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SOME AFRICAN AND BRAZILIAN STRATIOMYIDAE (DIPTERA)

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The present paper is based on a collection of Stratiomyidae made at Natal, Brazil, and in Liberia, mostly near Robertsport, by Dr. Fred M. Snyder, during 1943, and given in part to the author and in part to the American Museum of Natural History. All holotypes and allotypes are the property of the American Museum of Natural History.

BRAZILIAN SPECIES

Hoplistes pleuralis, new species

MALE: Head shining yellow, variegated with black as follows: the ocellar triangle and adjacent ocular orbits; a transverse band just above the frontal callus; a cross band just above and adjacent to the antennal bases, narrowly touching the eyes and sometimes contiguous with the frontal band; the face, except the narrower lower and the broader upper orbits; and the occiput, except the broad orbits and the upper two-thirds of the median plate. Facial orbits silvery tomentose; face and lower part of occiput, including lower orbits, silvery pilose. Pile of frons very short, black, inconspicuous, that of vertex and of upper part of occiput, excluding orbits, also short and black, but somewhat more clearly evident. Ratio of antennal segments 8:5:4:2:3:1:3:30; scape and pedicel yellow, with black hair; flagellum with first segment bright yellow, a little narrower than apex of pedicel, the next two segments becoming gradually narrower and brownish, suddenly contracted into the black, three-segmented terminal arista, which is rather broad basally. Proboscis black, the labella brownish.

Thorax black, variegated with greenish yellow as follows: humeri; a pair of dorsal bands, extending backward from each humerus to a point opposite the wing bases, sometimes outwardly angulate at the suture; supra-alar regions; scutellum except spines; the narrow upper complete margin and the broad posterior margin of each mesopleuron; and three large spots, one on the upper part of the sternopleuron, one on the lower part of the pteropleuron, and one taking in most of the metapleuron. Pile of pleura silvery, that of dorsum inconspicuous, mostly concolorous with the background, but black and whitish intermixed on the scutellum. Scutellar spines brownish at base, blackish towards the apex.

Front coxae mostly black, middle and hind pairs mostly yellowish to brownish; femora yellow; tibiae black, the front and hind pairs each tending towards brownish apically and each with an indistinct brownish median annulus which is beyond the middle on the fore and before the middle on the hind pair; basitarsi and base of second segment of each tarsus white, tarsi otherwise blackish. Wings subhyaline with brownish stigma; cell R_3 about three times length of R_4 . Halteres yellow with greenish knobs.

Abdomen black, variegated with greenish yellow as follows: a broad band, taking in all but the basal angles, and the narrow lateral margin of the first tergum; the apical margins of terga two and three, narrow and sometimes not reaching the margins on two, somewhat broader on three; broad lateral margins of terga four and five; a prominent transverse area, sinuate anteriorly and broadly separated laterally from the margins, on apical third of tergum four, and a similar, though inconspicuous and greatly reduced apical area on tergum five; pile largely concolorous with background; genitalia yellow.

Length 6–7 mm.

FEMALE: As described for the male, except in the abdominal pattern; first segment as in the male; second wholly black; third with a suboval marking on each posterior corner of the tergum, reaching its median third along the incisure, but usually leaving the lateral margin largely black; fourth and fifth terga as in the male, except that the fourth lacks the transverse marking.

TYPES: Holotype, male, allotype, female, and paratypes, seven males and three females, Natal, Brazil, February 5 to 24, 1943 (F. M. Snyder).

This species may readily be distinguished from *H. bispinosus* (Wiedemann), the only other known member of the genus, by the much longer cell R_3 and the correspondingly short cell R_4 , the more extensively black pleura, and the complete black transverse band above the frontal callus.

The following specimens were also collected by Dr. Snyder at Natal, Brazil, February 5 to 24, 1943:

- Microchrysa bicolor* (Wiedemann), two females
- Plecticus testaceus* (Fabricius), one female
- Sargus thoracicus* Macquart, one female
- Hermetia illucens* (Linnaeus), one male
- Cyphomyia lanuginosa* Gerstaecker, two males, two females

AFRICAN SPECIES

Diplehippium snyderi, new species

MALE: Head brownish to brownish black; narrow facial orbits with silvery tomentum which extends onto the front, where the areas are narrowly separated medially, thence along the line separating the practically contiguous eyes to the median ocellus. Occiput with narrow orbits silvery tomentose on lower part; some silvery pile on lower half of occiput. Eyes bare. Antennae reddish brown on scape, pedicel, and basal three segments of flagellum, thence gradually becoming black. Proboscis yellow; palpi brownish, the apical segment black.

Prothorax brownish, the pronotum punctured; mesonotum and dorsal aspect of scutellum black, evenly punctured; pile mostly blackish, inconspicuous; a broad area of silvery tomentum before the scutellum, extending about two-fifths of the way to the suture, and a small silvery patch before each lateral spine, continuous with the mesopleural silvery tomentum; lateral spines of mesonotum strong, brownish, black at base; upper scutellar spines black at base, becoming yellow apically; apex, lower side, and lower spines of scutellum yellow; upper and lower spines diverging from each other at a little less than a right angle. Pleura for the most part black and punctured, tending to become brownish on the bare, unpunctured areas; pile largely black on anterior half of mesopleura, otherwise silvery.

Femora pale yellow on basal three-fifths; apical two-fifths of femora and the tibiae yellowish brown on front and middle pairs and brownish black on hind pair; tarsi yellow, becoming darker towards apex, especially on hind pair. Halteres yellow, the

knobs somewhat brownish above. Wings hyaline, with two infumated areas: the first an elongated spot taking in the subcostal, the first basal, and the anterior part of the second basal cells, and the stigmal area, where it is widest and most intense in its darkening; the second a rounded spot extending through the second submarginal into the third posterior cell, but at most less than halfway across it; the apex of the wing and the costal, first submarginal, and discal cells are entirely hyaline; the infuscation as a whole is similar to that of *D. tessmanni*, though less extensive on the apical spot.

Abdomen densely punctured dorsally, a little less regularly so ventrally; black, tending to become brownish very narrowly along the incisures, especially ventrally, and along the lateral margin; pile short, inconspicuous, black, with prominent areas of silvery tomentum as follows: a median area extending from the middle of the fourth segment to the apex of the fifth; a lateral triangle on each side of the fourth and another on each side of the fifth segment, and extending the length of the respective segment, their bases lying on the bases of the segments; and a ventral area including the first, the median half of the second and third, and the median basal area of the fourth sterna. Another large dorsal spot of silvery tomentum occurs on the second and third segments and extends almost the width of the abdomen, though interrupted medially; this area, however, is invisible, except as viewed from behind and with the proper light incidence. Genitalia yellow.

Length 6.5 mm.

TYPES: Holotype, male, Robertsport, Liberia, December 4, 1943 (F. M. Snyder); paratypes, male, Robertsport, January 19, 1944 (Snyder), and male, Bendu, Robertsport, Liberia, February 26, 1943 (Snyder).

The following key will serve to separate the known species of *Diplehippium*.

1. Mesonotum uniformly punctured; veins M_1 and M_2 separated at their bases by a crossvein.....2
 Mesonotum with anterior margin and median line devoid of punctures;
 veins M_1 and M_2 arising together at apex of discal cell.....
 *amphicentrum* Speiser
2. Infuscated area reaching wing apex, though with reduced intensity; male with mesonotum at least medially, and abdomen beyond second segment brownish; dense tomentose areas of thorax and abdomen golden
 *tessmanni* Grünberg

Wing clearly hyaline at apex; mesonotum and abdomen, except laterally and at incisures, black; dense tomentose areas of thorax and abdomen silvery.....*snyderi*, new species

***Dolichodema fenestrata*, new species**

FEMALE: Head entirely subshining black, except a small elongated rectangular ivory spot adjacent to each eye on the lower part of the front; head clothed with a rather inconspicuous but fairly evenly distributed silvery tomentum; facial orbits and lower occipital orbits very narrowly bordered with silvery pruinescence, this area being conspicuous only below each eye. Antennae structurally as in *africana*; scape and pedicel shining, reddish; first six segments of flagellum pruinescent, the ground color grading from reddish on the first and second flagellar segments to black on the fifth and sixth; seventh and eighth black, with dense black hair. Proboscis and palpi brown.

Thorax mainly dull black; humerus brownish; mesopleuron with upper margin, expanding into a large triangle on its posterior part which extends almost to the sternopleuron, polished, ivory; postalar calli and pteropleura tending to reddish. Thorax almost entirely clothed with an inconspicuous whitish to silvery tomentum. Front legs reddish, the basitarsi somewhat more yellowish, especially dorsally; middle legs mainly reddish, the coxae darker, the femora blackish on basal third to half, the basitarsi whitish, especially dorsally; hind coxae, femora, and tibiae except bases, black, trochanters and bases of tibiae dark reddish, tarsi reddish yellow, except that basitarsi are whitish dorsally; tarsal hairs tending towards black dorsally, yellow ventrally; legs otherwise with tomentum as on the thorax. Wings subhyaline; apex beyond stigma and discal cell infumated, the stigma dark brown; veins brownish, all distinct to their apices. Halteres with reddish yellow stalks and white knobs.

Abdomen dull black, except for a large spot that takes in most of the second and an adjacent triangle on the third segment, both dorsally and ventrally; this spot is so transparent that the femora can clearly be seen through it. Tomentum mostly as on the thorax; it is sparse, however, on the transparent areas, and forms two dense patches on the last tergum; some erect whitish pile on the sides of the first and second terga and on the first sternum.

Length 9 mm.

TYPE: Holotype, female, Bendu, Robertsport, Liberia, March 27 (F. M. Snyder).

This species can be readily distinguished from *D. africana* Kertész, the only other known species of this genus, by the bi-colored middle and hind femora, the extensively black pleura, and the transparent abdominal spot. *D. brevicephala* Brunetti is, as I have shown elsewhere, a synonym of *Hermetiomima melaleuca* Grünberg.

***Enypnium quadripunctatum* Kertész**

Enypnium quadripunctatum KERTÉSZ, 1914, Ann. Hist. Nat. Mus. Natl. Hungarici, vol. 12, pp. 536-537, fig. 67.

Bendu, Robertsport, Liberia, March 7 and April 1, 1943 (F. M. Snyder), four males; Bwamba, Uganda, July-August, 1946 (Van Someren), one female.

The female of this species has not previously been recorded in the literature. It differs from the male in that the front is about twice as wide, the front and face being of approximately equal width, with parallel sides; and in that the abdomen is not silvery pruinose.

***Ashantina antennata* Kertész**

Ashantina antennata KERTÉSZ, 1914, Ann. Hist. Nat. Mus. Natl. Hungarici, vol. 12, pp. 539-540, figs. 68, 69.

Bendu, Robertsport, Liberia, February 26, March 15 and 20, and April 1, 1943 (F. M. Snyder), five males, two females; Robertsport, Liberia, December 9, 1943 (Snyder), one male.

Grünberg (1915, Mitt. Zool. Mus. Berlin, vol. 8, p. 53) has described the variation in coloration existing in this species. In my series of specimens, the abdomen is predominantly reddish yellow in the males, blackish in the females.

The following specimens were also collected at Robertsport, Liberia, by Dr. Snyder:

Platyna hastata (Fabricius). Benduja, 1000 feet, December 1, 1943; Benduja, December 1 to 2, 1943; Bendu, March 18, 1943; 17 males and females
Platynomorpha doryphora Grünberg. Bendu, April 1, 1943, one male
Tinda nigra (Macquart). Bendu, February 26 to March 5, March 18, March 27, April 1, and April 27, 1943; November 1 and 2, December 6, 7, and 10, 1943; 22 males and females

- Isomerochera quadrilineata* (Fabricius). December 6 and 7, 1943; Bendu, March 13, 17, 18, and 27, and April 27, 1943; 11 males and females
- Argyrobrithes argenteus* Grünberg. November 15, October 26, and December 7 and 23, 1943; Bendu, February 26 to March 5, March 15, 17, and 27, 1943; 16 males and females
- Goberlina picticornis* Bigot. December 1, 1943; Bendu, February 26 to March 5, March 27, 1943; six males and females
- Negritomyia loewi* Brauer. November 24, 1942, and November 2, 1943; Bendu, February 26 to March 5, March 17 and 27, 1943; seven males and females
- Ptecticus elongatus* (Fabricius). October 26, 1943; Benduja, December 1 to 2, 1943; Bendu, February 26 to March 5, March 7, 13, and 15, and April 1, 11, and 27; 24 males and females
- Ptecticus cinctifrons* Grünberg. December 14, 1943; Bendu, February 26 to March 5, March 7, 15, and 27, 1943; 13 males and females
- Sagaricera aenescens* Grünberg. Bendu, March 13, 18, and 20; three females

