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Grimshaw, P. H. and Speiser, P.:

## DIPTERA.

## SUPPLEMENT.

SINCE the preceding account of the Diptera was published, a small additional series of specimens has been obtained and handed to me containing about sixteen additional species. The most remarkable of these is the wingless Dolichopodid I have described on page 81 as the type of a new genus. Some of the others are evidently introductions, and with my present limited acquaintance with exotic Diptera I do not feel justified in regarding them as new, especially in such groups as *Tachinidae* or *Sarcophagidae*. It is rapidly becoming impossible for a single worker to obtain an adequate knowledge of all families, and in the investigation of the Dipterous fauna of any country in the future, the aid of specialists who devote themselves to single families will have to be called in. In the present instance this plan has been partially resorted to, and we are much indebted to Dr Speiser for his careful working out of the *Hippoboscidae*, to which I referred briefly on p. 77. His report is given below (pp. 86—92). [P. H. G.]

## Fam. STRATIOMYIDAE (p. 11).

## NEOEXAIRETA Osten-Sacken.

(1) *Neoxaireta spinigera*, Wied.

*Xylophagus spiniger* Wied., Auss. zweifl. Ins. II. 618 (1830).

*Beris servillei* Macq., Dipt. Exot. I. 1, 172, taf. xxi. fig. 1 (1838) and Suppl. I. 47, 1 (1844).

*Diphysa spinigera* Walk., List. Dipt. Ins., Suppl. I. 7 (1854).

HAB. Oahu, Honolulu, two specimens, June and July, 1900. I have compared these examples with others so named in the British Museum, and find them to agree in every respect.

## (2) ? Genus and species.

A specimen taken on the Mts. of Honolulu in 1900, appears to be very near *Acanthina* Wied., but as the antennae are broken off it is difficult to ascertain its correct position.

F. H. III.

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Fam. DOLICHOPODIDAE (p. 11).

GNAMPTOSILOPUS Aldrich (p. 11).

(1) *Gnamptopsilopus patellifer*, Thomson (p. 11).

An additional female from S. Kona was obtained in February 1899.

DOLICHOPODUS Latreille.

This genus, not hitherto recorded from the Sandwich Islands, is represented in the present collection by five specimens obtained in the island of Oahu in 1901. Three males and one female are from the Waialua Mts. (May), and the other specimen, a male, from N.W. Koolau (July). I have not been able to identify the species, but it comes very near the European *griseipennis* Stann. The antennae, however, are shorter, the fore coxae quite yellow, without silvery sheen, the hind tibiae dark in at least their apical half, and the fourth longitudinal vein not so abruptly broken.

CAMPSICNEMUS Walker (p. 13).

(5) *Campsicnemus patellifer*, sp. nov.

♂. Long. corp.  $1\frac{1}{2}$  mm.; al.  $1\frac{3}{4}$  mm. Front dark brown with a greenish metallic reflection. Antennae black, third joint obtuse, hairy, arista about as long as the thorax, hairy, with a spatulate enlargement at the tip. Thorax and scutellum dark brown, shining, with a greenish metallic tinge, halteres bright yellow. Abdomen dull blackish-brown. Legs yellow, with the tips of the hind femora and of all the tarsi darker. Fore femora and tibiae entirely without bristles; intermediate femora very much thickened in their basal two-thirds, abruptly narrowed towards the tip, on the under surface of the thickened portion a double row of very conspicuous black bristles; hind femora slender, with two moderate-sized bristles on the under surface near the tip. Intermediate tibiae very long, curved, narrowed in their middle portion, furnished near the tip of their inner surface with a tuft of long fine hairs; hind tibiae long and slender, the whole of their inner surface furnished with fine, short hairs. Fore and hind tarsi normal, intermediate tarsi with the 1st joint extremely short and furnished with two long spines, 2nd joint two-thirds of the length of the tibia, slender and curved, concave (outer) surface furnished with long and regularly disposed hairs. Wings dusky-hyaline, 3rd and 4th veins parallel, posterior transverse vein more than twice its length from the posterior margin of the wing.

HAB. Oahu, one male, Pali, December 1900.

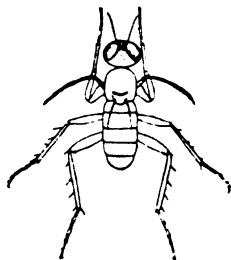
EMPEROPTERA<sup>1</sup>, gen. nov.

Near *Chrysotus*, but wings much reduced, being represented only by a somewhat thickened, curved filiform structure, with an apparent joint (or perhaps weakness) near the base, hairy along the anterior margin for its whole length, and furnished at its tip with a conspicuous bristle. Front broad, triangular, face narrow, especially just below the antennae, where the eyes nearly meet; antennae short, the third joint hairy, arista dorsal, very long, and distinctly pubescent. Thorax smooth and polished, scutellum with two very long and strong bristles, halteres apparently absent (I cannot find any trace of them in the few specimens before me). Abdomen comparatively large and elongated, hypopygium small and indistinct. Legs long with stout femora, unarmed except the intermediate and hind tibiae.

Type of genus: *E. mirabilis*, sp. nov.

(1) *Emperoptera mirabilis*, sp. nov.

Long. corp.  $1\frac{1}{2}$ —2 mm. Front black and polished, with a very slight dark blue (steely) tinge, face black with a silvery spot just above the oral opening; antennae black, third joint very short, hairy and pointed, arista very long, whitish and distinctly pubescent. Thorax bluish-black, highly polished and with few bristles, sometimes with a greenish tinge, appendages (? wings) dark brown, much shorter than the legs, scutellum rather dull and blackish-brown, sometimes a little yellowish at the tip, with two strong setae which reach to the apex of the second abdominal segment. Abdomen black and polished, but duller than the thorax, slightly pubescent, base of first segment sometimes yellowish. Legs yellowish-testaceous, tips of femora and tarsi a little darker. Hind femora with one or two small spines near the apex, intermediate and hind tibiae each with four bristles on their outer surface, legs otherwise unarmed. Under a high power the hind tibiae show at the extreme tip, on the outer side, a small transverse comb of about ten minute bristles.



HAB. Oahu, 5 specimens on *Freycinetia*, Koolau range, December 1900; 4 specimens "back of Malukia" December 1900.

<sup>1</sup> ἔμπηρος, crippled, maimed.

Fam. SYRPHIDAE (p. 19).

ERISTALIS Latreille (p. 19).

(2) *Eristalis punctulatus* Macquart.

*Eristalis punctulatus* Macq., Dipt. Exot. 2<sup>e</sup> Suppl. p. 59 (1847).

A male of what I take to be this species, originally described from Australia, was taken at Honolulu in June 1900. It is evidently an importation.

EUMERUS Meigen.

(1) *Eumerus marginatus*, sp. nov.

♂. Long. corp.  $7\frac{1}{2}$  mm.; al.  $5\frac{1}{2}$  mm. Front black with a slightly metallic tinge, clothed behind with yellowish hairs, in the middle with black hairs, and in front with yellowish-grey tomentum; face black, covered with long whitish pubescence; eyes bare, meeting for a short distance in front, the facets in this portion being much larger than in the rest of the eyes. Antennae blackish-brown, sometimes the 3rd joint, which is comparatively large, a little lighter, arista long and stout. Thorax bronzy or iridescent-black, the suture and two dorsal longitudinal lines more or less tomentose; scutellum blackish or bronzy, with a very conspicuous yellow margin which is formed by a transverse and somewhat crenulated depression running round the disc; thorax and scutellum both coarsely punctured and covered with almost golden-yellow pubescence which is much longer around the margin of the latter. Abdomen black, shining and punctured, with a purplish or bronzy metallic tinge; 1st, 2nd, and 3rd segments each with a pair of whitish tomentose lunules, those of the 1st segment small and indistinct, 4th segment more bronzy and covered with thick whitish pubescence, which is also present at the basal angles of the 1st segment. Legs black with a greenish metallic tinge, the knees, base of the tibiae, the anterior and intermediate tarsi yellow, posterior legs with the femora much swollen, the tibiae much enlarged in their apical half, and the tarsi also enlarged, all the legs covered with whitish pubescence. Wings with a slight brownish tinge, subapical transverse vein much angulated, so that the cell it closes has a pointed projection, while the vein itself has an appendage at the angle.

HAB. Oahu, 4 males taken at Honolulu, in June 1900.

Note :—Although I cannot find any published description which fits this species it is with some hesitation that I here describe it as new. It may be an importation from Australia—the genus does not occur in America, so far as I am aware.

## Fam. TACHINIDAE (p. 20).

## CHAETOGAEDIA Brauer and Bergenstamm (p. 20).

(1) *Chaetogaedia monticola* Bigot (p. 20).

A specimen taken in the Honolulu Mts., 1900.

Two other specimens belonging to the *Tachinidae*, and each representing a distinct species, were taken in Oahu (Waianae Coast) in January 1901, but they are in such poor condition that I cannot identify them. One, which, from the structure of the head, appears to be near *Prospheerisa* v. d. Wulp, but all the legs are missing save one of the anterior pair.

## Fam. SARCOPHAGIDAE (p. 21).

## DYSCRITOMYIA Grimshaw (p. 21).

(7) *Dyscritomyia*, sp.

A single male specimen from the Jao Valley, Maui, taken in September 1901, resembles very closely the females from Molokai referred to on p. 22 under *D. limbipennis*. The fore metatarsi in the male are quite simple and unarmed, so that these three examples very probably represent a distinct species inhabiting the central islands of the main group. Until more material is obtained I prefer to leave it undescribed.

## SARCOPHAGA Meigen (p. 26).

Two species belonging to this genus are represented in the supplementary collection formed by Mr Perkins, but I am unable to identify them. One, with red anus, is represented by a male from N.W. Koolau (Oahu), July 1901; the other, with black anus, by three specimens, viz. a male and female from the Honolulu Mts., 1900, and a male from the N. Koolau range, August 1901.

## Fam. MUSCIDAE (p. 27).

## RHINIA Desvoidy.

(1) *Rhinia testacea* Desvoidy.

*Rhinia testacea* Desvoidy, Essai sur les Myodaires, p. 423, 1 (1830).

Two males of this species, a native of China, Hong-Kong and the Nicobars, were taken by Mr Perkins at Honolulu, in June 1900.

LUCILIA Desvoidy (p. 28).

(2) *Lucilia* sp.

One ♂, not in sufficiently good condition for identification, was obtained on the Mts. of Honolulu, in 1900.

Fam. ANTHOMYIDAE (p. 29).

HOMALOMYIA Bouché (p. 30).

(2) *Homalomyia femorata* Loew.

*Homalomyia femorata* Loew, Berl. Ent. Zeitschr. xvi. p. 93 n. 68 (1872).

A male of this species, originally described from Cuba, was obtained on the Honolulu Mts. in 1900.

ACRITOCOAETA Grimshaw (p. 41).

Herr P. Stein has kindly pointed out to me that this genus is probably identical with *Atherigona* Rondani.

Fam. SCIOMYZIDAE (p. 43).

SCIOMYZA Fallen (p. 43).

(1) *Sciomyza hawaiiensis*, sp. nov.

Long. corp. 4 mm. ; al.  $3\frac{1}{4}$  mm. Front yellowish-cinereous with a double dark brown central stripe; face yellow with a darker patch beneath the antennae, oral margin and a spot beneath the lower angle of the eye also brownish, vibrissal angle with a few tiny bristles, chin yellow with several strong bristles; antennae entirely brownish-yellow, arista distinctly pubescent. Thorax and scutellum unicolorous cinereous, the latter with a distinct yellow margin, halteres pale yellow. Abdomen with 1st segment entirely yellowish, 2nd yellowish with a dark brown spot or patch at each side, remaining segments shining dark brown or blackish with the hind margins yellow. Legs entirely yellow. Wings very slightly yellowish tinged, unicolorous, veins yellow, last section of the 4th longitudinal vein half as long again as the penultimate, both transverse veins with a trace of clouding.

HAB. Oahu, one specimen, N.W. Koolau, July 1901. To this species also belongs the specimen from Waialua, Oahu, mentioned on p. 43.

Fam. ORTALIDAE (p. 44).

ACROSTICTA Loew (p. 44).

(1) *Acrosticta pallipes* Grimshaw (p. 44).

Two females taken in the Honolulu Mts. in 1900.

EUXESTA Loew (p. 44).

(1) *Euxesta annonae*, Fabricius.

HAB. Oahu, one female taken in the Honolulu Mts., 1900.

CHRYSOMYZA Fallen.

(1) *Chrysomyza*, sp.

This genus is represented by a single specimen taken in the Honolulu Mts. in 1900. It is a beautiful species with shining metallic green thorax, coppery scutellum and abdomen metallic bluish purple with green margin. The wings have the first posterior cell closed and stalked. Possibly an introduction from the West Indies or South America.

Fam. SAPROMYZIDAE.

(1) *Sapromyza*, sp.

A single specimen belonging to this genus was obtained in the Honolulu Mts. in 1900, but I have not been able to identify it. At the same time I do not feel justified in describing it as new.

Fam. EPHYDRIDAE (p. 49).

BRACHYDEUTERA Loew (p. 49).

(1) *Brachydeutera argentata*, Walker (p. 49).

A single specimen taken in the Jao Valley, Maui, in September 1901.

SCATELLA Desvoidy (p. 49).

(1) *Scatella hawaiiensis* Grimshaw (p. 49).

Eleven specimens obtained at Pali, Oahu, in December 1900.

Fam. DROSOPHILIDAE (p. 50).

DROSOPHILA Fallen (p. 55).

(7) *Drosophila hawaiiensis* Grimshaw (p. 60).

One specimen (? a male), N.W. Koolau (Oahu), July 1901.

(9) *Drosophila pilimana* Grimshaw (p. 61).

One female, Waialua Mts., Oahu, May 1901.

(41) *Drosophila crucigera*, sp. nov.

♀. Long. corp.  $3\frac{1}{2}$ —4 mm.; al. 4 mm. Similar to *D. variegata* (p. 57) but smaller, second joint of antennae entirely yellow, and pattern of wings more broken up although of the same general type. In the centre of the wing is a fuscous patch roughly resembling a Greek cross, the foot of which extends over the posterior transverse vein; in the centre of the second posterior cell, i.e. exterior to the foot of the cross, is a small rounded detached spot and a similar one in the middle of the third posterior cell, third fuscous band (at the apex of the wing) with a conspicuous hyaline spot between the tips of the 2nd and 3rd veins.

HAB. Oahu, one female, Honolulu Mts., August 1900, one female, Waialua Mts., May 1901.

(42) *Drosophila*, sp.

A single male specimen of a species apparently allied to *D. paucipuncta* was obtained by Mr Perkins in Oahu (N.W. Koolau) in July 1901. The wings bear only the slightest trace of fuscous markings, the thorax is yellowish marked with four very obscure brown stripes, while the fore tibiae and tarsi are bearded with long hairs.

## DIPTERA PUIPIPARA.

**By Dr. P. Speiser, Bischofsburg, Ostpreussen.**

IN seiner Bearbeitung der Dipteren der "Fauna Hawaiiensis" erwähnt P. H. Grimshaw auf p. 77 auch drei Species von Hippobosciden, ohne diesen jedoch Namen beizulegen. Herr P. H. Grimshaw hat nun die grosse Liebenswürdigkeit gehabt,