CHECK LIST OF THE SYRPHID FLIES (DIPTERA: SYRPHIDAE) OF FLORIDA

HOWARD V. WEEES, JR.
Department of Zoology and Entomology, Ohio State University

The family Syrphidae comprises one of the few large families of flies which, viewed from an economic standpoint, are of great benefit to man. The larvae of a considerable number of species are aphidophagous, destroying countless numbers of plant lice and other injurious insects which suck the juices of plants. In many areas syrphid larvae are a principal natural control of aphids on truck crops and citrus. The adults commonly visit flowers for nectar and serve an important role in effecting cross-pollination of plants. Only a few species accidentally introduced into the United States from Europe are known to be harmful, feeding on bulbs of narcissus, amaryllis and onion, and none of these is known to occur in Florida. There are a few authenticated records of accidental parasitism in man, but these are of little significance. Certain species of syrphids have been used by scientists in the laboratory in the study of the physiology of insects, in genetics, and in cytology. Many are of value as scavengers, consuming decaying animal and vegetable matter which otherwise would be a nuisance to man.

Adult flies present a remarkable diversity of size, form, and coloration, some resembling bees, wasps, and bumblebees so closely that they are frequently mistaken for the latter. Many species are brightly striped, banded, or otherwise colored with yellow, orange, green and blue, and range from relatively smooth, shiny species to several which are densely hairy. In some cases even the eyes are densely pubescent.

The only check list of the Syrphidae of Florida was published in 1913 by C. W. Johnson and included 21 genera and 56 species, several of which were incorrectly determined. There has been relatively little work done in Florida on this interesting family of flies since that of Johnson. I began a study of the Syrphidae in 1945, and have collected a sufficient number of species to warrant publishing this list which includes 103 species, in 32 genera. Records are included from the U. S. National Museum, American Museum of Natural History, Academy of Natural Sciences of Philadelphia, Ohio State University Museum, Ohio State Archaeological and Historical Society Museum, Illinois
Natural History Survey collection, Emory University Museum, and from a survey of published records in the literature. Further collecting, undoubtedly, will add a fair number of species to this list. Apparently, there has been no collecting done in northwestern Florida, and only casual collecting in other parts of the state. Present records indicate that other species recorded from Cuba and the West Indies will be found on the southern-most part of the mainland and on the Florida keys. To attempt at this time to map the distribution of each species would be premature, since careful collecting has been done in only a few localities.

This list compares favorably with those for other states. Hull (1947) lists 105 species in 45 genera for Mississippi. Brimley (1938, 1942) records 128 species in 42 genera for North Carolina, which has been intensively collected by Metcalf, Shannon, and others. Smith (1909) lists 132 species in 45 genera for New Jersey. Britton (1920) lists 112 species in 41 genera for Connecticut. Metcalf in a 1913 list, to which many species have been added in recent years, shows 114 species in 35 genera for Ohio. Telford (1939) lists 135 species in 52 genera for Minnesota.

I have collected Syrphids principally in north-central Florida around Gainesville, in south-central Florida around Sebring, Highlands Hammock State Park, Lake Placid, and Clewiston, and southward from Miami to Key West. Plans for the future include concentrated collecting west of Tallahassee. At some future time I plan to publish a key to the Syrphidae of Florida as well as descriptions of several new species which I have collected in Florida. It is hoped that this list will stimulate interest in the family which will result in the discovery of new state records.

Locality records for each species are listed in order beginning with northwest Florida and proceeding eastward to Tallahassee and Jacksonville, then southward. Specimen records for each locality are listed in sequence, beginning with the earliest date and proceeding to the most recent. For each specimen, all available information is given in the following order: locality, date, collector, host plant, determiner, number of specimens having duplicate data, source of record (if taken from the literature), and location of the specimen(s). In each record where the number of specimens is not given, only one is indicated.
All specimens listed were seen by me with the exception of some specimens recorded by Johnson and Williston which are not located now in the American Museum of Natural History, United States National Museum, or Academy of Natural Sciences of Philadelphia. Florida specimens in my collection total 516; a total of 1453 specimens taken in Florida was examined in compiling this check list.

Unless otherwise indicated, I am responsible for the identification of any material in my collection; Dr. C. H. Curran is responsible for determination of material in the American Museum of Natural History; Dr. R. C. Shannon, Dr. J. R. Malloch, Mr. C. T. Greene, and several others are responsible for determination of material in the United States National Museum; Dr. R. C. Osburn is responsible for determination of material in the Ohio State University collections; Dr. C. L. Metcalf is responsible for determination of material in the Illinois Natural History Survey collection; and Dr. E. T. Cresson and others are responsible for determination of material in the Academy of Natural Sciences of Philadelphia. In taking the data from specimens in these collections, I have checked determinations, and the few corrections which were made have been indicated in this paper. Responsibility for determination of species records taken from the literature lies with the authors of such publications. Many of my specimens were sent to Curran, Fluke, and Hull for determination or check on my determinations, especially where a probable new species was involved. Where records are from the literature, location of specimens is not known unless it is so indicated. I have followed Hull’s (1949) arrangement of genera and subgenera. Mr. Erdman West, botanist and mycologist at the University of Florida, determined plant hosts of numerous specimens which I took.

LIST OF ABBREVIATIONS

Collectors:†
CAM = C. A. Mosier
CHTT = Dr. C. H. T. Townsend *
CLM = Dr. C. L. Metcalf *
CR = Dr. Charles Robertson *
CWJ = Dr. C. W. Johnson *
HVW, Jr. = H. V. Weems, Jr.
Mrs. ATS = Mrs. A. T. Slosson *
Mrs. CHTT = Mrs. C. H. T. Townsend
PWF = P. W. Fattig
RCO = Dr. R. C. Osburn
RST = R. S. Turner
WPH = W. P. Hunter

Determiners:

(CHC) = Dr. C. H. Curran, Curator of Natural History, The American Museum of Natural History, New York, N. Y.

(CL) = Dr. C. L. Fluke, Department of Economic Entomology, University of Wisconsin, Madison, Wisc.

(CL) = Dr. C. L. Metcalf *

(CLG) = Mr. C. T. Greene, retired, USDA, 4805 Guilford Road, College Park, Md.

(CWJ) = Dr. C. W. Johnson *

(FMH) = Dr. F. M. Hull, Chairman, Department of Biology, University of Mississippi, Oxford, Miss.


(HVW, Jr.) = H. V. Weems

(JSH) = J. S. Hine *

(RCO) = Dr. R. C. Osburn, 1861 Mission Street, So. Pasadena, Calif.

Collections:

(AMNH) = American Museum of Natural History, New York, N. Y.


(CLFColl.) = C. L. Fluke collection, University of Wisconsin, Madison, Wisc.

(CLMColl.) = C. L. Metcalf collection, Illinois Natural History Survey collection, University of Illinois, Urbana, Ill.

(EUM) = P. W. Fattig collection, Emory University Museum, Emory University, Ga.

(INHS) = Illinois Natural History Survey collection, Urbana, Ill.

† In a few cases where data were taken from labels on museum specimens, only the initials of the collector were given, and efforts to ascertain their meaning were unsuccessful. Therefore, where initials occur which are not given in this list of abbreviations, the meaning of the initials is not known to me.

* Deceased.
(OSM) = Ohio State Archaeological and Historical Society Museum, Ohio State University, Columbus, Ohio
(OSU) = Department of Zoology and Entomology Museum, Ohio State University, Columbus, Ohio

(THH coll.) = T. H. Hubbell collection, University of Michigan, Ann Arbor, Mich.

(USNM) = United States National Museum, Washington 25, D. C.

Miscellaneous Abbreviations:
coll. = collection
det. = determined by
on = feeding at or resting on
spm. = specimen
spms. = specimens
syn. = synonym of

BACCHIA Fabricius

Baccha calypsa Hull

ORLANDO 1-5-25 Holotype (AMNH).

Baccha (Dioprosopa) clavata Fabricius

ST. GEORGE 5-7-1880 RST Pupa found in orange—listed by Williston (1886) under syn. B. babista Walker. JACKSONVILLE 3-11-? (CHC) 5 spms. (AMNH). ST. AUGUSTINE 2 spms. (ANSP). GAINESVILLE 2-23-19 PWF (CLF) (EUM); 5-18-19 PWF (CLF) (EUM); 5 20 19 PWF (CLF) (EUM); 6 26 35 WPH (FMH); 6-29-35 WPH (FMH) 3 spms.; 7-3-35 WPH (FMH); 10-27-39 (FMH) (THH coll.); 10-18-40 (FMH) (THH coll.); 3-8-44 (FMH) (THH coll.); 11-27-46 (FMH) (THH coll.); 12-3-47 HVW,Jr. on Bidens bipinnata (FMH) 2 spms.; 12-8-47 HVW,Jr. on Bidens bipinnata (FMH); 12-9-47 HVW,Jr. (FMH) 2 spms.; 2-17-48 HVW,Jr. on Cercis canadensis (FMH) 2 spms. CRESSENT CITY 2 spms. (USNM). TITUSVILLE 4-25-23 3 spms. (AMNH). ORLANDO 5-25-07 (Russell coll.) Larvae with Aphis gossypii (USNM); 1-12-09 (Russell coll.) (USNM); (Russell coll.) 3 spms. (USNM). LAKE WALES 4 29 24 (USNM). SEBRING 6-9-49 HVW,Jr. on Bidens bipinnata; 12-24-49 HVW,Jr. on Bidens bipinnata; 12-31-49 HVW,Jr. on Bidens bipinnata. LAKE PLACID 12-26-50 HVW,Jr. on Bidens bipinnata. PORT SEWELL 1-1-39 L.C.& L.J. Sanford (AMNH). VENICE January-February 1934 R.K.Kales (OSM). CHARLOTTE HARBOR Mrs.ATS (AMNH). GROVE CITY 6-7-1890 to 6-27-1890 (USNM). CLEWISTON 12-29-50 HVW,Jr. on Bidens bipinnata 4 spms. FORT MYERS 1-10-33 W.M.B. 2 spms. (OSM); 1-10-33 WMB 3 spms. (OSU); 11-16-11 (AMNH). SANIBEL February 1923 Reared on plant lice (JSH) (OSU). MIAMI 1-4-51 HVW,Jr. on Bidens bipinnata 4 spms.; November 10 Mrs.CHTT
Baccha costata Say

Baccha tarchetius Walker and Baccha costata Say of Williston are synonyms. JACKSONVILLE Mrs.ATS—listed by Johnson (1913) as B.tarchetius Walker. GAINESVILLE September 28-October 2 1914 (AMNH); (RCO coll.) (OSU); 12-9-47 HVW,Jr. on Citrus sp. (FMH); 3-16-45 HVW,Jr. on Pyrus sp. (FMII). INVERNESS March 26 CR—listed by Johnson (1913) as syn. B.tarchetius Wlk. ORLANDO March 18—listed by Johnson (1913) as B.tarchetius Wlk. HIGHLANDS HAMMOCK STATE PARK 3-24-51 HVW,Jr. on Ilex glabra. SEBRING 6-9-49 HVW,Jr. on Sambucus simpsonii (CLF) 2 spms. FLORIDA 2 spms. (USNM). SOUTH FLORIDA March 1923 JSH (OSU).

Baccha cubana Hull

FT. MYERS 1-1-33 W.M.B. (RCO). SOUTH FLORIDA March 1923 JSH (RCO).

Baccha fascipennis Wiedemann

One spm. (USNM) labelled “Florida.” Although the general distribution of this species has been considered northern, this record seems to be valid; it is recorded also from Georgia.

Baccha fascipennis Say

DeFUNIAK SPRINGS 3 spms. (AMNH)—2 spms. erroneously labelled B.cylindrica Fabr. which is correctly recorded from West Indies. JACKSONVILLE Mrs.ATS (AMNH); (USNM). ST. AUGUSTINE March 15 CWJ; May 20 CWJ; 4-17-19 CLM (CLM coll.); 4-19-19 CLM (CLM coll.). GAINESVILLE 1914 (AMNH)—erroneously labelled B.cylindrica Fabr.; 2-23-19 PWF (CLF) (EUM); 5-23-19 PWF (CLF) (EUM); (RCO coll.) (OSU). PALATKA 2-10-1868 E.B. (USNM). CRESCENT CITY (USNM). SEA BREEZE 2-23-16 (ANSP). TITUSVILLE 4-25-23 (AMNH). HIGHLANDS HAMMOCK STATE PARK 6-7-49 HVW,Jr.; 7-29-49 HVW,Jr. 2 spms.; 3-27-50 HVW,Jr.; 3-24-51 HVW,Jr. LABELLE April 27—listed by Johnson (1913) as syn. Ocyptamus fascipennis Say. LAKE WORTH Mrs.ATS—listed by Johnson (1913) as syn. Ocyptamus fascipennis Say. FT. MYERS 1-10-33 W.M.B. 2 spms. (OSM). MIAMI 4-21-23 3 spms. (AMNH). BISCAYNE BAY Mrs.ATS—listed by Johnson (1913) as syn. Ocyptamus fascipennis Say. Two spms. labelled “Florida” (C.V.Riley coll.) (USNM).

Baccha fuscipennis fenestrata (Hull)

ALACHUA COUNTY 10-16-38 (FMH); 12-10-39 (FMH) (M.T.James coll.). GAINESVILLE 197 (FMH); 1-16-47 HVW,Jr. HIGHLANDS HAMMOCK STATE PARK 12-23-50 HVW,Jr. 2 spms.; 3-24-51 HVW,Jr.

Baccha gastrostacta Wiedemann

DISCAYNE BAY Mrs.ATS—listed by Johnson (1913) as syn. Ocypta-
Ocyptamus trigonus Wied.; B. torva Will. is another syn. which occurs frequently in literature.

Baccha latiuscula Loew

HIGHLANDS HAMMOCK STATE PARK 12-23-50 HVW,Jr. 2 spms. (Curran, 1951, examined ♀ and labelled it "Baccha sp.—need ♂"). CHOKOLOSKEE (OSU).

Baccha lugens Loew

JACKSONVILLE Mrs.ATS (Johnson 1913). CRESCENT CITY Hubbard (Johnson 1913); 2 spms. (USNM). LAKE ALFRED 5-1-50 J.T.Griffiths (Wm. Wirth) (USNM). Two spms. labelled "Florida" (USNM); one spm. labelled "Florida JMAldrich coll. on palm" (USNM).

Baccha nepenthe Hull

BONITA 5-20-32 A.R.Taylor Holotype No. 56423 (USNM); 5-20-32 A.R.Taylor Paratype (USNM); another paratype minus collector’s label probably same as other two spms.

Baccha notata Loew

ČARLOTTE HARBOR Mrs.ATS (AMNH). NAPLES S.Rounds (AMNH). BISCAYNE BAY Mrs.ATS (AMNH). KEY LARGO 1-3-51 HVW,Jr. 3 spms.; 3-21-51 HVW,Jr. on Trema mollis 10 spms.; 3-21-51 HVW,Jr. on Trema mollis 2 spms. (IVW,Jr.) (AMNH); 3-21-51 HVW,Jr. on Trema mollis 2 spms. (HVW,Jr.) (CLF coll.).

Baccha scutellata Loew

COCOA July 1944 G.E.Bohart 2 spms. (USNM). LAKE WORTH Mrs.ATS—listed by Johnson (1913) as syn. Ocyptamus scutellatus Loew (AMNH). BISCAYNE BAY Mrs.ATS (AMNH).

CERIOIDES Rondani

Cerioites signifera (Loew)

Various records list the Florida spms. as C. willistoni Kahl, but this is a syn. of C. signifera (Loew). ALACHUA COUNTY 3-4-30 CJGuard FlaFruitFlyTrapSurr. (USNM). INVERNESS February 12 CR; February 14 CR (Johnson 1913). BREVARD COUNTY 4-14-30 J.Howard FlaFruitFlyTrapSurr. (USNM). ORANGE COUNTY 3 29 30 J.E. Sadler FlaFruitFlyTrapSurr. (USNM).

CHEILOSIA Meigen

Cheilosia (Cartosyrphus) prima Hunter

GAINESVILLE 2-22-19 PWF (CLF) (EUM); 2-22-19 PWF (CLF) 2 spms. (CLF coll.); 2-23-19 PWF (FMH); 2-23-19 PWF (CLF); 2-23-19 PWF (CLF) (EUM); 2-23-19 PWF (CLF) 3 spms. (OSU); 2-24-19 PWF (CLF) (OSU).

CHRYSOCASTER Meigen

Chrysogaster (Orthoneura) nitida Wiedemann

ST. AUGUSTINE 4-3-15 CLM (CLM coll.); 4-17-19 CLM (CLM coll.);
March 15 CWJ (Johnson 1913). GAINESVILLE 11-2-19 PWF (HVW,Jr.) 3 spms. (EUM); 2-16-19 PWF (HVW,Jr.) (EUM); 2-22-19 PWF (HVW,Jr.) (EUM); 2-23-19 PWF (HVW,Jr.) 8 spms. (EUM); 2-24-19 PWF (HVW,Jr.) (EUM); 5-8-19 PWF (HVW,Jr.) (EUM); 5-12-19 PWF 2 spms.; 5-13-19 PWF 2 spms.; 5-13-19 PWF (HVW,Jr.) 2 spms. (EUM); 5-14-19 PWF (HVW,Jr.) 12 spms. (EUM); 5-16-19 PWF (HVW,Jr.) 3 spms. (EUM); 5-18-19 PWF (HVW,Jr.) (EUM); 5-23-19 PWF (HVW,Jr.) (EUM); 5-26-19 PWF (HVW,Jr.) 2 spms. (EUM); 5-29-19 PWF (HVW,Jr.) (EUM); 5-16-20 PWF (HVW,Jr.) 13 spms. (EUM); 2-6-21 PWF (HVW,Jr.) 5 spms. (EUM); 2-14-21 PWF (HVW,Jr.) (EUM); 5-10-21 PWF (HVW,Jr.) (EUM). INVERNESS February 14 CR (Johnson 1913). ORLANDO May 16 Mrs. ATS (Johnson 1913). LAKE WALES 3 18-21 PWF (HVW,Jr.) (EUM). TICK ISLAND (location unknown) May 12 CWJ (Johnson 1913). One spm. labelled "Florida" (USNM).

CYNORHINA Williston

Cynorrhina notata Wiedemann

JACKSONVILLE Mrs. ATS—labelled Criorhina notata (Wied.) (USNM). ALACHUA COUNTY 4-16-41 H.Hixon (FMH).

EPISTROPHE Walker

Allograpta Osten-Sacken is given generic rank by most workers, and virtually all published records are given accordingly. Hull (1940) makes it a subgenus of Epistrophe.

Epistrophe (Allograpta) cubana (Curran)

KEY LARGO 1-3-51 HVW,Jr. on Bidens bipinnata (CLF,CHC); 3-21-51 HVW,Jr. on Trema molliis (CHC); 3-21-51 HVW,Jr. on Trema molliis (AMNH); 3-21-51 HVW,Jr. on Trema molliis (CLF coll.).

Epistrophe (Allograpta) exotica (Wiedemann)


Epistrophe (Allograpta) obliqua (Say)

JACKSONVILLE (USNM). ST. AUGUSTINE 4-18-19 CLM (CLM coll.). GAINESVILLE 1914 (FMH) (THH coll.); 1-26-18 PWF (CLF) (EUM); 2-22-19 PWF (CLF) (EUM); 2-23-19 PWF (CLF) 2 spms. (EUM); 2 spms. (RCO coll.) (OSU); 3-24-36 (FMH) (THH coll.); 10-22-38 (FMII) (THII coll.); 1-24-41. (FMH) (THH coll.); 4-16-41 H.Hixon (FMH) (THH coll.); 11-15-41 (FMH) (THH coll.); 1946 (FMH) (THH coll.); 1-18-47 (FMH) (THH coll.); 10-23-47 HVW,Jr. on Bidens bipinnata (FMH); 11-7-47 HVW,Jr. on Bidens bipinnata (FMH) 5 spms.; 12-3-47 HVW,Jr. on Bidens bipinnata (FMH) 3 spms.; 12-8-47 HVW,Jr. on Bidens bipinnata (FMH) 7 spms.; 12-9-47 HVW,Jr. on Bidens bipinnata (FMH) 6 spms.; 12-9-47 HVW,Jr. on Citrus sp. (FMH) 6 spms.; 12-10-47 HVW,Jr. on Bidens bipinnata (FMH) 2 spms.; 1-23-48 HVW,Jr. on Brassica sp. (FMH) 7 spms.; 2-17-48 HVW,Jr. on Cereis canadensis (FMH) 9 spms.; 2-18-48 HVW,Jr. on Prunus
myrtifolia (FMH) 2 spms.; 2-25-48 HVW,Jr. on Prunus sp. (FMII) 5 spms. DAYTONA 4-8-19 CLM (CLM coll.). ENTERPRISE March 30 - May 10 (USNM). ORLANDO 6-1-07 (Russell coll.) Bred on Aphis gossypii (USNM); 6-5-07 (Russell coll.) Bred on Aphis gossypii on watermelon (USNM). HIGHLANDS HAMMOCK STATE PARK 3-24-51 HVW,Jr. SEBRING 3-23-51 HVW,Jr. on Ximenia americana; 3-25-51 HVW,Jr. on Litchi chinensis 3 spms. PUNTA GORDA 11-11-11 (AMNH). CLEWISTON 12-29-50 HVW,Jr. on Bidens bipinnata 2 spms. FT. MYERS 1-10-33 W.M.B. (OSU); 1-11-33 (RCO coll.) (OSU). MIAMI 1-4-51 HVW,Jr. on Bidens bipinnata 5 spms.; 4-8-09 (Russell coll.) Bred on aphids 2 spms. (USNM); 4-16-09 (Russell coll.) Bred on aphids (USNM); 4-22-09 (Russell coll.) Bred on aphids (USNM); 4-27-09 (Russell coll.) Bred on aphids (USNM). FLORIDA CITY 3-21-51 HVW,Jr. on Gatunum tristorum 4 spms.; 3-21-51 HVW,Jr. on Bidens bipinnata 2 spms.; 3-21-51 HVW,Jr. sweeping grasses. COCONUT GROVE 1-31-20 S.B.Walker on Cocos nucifera (FMH). FLORIDA December F.H.Snow (CLM coll.) adult and pupal case (Wm.H.Ashmead coll.) (USNM).

Epistrophe (Mercurymyia) jactator (Loew)

BISCAYNE RAY Mrs ATS—labelled Baccha jactator (Loew) (USNM).

**ERISTALIS Latreille**

USNM recognizes Tuhifera Meigen (1800) in preference to Eristalis Latreille (1804).

**Eristalis agrorum** (Fabricius)

ST. AUGUSTINE 4-19-19 CLM—labelled Eristalis cubensis, syn. (CLM coll.); 4-21-19 CLM 2 spms.—labelled Eristalis cubensis (CLM coll.). GAINESVILLE 4-25-19 PWF (HST) (EUM); 5-13-19 PWF (HST) (EUM); 1940 on Bidens bipinnata (HST) 4 spms. (OSU); 12-0-46 (FMII) (D.J.Borror coll.) (OSU); 10-20-47 HVW,Jr. on Bidens bipinnata (FMH); 10-27-47 HVW,Jr. on Bidens bipinnata (FMH); 11-7-41 HVW,Jr. on Bidens bipinnata (FMH) 2 spms. (THH coll.); 12-3-47 HVW,Jr. on Bidens bipinnata (FMH) 2 spms.; 12-3-47 HVW,Jr. on Bidens bipinnata (FMH) (THH coll.); 12-7-47 HVW,Jr. on Bidens bipinnata; 12-8-47 HVW,Jr. (FMH) 4 spms. (M.T.James coll.); 12-8-47 HVW,Jr. on Bidens bipinnata 11 spms.; 12-8-47 HVW,Jr. on Bidens bipinnata (FMH) 9 spms.; 12-8-47 HVW,Jr. on Bidens bipinnata (FMH) 2 spms. (THH coll.); 12-9-47 HVW,Jr. on Bidens bipinnata (FMH); 12-9-47 HVW,Jr. on Citrus sp. (FMH) (THH coll.); 12-9-47 HVW,Jr. on Bidens bipinnata (FMH) (THH coll.); 12-10-47 HVW,Jr. on Bidens bipinnata (FMH) 6 spms.; 12-10-47 HVW,Jr. on Bidens bipinnata (FMH) 5 spms. (THH coll.); 12-17-47 HVW,Jr. on Bidens bipinnata (FMH); 12-17-47 HVW,Jr. on Bidens bipinnata 2 spms. (THH coll.); 3-19-48 HVW,Jr. on Ceanothus sp. (FMH) 2 spms. ALACHUA COUNTY 12-12-41 (FMH) 2 spms. (THH coll.); December 1941 (FMH) (THH coll.). SANFORD 5-7-08 Van Duzee 2 spms. (OSU). HIGHLANDS HAMMOCK STATE PARK 3-27-50 HVW,Jr. 2 spms. SEBRING 2 21-48 HVW,Jr. on Prunus myrtifolia (FMH) 2 spms.; 6-9-49 HVW,Jr. on Bidens bipinnata; 6-13-49 HVW,Jr. on
**Eristalis albifrons** Wiedemann

ST. AUGUSTINE F.H.Genuag (Johnson 1913). ORLANDO February 21 CR (Johnson 1913). GEORGIANA Wm. Wittfield (Johnson 1913). LAKELAND b-b-12 (RCO coll.) (OSU); May W.T.Davis (Johnson 1913). CHARLOTTE HARBOR Mrs.ATS (Johnson 1913). BELLE GLADE 11-27-40 D.J.Taylor (USNM). LAKE WORTH (Johnson 1913). FT. MYERS 1-2-51 HVW,Jr. on Flaveria linearis. EVERGLADES 4-7-12 W.T.Davis (HST) 2 spms. (OSU); April 7 (Johnson 1913); 4-7-22 W.T.Davis (OSU). CHOKOLOSKEE 1929 Brooklyn Mus. coll. (USNM); March (RCO coll.) (OSU); May (RCO coll.) (OSU); (Johnson 1913). MIAMI 1-25-09 (USNM); 1-4-51 HVW,Jr. on Bidens bipinnata; 2-10-51 2 spms. (ANSP); February 18 P.Laurent (Johnson 1913). BISCAYNE BAY Mrs.ATS (Johnson 1913). HOMESTEAD 12-1-18 CAM 17 spms. (USNM). ROYAL PALM STATE PARK March R.M.Jones (ANSP). KEY LARGO 1-3-51 HVW,Jr. on Bidens bipinnata 4 spms.; 1-3-51 HVW,Jr. on Bidens bipinnata (HVW,Jr.) 2 spms. (AMNH). FLORIDA (USNM).

**Eristalis dimidiatns** Wiedemann

PENSACOLA 10-11-14 (AMNH). PORT ST. JOE 8-19-45 H.T.Spieth. ST. AUGUSTINE (Johnson 1913). ATACHUA COUNTY 4-16-41 H.Hixon (FMH). GAINESVILLE 194? (RCO,FMH) (THH coll.); 1-20-47 HVW,Jr. on Bidens bipinnata (FMH); 10-20-47 HVW,Jr. on Bidens bipinnata (FMH) (THH coll.); 11-2-18 PWF (CLF) (OSU); 11-10-18 PWF (HST) (EUM); 12-10-47 HVW,Jr. on Bidens bipinnata (FMH) 2 spms. NEWBERRY November 18 (Johnson 1913). PUNTA GORDA November 16 W.T.Davis (Johnson 1913).

**Eristalis latifrons** Loew

TAMPA 2 spms. (USNM).
Eristalis saxorum Wiedemann
PORT ST. JOE 3 spms. (AMNH). JACKSONVILLE 3 spms. (AMNH). GAINESVILLE 7-22-18 PWF (HST) (EUM); 5-8-21 PWF* (HST) (EUM)

Eristalis (Eristalomyia) tenax (Linnaeus)
GAINESVILLE 12-10-41 HVW,Jr. on Bidens bipinnata (FMH) (THH coll.); 3-14-48 HVW,Jr. on Pyrus sp. (FMH) 3 spms.

Eristalis transversus Wiedemann
ST. AUGUSTINE March 15 (Johnson 1913). GAINESVILLE 194? (RCO,FMH) (THH coll.); 2-24-19 PWF (CLF) 2 spms. (EUM); 5-8-19 PWF (CLF) (EUM); 5-23-19 PWF (CLF) 3 spms. (EUM); 1-20-47 HVW,Jr. on Bidens bipinnata (FMH); 12-10-47 HVW,Jr. on Bidens bipinnata (FMH) (THH coll.). INVERNESS March 14 CR (Johnson 1913). ORLANDO 3-20-35 (RCO coll.) (OSU). FLORIDA (USNM).

Eristalis vinctorius Fabricius
JACKSONVILLE (USNM); June 30 (ANSP); September R.L.Blickle (OSU). ST. AUGUSTINE CWJ (Johnson 1913); 2 spms. (ANSP). ALACHUA COUNTY 12-10-37 (FMH); 10-19-39 (FMH) (THH coll.). GAINESVILLE 6-16-18 PWF (HST) (THH coll.); 6-29-18 PWF (HST) (THH coll.); 7-14-18 PWF (HST) (EUM); 7-16-18 PWF (HST) (EUM); 11-7-47 HVW,Jr. on Bidens bipinnata (FMH). ORLANDO 6-8-15 (ANSP). TAMPA 12-14-49 HVW,Jr. on Bidens bipinnata 3 spms. HIGHLANDS HAMMOCK STATE PARK 12-23-50 HVW,Jr. SEBRING 6-13-49 HVW,Jr. on Bidens bipinnata; 12-24-49 IVW,Jr. on Helianthus sp. 2 spms.; 12-31-49 IVW,Jr. on Bidens bipinnata; 12-23-50 HVW,Jr. on Bidens bipinnata 2 spms. CLEWISTON 12-29-50 HVW,Jr. on Bidens bipinnata. PUNTA GORDA November 16 W.T.Davis (Johnson 1913). LAKE WORTH Mrs.ATS (Johnson 1913). FT. MYERS 1-33 W.M.B. (HST) 2 spms. (OSU). MIAMI 2-10-72 2 spms. (ANSP); 8-12-15 (ANSP); CHTT 9 spms. (USNM); 1-4-51 HVW,Jr. on Bidens bipinnata 7 spms. BISCAYNE BAY Mrs.ATS 9 spms. (AMNH). D.ADE COUNTY 5-12-39 D.J.&I.N.Knoll (HST) (OSU). ROYAL PALM STATE PARK 10-11-17 CAM 4 spms. (USNM); April 12-18 13 spms. (AMNH). KEY LARGO 1 3 51 HVW,Jr. on Bidens bipinnata. KEY WEST 10-16-31 O.D.Link (FMH). FLORIDA 6 spms. (USNM); C.V.Riley 4 spms. (USNM).

Eristalis n.sp.
JACKSONVILLE Mrs.ATS (USNM). GAINESVILLE 3-19-48 HVW,Jr. on Ceanothus sp. (FMH). This species is related to E.tezae Hull, but is distinct. CLEWISTON 12-29-50 HVW,Jr. on Bidens bipinnata (CHC).

HELOPHILUS Meigen

Helophilus anniae Brimley
JACKSONVILLE Mrs.ATS (AMNH). ALACHUA COUNTY 4-17-35 (RCO)—labelled Parhelophilus anniae (Brimley) (OSU).
Helophilus fasciatus Walker

ALACHUA COUNTY 11-6-21 (FMH) (M.T.James coll.) ; 9-19-37 (FMH) ; 9-19-37 (FMH) (THH coll.) ; 10-5-39 (FMH) (THH coll.) ;
11-29-41 (FMH). ST. AUGUSTINE CWJ—listed as syn. H. similis Macq. (Johnson 1913). GAINESVILLE 12-10-47 HVW. Jr. on Bidens
bipinnata (FMH) (THH coll.) ; 12-10-47 HVW. Jr. (FMH) 2 spms.;
12-11-47 HVW. Jr. (FMH). INVERNESS February 12 CR—listed by
Johnson (1913) as syn. H. similis. TITUSVILLE November 8—listed
by Johnson (1913) as syn. H. similis. SEBRING 12-21-46 HVW. Jr.
(FMH) (M.T.James coll.) LAKE WORTH March Mrs.ATS—listed
by Johnson (1913) as syn. H. similis.

Helophilus latifrons Loew

GAINESVILLE 194? (RCO,FMH).

MALLOTA Meigen

Mallota bautias (Walker)

GAINESVILLE 4-9-19 PWF (CLF) (OSU) ; 4-27-36 (FMH) ; 3-7-48
HVW. Jr. (FMH) ; 3-18-48 HVW. Jr. (FMH) (det. FMH in 1948 to be
M. cimbiciformis); Curran 1951 states that M. cimbiciformis does
not occur in America, so M. cimbiciformis of American authors is a syn.
of M. bautias (Walker). INVERNESS February 12 CR (Johnson
1913).

Mallota facialis Hunter

GAINESVILLE 2-25-48 HVW. Jr. on Prunus sp. (det. in 1948 by FMH
as M. cimbiciformis).

Mallota posticata (Fabricius)

JACKSONVILLE (USNM). GAINESVILLE 3-16-48 HVW. Jr. on
Pyrus sp. (FMH).

MEROMACRUS Rondani

Meromacrus acutus (Fabricius)

JUNIPER CREEK May 15 CWJ—listed by Johnson (1913) as syn.
M. crucifera (Macq.). GUNNTOWN, Levy County, 5 spms. (ANSP).
ST. AUGUSTINE May 15 (Johnson 1913) (USNM). ALACHUA
COUNTY 4-1-34 (FMH) ; 4-29-38 H.Hixon (FMH) ; 1934 (FMH);
5-6-40 H.Hixon (FMH). GAINESVILLE 19? (FMH) ; (RCO coll.)
4 spms. (OSU) ; 6-29-18 PWF (CLF) (EUM) ; 7-7-18 PWF (CLF) ;
7-18-18 PWF (FMH) (M.T.James coll.) 7-18-18 PWF (CLF) 2 spms.
(AMNH) ; 5-19-19 PWF (CLF) (EUM) ; 1934 (FMH) (M.T.James
coll.). PUTNAM COUNTY 2-22-32 Mark Dodd Reared from rotten
wood of Sable palmetto—pupal case with imago (USNM). ENTER-
PRISE March 30 & May 10 E.Daedecke (AMNH); May 13 (USNM).
LAKE APOPKA 5-12-40 E.L.Bell (AMNH). ORLANDO 3-25? (AMNH).
GOTHA March 1896 W.M.Wheeler (AMNH). LAKE-
LAND May 6 W.T.Davis (Johnson 1913). BELLEAIR Mrs.ATS
(AMNH). VERO BEACH May 1942 J.R.Mallock (USNM). HIGH-
LANDS HAMMOCK STATE PARK 3-27-51 HVW,Jr. on Cornus stricta. SEBRING 3-23-51 HVW,Jr. on Ximenia americana. FT. DRUM November AFredholm (USNM). CHARLOTTE HARBOR Mrs.ATS (Johnson 1913). JUPITER 3-20-45 W.Procter (AMNH). CHOKOLOSKEE May (RCO coll.) 2 spms. (OSU). MIAMI November 12 CHTT (USNM); November 12 CHTT (OSU); April 11-21 1923 (AMNH). BISCAYNE BAY Mrs.ATS 2 spms. (AMNH) (Johnson 1913). ROYAL PALM STATE PARK April 12-18 1923 (AMNH). PARADISE KEY, Royal Palm State Park, 5-13-18 CAM (USNM); 4-10-19 CAM (USNM). FLORIDA CWJ (USNM); CLM (OSU); (RCO coll.) (OSU).

Meromacrus rufulus (Wiedemann)

INDIAN RIVER (ANSP). HIGHLANDS HAMMOCK STATE PARK 3-27-50 HVW,Jr. on Flex cassine. CHOKOLOSKEE (Johnson 1913). MIAMI 10-80-? CHTT (OSU). BISCAYNE BAY Mrs.ATS 3 spms. (AMNH); Mrs.ATS (Johnson 1913); Mrs.ATS (OSU).

MESOGRAMMA Leew

Mesogramma arethusa Hull

GAINESVILLE 2-17-32 Geo. Swank (FMH); 2-17-48 HVW,Jr. on Cercis canadensis (FMH); 3-19-48 HVW,Jr. on Ceanothus sp. (FMH) 2 spms.; 3-19-48 HVW,Jr. (FMH) (M.T.James coll.). ENGLEWOOD J.G.Needham—Holotype and Allotype. MIAMI 1-4-51 HVW,Jr. on Bidens bipinnata 2 spms.

Mesogramma basilaris Wiedemann

MIAMI (ANSP).

Mesogramma boscii Macquart

PANAMA CITY 7-22-20 (CLF). PEBBLY BEACH, Jacksonville, 5-9-08 (AMNH). ST. AUGUSTINE 4 spms. (ANSP); (CWJ) 3 spms. (USNM); 4-14-19 (CLM) (CLM coll.) 3 spms. 4-16-19 CLM (CLM coll.); 4-17-19 CLM (CLM coll.). CRESCENT CITY 4-19-08 Van Duze (AMNH); 4-22-08 Van Duze (AMNH); 4-25-08 Van Duze (AMNH); October 15-16 1914 (AMNH). ORLANDO 3-20-35 RCO (CLF). CLEARWATER 4-29-08 Van Duze (CHC) 6 spms. (AMNH); 4-30-08 Van Duze (AMNH); 5-1-08 Van Duze 2 spms. (AMNH). LAKELAND 11-10-11 2 spms. (AMNH). CHARLOTTE HARBOR Mrs.ATS (CHC); Mrs.ATS 2 spms. (AMNH). ST. PETERSBURG 4-28-08 Van Duze (AMNH). HIGHLANDS HAMMOCK STATE PARK 3-24-51 HVW,Jr.; 3-27-51 HVW,Jr. FT. MYERS 11-13-11 (AMNH); 1-1-33 W.M.B. (OSU); 1-1-33 (RCO coll.) 3 spms. (OSU). LaBELLE 11-14-11 (AMNH). MIAMI 11-5-11 (AMNH); 1-4-51 HVW,Jr. on Bidens bipinnata (CHC). BISCAYNE BAY Mrs.ATS 4 spms. (USNM). FLORIDA CITY 3-21-51 HVW,Jr. on Bidens bipinnata (CHC); 3-21-51 HVW,Jr. on Galium triflorum (CHC) 4 spms.; 3-21-51 HVW,Jr. sweeping grasses (CHC) 4 spms.; 3-21-51 HVW,Jr. on Galium triflorum (CLF); 3-21-51 HVW,Jr. on Bidens bipinnata (CLF) 4 spms.; 3-21-51 HVW,Jr. on Bidens bipinnata (CLF) (CLF coll.); 3-21-51 HVW,Jr. on Bidens bipinnata 4 spms.; 3-21-51 HVW,Jr.
on *Galium triflorum* 2 spms.; 3-21-51 HVW,Jr. sweeping grasses. MON-ROE COUNTY 3-19-51 E.L.Sleeper (CLF); 3-19-51 HVW,Jr. FLORIDA FHB (USNM); J.M.Aldrich 3 spms. (USNM).

**Mesogramma floralis** Fabricius

ST. AUGUSTINE May 20 (CWJ) (Johnson 1913). ALACHUA COUNTY 10-5-37 (FMH); 10-5-37 (FMH) (THH coll.). GAINESVILLE 11-7-47 HVW,Jr. (CLF); 12-3-47 HVW,Jr. on *Bidens bipinnata* (FMH); 12-9-47 HVW,Jr. on *Bidens bipinnata* (FMH); 12-10-47 HVW,Jr. on *Bidens bipinnata* (FMH); 12-10-47 HVW,Jr. (FMH) (M.T.James coll.). LAKE MARY J.T.Griffith (Johnson 1913). CLEWISTON 12-29-50 HVW,Jr. on *Bidens bipinnata* 3 spms. MIAMI 1-4-51 HVW,Jr. on *Bidens bipinnata*. BISCAYNE BAY Mrs.ATS (Johnson 1913)—listed as *M.duplicata* Wied. according to Curran, 1934, this spm. is *M.florale* Fabr. FLORIDA CITY 3-21-51 HVW,Jr. sweeping grasses (CHC) 2 spms.; 3-21-51 HVW,Jr. on *Bidens bipinnata* (CHC) 2 spms.; 3-21-51 HVW,Jr. on *Galium triflorum* 2 spms. (CHC); 3-21-51 HVW,Jr. on *Galium triflorum* (det. CHC as *M.florale* ?—black femora.); 3-21-51 HVW,Jr. on *Bidens bipinnata* (CLF) 4 spms.; 3-21-51 HVW,Jr. on *Galium triflorum* (CLF); 3-21-51 HVW,Jr. sweeping grasses (CLF) 2 spms. KEY LARGO 1-3-51 HVW,Jr. GRASSY KEY 1-3-51 HVW,Jr.

**Mesogramma marginata** (Say)

DeFUNIAK SPRINGS March 1 (Johnson 1913). JACKSONVILLE 11-3-11 4 spms. (AMNH); November 3 (Johnson 1913). ST. AUGUSTINE 4-12-19 CLM 2 spms. (CLM coll.); May (CWJ) (Johnson 1913). ALACHUA COUNTY 4-20-38 (THH coll.). GAINESVILLE 1914 (AMNH); 194? (RCO,FMH) (THH coll.); 12-3-47 HVW,Jr. on *Bidens bipinnata* (FMH); 12-9-47 HVW,Jr. on *Bidens bipinnata* (FMH); 12-17-47 HVW,Jr. on *Bidens bipinnata* (FMH); 12-17-47 HVW,Jr. on *Bidens bipinnata* (FMH) (THH coll.). INVERNESS March 9 CR (Johnson 1913). ORLANDO February 21 CR (Johnson 1913). LAKE WORTH March Mrs.ATS (Johnson 1913). MONROE COUNTY 3-19-51 E.L.Sleeper (CHC); 3-19-51 E.L.Sleeper (CLF). FLORIDA F.H.B. (USNM); (USNM).

**Mesogramma mutuum** Say

MONROE COUNTY 3-19-51 E.L.Sleeper (CHC).

**Mesogramma parvula** Loew

ST. AUGUSTINE May 20 (Johnson 1913). LAKE MARY March J.T.Griffith (Johnson 1913). BISCAYNE BAY Mrs.ATS (CWJ)—listed by Johnson (1913) as syn. *Toxomerus parvula* Loew.

**Mesogramma planiventris** Loew

CRESCENT CITY April (CWJ)—listed by Johnson (1913) as syn. *Toxomerus planiventris* Loew. SANFORD 4-30-26 J.A.Reeves (CHC).

TITUSVILLE November 8 (CWJ)—listed by Johnson (1913) as syn. *Toxomerus planiventris* Loew. LAKELAND November 10 (CWJ)—listed by Johnson (1913) as syn. *Toxomerus planiventris* Loew. CLEAR
WATER May 1 (CWJ)—listed by Johnson (1913) as syn. Toxomerus planiventris Loew. PUNTA GORDA November 11 (CWJ)—listed by Johnson (1913) as syn. Toxomerus planiventris Loew. LABELLE November 14 (CWJ)—listed by Johnson (1913) as syn. Toxomerus planiventris Loew. BISCAYNE BAY Mrs. ATS (CWJ)—listed by Johnson (1913) as Toxomerus duplicatus Wied., and subsequently det. CHC as M. planiventris Loew.

Mesogramma polita (Say)
DePUNIAK SPRINGS 10-17-14 (AMNH). JACKSONVILLE November 3 W.T. Davis (CWJ) (Johnson 1913). ST. AUGUSTINE May 9 (CWJ)—listed by Johnson (1913) as syn. Toxomerus politus Say. ALACHUA COUNTY 5-13-34 (RCO) (THH coll.); 10-28-37 (FMH) (THH coll.); October 1939 (FMH) (THH coll.); 5-5-41 (FMH) (THH coll.); 11-29-41 (FMH). GAINESVILLE 11-6-46 HVW, Jr. (CLF); 5-25-48 HVW, Jr. on squash blossom (FMH). GEORGETOWN May 9 (CWJ) (Johnson 1913). TITUSVILLE November 8 (Johnson 1913). HIGHLANDS HAMMOCK STATE PARK 12-23-50 HVW, Jr. 4 spms. CLEWISTON 12-29-50 HVW, Jr. on Bidens bipinnata 3 spms. MIAMI 1-4-51 HVW, Jr. on Bidens bipinnata 2 spms. FLORIDA (USNM).

Mesogramma slossonaep Curran
BISCAYNE BAY Mrs. ATS Holotype (AMNH).

Mesogramma subannulata Loew
ST. AUGUSTINE 4-18-19 (CLF, CHC). BISCAYNE BAY Mrs. ATS—listed by Johnson (1913) as syn. Toxomerus subannulatus Loew. FLOREIDA CITY 3-21-51 HVW, Jr. sweeping grasses (CHC).

Mesogramma n.sp.
HIGHLANDS HAMMOCK STATE PARK 3-24-51 HVW, Jr. (CHC—n.sp., near M. verticalis); 3-24-51 HVW, Jr. on Cornus stricta (CHC—n.sp., near M. verticalis) 3 spms.; 3-27-51 HVW, Jr. (CLF) 3 spms.; 3-27-51 HVW, Jr. on Ilex glabra (CLF). FLORIDA CITY 3-21-51 HVW, Jr. on Bidens bipinnata; 3-21-51 HVW, Jr. on Galium triflorum.

Mesogramma n.sp.?
MIAMI 1-4-51 HVW, Jr. on Bidens bipinnata (CHC probably n.sp., male needed). This female seems near M. boncii.

METASYRHPHUS Matsumura

Metasyrphus emarginatus (Say)
WILLISTON, Synopsis, 1886, lists the species [labelled Xanthogramma emarginata (Say)]—Florida April 20 1874 C.V.Riley. Found under bark of cotton tree.

Metasyrphus (Eupeodes) volucris (Osten-Sacken)
An empty pupal case bearing locality label “Orlando, Fla.” is identified as E. volucris O.S. (USNM), but I am confident that this is an error.
Metasyrphus wiedemannii (Johnson)

JACKSONVILLE April 15 Mrs.ATS [det. Johnson (1913) as syn. Syrphus americanus Wied.]. ATLANTIC BEACH Mrs.ATS [det. Johnson (1913) as syn. Syrphus americanus Wied.]. ST. AUGUSTINE 4-17-19 CLM (CLM coll.); 4-21-19 CLM (CLM coll.). ALACHUA COUNTY 19? (RCO); 19? (FMH); 4-15-35 (FMH); 12-15-38 (FMH); 10-15-46 (FMH). GAINESVILLE (RCO coll.) (OSU); 3-16-32 (FMH); 4-9-36 John T. Creighton (FMH); 10-17-47 HVW,Jr. on Pyrus sp.; 12-16-47 HVW,Jr. on Lupinus sp. (FMH) 2 spms.; 2-17-48 HVW,Jr. on Cercis canadensis (FMH) 3 spms.; 3-14-48 HVW,Jr. on Pyrus sp. (FMH). DAYTONA 4-7-19 CLM (CLM coll.). INVERNESS February 12 CR [det. Johnson (1913) as syn. Syrphus americanus Wied.]. ORLANDO February 21 CR [det. Johnson (1913) as syn. Syrphus americanus Wied.] 12-26-07 Russell (USNM); 3-27-08 Russell (USNM); 3-3-37 M.R.Osburn Reared from larvae fed on green citrus aphid 2 spms. (OSU). LAKE WORTII Mrs.ATS 2 spms. (AMNH). BISCAYNE BAY Mrs.ATS [det. Johnson (1913) as syn. Syrphus americanus Wied.].

MICRONOD Meigen

Microdon (Omegasyrphus) baliopeterus (Loew)

CHARLOTTE HARBOR Mrs.ATS (Johnson 1913)—listed in first Johnson list as Omegasyrphus baliopeterus Loew.

Microdon (Omegasyrphus) coarctatus (Loew)

ORLANDO March 16 CR—listed in first Johnson list (1913) as Omegasyrphus coarctatus Jones.

Microdon (Eumicrodon) fulgens Wiedemann

SUWANEE Mrs.ATS (Johnson 1913). ST. AUGUSTINE (ANSP); Pupae found in decaying pine logs (CWJ) (Johnson 1913). GAINESVILLE (OSU); 6-5-18 PWF (FMH) (EUM); 7-18-18 PWF (CLF) (OSU); 5-23-19 PWF (CLF) (EUM); 6-10-21 PWF (CLF) (EUM). ALACHUA COUNTY 11-1-39 (FMH). ENTERPRISE May 13 H.G.Hubbard (AMNH). SEMINOLE COUNTY 7-18-29 C.Nelson FlavTrapSurv ORANGE COUNTY 6-24-29 M.M.Smith,Jr. FlavTrapSurv PLANET CITY 8-15-30 R.H.Beamer (AMNH). LONG KEY 4-19-23 (AMNH). DEEP LAKE April 15 (Johnson 1913). MARCO 4-20-14 (AMNH); April 20 (Johnson 1913). MIAMI October 22 CHTT (USNM). BISCAYNE BAY Mrs.ATS (Johnson 1913). ROYAL PALM STATE PARK 4-12-23 (AMNH); 3-24-29 (AMNH). PARADISE KEY, Royal Palm State Park, 5 spms. (AMNH); (USNM); 9-22-18 CAM (AMNH); 10-3-19 CAM (AMNH). FLORIDA 1921 Mayport (AMNH); 5 spms. JM (USNM).

Microdon fuseipennis Macquart

JACKSONVILLE (Wm.II.Ashmead coll.) (USNM). GOTHA (W.M. Wheeler coll.) (AMNH). GEORGIANA July 17 Wm.Wittfeld (Johnson 1913).
Microdon globosus (Fabricius)
Crescent City April 21 (Johnson 1913). Titusville November 8 (Johnson 1913). Ft. Florida S.W. Williston (USNM); 3 spms. (USNM); 7-1-1882 Wm. Wittfeld (USNM).

Microdon limbus Williston
This species may be syn. of M. rugosus Macquart. Jacksonville April Mrs. ATS (AMNH); (Wm. H. Ashmead coll.) (USNM); April Mrs. ATS (Johnson 1913). Kenansville (AMNH). Ft. Myers 4-3-38 D.M. DeLong (RCO) (OSU). Florida Mrs. ATS 3 spms. (AMNH); Morrison Type No. 794 (USNM); (C. V. Riley coll.) (USNM).

Microdon pachystylum Williston
St. Augustine (CWJ) (Johnson 1913); (ANSP)—I have not seen this specimen, but suspect it to be M. fuscipennis Macq.

Microdon pseudoglobosus Curran
Paradise Key, Royal Palm State Park, April 10 J. N. Knull (AMNH).

Microdon scitus Williston
Capron (location unknown) 4-9.? (USNM); 4-19.? (USNM). Biscayne Bay Mrs. ATS (Johnson 1913). Florida Morrison Type No. 797 (USNM); (USNM).

Microdon seutifer Knab
Hilliard 7-24-39 R. H. Beamer 2 spms. (AMNH).

Microdon tristis Loew
Biscayne Bay March Mrs. ATS (Johnson 1913).

Microdon viridis Townsend
W. D. Hunter records in The Canadian Entomologist, vol. 29, No. 6, June 1897, p. 123: “I found recently in the collecting of the Kansas State University another specimen of this species which I have ascertained was taken by Chas. Robertson, Orlando, Fla., March 16, 1887.” Hunter also reports a specimen from Knoxville, Tenn.

Milesia Latreille

Milesia scutellata Hull
Jacksonville Mrs. ATS (AMNH). Alachua County 3-23-36 (FMH); 5-7-36 (FMH) (M. T. James coll.). Gainesville 194? (FMH); (RCO coll.) (OSU). Ormond Mrs. ATS (AMNH); Mrs. ATS (CHC); 3-25.? (AMNH). Indian River (ANSP)—misidentified as M. virginiana; (USNM). Orlando March 1944 R. & G. Bohard (HWW Jr.) 2 spms. Gotha March 1896 W. M. Wheeler 6 spms. (AMNH). Marco 4-19-12 (AMNH). Florida 5 spms. (ANSP); Seifert (AMNH); H. Edwards (AMNH); 6 spms. (ANSP)—misidentified as M. virginianus; (FMH) Paratype (OSU).
Milesia virginiana (Drury)

WILLISTON (1886) lists species from Florida as syn. Milesia ornata Fabr. JUNIPER CREEK May 15 (Johnson 1913). JACKSONVILLE Mrs.ATS (AMNH). ST. AUGUSTINE 4-19-19 CLM (CLM coll.); 4-19-19; May 22 (Johnson 1913); 4-19-19. ALACHUA COUNTY 19? (FMH) (THH coll.); April 1934 (RCO) (THH coll.); 4-19-19 (FMH) (THH coll.). GAINESVILLE 6-16-18 PWF (CLF) (EUM); 10-26-18 PWF (CLF) (EUM); 11-2-18 PWF (CLF) 2 spms. (EUM); 2-16-19 PWF (CLF) (EUM); 2-23-19 PWF (CLF) 7 spms. (EUM); 2-24-19 PWF (CLF) 2 spms. (EUM); 4-10-19 PWF (CLF) (EUM); 5-18-19 PWF (CLF) 5 spms. (EUM); 5-19-19 PWF (CLF) 12 spms. (EUM); 5-23-19 PWF (CLF) 7 spms. (EUM); 5-29-19 PWF (CLF) 2 spms. (EUM); 2-6-21 PWF (CLF) 3 spms.; (RCO coll.) 2 spms. (OSU); (RCO coll.) (HVV Jr.). ORMOND Mrs.ATS (AMNH). HIGHLANDS HAMMOCK STATE PARK 3-27-50 HVV Jr. on Ilex glabra 2 spms. ENTERPRISE March 30 to May 10 1904 E.Daecke (AMNH); May 11? (USNM). INVERNESS March 12 CR (Johnson 1913); April 5 CR (Johnson 1913). GEORGIA Wm. Wittfeld (Johnson 1913). LAKELAND 5 6 12 W.T. Davis 2 spms. (OSU). PUTNAM COUNTY 7-21-38 H. Hixon (FMH). EVERGLADE April 7 W.T. Davis (Johnson 1913). BISCAYNE BAY Mrs.ATS (Johnson 1913). FLORIDA Aldrich (USNM); (S.W. Williston coll.) (USNM); on palm (USNM); May 1903 (RCO coll.) 2 spms. (OSU); (RCO coll.) (OSU).

MIXOGASTER Macquart

Mixogaster breviventris Kahl

TAMPA 8-4 (or 4-8?) H.G. Hubbard (USNM).

MONOCEROMYIA Shannon

Monoceromyia tricolor (Loew)

FLORIDA Type No. 48117 (USNM).

MYOLEPTA Newman

Myiolepta varipes Loew

GAINESVILLE (RCO) (OSU).

PARAGUS Latreille

Paragus bicolor Fabricius

GAINESVILLE 5-12-19 PWF (CLF) (EUM); 5-14-19 PWF (CLF) (EUM); 5-23-19 PWF (CLF) (EUM); 5-26-19 PWF (CLF) (EUM).

Paragus tibialis Fallén

ST. AUGUSTINE May 21 (CWJ) (Johnson 1913). PALATKA May 19 (CWJ) (Johnson 1913). HOMESTEAD 4-18-23 (AMNH).

PARHELOPHILUS Girschner

Parhelophilus divisus (Loew)

LAKE CITY 2-24-1892 (OSU). ORLANDO February 22 CR —listed
by Johnson (1913) as Helophilus divisus Loew. FLORIDA FlaFruit-FlyTrapSurv. (CLF).

Parhelophilus laetus (Loew)
ALACHUA COUNTY 1938 (FMH).

Parhelophilus (Lejops) sp.
Close to Lejops relictus Curran and Fluke and related spp. DeLAND, Volusia County, 12-11-29 W.A.Hiers FlaFruitFlyTrapSurv. (CIHC n.sp.). ORANGE COUNTY 2-1-30 J.E.Sadler FlaFruitFlyTrapSuvr. 2 spms. HIGHLANDS HAMMUCK STATE PARK 3-24-51 HVW,Jr. (CLF, CHC) 2 spms.; 3-24-51 HVW,Jr. sweeping grasses (CLF); 3-27-51 HVW,Jr. sweeping shrubs (CHC); (CHC,CLF—both believe it to be n.sp.). OSCEOLA COUNTY 8-28-29 J.Kirkland FlaFruitFlyTrapSurv. 2 spms. FLORIDA FlaFruitFlyTrapSurv. 6 spms.

PIPIZA Fallén

Pipiza (Pipizella) australis Johnson
ST. AUGUSTINE 3-? Cotype (CLM coll.); 3-6-1907 CLM—labelled "Cotype" (AMNH); March 15 (Johnson 1913)—listed as Pipiza pulchella Will., a northern species, in his previous list. LAKE WORTH February Mrs. ATS—listed by Johnson (1913) as Pipiza pulchella Will. BISCAYNE BAY February Mrs.ATS—listed by Johnson (1913) as Pipiza pulchella Will.

Pipiza (Pipizella) banksi Curran
CLEWISTON 12-29-50 HVW,Jr. on Bidens bipinnata (CLF).

POLYBIOMYIA Shannon

Polybiomyia pedicellata (Williston)
ALACHUA COUNTY 4-13-38 (FMH)—as syn. Cerioidea pedicellata Will.

PSILOTA Meigen

Psilota buccata Macquart
GAINESVILLE 2-23-19 PWF (CLF) 2 spms. (EUM); 2-23-19 PWF (CLF) 2 spms. (OSU); 2-24-19 PWF (CLF) (OSU). INVERNESS February 8-12-? CR (Johnson 1913).

Psilota flavidipennis Macquart
GAINESVILLE 2-24-19 PWF (CHC) (AMNH).

SPHAEROPHORIA St. Fargeau and Serville

Sphaerophoria cylindrica Say

SPILOMYIA Meigen

Spilomyia hamifera Loew
Two spms.—GAINESVILLE 4-14-19 PWF (CLF) (EUM); GAINES-
VILLE 6-8-19 PWF (CLF) (EUM)—are labelled Temnostoma excentricum Harris, but I feel certain that these are Shamierea Loew. ST. AUGUSTINE (CWJ) (Johnson 1913). ALACHUA COUNTY March 1938 (FMH). GAINESVILLE (RCO coll.) (OSU). INVERNESS March 6 CR (Johnson 1913). ORLANDO March 1944 R.C. Bohard (USNM).

SYRITTA St. Fargeau and Serville

Syritta pipiens (Linnaeus)
FLORIDA (C.V. Riley coll.) (USNM).

SYRPHUS Fabricius

Syrphus knabi Shannon

TEMNOSTOMA St. Fargeau and Serville

Temnostoma pictulum Williston
ALACHUA COUNTY 4-16-41 H. Hixon (FMH). GAINESVILLE 3-28-19 PWF (FMH) (EUM); 5-8-36 (FMH). DADE COUNTY 8-9-33 (OSU).

Temnostoma trifasciata Robertson
GUNNTOWN, Levy County, 2 spms. (ANSP); March P. Laurent 2 spms. HIGHLANDS HAMMOCK STATE PARK 3-27-50 HVW Jr. sweeping Ilex glabra.

TENTHREDOMYIA Shannon

Tenthredomyia abbreviata (Loew)
FLORIDA S.W. Williston—listed by Johnson (1913) as syn. Cerioides abbreviata Loew.

TEUCHOCNEMIS Osten-Sacken

Teuchocnemis bacunctus Walker
GUNNTOWN, Levy County, March P. Laurent (ANSP). ALACHUA COUNTY 3-10-23 (RCO) (OSU). GAINESVILLE 4-18-20 PWF (FMH) (EUM).

TROPIDIA Meigen

Tropidia albistylum Macquart
PENSACOLA October 1914 (AMNH). WHITE SPRINGS October 18 CHTT (USNM). ALACHUA COUNTY 11-1-37 H. Hixon (FMH). GAINESVILLE (RCO coll.) 4 spms. (OSU); 1947 (RCO,FMH) 2 spms.; 2-23-19 PWF (CLF) 2 spms. (OSU); 2-23-19 PWF (CLF) 2 spms. (EUM); 2-24-19 PWF (CLF) (OSU); 5-18-19 PWF (CLF)
(EUM); 5-20-19 PWF (CLF) (EUM); 7-7-18 PWF (CLF) (EUM); 7-18-18 PWF (CLF) 3 spms. (EUM); 10-22-18 PWF (CLF) (EUM); 10-25-18 PWF (CLF) (EUM); (FMH) (M.T.James coll.). HIGHLANDS HAMMOCK STATE PARK 3-27-50 HVW,Jr. on *Ilex cassine*. SEBRING 3-16-51 HVW,Jr. on *Bidens bipinnata*. INVERNESS February 5 CR (Johnson 1913). CHARLOTTE HARBOR Mrs.ATS (Johnson 1913). LAKE WORTH Mrs.ATS (AMNH). MIAMI 1951 (CLF).

**VOLUCELLA** Geoffroy

*Volucella abdominalis* Wiedemann

CHOKOLOSKEE (Johnson 1913).

*Volucella eugenia* Williston

FLORIDA (Williston 1886)—Williston states, “It is nearest allied to *V.abdominalis* Wied., but will be distinguished by the lateral margins of the thoracic dorsum, and the scutellum, not being so distinctly yellow; it also lacks the large triangular yellow spot in front of the scutellum,” FLORIDA S.W. Williston (Johnson 1913).

*Volucella fasciata* Macquart

GAINESVILLE (RCO coll.) (OSU); PWF (CLF) 3 spms. (AMNH); 11-2-18 PWF (CLF) (EUM); 2-23-19 PWF (CLF) 2 spms. (EUM); 5-26-19 PWF (CLF) 2 spms. (EUM); 5-10-21 PWF (CLF) (EUM); 10-21-47 HVW,Jr. on *Bidens bipinnata* (FMH); 11-7-47 HVW,Jr. on *Bidens bipinnata* (FMH); 12-3-47 HVW,Jr. on *Bidens bipinnata* (FMH) 12-8-47 HVW,Jr. on *Bidens bipinnata* (FMH); 2-18-48 HVW,Jr. on *Prunus* sp. (FMH) 3 spms.; 5-20-50 HVW,Jr. on *Bidens bipinnata* 2 spms. CRESCENT CITY H.G. Hubbard 4 spms. (USNM); H.G. Hubbard *Opuntia tuna* 4 spms. (USNM). INVERNESS February 3 CR (Johnson 1913); March 24 CR (Johnson 1913). GOTA W.M.- WHEELER (AMNH). COCOA July 1944 G.E. DOHART 3 spms. (USNM). LAKELAND March 29 W.T. DAVIS (Johnson 1913). SEBRING 3-20-50 HVW,Jr. on *Bidens bipinnata* 2 spms. LAKE WORTH (AMNH). MIAMI September 19 E. MORT. 2 spms. (USNM). FLORIDA (Coquillett coll.) 3 spms. (USNM).

*Volucella nigra* Greene

This species, which seems to range over all of Florida and into neighboring states, has been determined as *Volucella esuriens* Fabr., *Volucella mexicana* Macq., and *Volucella esuriens mexicana* (Macq.). Curran believes that there is only one species in Florida, and that it is *V.nigra* Greene.

ST. AUGUSTINE (CWJ) (Johnson 1913). GAINESVILLE 8-8-38 (USNM); 4 spms. (RCO coll.) (OSU); 10-26-18 PWF (CLF) (EUM); 11-5-47 HVW,Jr. on *Bidens bipinnata*; 11-7-47 HVW,Jr. on *Bidens bipinnata* 25 spms.; 12-3-47 HVW,Jr. on *Bidens bipinnata* 2 spms.; 12-8-47 HVW,Jr. on *Bidens bipinnata* (FMH)—det. as *V.esuriens* Fabr.; 12-9-47 HVW,Jr. on *Bidens bipinnata* (FMH) 2 spms.; 12-17-47 HVW,Jr. on *Bidens bipinnata* (FMH) 3 spms. GEORGIANA Wm. WITTFIELD (USNM). ORLANDO 5-3-38 (H.Spencer coll.) Decayed papaya plant (CTG); 5-3-38 H.Spencer on decayed papaya plant 6 spms. (USNM);
Volucella (Ornidia) oboea (Fabricius)

SEBRING 7-28-49 HVW, Jr. FT. MYERS 1-10-33 6 spms. (RCO coll.) (OSU); 1-10-33 (RCO coll.) (OSM). CHOKOLOKSEE (Johnson 1913). MIAMI 5-26-32 on Quercus sp. (FMH); 7-22-33 (CHC); 1-4-51 HVW, Jr. on Bidens bipinnata. MATHESON HAMMOCK 2-27-44 R.-Chermock (INHS); 3-5-44 R.Chermock (INHS). HOMESTEAD 3-22-
Volucella pellens Wiedemann

S.W. Williston listed species from Florida as syn. V. sexpunctata Loew. ST. AUGUSTINE March 15 (Johnson 1913). GAINESVILLE 5-14-19 PWF (HVW, Jr.); 5-9-21 PWF (HVW, Jr.) (EUM); 5-10-21 PWF (CLF) (OSU); 3-14-48 HVW, Jr. on Citrus sp. (FMH). INVERNESS February 12 CR (Johnson 1913). GEORGIANA (Johnson 1913). LAKE OKEECHOBEE May 2 W.T. Davis (Johnson 1913). CLEWISTON 12-29-50 HVW, Jr. on Bidens bipinnata 3 spms. CHARLOTTE HARBOR Mrs. ATS (Johnson 1913). SOUTH BAY May 2 W.T. Davis (Johnson 1913). LAKE WORTH Mrs. ATS (Johnson 1913) (USNM). MIAMI November 22 Mrs. CHTT (USNM). FLORIDA (ANSP); Willis (USNM); July 1882 Wm. Wittfeld 3 spms. (USNM).

Volucella pusilla Macquart

ST. AUGUSTINE 3 spms. (ANSP); March 15 (CWJ) (Johnson 1913); May 21 (CWJ) (Johnson 1913). NEWBERRY November 18 (Johnson 1913). CRESCENT CITY H.G. Hubbard on Opuntia 3 spms. (USNM). HIGHLANDS HAMMOCK STATE PARK 3-27-50 HVW, Jr. on Ilex glabra. SEBRING 21-24 HVW, Jr. on Prunus myrtifolia (FMH) 7 spms.; 7-28-49 HVW, Jr.; 12-23-50 HVW, Jr. on Bidens bipinnata 2 spms.; 3-16-51 HVW, Jr. on Bidens bipinnata; 3-19-51 HVW, Jr. on Bidens bipinnata (AMNH); 3-20-51 HVW, Jr. (HVW, Jr.) (AMNH); 3-20-51 HVW, Jr. on Itea virginica. OKEECHOBEE (AMNH). LAKE WORTH (RCO coll.) (OSU). FT. MYERS March 31 W.T. Davis (Johnson 1913). MIAMI (CHC coll.) (AMNH); October 30 CHTT (USNM); October 31 CHTT (USNM). BISCAYNE BAY Mrs. ATS 3 spms. (AMNH). KEY LARGO 1-3-51 HVW, Jr. TAVERNIER, Key Largo, 12-4-12 (USNM). KEY WEST 11-21-11 Geo.P. Engelhardt (USNM). FLORIDA (C.V. Riley coll.) 8 spms. (USNM); 3 spms. (USNM); Coquillett 2 spms. (USNM); July 1882 Wm. Wittfeld (USNM).

Volucella vesicularia Curran

Curran, 1947, writes that V. vesiculosa Fabr. is restricted to South America, and the North American species is therefore described as V. vesicularia. INVERNESS March 19 CR—listed by Johnson (1913) as V. vesiculosa Fabr. LONGWOOD 4-1-30 D.J. Nicholson (USNM).

XYLOTA Meigen

Curran and Fluke recognize Heliophilus Meigen (1803); Hull recognizes Xylota Meigen (1822); European workers recognize zetima Meigen (1800).

Xylota analis Williston

ST. AUGUSTINE CWJ (CWJ) (AMNH). CHARLOTTE HARBOR March Mrs. ATS (CWJ) (AMNH).
**Xylota bicolor** Loew  
ALACHUA COUNTY 4-16-38 (FMH); 4-15-22 (RCO) (OSU).  
GAINESVILLE 19? (FMH).

**Xylota ejuncida** Say  
The type, a male, came from Florida. A specimen from Cherry Harbor  
det. CWJ 1913 as Xylota analis Will., was later determined by CHC as  
Xylota viridaenea Shannon; in 1941 Curran made X.viridaenea Shannon  
a syn. of X.ejuncida Say. ALACHUA COUNTY 5-9-35 (FMH).  
GAINESVILLE (RCO) (OSU). CHARLOTTE HARBOR—labelled  
Heliophilus ejuncida (Say) (AMNH).

**Xylota (Xylotomima) metallica** Wiedemann  
JACKSONVILLE Mrs.ATS (USNM). ALACHUA COUNTY 5-25-38  
II.Hixon (FMII). HIGHLANDS HAMMOCK STATE PARK 3-27-50  
HVW.Jr.

**Xylota vigra** (Fabricius)  
WHITE SPRINGS October 16 Mrs.CHTT (USNM). JACKSONVILLE  
3 spms. (USNM). GAINESVILLE 194? (FMH); 2-23-19 PWF (CLF)  
2 spms. (EUM). INVERNESS February 8 CR (Johnson 1913); March  
25 CR (Johnson 1913). FLORIDA Mrs.ATS (Johnson 1913).

**Xylota quadrimaculata** Loew  
HIGHLANDS HAMMOCK STATE PARK 3-27-50 HVW.Jr. on *Ilex*  
cussine.

**BIBLIOGRAPHY**


Brimley, C. W. 1942. Supplement to insects of North Carolina. N.C.  


Curran, C. H. 1934. Notes on the Syrphidae in the Slosson collection of  

Jour., pp. 255-262.

Hull, F. M. 1949. The morphology and inter-relationship of the genera  
XXVI, Part 4, pp. 1 408, 25 plates.

Hist., Vol XXXII, Art. 3. (Syrphidae, pp. 66-69).

Jones, C. R. 1922. A contribution to our knowledge of the Syrphidae of  


Smith, J. B. 1909. Annual report of the New Jersey State Museum, including a report of the insects of New Jersey. Trenton. (Syrphidae, pp. 703-771).
