

## PROC. ACAD.

## DIPTERA OF FLORIDA.

BY C. W. JOHNSON. (1895)

With Additional Descriptions of New Genera and Species.

BY D. W. COQUILLETT.

This paper is based upon material collected during a residence in St. Augustine from 1880-88 (although then not especially interested in Diptera); a visit in March, 1891, and again in May, 1894; a collection made by Mrs. Annie T. Slosson during her winter visits; the collection of Mr. Chas. Robertson, of Carlinville, Ill.; an interesting lot received from Mr. Frank H. Genung of St. Augustine, and the collection of the U. S. National Museum. The trip of May, 1894, was a conchological one, made in company with Prof. H. A. Pilsbry, through the kindness of Mr. Clarence B. Moore, Diptera being an incidental feature. The localities Welaka, Georgetown, Drayton Island, Juniper Creek, Volusia, Astor, and Tick Island are all in the vicinity of Lake George and Lake Woodruff. Considering the few species that have actually been recorded from Florida the following list seems a large one, but there is little doubt that this number (504) can be increased more than three times if collections were made in all sections of the State and at different seasons of the year. A number of West Indian species are here recorded from Florida for the first time as well as the most southern distribution of many northern species. A collection from the Florida Keys would undoubtedly increase the percentage of West Indian species, while the western part of the State would add many more species of the Mississippi Valley, Texas, and Mexico.

While a resident of Florida I was interested in Coleoptera, and the valuable paper, "The Coleoptera of Florida," by Mr. E. A. Schwarz, suggested this list. I only regret that it is not a more complete representation of the fauna, but hope that it will lead to a better knowledge of the Diptera of Florida.

I am under great obligations to Mr. D. W. Coquillett of Washington, D. C. Without his generous aid this list could not have

been made. To Mrs. Slosson for the generous loan of specimens. To Prof. J. M. Aldrich for the determination of the Dolichopodidae. To Prof. Riley for the privilege of looking over the collection of the U. S. National Museum, and to Mr. Chas. Robertson, Mr. W. A. Snow, Dr. S. W. Williston, Mr. W. D. Hunter, and others, for kind assistance.

## DESCRIPTIONS OF NEW SPECIES.

BY C. W. JOHNSON.

*Nemotelus immaculatus* n. sp.

Length 4 mm., ♂. Face and vertical triangle blackish; eyes of a dull brown color (probably much lighter than in the living specimen); antennæ yellow; proboscis red, unusually long, with an acute angle, the two portions thus formed being of almost equal length, the outer half is curved downward and the basal part of the other is somewhat enlarged. Thorax black, with sparse whitish pubescence most prominent on the pleuræ; scutellum black; abdomen greenish white, immaculate. Legs light yellow; wings hyaline, whitish. One specimen, St. Augustine (F. H. Genung).

*Nemotelus slossonæ* n. sp.

Length 3 mm., ♂. Face and vertical triangle black, shining; facial protuberance very prominent, conical; frontal triangle brown. The upper portion of the eye with large facets brown, the lower third with small facets blackish; antennæ dark brown. Thorax and scutellum black, shining; a narrow light yellow lateral line extends from the humerus to the posterior angle. Abdomen yellowish white; a central mark on the first segment below the scutellum, a dorsal triangle and a small spot near the lateral margin of the fourth, and the fifth except a narrow lateral and posterior margin black; in one specimen there is a minute brown dot near the anterior angle of the third segment. Venter whitish. Legs black; tip of the femora, base and tip of the tibiæ, and the tarsi whitish; wings hyaline, whitish; discal cell emits four veins.

Two specimens, Charlotte Harbor, March. To Mrs. Annie T. Slosson, who has done so much to further our knowledge of the Diptera of Florida, this species is dedicated.

*Leptogaster obscuripennis* n. sp.

Length 13 and 14 mm., ♂ ♀. Head brown; face, front, inferior orbits and occiput covered with a dense grayish pubescence; pro-

two below the large quadrate spot of the marginal cell, and one at the end of the second longitudinal vein; first posterior cell with four, one at the posterior cross vein, two smaller ones midway between the first and the large one at the tips of the wing, the latter occupying the entire width of the cell; second posterior cell with four occupying the central portion, the larger ones coalescent; third posterior cell with three spots, the large middle one triangular; discal cell with two, the outer one three or four times the size of the others.

One specimen, Drayton Island, May 9, 1894.

#### DESCRIPTIONS OF NEW GENERA AND SPECIES.

BY D. W. COQUILLETT.

*Platyura elegans* n. sp., ♂ ♀.

Head black, lower part of front and the face yellow; antennæ black, the two basal joints yellow; proboscis yellow, its apex and the palpi black. Dorsum of thorax opaque brownish black, the sides, pleura and scutellum, yellow; metanotum brown, this color extending upon the pleura to the middle coxæ. Abdomen shining brownish-black, the first segment, both ends of the second, apices of the third and fourth, and the whole of the fifth, yellow; first five ventral segments also yellow. Halteres and legs yellow, tibiæ destitute of bristles. Wings grayish hyaline, marked with two irregular brown crossbands and with two brown spots; the first band begins at the first vein before its tip, is interrupted between the branches of the fifth vein, and stops before reaching the hind margin of the wing, its posterior portion scarcely half as wide as the costal part; the second band starts from the tip of the third vein and stops at the anterior branch of the fifth a short distance before its tip, where the band is scarcely one-fifth as wide as at the costa; midway between these two bands is a large brown spot reaching from the anterior branch of the fifth vein to the hind margin of the wing at the tip of the posterior branch; a brown cloud on anterior branch of third vein, this branch terminating at twice its length beyond the tip of the first vein. Length 3.5 mm.

Georgetown, Florida, May 10, 1894 (C. W. Johnson); North Carolina. A single specimen of each sex.

The specimen from the latter locality is from Dr. Riley's collection, now in the National Museum.

Length 6 mm. St. Augustine, Florida. C. W. Johnson, after whom it gives me pleasure to name this interesting genus. Described from a single specimen.

**HELICOBIA** n. gen.

First and third veins bristly, the others bare, apical cell open, ending at three-fifths the distance from second vein to the wing-tip; bend of fourth vein rectangular and bearing a long appendage; hind cross-vein much less oblique than the apical, terminating at last third of distance between the small and the bend, its posterior end much nearer the wing-margin than to the small cross vein. Head at the vibrissæ nearly as long as at insertion of antennæ, its lower margin convex; frontal bristles descending to middle of second antennal joint; sides of face each bearing a row of short macrochaetæ; antennæ three-fourths as long as the face, the third joint twice as long as the second; arista long plumose on the basal three-fifths, the remainder bare; vibrissæ inserted slightly above the oral margin, a few short bristles above each; cheeks one-third as broad as the eye-height, the eyes bare. Abdomen oval, consisting of four segments, densely gray pollinose. Type: *Sarcophaga helicis* Townsend (Psyche, February, 1892, pages 220, 221). Charlotte Harbor, Florida (Mrs. A. T. Slosson). Mississippi (H. E. Weed). Illinois (Dr. W. A. Nason). District of Columbia and Los Angeles, Cal. (D. W. Coquillett). Ohio (H. A. Surface).

**Drosophila maculosa** n. sp. ♂.

Head, including the antennæ and mouth parts, yellow, an ocellar dot and transverse pair of spots above the centre of the occiput, black. Thorax, pleura and scutellum opaque yellow, unmarked. Abdomen shining blackish-brown, the first segment, front corners of the second, and a spot near each front corner of the third and fourth, yellow. Legs, including the tarsi, yellowish white. Wings hyaline, marked with four brown spots, one at tips of the first and second veins and one on the small and hind cross veins, that on the small cross vein less than one-fourth as large as either of the others; the costal vein only reaches the apex of the third. Length 3 mm. Charlotte Harbor (Mrs. A. T. Slosson), and Archer, Florida. Two specimens; the one from the latter locality is contained in the National Museum collection.

*Drosophila vittata* n. sp. ♂.

Head yellowish white, frontal triangle dark yellow, an ocellar dot and spot in center of occiput, black; antennæ and proboscis pale yellow, the palpi black. Thorax and scutellum opaque light grayish yellow, marked with three dark yellow vittæ; pleura brown on nearly the upper half, the remainder yellow; metanotum yellow, a median vitta and the sides brown. Abdomen shining, yellow, gradually passing into dark brown at the tip; a dorsal yellow vitta; hind margin of each segment whitish. Legs, including the coxæ and tarsi, yellow. Wings hyaline; the costal vein reaches the apex of the fourth, first vein ending at first fourth of length of wing, small cross vein before the first third of distance from the branching of the second and third veins to the hind cross vein. Length 1.5 mm. Charlotte Harbor, Florida. Mrs. A. T. Slosson. A single specimen.

*Chlorops abdominalis* n. sp. ♂.

Head yellow, face and cheeks usually a lighter yellow, an ocellar dot and two large spots on upper part of the occiput, black; frontal triangle at vertex almost in contact with each eye, the sides converging to lower end of front, indications of a longitudinal median sulcus; antennæ reddish yellow, the third joint orbicular, black, except at its base; arista black; clypeus unmarked; proboscis yellow, palpi black. Thorax subshining black, unmarked; pleura reddish yellow, marked with four black spots; scutellum black, convex; metanotum black medially, the sides broadly reddish yellow. Abdomen shining reddish yellow, indications of a black dot near each front corner of the second segment. Legs, including the coxæ and tarsi, reddish yellow. Halteres bright yellow, the peduncles dusky. Wings hyaline, hind cross vein nearly twice its length beyond the small cross vein. Length 2.4 to 3 mm. Charlotte Harbor, Florida. Mrs. A. T. Slosson. Two specimens.

*Agromyza terminalis* n. sp. ♂.

Head black, the broad frontal vitta opaque velvety, a silvery white dot above the antennæ, the latter and the palpi black, proboscis yellow. Thorax subshining black, no dorsal macrochaete in front of the suture; a narrow yellow vitta in front of and below each wing; pleura and scutellum black. Abdomen black, the fifth and following segments, and sometimes the sides and hind margin of the

fourth, grayish yellow. Legs black, the knees narrowly yellow. Halteres light yellow. Wings hyaline, third and fourth veins slightly diverging toward their apices. Length 2.4 mm. Welaka, Florida, May 9, 1894; and Delaware County, Pa., July 23, 1893. C. W. Johnson. Two specimens.

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LIST OF SPECIES.

BY C. W. JOHNSON.

**CECIDOMYIDÆ.**

- DIPLOSI<sup>S</sup> sp. On Oak, Georgiana, Jan. 24.  
 DIPLOSI<sup>S</sup> sp. Charlotte Harbor (Mrs. Slosson).

**MYCETOPHILIDÆ.**

- PLATYURA ELEGANS Coq. Georgetown, May 9.  
 NEOGLAPHYROPTERA CINCTA Coq. Tick Island, May 12.  
 SCIARA sp. (U. S. Nat. Mus.)

**BIBIONIDÆ.**

- BIBIO RUFITHORAX Wied. St. Augustine. The thorax of the ♂ is black.  
 BIBIO THORACICA Say. East Florida (Say).  
 DILOPHUS ORBATUS Say. St. Augustine; Juniper Co., May 15; Inverness, Mar. 27 (Robertson); Charlotte Harbor—exceedingly common from February to the end of March (Mrs. Slosson).  
 PLECIA RUFICOLLIS Fabr. St. Augustine; Charlotte Harbor, Mar. (Mrs. Slosson); Lake Harney (Messrs. Hubbard and Schwarz).  
 PLECIA sp. St. Augustine; Drayton Island, May 9.

**CULICIDÆ.**

- CULEX TENIORHYNCHUS Wied. St. Augustine; Tick Island, Volusia Co., May 12; Charlotte Harbor (Mrs. Slosson).  
 CULEX CILIATUS, Fabr. St. Augustine.  
 CULEX FASCIATUS, Fabr. Charlotte Harbor, Mar. (Mrs. Slosson).  
 ANOPHELES CRUCIANS Wied. Troublesome, Tick Island, May 12.

- PARYDRA sp. Charlotte Harbor (Mrs. Slosson).  
 EPHYDRA SUBOPACA Loew. Charlotte Harbor, February (Mrs. Slosson).  
 EPHYDRA NANA Walk. Ormond (Mrs. Slosson).  
 SCATELLA LUGENS Loew. Ormond (Mrs. Slosson).  
 CENIA SPINOSA Loew. St. Augustine.

#### GEOMYSIDÆ.

- HETEROCHROA ORNATA Johnson. Drayton Island, May 9.

#### DROSOPHILIDÆ.

- DROSOPHILA AMPELOPHILA Loew. St. Augustine; Ormond; Charlotte Harbor (Mrs. Slosson).  
 DROSOPHILA QUADRIMACULATA Walk. Charlotte Harbor (Mrs. Slosson).  
 DROSOPHILA PUNCTULATA Loew. St. Augustine, March.  
 DROSOPHILA MACULOSA Coq. Charlotte Harbor (Mrs. Slosson).  
 DROSOPHILA VITTATA Coq. Charlotte Harbor (Mrs. Slosson).  
 DROSOPHILA GUTTIFERA Walk. (Walker.)

#### OSCINIDÆ.

- CRASSISETA FORMOSA Loew. Ormond (Mrs. Slosson).  
 CRASSISETA COSTATA Loew. St. Augustine, March.  
 HIPPELATES CONVEXUS Loew. St. Augustine, March.  
 OSCINI, sp. Charlotte Harbor (Mrs. Slosson).  
 MEROMYZA AMERICANA Fitch. St. Augustine.  
 SIPHONELLA CINEREA Loew. Charlotte Harbor (Mrs. Slosson).  
 CHLOROPS PUBESCENS Loew. St. Augustine; Orlando, March 16 (Robertson).  
 CHLOROPS GRATA Loew. St. Augustine.  
 CHLOROPS TRIVIALIS Loew. St. Augustine.  
 CHLOROPS ABDOMINALIS Coq. Charlotte Harbor (Mrs. Slosson).

#### AGROMYZIDÆ.

- LOBIOPTERA ARCUATA Loew. (Robertson); Ormond (Mrs. Slosson).  
 LOBIOPTERA INDECORA Loew. (Robertson).  
 LOBIOPTERA LACTEIPENNIS Loew. Charlotte Harbor (Mrs. Slosson).  
 LEUCOPIS BELLA Loew. Horse Landing, St. John's River, May 17; Crescent City (Hubbard).