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A NEW SUBGENUS AND TWO NEW SPECIES OF *PSEUDIASTATA* COQUILLET (DIPTERA, DROSOPHILIDAE)

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The genus *Pseudiastata*, described by Coquillett (1908), contains five described species from the United States, Central and South America. As far as is known, they are all predators on pineapple mealybugs. Their general biology and distribution have been most recently discussed by Sabrosky (1951) and Hardy (1959). These five species constitute the nominate subgenus, the type species of the genus (*P. nebulosa* Coquillett) also being the type of the subgenus *Pseudiastata*.

Members of the new subgenus described below show many similarities to the nominate subgenus. In both the arista is micro-pubescent, the face is narrow and rather flat, and the palpi are small. The postvertical bristles are only moderately well-developed, while the ocellar bristles are quite small and proclinate to mildly cruciate. The three orbital bristles are large and strong and are conspicuous on the narrowed front (Figs. 1, 2). The eyes are large and bare, the cheeks being correspondingly narrow. The posterior dorsocentral bristles are not in line with the anterior ones, but are clearly moved laterad, simulating the condition seen in many genera of Ephydriidae. The prescutellar and sutural bristles are strong, while a propleural bristle is absent. The costal index is high, typically 4.0 or higher.

✓ *Pseudiastata*, *Hyalistata*, n. subg.

The type species of this new subgenus is *Pseudiastata* (*Hyalistata*) *pictiventris* Wheeler, described below. The name *Hyalistata* was coined to suggest a hyaline-winged *Pseudiastata*-like group, and is feminine.

In this subgenus the wings are entirely hyaline, lacking the complex patterns characteristic of the typical subgenus, and the costal index is higher (6.0 or more). The pubescence of the arista is thicker and longer. The middle femur has a row of stout black bristles along its outer edge. The front is narrower and more sparsely haired, and the anterior orbital bristles are truly proclinate and are located nearer the middle of the front (Fig. 2); in the subgenus *Pseudiastata* they are located just behind the lunule and are

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nearly cruciate (Fig. 1). The abdomen shows some degree of a darker pattern, while in members of the subgenus *Pseudiasata* it is wholly pale.

Little is known of the biology of the species of *Hyalistata*. The Trinidad specimens bear labels reading "associated with Psyllid on Guava leaf," and one of the Florida specimens is labelled "at *Avicennia nitida*" (the Black Mangrove) and may prove to be associated with some homopterous insect pest of this plant.

✓ *Pseudiasata (Hyalistata) pictiventris*, n. sp.

♂, ♀. Front twice as long as wide, light brown but paler on the orbits and blackish in ocellar area. Frontal bristles as shown in Fig. 2; ocellars small, aligned with anterior ocellus; the two reclinate orbitals of nearly equal length but posterior one stouter; proclinate orbital $\frac{3}{4}$ length anterior reclinate, the distance between their bases about $\frac{1}{3}$ that between the two reclinates. Antennae tan, third segment rather large. Face as narrow as front, pale; vibrissa single, strong; cheeks, palpi and clypeus all pale.

Mesonotum tan, more yellowish behind and on scutellum; acrostichal hairs numerous. Pleura and legs yellowish tan; halteres pale. Wings hyaline, the veins dark. Costal index about 6.0; 4th vein index about 1.3.

Abdominal pattern somewhat *Leucophenga*-like; that of the female allotype is shown in Fig. 3. The 6th segment is probably all dark but it is telescoped rather far beneath the 5th. The abdominal pattern of the holotype male is obscured due to internal discoloration, but it appears to lack the black areas of segment 3 and those of the 4th and 5th segments are smaller than on the female. The 6th is pale above, dark on the sides; the anal plates are yellow.

Body length (♀) about 3.0 mm., wing, 3.0 mm.

Holotype male, U. S. National Museum collection, labelled: "Cuernavaca, Mor. Mexico, IV.1945"; "N. L. Krauss." *Allotype* female, Canadian National Collection, labelled: "Homestead, Fla., 4-IV-1952; G. S. Walley." A second male (USNM) from Everglades National Park, Dade Co., Fla., H. A. Denmark, 12 III 1955, "at *Avicennia nitida*", may also represent this species, but the abdomen appears to be wholly black except for a pair of pale lines on the 5th segment, one on each side of the midline.

✓ *Pseudiasata (Hyalistata) pallida*, n. sp.

♂. Similar to *pictiventris* but smaller and paler. Mesonotum light tan, including pleura and scutellum. Front narrow, tan,

darkened in ocellar area. Cheeks very narrow. Antennae, face, cheeks, proboscis and palpi yellow. Legs wholly yellow. Wings hyaline, the veins pale except for the costa. Costal index 7.0 or a little higher; 4th vein index about 1.3.

Abdomen yellowish with a few poorly-defined brownish marks. One specimen shows three such areas on the 4th segment, an elongate median one and a sublateral spot on each side basally; the 5th segment has a weak median spot basally, and a larger, more distinct brown area at extreme lateral margin. On the second specimen no markings are visible on the 4th segment, but the 5th has the marks described above.

Body length 2.2 mm; wing, 2.2 mm.

Holotype male and *paratype* male, U. S. National Museum collection, labelled: "associated with Psyllid on Guava leaf"; "St. Augustine, Trinidad, B.W.I., March 17, 1954"; "collector F. D. Bennett."

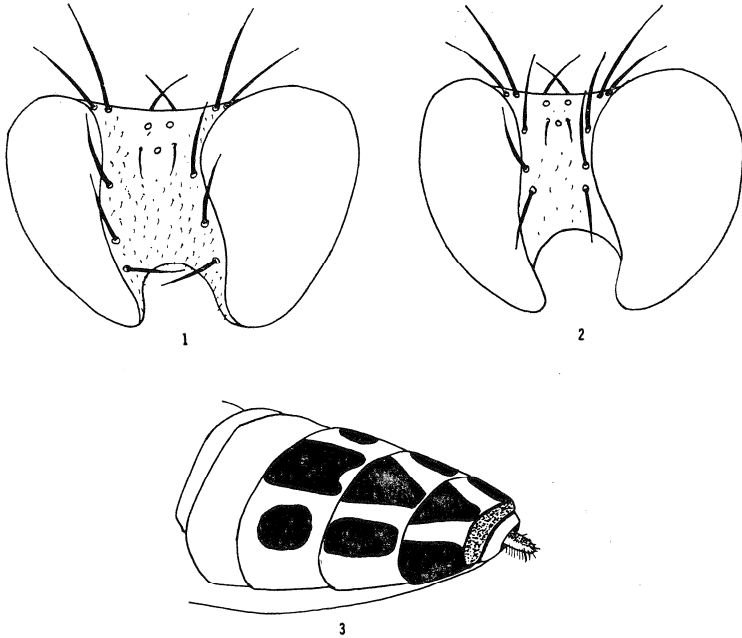


Fig. 1, *Pseudiasata* (*P.*) *pseudococcivora* Sabrosky, frontal bristles. Fig. 2, *Pseudiasata* (*H.*) *pictiventris* n. sp., frontal bristles. Fig. 3, *Pseudiasata* (*H.*) *pictiventris* n. sp., abdominal pattern of allotype female, dorso-lateral view.

REFERENCES

- Coquillett, D. W.** 1908. New genera and species of Diptera. Proc. Wash. Ent. Soc. 9: 144-148.
- Hardy, D. E.** 1959. A review of the genus *Pseudiasata* Coquillett (Drosophilidae, Diptera). Proc. Haw. Ent. Soc. 17: 76-82.
- Sabrosky, C. W.** 1951. Two new species of *Pseudiasata* (Dipt., Drosophilidae) predacious on the pineapple mealybug. Bul. Ent. Research 41: 623-627.