

PROCEEDINGS OF THE
ENTOMOLOGICAL SOCIETY OF WASHINGTON

VOL. 23

JUNE 1921

No. 6

TWO NEW SPECIES OF DIPTERA.

BY CHARLES T. GREENE, *Bureau of Entomology.*

The species treated below were referred to the author by Mr. W. R. Walton, in charge of the Cereal and Forage Insect Investigations of the U. S. Bureau of Entomology. Mr. Walton also made the drawing of the puparia showing how they are formed into a cluster or comb.

The social habit of the larvae of *S. sociabilis* is curious. The puparia are very firmly cemented together and it is impossible to separate them without fracturing several cells of the comb. The anal stigmata are unusually large in proportion to the size of the puparium which is thickly, though shortly pilose, excepting immediately surrounding the stigmal field. The species is new and may be characterized as follows:

***Sturmia sociabilis*, new species.**

Male and female.—Black, thickly covered with a pale gray pollen. Length, male 5 mm.; female 6 mm.

Female.—Front one-fourth the total width of the head at vertex; thickly dusted with a golden pollen which extends to the lower end of the sides of the face; the usual frontal bristles reach to the middle of the second antennal joint; two large orbitals directed forward; in addition to the usual bristles there are several very small, erect hairs, some are in the form of a straight line close to the eye margin; frontal stripe reddish brown, one fourth the width of the front before ocelli and extending on each side of the ocellar triangle. Ocellar bristles very small, converging forward. Facial depression dusted with silvery white; ridges with only three or four bristles above the vibrissae. Antennae black, reaching the lowest fourth of the face, faintly reddish on the outside near the base of third joint; arista about as long as the antennae, reddish, thickened on basal half. Vibrissae large. Palpi well developed; apex yellow, black on basal half or more. Thorax with four narrow, black vittae; four posterior dorso-centrals. Scutellum black, faintly yellowish at the apex; one discal pair of macrochaeta; three marginal pairs and an additional smaller apical pair, decussate. Four sternopleurals. Abdomen all black; second segment with one pair median marginal, one pair lateral; also a very narrow median black stripe; third segment with four marginal pairs; no discals on either segments. Legs black; knees very narrowly reddish; middle tibia with one large bristle on front side near the middle. Hind tibiae evenly ciliated with one large bristle in the middle. Wing with one large bristle at base of third vein.

Male.—Same as female except the front is slightly narrower and there are no

orbitals. Ventral surface of the third segment shining, having the appearance of being varnished.

Described from four (4) females and two (2) males. Specimens labeled—Rio Piedras, P. R. May 23, 1913, P. R. S. G. A. Ac. No. 473, 1913—J. R. Johnson, Collector.

Holotype, Female, Cat. No. 24,146 United States National Museum. Allotype, Male, Cat. No. 24,146.

This species runs to *S. inquinata* in Coquillett's Revision. It is undoubtedly related to *Sturmia distincta* Wied. a common parasite of the sphinx moths in North America. The latter species has the social habit in pupation as is evidenced by specimens reared by Mr. George W. Barber of the Bureau of Entomology at Charleston, Mo., October 24, 1914, from the larva of a sphingid (species undetermined). The puparia in this case are cemented together precisely as in *sociabilis* and form a disc nearly circular in outline. In the case of *S. sociabilis*

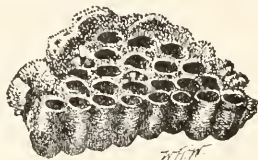


Fig. 1—Puparia of *Sturmia sociabilis*.

it was suggested to Mr. Jones that possibly the larvae were confined in so small a space that they were compelled to crowd each other in order to secure space in which to pupate but he stated that this was not the case.

Phorocera meracanthae, new species.

Male and female.—Back species covered with whitish pollen; in certain lights the apical edges of the abdominal segments are black and also have a broad black stripe on the third and fourth segment. Eyes hairy. Length, male 9 mm.; female 8 to 10 mm.

Male.—Front prominent, silvery, about one-fourth the head width and with numerous bristly hairs in addition to the frontal bristles; lowest frontals reach slightly below apex of second antennal joint; below these are four or five bristly hairs. Frontal stripe deep reddish brown. Ocellar triangle black with numerous long, bristly hairs; ocellar pair large, directed obliquely forward. Antennae long, reaching nearly the length of the face; third joint narrowly reddish at base and about five times the length of the second. Arista long, thickened on the basal fourth. Face strongly receding; ridges bristly almost to the lowest frontals. Vibrissae large, decussate. Palpi dull yellow, well developed. Thorax covered with white pollen forming four narrow, indistinct black vittae on anterior portion; four posterior dorso centrals. Scutellum concolorous; a discal pair of macrochaetae, also three pairs of large marginals and a small, decussate, apical pair. Abdominal segments with macrochaetae as follows: first and second segments with a median and lateral pair; third with four marginal pairs;

second and third segments with a discal pair. Sternopleura with three bristles. Middle tibiae each bearing one large and one small macrochaetae on the front side near the middle. Wing with the third vein bearing two bristles at the base. Length nine (9) mm.

Female.—Like the male except the following differences: Two large orbitals directed forward; several more large hairs below the lowest frontal. Scutellum reddish yellow on apical third to half. Wing with two or three bristles at the base of the third vein. Length eight (8) to ten (10) mm.

Described from six specimens. One male labeled as follows: Meyersville, Md., June 4, 1914; H254; J. A. Hyslop, Collector.

Holotype, male, Cat. No. 24,147 United States National Museum. Allotype, female, Cat. No. 24,147.

Reared at Hagerstown, Md., from the larva of *Meracantha contracta* Beauv. There were two other specimens in this lot of material but I did not think it advisable to include them because they are not fully matured.

Five females from the National Museum Collection labeled as follows: two specimens from Beltsville, Md., July 9, 1916, and one specimen from Mount Vernon, Va., July 4, 1917, W. L. McAtee, Collector. Two specimens from Hell Canyon, N. M., 7,200 feet; Manzano National Forest, 18, IX, 16; C. H. T. Townsend, Collector.

This species is closely allied to *P. facialis* Coq.

All the material is in the United States National Museum Collection.

**STUDIES OF ZENILLIA ROSEANAE B. & B.
A PARASITE OF THE EUROPEAN CORN BORER.
(*Pyrausta nubilalis* Hb.)**

BY W. R. THOMPSON, *U. S. Bureau of Entomology*, AND M. C. THOMPSON.

INTRODUCTION.

The present paper embodies a portion of the principal technical results obtained during the first year of work in southern France on one of the European parasites of the European corn borer, under the direction of the senior author of this paper, acting under instructions from the Chief of the Bureau of Entomology.

This paper contains the technical information necessary for the recognition of the parasite under consideration, in each of the successive stages of its development and for the elaboration of satisfactory methods of rearing and colonization.

***Zenillia roseanae* B. & B.**

Zenillia roseanae B. & B. is a Dipterous parasite belonging to the family Tachinidae. The females of this species are larvi-