

to Diptera

Supplement by R. C. L. Perkins

to

DIPTERA.

Vide Tom. III. hujus operis, pp. 1—92.

Fam. PIPUNCULIDAE.

(1) *Pipunculus vulcanus*, sp. nov.

Head with the front and face black, with inconspicuous fuscous tomentum and in the female smooth and shining for half the distance between the ocelli and antennae; posteriorly the head is greyish tomentose, at least towards the sides, but not densely so. Antennae entirely dark, black or piceous, third joint acuminate produced at the apex. Mesonotum somewhat shining, especially in the male, with hardly noticeable fuscous tomentum, and further clothed with short and sparse, but very distinct, erect, black hairs; in the female the sides as far as the tegulae and the anterior margin with a narrow border of whitish tomentum; the pleura with sparse whitish tomentum in both sexes; scutellum with a marginal fringe of bristly hairs, which are more developed than the mesonotal ones; metanotum with whitish tomentum. All the legs entirely dark above, the femora being black or very dark brown, with short bristly black or spinose hairs beneath, the middle ones with a very regular series of longer hairs, curved downwards, on their posterior face; tibiae often less dark than the femora, piceous or reddish pitchy, and without special bristles on the hind pair; tarsi black, or at least dark, above. Wings strongly infumate or fuscous in the male, nearly clear in the female, third costal segment much shorter than the fourth, posterior cross-vein obliquely transverse, its upper extremity about opposite the apex of the second longitudinal, terminal segment of fourth distinctly bisinuate; stigma brown. Abdomen shining on the apical segments of the male, very little tomentose except rather obscurely on the apical part of the basal segment, which has the lateral series of bristles well developed, the rest of the abdomen bearing short black hairs. In the female the abdomen is greyish tomentose and clothed with short black hairs, dull, except the fifth segment. Length 3.5—4 mm.

Allied to *P. juvator*, a variable and widely distributed species, which is found with it, and also occurs on other of the islands. Superficially *P. vulcanus* is most readily distinguished by the darker legs.

HAB. Hawaii, Kilauea.

(2) *Pipunculus acrothrix*, sp. nov.

Female black, the abdomen shining metallic aeneous-black. Face below the antennae with dense white tomentum, that on the head posteriorly more fuscous. Third antennal joint clear yellow, the beak thin and long, white. Mesonotum with thin fuscous tomentum, dense only at the sides, sparsely and shortly pilose; marginal bristles of scutellum well developed; metanotum and pleura with denser yellowish grey tomentum. Wings long and clear, neuration as in *P. vulcanus*, stigma brown, about half as long as the fourth costal segment. All the coxae dark, the trochanters and tibiae all clear yellow, the femora of this colour at base and apex, the middle being black, the tarsi, except the basal joint, being more or less dark above. Posterior tibiae with three or four long bristles outwardly near the middle. Abdomen with a distinct band of pale tomentum on the basal segment, the rest brightly shining and clothed with short hairs, the fifth at the apex with many long black bristles. Length 4.75 mm.

Very distinct by the colour of the legs, bristles of hind tibiae, the metallic colour and clothing of fifth abdominal segment.

HAB. Hawaii, Kilauea. Male not known to me.

(3) *Pipunculus pyrophilus*, sp. nov.

Deep black, more or less shining, especially the male, the very sparse tomentum of the surface being mostly fuscous and nowhere conspicuous, except perhaps an apical band on the first abdominal segment of the female. Legs in both sexes entirely black, or at most a trifle reddish or pitchy at some of the articulations. Antennae entirely black; the face of the female above the antennae not at all shining.

General appearance that of a minute *P. vulcanus*, but easily distinguished by being even more entirely black in both sexes; by the erect hairs of the mesonotum, which are unusually long, and as well, or almost as well, developed as the scutellar bristles. Wings smoky hyaline, differing very little in the sexes, though rather darker in the male. Stigma very short compared with the long fourth costal segment. Neuration generally as in *P. vulcanus*. Abdominal hairs black, longer in the female than in the male. Length 3 mm.

HAB. Hawaii, Kilauea. Attached to one or both of the small Delphacid leafhoppers, that are so common on *Raillardia* around the crater.

(4) *Pipunculus holomelas*, sp. nov.

Female entirely black and for the most part shining, the antennae entirely dark, piceous. Mesonotum apparently without tomentum (? abraded) shining and with very short erect hairs, metanotum with greyish tomentum. Halteres pale in the middle, more or less dark at base and apex. Legs with the coxae and femora black, the

trochanters and some of the articulations alone being more or less yellowish or brown, tibiae and tarsi piceous or dark brown above. Posterior tibiae with three or four long bristles outwardly about the middle. Wings nearly clear, only slightly smoky, neuration much as in *P. vulcanus*. Abdomen with greyish tomentum on the first two segments, the rest deep black and shining, the ovipositor yellow, short and strong. Length 4 mm.

HAB. Molokai; readily known from the other species, that have the long bristles on the hind tibiae, by the almost entirely dark legs. The male will no doubt have darker wings as is usual in Hawaiian species.

(5) *Pipunculus juvator* P.

*P. juvator* Perkins, Bull. H. S. P. A. Exp. Station 1. 152.

HAB. Hawaii, Oahu and no doubt other of the islands.

(6) *Pipunculus oahuensis* P.

*P. oahuensis* Perkins, loc. cit. p. 153.

HAB. Oahu, 100—1000 ft.

(7) *Pipunculus terryi* P.

*P. terryi* Perkins, loc. cit. pp. 153 and 154.

HAB. Kauai, Lihue in cane-fields.

(8) *Pipunculus sweezeyi* P.

*P. sweezeyi* Perkins, loc. cit. p. 154.

HAB. Oahu, 1500—1800 ft. not usually common.

(9) *Pipunculus hawaiiensis* P.

*P. hawaiiensis* Perkins, loc. cit. p. 155.

HAB. Hawaii, Hamakua, 1200 ft.

Fam. DROSOPHILIDAE.

(1) *Idiomyia heteroneura*, sp. nov.

Front yellow or golden with a dark transverse mark anteriorly, orbits posteriorly and the vertical triangle dark, forming part of a transverse dark band, face yellow, antennae reddish yellow, the third joint blackish, the proboscis and palpi yellow. Thorax yellowish, two narrow black stripes, well separated, extend on each side of the middle from the anterior margin for about two-thirds of the length of the mesonotum; just external to these anteriorly is a largish black spot on each side

and behind their middle externally on each side there starts another black stripe reaching to the scutellum, while between them on the posterior half of the mesonotum is a median dark stripe (or perhaps two very closely apposed stripes). Scutellum dark on the disc, but broadly bordered with yellow, metanotum mostly dark; pleura with three or four dark spots. Halteres yellow. Legs yellowish, tips of tibiae noticeably infuscate. Wings hyaline, their base as far as the apex of the first vein for the most part infuscate, the infuscation irregular in depth and distribution, marginal cell infuscate, as well as the tip of the wing on either side of the apex of the second, third and fourth veins; transverse veins and a small portion of the fourth longitudinal vein just before the apical one of the two transverse veins that are between it and the third, distinctly infuscate on each side. This second or apical transverse vein oblique, placed much before the posterior transverse, the sector of the fourth vein between these being not much shorter than the first named. Abdominal segments hairy, more or less shining, black medially and apically, so as to leave a well-marked series of yellow spots on each side. Ovipositor reddish yellow.

HAB. Hawaii.

(2) *Idiomyia silvestris*, sp. nov.

Front golden yellow, the orbits as far as the apical fronto-orbital bristle, the vertical triangle and a band connecting these posteriorly, blackish and with grey tomentum; face, palpi and proboscis yellow. Antennae dark, the second joint pitchy brown, the arista with about four bristles beneath, the basal part being bare, and about nine above. Mesonotum yellowish, most of its surface suffused with brown or blackish infuscation, forming vague lines and spots, but not a definite pattern; scutellum dark brownish black, metanotum black, tomentose; mesopleura mostly blackish. Halteres pale yellow. Legs yellowish or brownish yellow with the middle and hind femora dark brown or blackish, the tibiae also more or less dark. Wings hyaline, basally as far as the termination of the first vein largely but irregularly infuscate, marginal cell faintly brownish, tip of wing darkly infuscate on either side of veins two, three and four. Transverse veins infuscate, as also the part of vein four just before the origin of the second or apical of the two transverse veins between it and the third. This second transverse vein is oblique and placed much before the posterior cross-vein, so that the sector of the fourth that lies between them is not much shorter than this second transverse vein itself. Abdomen black, at the base a little pale, pilose and shining, the ovipositor paler.

HAB. Hawaii.