

SOME ACALYPTRATE DIPTERA FROM
THE MARQUESAS ISLANDS*

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FAMILY MILICHIIDAE

Genus MILICIELLA Giglio-Tos

This genus was inadvertently credited to Meigen by Bezzi.¹

Milichiella lacteipennis Loew.

A very widely distributed species, occurring, as far as I am aware, in the Palearctic region, North and South America, the Malayan region and southward to Australia, including the Hawaiian, Fiji, and Society islands (A. M. Adamson).

Uahuka: Teuaua Island, September 21, 1929, 6 specimens, A. M. Adamson.

Eiao: above Vaituha, altitude 1,100 feet, September 28, 1929, 1 female, A. M. Adamson.

This species is a scavenger in the larval stages, which no doubt accounts for its wide dispersal. The flies are frequently found on flowers and foliage.

Genus HYPASPISTOMYIA Hendel

Hypaspistomyia species.

A smaller species than the next preceding one, very similar to *H. albipennis* Malloch described from Australia,² but the condition of the only specimen, which is considerably matted and discolored, prevents a definite specific determination.

Hatutu [Hatutaa]: center of island, altitude 1,010 feet, September 30, 1929, 1 specimen, Adamson.

No doubt a scavenger like the preceding species. The genotype, *H. latipes* Meigen, has about the same distribution as *Milichiella lacteipennis* and may yet be turned up in the Marquesas.

FAMILY EPHYDRIDAE

The members of this family are mainly aquatic, most of them living in the larval stages in slow-running streams or quiet bodies of water, the adults occurring on the margins of streams, lakes, or on the seashore.

¹ Bezzi, Mario. *Diptera Brachycera and Athericera of the Fiji Islands*, p. 162, 1928.

² Proc. Linn. Soc. New South Wales, vol. 49, pt. 3, p. 336, 1924.

* Pacific Entomological Survey Publication 7, article 1. Issued February 27, 1933.

of those belonging to the genus *Drosophila* Fallen in the wide sense. I present below some additional data on the family.

It may be of interest to note here that the Marquesan fauna is, on the basis of this collection, less diversified in so far as this family is concerned than that of the Samoan or Hawaiian groups. There is, however, a much greater diversity of the forms related to and belonging to *Scaptomyza* than is the case in either of the other two island groups, a fact that will be more emphasized when I publish my report⁵ on the Samoan species.

Genus MYCODROSOPHILA Oldenberg

✓ *Mycodrosophila halterata* Malloch.

This species, which is closely related to *gratiosa* de Meijere, was originally described from Society Islands, the type and one other specimen from there being now before me.

Tahuata: Tehue Valley, altitude 800 feet, May 27, 1930, 5 specimens, sweeping over grasses, LeBronnec and H. Tauraa.

Possibly searching on fungi would reveal this species, and perhaps others, in numbers, as the related species stick rather closely to the vicinity of their food plants and are more readily obtained from the under sides of fungi than by any other manner of collecting.

Genus DROSOPHILA Fallen

Within recent years Dr. O. Duda has proposed a number of new genera and subgenera for the reception of species previously placed in *Drosophila*, and besides the latter in its restricted sense there is before me one of the named segregates, *Spinulophila* Duda, which group contains a number of species all having the apical half of the anteroventral surface of the fore femora in both sexes furnished with a series of short but stout closely placed black spines. I am using for the segregate the first name proposed for it by Duda, although later on he changed it to *Acanthophila*.

✓ *Drosophila* (*Spinulophila*) *nasuta* Lamb.

General color tawny yellow, with the frontal orbits generally whitish dusted in the male, and in well-preserved specimens also in the female; when seen against the light the entire frons of the male is usually whitish dusted, and there are no definite dark marks on the abdomen. The outer cross vein of the wing is very slightly clouded. Apart from the fore femoral armature of both sexes there is no abnormal armature of either the tibiae or the tarsi.

Length, 2 to 3.5 mm.

A very large number of specimens from various islands as follows:

Hivaoa: Tanaeka Valley, altitude 1,450 feet, June 4, 1929; Atuona Valley, altitude 325 feet, July 6, 1929; Mumford and Adamson.

⁵ Insects of Samoa, manuscript in preparation.

Tahuata: Vaitahu Valley, altitude 100 feet, June 11, 1930; Tehue Valley, altitude 650 feet, May 27, 1930; LeBronnec and H. Tauraa.

Fatuhiva: Teavaitapu Valley, altitude 350 feet, August 23, 1930, LeBronnec.

Uahuka: Pouau, Hokatu Valley, altitude 500 feet, March 9, 1931, LeBronnec and H. Tauraa.

In addition to the above there are specimens from Tahiti, Society Islands, Papenoo Valley, 10 kilometers from the sea, altitude 150 meters, October 23, 1928, A. M. Adamson.

Originally described from the Seychelles, and probably distributed over most of the Pacific islands.

I am accepting as this species one that is very common in the collection and appears to be quite widely distributed, as there are specimens that appear to belong to it in material I have examined from Samoa, Society Islands, and the Marquesas. I have a very strong suspicion that this is also the species described by Duda as *albovittata* and by Bezzi as *bilimbata*, the latter being from Fiji. As the larvae feed in decaying fruits, there is a likelihood that it is generally distributed throughout the Indo-Australian region.

***Drosophila (Drosophila) ampelophila* Loew.**

This very widely distributed species is readily known in the male sex by the presence of a comb of short, stout, glossy, black bristles on the apical half of the outer side of the fore metatarsus. The female lacks this comb and is less readily distinguished from such species as the next one listed herein.

Hivaoo: Matauuna, altitude 3,700 feet, March 2, 1930, Mumford and Adamson.

Tahuata: Hanamiai, altitude 150 feet, May 28, 1930, on rotten mangoes, LeBronnec and H. Tauraa.

Fatuhiva: Omoa [Oomoa] Valley, near sea level, August 18, 1930, 1 doubtful male specimen, at light, LeBronnec.

***Drosophila (Drosophila) errans*, new name.**

Drosophila similis Lamb, Trans. Linn. Soc. London, 16, pt. 4, p. 347, 1914; not Williston, 1896.

This species resembles *D. ampelophila* but lacks the comb on the fore metatarsus, and has the dorsal hairs and preapical dorsal bristle on the fore tibia in the male more erect, longer, and slightly curled. The two basal segments of the fore tarsi in the same sex have the ventral setulae arranged in transverse series that are quite conspicuous when seen transversely and as well figured by Lamb in the paper in which he originally described the species from the Seychelles. This same figure shows the peculiar curved dorsal hairs of the fore tibia, although these are not mentioned in the description.

Apparently a common species, occurring with *D. nasuta*, some of the specimens of both species bearing labels stating that they were taken on horse manure and rotten mangoes.

On the islands Fatuhiva, Hivaoa and Tahuata, from near sea level to an elevation of 2,150 feet (Fatuhiva, August 25, 1930).

It is quite possible that this species has been described by some other worker besides Lamb, but I have been unable to identify it as any such species, and having been unable also to discover any new name having been proposed for the species I am substituting for *D. similis* Lamb, the new name given above.

Genus SCAPTOMYZA Hardy

I have already presented a summary of the more typical species of this genus occurring in the Marquesas Islands, and now describe a species that differs from the others very markedly in possessing a pair of strong acrostichal bristles close to the suture on the mesonotum. In the structure of the face and the hairing of the central area of the mesonotum it agrees with the genotype, but there are other differences that will be noted in the description of the species given below.

Scaptomyza mumfordi, new species.

Male

A dark species, with yellowish grey frontal triangle and orbits, yellow antennae of which the third segment is almost white, yellowish to brownish grey dusted trivittate mesonotum, glossy brownish black abdomen, yellow legs except the femora, which are fuscous, and hyaline wings.

Head brown, frontal orbits and triangle yellowish, with grey dust, paler in front, the orbits widened at anterior margin and the triangle carried to center of frons, the intervening parts of the interfrontalia reddish brown, forming a broad V. All four vertical, the ocellar, and upper reclinate orbital, bristles long, the postvertical pair about as long as the proclinate orbital, the anterior orbital a short hair, nearer to proclinate than to reclinate bristle and slightly nearer to eye than the former, no hairs on anterior margin of interfrontalia. Face with a narrow central vertical carina which is widened below, but separated from the epistome by a distinct transverse furrow, general color black, the parafacials yellow, carina greyish on center. Width of face at vibrissae hardly more than half of that at bases of antennae; epistome convex, not higher than lower extremity of carina, both slightly visible in profile. Gena linear, yellow; vibrissa rather short, a fine setula below it and the lower genal margin with some fine hairs. Eye higher than long, the lower half of hind margin slightly emarginate, the facets almost uniform in size, the hairs dense, erect and stiff, longer in front, tapered off behind. Antennae yellow, third segment almost white; arista dark, with five or six rays above and one or two below. Palpi fuscous.

Thorax fuscous, densely yellowish to brownish grey dusted, the mesonotum with three dark brown vittae, the usual bristles present, the acrostichal hairs in two series, with a pair of quite conspicuous bristles at or close to the suture, the prescutellar acrostichals undeveloped, dorsocentrals two pairs, with a much weaker anterior pair usually present, one humeral, and the posterior notopleural and postalar short; scutellum flattened above and with a slight marginal rim.

Legs normal, hairs on dorsal surfaces of fore tarsal segments slightly longer than on the other tarsi.

Wings hyaline, veins brown, slight clouds over both cross veins and in marginal cell below apical third of first vein, inner cross vein slightly beyond apex of first vein, penultimate section of fourth vein a little less than half as long as ultimate one, subequal to penultimate section of costa and 1.5 as long as ultimate section of fifth, ultimate section of costa half as long as penultimate.

Halteres yellow.

Female

Differs from the male in having the frontal orbits, triangle, and parafacials brownish yellow, and the third antennal segment also brown.

Length, 2 to 2.5 mm.

Uapou: Hakahetau Valley, altitude 1,000 to 2,000 feet, January 29, 1930, type, male; allotype, and a large number of paratypes of both sexes, on the wing. Whitten.

Other paratypes as follows:

Hivaoa: Tanaeka Valley, altitude 1,100 feet, June 4, 1929; Tapeata, east slope of Mount Ootua, altitude 2,500 feet, May 25, 1929, on *Papsalum conjugatum*; Ootua Spring, altitude 2,500 feet, February 13, 1930, in flowers of *Zingiber* species; Mumford and Adamson.

Tahuata: Hanamiai Valley, altitude 1,000 feet, May 28, 1930; Tehue Valley, altitude 800 feet, May 27, 1930, sweeping over grasses; Hanamiai Valley, altitude 1,300 feet, June 4, 1930, and altitude 1,600 feet, May 28, 1930; LeBronnec and H. Tauraa.

Fatuhiva: Vaikoao, Omoa [Oomoa] Valley, altitude 1,600 feet, August 29, 1930, sweeping herbage, LeBronnec.

Uapou: Hakahetau Valley, altitude 1,200 feet, December 6, 1929, Adamson.

FAMILY BORBORIDAE

I have been unable to examine thoroughly the material in this family, but can report that it belongs entirely to the genus *Leptocera* Olivier in the wide sense, no species of *Borborus* Meigen or *Sphacrocera* Latreille, the two other most widely distributed genera, occurring, though at least the former ought to be found in the Marquesas.

The larvae of all the species are found in manure, decaying vegetation, or in a few cases in fungi or nests of Hymenoptera.

One small species that is present appears to be *Leptocera* (*Scotophilella*) *puerula* Rondani as identified by Duda, but the identification of the Marquesan specimens is only tentative. Bezzi has recorded the species from Fiji. There are no specimens of *Leptocera* (*Coprophila*) *ferruginata* Stenhammer, nor *Leptocera* (*Pocilosomella*) *punctipennis* Wiedemann, in the collection, both these being recorded from Fiji by Bezzi, and the last named