP referred to an award by SCHINER (1868, Reise Nov., Dipt.: 346) in which the synonymy of *fuscipennis* Macq. and *fuscipennis* Say was distinctly contradicted after study of typical specimens in WIEDEMANN's collection. *O. fuscipennis* Macq. is the same as *cylindrica* (F.). At present *Ocyptamus* is considered to be at most an ill-defined sub-genus (HULL), or a group (CURRAN), of *Baccha*.

#### *Baccha clavata* (F.)

VAN DER WULP recorded 2 ♂, 1 ♀ in the Brussels Museum. — Guadeloupe.

#### *Baccha dimidiata* (F.)

VAN DER WULP, a number of specimens in the Brussels Museum. — Guadeloupe.

All Syrphids from Guadeloupe recorded by VAN DER WULP have been collected by a Mr. DELAUNAY.

In 1896 WILLISTON published a list (193 pages!) of the Diptera found in the island of St. Vincent, by Mr. H. H. SMITH. The Syrphidae are to be found on the pages 346–350: *Meromacrus pratorum* F., *Eristalis vinetorum* F., *Volucella obesa* F., *Volucella* sp. n.?, *Baccha clavata* F., *Ocyptamus dimidiatus* F., *Allograpta exotica* Wulp ("nec Wiedemann" WILL.), *Mesogramma basilare* F. var.?, *Mesogramma laciniosa* Loew, *Mesogramma bosci* Macq., *Mesogramma* sp.? *Mesogramma* Loew (1866) (occupied) = *Mesograpta* Loew (1872).

*Allograpta exotica* Wulp (nec Wiedemann). WILLISTON recorded a single female fully agreeing with the description by VAN DER WULP of what the latter thought to be WIEDEMANN's *Syrphus exoticus*. In WILLISTON's opinion this could not be correct because the scutellum of his specimen was broadly black. To our mind it is a female of *All. fuscisquama* Curran.

*Mesogramma laciniosa* Williston (nec Loew) is most probably *Mesograpta ferroxida* (Hull) (? = *M. multipunctata* Wulp; see above).

*Mesogramma* spec. Sixteen specimens were amply described, but not named by WILLISTON. This description is fully in accordance with description and figure 66 (1943) given by HULL of *M. ferroxida*.

*Volucella* sp. n.? WILLISTON could not find any description that would apply well to the three specimens which differed from *pallens* Wied. in the presence of a median, and two lateral, facial stripes, in the hair of the mesonotum being for the most part black, and in the presence of a large black spot on the scutellum. All these characters may be found in CURRAN's (1926) description of *Volucella discalis* from the neighbouring island of Grenada.

*Meromacrus pratorum* Williston (nec Fabricius) is *M. flukei* Curran. CURRAN (1936) described a ♂ and a ♀ from St. Vincent, and a paratype ♀ from St. Thomas.



*Mesograpta ferroxida* (Hull). The holotype ♂ came from St. Vincent, the allotype ♀ from the mountains of Guadeloupe, three paratypes from Grand Etang, Grenada.

WILLISTON's article "On the Diptera of St. Vincent (West Indies) (*Dolichopodidae* and *Phoridae* by Professor J. M. Aldrich) "was communicated by DAVID SHARP, on behalf of the Committee for investigating the Flora and Fauna of the West Indies. According to SHARP's Preface "the Diptera found in St. Vincent were collected by Mr. H. H. SMITH, the well-known American entomologist, who was sent to the islands by F. D. GODMAN Esq. to assist the Committee in its investigations." "A second memoir, treating the Diptera of the neighbouring island of Grenada, will, it is hoped, be almost immediately ready for publication, the present instalment having been in the hands of the Committee for upwards of two years. - D.S."

As far as I know this second memoir has never been published. Only the *Dolichopodidae* of Grenada have been communicated by ALDRICH (1902).

In a not very well-known paper CURRAN (1939) records 4 Syrphid species from Martinique: *Mesograpta basilare* (Wied.), *Mesograpta laciniosa* (Lw.), *Ornidia obesa* (F.), and *Eristalis vinetorum* (F.).

## REFERENCES

- ALDRICH, J. M., 1902. Dolichopodidae of Grenada, W.I. *Kansas Univ. Bull.* 1: 75-95, pl. 4.
- CURRAN, C. H., 1926. Partial synopsis of American species of Volucella with notes on Wiedemann's types. *Ann. Ent. Soc. America* 19: 50-66.
- CURRAN, C. H., 1927. New neotropical and oriental Diptera in the American Museum of Natural History. *Amer. Mus. Novit.* 245: 1-9, fig.
- CURRAN, C. H., 1928. Diptera or Two-winged Flies. *Scientific Survey of Porto Rico and Virgin Islands II*: 1-118.
- CURRAN, C. H., 1930a. New species of Diptera belonging to the genus Baccha. *Amer. Mus. Novit.* 403: 1-16.
- CURRAN, C. H., 1930b. New species of Eristalinae, with notes. *Amer. Mus. Novit.* 411: 1-27.
- CURRAN, C. H., 1936. Three new species of Meromacrus. *Amer. Mus. Novit.* 834: 1-5.
- CURRAN, C. H., 1939. Syrphidae. In: Résultats scient. "Mercator" II. *Mém. Mus. Hist. Nat. Belge* (2) 15: 173-175.
- DRURY, D., 1773. *Illustrations of natural History*. Vol. 2 (t. 37, f. 6).
- FABRICIUS, J. C., 1775. *Systema entomologiae*. 832 pp.
- FABRICIUS, J. C., 1781. *Species Insectorum*, Vol. 2, 517 pp.
- FABRICIUS, J. C., 1787. *Mantissa Insectorum*, Vol. 2, 382 pp.
- FABRICIUS, J. C., 1794. *Entomologia systematica emendata et aucta*. Vol. 4, 472 pp.
- FABRICIUS, J. C., 1798. *Supplementum entomologiae systematicae*, 572 pp.
- FABRICIUS, J. C., 1805. *Systema antliatorum secundum ordines, genera, species*, 403 pp.
- FLUKE, C. L., 1956. Catalogue of the family Syrphidae in the Neotropical Region. *Revista Brasil. Ent.* 6: 193-268; (1957) 7: 1-181.
- HULL, F. M., 1940. Some new species of Syrphidae. *J. Wash. Acad. Sci.* 30: 432-434.
- HULL, F. M., 1942. Some flies of the genus Mesogramma. *Proc. Nw. Engl. Zool. Club* 20: 17-24.
- HULL, F. M., 1943a. The genus Mesogramma. *Ent. Amer.* 23: 1-41, 7 pls.
- HULL, F. M., 1943b. The New World species of the genus Baccha. *Ent. Amer.* 23: 42-99, 10 pls.
- HULL, F. M., 1949. The genus Baccha from the New World. *Ent. Amer.* (1947) 27: 89-258, 47 pls.
- LATREILLE, P. A., 1805. *Histoire naturelle, générale et particulière, des Crustacés et des Insectes*. Vol. 14, 432 pp., 9 pls.
- LEPELETIER, A. L. M. & SERVILLE, J. G. A., 1825. *Encyclopédie méthodique*, Vol. 10, 533 pp.
- LOEW, H., 1865. Diptera Americae septentrionalis indigena. Centuria sexta. *Berl. Ent. Zeitschr.* 9: 150-174.
- LOEW, H., 1872. Diptera septentrionalis indigena, Cent. X (appendix). *Berl. Ent. Zeitschr.* 16: 49-115.
- MACQUART, J., 1842. *Diptères exotiques ou peu connus*. Vol. 2: 5-140, 22 pls.
- MACQUART, J., 1846. *Dipt. exot. Suppl.* 1: 5-238, 20 pls.
- OSTEN-SACKEN, C. R., 1876. A list of the North American Syrphidae. *Bulletin Buffalo Soc. Nat. Sci.* 3: 38-71.
- SACK, P., 1921. Dr. L. Zürcher's Dipteren-ausbeute aus Paraguay: Syrphiden. *Arch. Naturg.* 87, A, 3: 127-149, 26 figs.
- WIEDEMANN, C. R. W., 1830. *Aussereur. zweifl. Insekten* Vol. 2, 684 pp., 8 pls.
- WILLISTON, S. W., 1896. On the Diptera of St. Vincent (West Indies). *Trans. Ent. Soc. London* 1896: 253-446, pls. 8-14.
- WOLCOTT, G. N., 1948. The Insects of Portorico. *J. Agric. Univ. Puerto Rico* 22, 3. (Syrphidae on p. 461-469).
- WULF, F. M. VAN DER. 1882. Amerikaansche Diptera II. *Tijdschr. Ent.* 23: 77-136, 2 pls.; continued as part III in 1883, *Tijdschr. Ent.* 20: 1-60, 2 pls.