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Malloch, J. R. 1932. New species and other records of Otitidae (Ortaliidae), Pliophilidae, Clusiidae, Chloropidae, and Drosophilidae from the Marquesas.

Bull. Bernice P. Bishop Mus. 98:205-223.

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p.217. Family Drosophilidae.

It is impossible to deal with the entire collection at this time, but a few of the most interesting species are covered in this paper.

Genus Dicladochaeta, new genus.

This genus is very similar to Cladochaeta Coquillett, differing in having the head more elongate, with the posterior ocelli well in front of the vertex, the postvertical bristles closer together, the proclinate orbital distinctly in front of the very small reclinate one, the main branch of the arista with a very small hair near its apex above and the mesonotum with but two series of intradorsocentral hairs.

Genotype. Dicladochaeta biseriata, new species.

p.218. Dicladochaeta biseriata, new species

♂, ♀. Hivaoa. / The genus Cladochaeta occurs in tropical America only, and though the above genus is compared with it, this course is adopted because it is to the American genus it will run in existing keys to genera. It is, however, my opinion that the new genus is more closely allied to Scaptomyza than to Cladochaeta.

Length 2.5 to 3 mm. Head varying from tawny yellow to orange-yellow with the frons rather densely whitish grey dusted on each side, the dust extending over the vertex on each side of the ocelli; antennae entirely yellow, ocellar spot, a spot on each side of vertex below the upper level, and sometimes the upper orbits, fuscous below the pale dust; the hairs and bristles and also the arista dark. Frons at vertex about half the head width, becoming slightly narrower to anterior margin, the orbits well differentiated because of the grey dust, narrow above, widened to the proclinate bristle which is situated about two-thirds from the vertex and well away from the eye, and narrowed from that point to anterior margin, at widest point fully half as wide as the interfrontalia at same point. All verticals well developed, postverticals convergent, about as long as the upper reclinate orbitals; ocellars slightly behind level of anterior ocellus and in line with the posterior ocelli and bases of postverticals; anterior reclinate pair mere short hairs; surface hairs very sparse. Face concave in profile, with no well developed vertex; central carina, the parafacials hardly visible in side view; gena linear; vibrissa single; antennae normal, third segment about 1.5 times as long as second rounded at apex, second with two or three short black bristles, arista consisting of a lower ray from which one about equally as long emanates near base, and usually a very short hair near apex on upper side of arista.

Thorax variable in color, sometimes tawny yellow, distinctly shining, and paler ventrally, and sometimes with two rather distinct dorsal brown vittae; the mesonotum usually with evident grey dust. Two pairs of strong dorsocentrals present, the anterior pair a little nearer to the suture than to the posterior pair, presutural bristles well

developed, humeral one, intradorsocentral hairs in two regular series, prescutellar acrostichals undeveloped, sternopleurals two, the upper one weak; scutellars four.

Abdomen colored as thorax, rather variable also, but in the material before me generally unmarked.

Legs tawny yellow. Fore femur with a series of widely spaced posteroventral bristles, all tibiae with a fine moderately long preapical dorsal bristle; claws of all legs quite large and conspicuously curved.

Wings hyaline, veins brownish. Costa with ~~third/vein~~ quite noticeable, fine, rather widely spaced erect hairs from apex of first to apex of third vein, and one bristle at the subcostal break. Sixth vein short but distinct, ending about midway to margin of wing. Outer cross vein at fully its own length from apex of ninth vein. Third vein ending in wing tip. Halteres yellow.

Hivaoa: Matauuna, altitude 3,760 feet, July 24, 1929, type, ♂, allotype, and 5 paratypes, Mumford and Adamson.

Genus Bunostoma, new genus

p.219 This genus, like the one just described, has but two series of intradorsocentral hairs on the entire extent of the mesonotum, and the prescutellar acrostichals undeveloped, but the arista is numerous and rayed above and // furnished with two or more rays below (fig. 50, a). In general the genus resembles Drosophila Fallen, but the face is very different in form, having a mound-like elevation over its entire width ~~width~~ which tapers downward to the epistome, and gradually narrows into a slender interantennal carina above (fig. 50, b). The frons is similar to that of typical Drosophilidae, and, whereas in Scaptomyza Hardy there are but two series of intradorsocentral hairs, the face is not as in the present genus, and the species are much more slender.

Genotype, Bunostoma flavifacies, new species.

Bunostoma flavifacies, new species (fig. 50, a, b) ♂, ♀. Hivaoa

p.220 Genus Scaptomyza Hardy

Distinguished from Drosophila merely by the less numerous series of intradorsocentral hairs. Duda at one time expressed that it was at most a subgenus of D. Hendel, (1928. Über die münchener europäischen Scaptomyza-Arten und ihre Biologie. (Diptera): Zool. Ang. 76:289) has given it full generic status, the action predicated upon the characters of the bristling and hairing of the thorax, and apparently upon the food habits: Scaptomyza, two series of ac, one strong hu, face nose-like, 1 larva in decaying vegetable matter or in fruits, only occasionally mining in leaves. Scaptomyzella (Scaptomyzetta, erratum), four ac, two hu, face less distinctly elevated, and the larvae true leaf-miners.
p.221 I suggest that Scaptomyzella be considered as a synonym of Scaptomyza.

Scaptomyza latifrons, new species. ♀

p.222 Sc. biseta, new species ♂

p.222 Genus Marquesia, new genus

Very similar to Drosophila, but dc four pairs, the anterior pair in front of suture, second pair at the suture. Lower margin of gena quite densely haired, ac six irregular, sixth wing vein very thick and incomplete.

Genotype. Marquesia major, new species.

p.223. Marquesia major, new species ♂ Hivaoa

Malloch, J.R. 1932. New species and other records of Otitidae, (Ortalidae), Piophilidae, Clusiidae, Chloropidae, and Drosophilidae from the Marquesas.

Bishop Mus. Bull. 98:218-219.

✓ Genus Bunostoma, new genus

This genus, like the one just described, has but two series of intradorsocentral hairs on the entire extent of the mesonotum, and the prescutellar acrostichals undeveloped, but the arista are numerously rayed above and furnished with two or more rays below (fig. 50,a). In general the genus resembles Drosophila Fallen, but the face is very different in form, having a mound-like elevation over its entire width which tapers downward to the epistome, and gradually narrows into a slender internal carina above (fig. 50,b). The frons is similar to that of typical Drosophilidae, and, whereas in Scaptomyza Hardy there are but two series of intradorsocentral hairs, the face is not as in the present genus, and the species are much more slender.

Genotype. Bunostoma flavifacies, new species.

✓ Bunostoma flavifacies, new species (fig. 50,a,b)

♂,♀. Length 2.5 to 3 mm. Shing brownish black, the abdomen deeper black and more glossy than the thorax, the frons and mesonotum with very slight greyish dust, the abdomen without dust.

Head black, face ~~except~~ upper one third varying from dull yellow to yellowish brown, second antennal segment sometimes reddish, palpi fuscous. Front at vertex one-half of the head width, narrowed to anterior margin, its length in center distinctly less than equal to its width at vertex; inner verticals distinctly ~~recylinate~~

larger than outer pair, the latter equal to ocellars and upper reclinate orbitals in length; postverticals a little shorter than outer verticals, converging at tips; anterior reclinate orbital very minute, very slightly before the proclinate pair and nearer to eye than these, the proclinate bristles not more than half as long as the upper reclinate pair; orbits distinct to base of proclinate bristle, extending almost to anterior margin, the triangle shining and extending almost to anterior margin also; face yellow to pale brown below, evenly convex between vibrissae (fig. 50,b); profile of head as in figure 50A; palpi with a rather long apical, and some much shorter proapical, setae.

Thorax shining brownish black, with slight grey or brownish dusting on mesonotum. Bristling as follows: two pairs of long equally widely spaced dorsocentrals, the anterior pair nearer to suture than to posterior pair, one humeral, two notopleurals, one supraalar, one short prealar, two postalars, and one long presutural; intradorsocentral hairs in two series which do not extend entirely to hind margin; scutellum slightly flattened on disc, the apical bristles closer together than they are to the basal pair; sternopleurals two, the upper one short.

Abdomen glossy black. Seventh tergite in male reduced to a mere ring because of the truncate slightly concave apex of the abdomen, sixth tergite with a series of quite long preapical bristles on each side below the curve. Genital lamellae of female very similar to those of Scaptomyza incana Meigen, the general color testaceous yellow, their inferior edges with short stubby bristles.

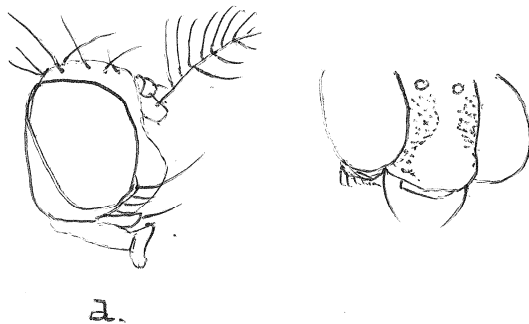
Legs shining black, extreme apices of femora, both extremities of tibiae, and all of the tarsi testaceous yellow. No exceptional armature present, all tibiae with a fine preapical dorsal bristle.

Wings greyish hyaline, veins brown. Costa with a series of minute rather widely spaced setulae on upper side which do not project forward but upward and are thus seen only when the wing is viewed from hind margin against the light. Section of the costa between apices of second and third veins fully twice as long as the one beyond it and a little less than one-third as long as the preceding section; ^{outer} ~~outer~~ cross vein at fully 1.5 times its own length from apex of fifth vein; ultimate section of fourth vein fully 1.5 times as long as penultimate section. Halteres yellow.

Hivaooa:Kopaafaa, altitude 2,770 feet, August 2, 1929, in miscellaneous sweeping, type, male, allotype and 3 male paratypes; Mount Temetiu, northeast slope, altitude 2,800 feet, September 13, August 3, 24 and 29, 1929, in miscellaneous sweeping, 4 paratypes; Mumford and Adanson.

Fig. 50 Bunostoma flavifacies

a, haea in profile, b, face, oblique view.



NEW SPECIES AND OTHER RECORDS OF OTITIDAE (ORTALIDAE), PIOPHILIDAE, CLUSIIDAE, CHLOROPIDAE, AND DROSOPHILIDAE FROM THE MARQUESAS *

By

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INTRODUCTION

I have in my possession a rather large collection of certain families of Diptera taken in the Marquesas Islands by the staff of the Pacific Entomological Survey. Unfortunately, lack of time available to make an exhaustive study of them has prevented me from doing much more than to make a cursory survey, though I have already reported upon certain small groups in the survey series of publications.⁵⁶ Herein I merely make a partial report on some species that appear to be of importance in connection with problems of geographic distribution or that are of interest from other points of view.

FAMILY OTITIDAE (ORTALIDAE OF AUTHORS)

Genus SCHOLASTES Loew

Of the six species listed by Hendel,⁵⁷ only one is among this material.

Scholastes lonchifera Hendel.

Scholastes lonchifera Hendel: Abh. K. K. Zool.-Bot. Gesell. Wien, vol. 8, no. 1, p. 253, 1914.

This species is much darker than the more common and widely distributed *cinctus* Guérin, being shining black, with the abdomen distinctly metallic blue, the pale thoracic markings yellowish white, and the wing markings black. The frons is longer than wide, with the usual three transverse yellow stripes, the face is yellowish white, with a transverse median black band, and both sexes have a preapical elongate lozenge-shaped widened part on the arista.

Hivaoa: Atuona Valley, altitude 100 feet, February 25, 1929, Mumford and Adamson.

Fatuhiva: Tevaitapu Valley, altitude 650 feet, August 23, 1930; Omoa [Oomoa] Valley, Punahitahi, altitude 650 feet, August 18, 1930, LeBronnec.

Uahuka: Vaipae Valley, September 20, 1929, Adamson.

Uapou: Hakahetau Valley, altitude 1,000 to 2,000 feet, January 31, 1930, and Papaika, altitude 1,000 feet, 1929, R. R. Whitten.

⁵⁶ Marquesan Insects I, B. P. Bishop Mus., Bull. 98, Pacific Ent. Survey Pub. I, arts. 1, 2, 11, 14, 1932.

⁵⁷ Hendel, Friedrich, Platystominae: Abh. K. K. Zool.-Bot. Gesell. Wien, vol. 8, no. 1, 1914.

* Pacific Entomological Survey Publication I, article 22. Issued December 9, 1932.

with some plausibility be placed in *Gaurax* Loew, but the latter is a very poorly defined group, about the only character for its distinction from *Oscinosoma* being the more distinctly haired aristae.

Oscinosoma uahukae, new species.

Female

Length, 3 mm. Head yellow, triangle and upper two-thirds of back of head glossy black; antennae and aristae black; palpi orange-yellow; hairs and bristles on frons dark, the hairs on lower margin of gena yellow. Frontal triangle extending to or a little beyond middle of frons, the extreme edges and the ocellar spot slightly dusted; length of frons slightly over its width, the vertical bristles well developed, the inner marginal hairs on orbits quite long, and the surface hairs on interfrontalia quite strong; third antennal segment moderately large, somewhat reniform; arista with the longest hairs longer than its basal diameter; gena almost linear.

Thorax glossy black, including the scutellum, the mesonotum with a fairly large triangular yellow mark above the notopleural suture; lower edge of propleura yellowish brown. The usual 1 + 2 notopleurals present; scutellum with two moderately large apical and two much smaller preapical bristles, the disc haired; mesonotum not punctured.

Abdomen black.

Legs yellow, all femora blackened from near, or before, middle to near apices; all tibiae blackened from near base to beyond middle, the fore pair least distinctly so; apical three segments of fore and mid tarsi and apical two segments of hind pair black. Sensory area on hind tibia short but distinct.

Wings hyaline, much damaged in type so that the venation can not be described definitely.

Uahuka: Hitikau Ridge, altitude 2,900 feet, March 4, 1931, on *Weinmannia* species, type, female, LeBronnec and H. Tauraa.

FAMILY DROSOPHILIDAE

There is a very large number of specimens of this family amongst the material in my hands, though the number of species is not particularly large. Most of the species belong to *Drosophila* in the wide sense, but some others belong to genera in which there are comparatively few species. It is impossible to deal with the entire collection at this time, but a few of the most interesting species are covered in this paper.

Genus **DICLADOCHAETA**, new genus

This genus is very similar to *Cladochaeta* Coquillett, differing in having the head more elongate, with the posterior ocelli well in front of the vertex, the postvertical bristles closer together, the proclinate orbital distinctly in front of the very small reclinate one, the main branch of the arista with a very small hair near its apex above, and the mesonotum with but two series of intradorsocentral hairs.

Genotype, *Dicladochaeta biseriata*, new species.

Dicladochaeta biseriata, new species.

Male and Female

Length, 2.5 to 3 mm. Head varying from tawny yellow to orange-yellow, with the frons rather densely whitish grey dusted on each side, the dust extending over the vertex on each side of the ocelli; antennae entirely yellow, ocellar spot, a spot on each side of vertex below the upper level, and sometimes the upper orbits, fuscous below the pale dust; the hairs and bristles and also the aristae dark. Frons at vertex about half the head width, becoming slightly narrower to anterior margin, the orbits well differentiated because of the grey dust, narrow above, widened to the proclinate bristle which is situated about two-thirds from the vertex and well away from the eye, and narrowed from that point to anterior margin, at widest point fully half as wide as the interfrontalia at same point. All verticals well developed, slightly convergent, about as long as the upper reclinate orbitals; ocellars slightly behind level of anterior ocellus and in line with the posterior ocelli and bases of postverticals; anterior reclinate pair mere short hairs; surface hairs very sparse. Face concave in profile, with no well developed vertical central carina, the parafacials hardly visible in side view; gena linear; vibrissa single; antennae normal, third segment about 1.5 times as long as second, rounded at apex, second with two or three short black bristles; arista consisting of a lower ray from which one about equally as long emanates near base, and usually a very short hair near apex on upper side of arista.

Thorax variable in color, sometimes tawny yellow, distinctly shining, and paler ventrally, and sometimes with two rather distinct dorsal brown vittae; the mesonotum usually with evident grey dust. Two pairs of strong dorsocentrals present, the anterior pair a little nearer to the suture than to the posterior pair, presutural bristle well developed, humeral one, intradorsocentral hairs in two regular series, prescutellar acrostichals undeveloped, sternopleurals two, the upper one weak; scutellars four.

Abdomen colored as thorax, rather variable also, but in the material before me generally unmarked.

Legs tawny yellow. Fore femur with a series of widely spaced posteroventral bristles, all tibiae with a fine, moderately long preapical dorsal bristle; claws of all legs quite large and conspicuously curved.

Wings hyaline, veins brownish. Costa with quite noticeable, fine, rather widely spaced erect hairs from apex of first to apex of third vein, and one bristle at the subcostal break. Sixth vein short but distinct, ending about midway to margin of wing. Outer cross vein at fully its own length from apex of fifth vein. Third vein ending in wing tip.

Halteres yellow.

Hivaoa: Matauuna, altitude 3,760 feet, July 24, 1929, type, male, allotype, and 5 paratypes, Mumford and Adamson.

The genus *Cladochaeta* occurs in tropical America only, and though the above genus is compared with it, this course is adopted because it is to the American genus it will run in existing keys to the genera. It is, however, my opinion that the new genus is more closely allied to *Scaptomyza* than to *Cladochaeta*.

Genus **BUNOSTOMA**, new genus

This genus, like the one just described, has but two series of intradorsocentral hairs on the entire extent of the mesonotum, and the prescutellar acrostichals undeveloped, but the aristae are numerously rayed above and

furnished with two or more rays below (fig. 50, *a*). In general the genus resembles *Drosophila* Fallen, but the face is very different in form, having a mound-like elevation over its entire width which tapers downward to the epistome, and gradually narrows into a slender interantennal carina above (fig. 50, *b*). The frons is similar to that of typical Drosophilidae, and, whereas in *Scaptomyza* Hardy there are but two series of intradorsocentral hairs, the face is not as in the present genus, and the species are much more slender.

Genotype, *Bunostoma flavifacies*, new species.

Bunostoma flavifacies, new species (fig. 50, *a, b*).

Male and Female

Length, 2.5 to 3 mm. Shining brownish black, the abdomen deeper black and more glossy than the thorax, the frons and mesonotum with very slight greyish dust, the abdomen without dust.

Head black, face except upper third varying from dull yellow to yellowish brown, second antennal segment sometimes reddish, palpi fuscous. Frons at vertex one-half of the head width, narrowed to anterior margin, its length in center distinctly less than equal to its width at vertex; inner verticals distinctly longer than outer pair, the latter equal to ocellars and upper reclinate orbitals in length; postverticals a little shorter than outer verticals, converging at tips; anterior reclinate orbital very minute, very slightly before the proclinate pair and nearer to eye than these, the proclinate verticals not more than half as long as the upper reclinate pair; orbits distinct to base of proclinate bristle, extending almost to anterior margin, the triangle shining and extending almost to anterior margin also; face yellow to pale brown below, evenly convex between vibrissae (fig. 50, *b*); profile of head as in figure 50, *a*; palpi with a rather long apical, and some much shorter preapical, setulae.

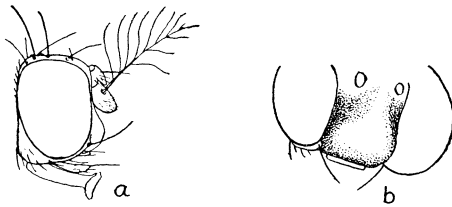


FIGURE 50. *Bunostoma flavifacies*: *a*, head in profile; *b*, face, oblique view.

Thorax shining brownish black, with slight grey or brownish dusting on mesonotum. Bristling as follows: two pairs of long equally widely spaced dorsocentrals, the anterior pair nearer to suture than to posterior pair, one humeral, two notopleurals, one supralar, one short prealar, two postalar, and one long presutural; intradorsocentral hairs in two series which do not extend entirely to hind margin; scutellum slightly flattened on disc, the apical bristles closer together than they are to the basal pair; sternopleurals two, the upper one short.

Abdomen glossy black. Seventh tergite in male reduced to a mere ring because of the truncate slightly concave apex of the abdomen, the sixth tergite with a series of quite long preapical bristles on each side below the curve. Genital lamellae of female very similar to those of *Scaptomyza incana* Meigen, the general color testaceous yellow, their inferior edges with short stubby bristles.

Legs shining black, extreme apices of femora, both extremities of tibiae, and all of the tarsi testaceous yellow. No exceptional armature present, all tibiae with a fine preapical dorsal bristle.

Wings greyish hyaline, veins brown. Costa with a series of minute rather widely spaced setulae on upper side which do not project forward but upward and are thus seen only when the wing is viewed from hind margin against the light; section of the costa between apices of second and third veins fully twice as long as the one beyond it and a little less than one-third as long as the preceding section; outer cross vein at about 1.5 times its own length from apex of fifth vein; ultimate section of fourth vein fully 1.5 times as long as penultimate section.

Halteres yellow.

Hivaoa: Kopaafaa, altitude 2,770 feet, August 2, 1929, in miscellaneous sweeping, type, male, allotype, and 3 male paratypes; Mount Temetiu, north-east slope, altitude 2,800 feet, September 13, August 3, 24, and 29, 1929, in miscellaneous sweeping, 4 paratypes; Mumford and Adamson.

Genus SCAPTOMYZA Hardy

This genus is distinguished from *Drosophila* merely by the less numerous series of intradorsocentral hairs. Recent writers have treated the genus variously. Duda at one time expressed the opinion that it was at most a subgenus of *Drosophila*, and then proposed dividing it into two subgenera. Hendel⁶⁰ has still more recently given it full generic status, realigned the type species of Duda's concepts pointing out the errors in Duda's papers, and elevated the two segregates to generic rank. The action taken by Hendel was predicated upon the characters of the bristling and hairing of the thorax, and apparently upon the food habits of the species involved. *Scaptomyza* as restricted by him contains *graminum* Fallen, with two doubtful forms, in which the mesonotum has but two series of intradorsocentral hairs, one strong humeral bristle, the face with a very distinct nose-like elevation, and larvae that occur as a rule in decaying vegetable matter or in fruits, only occasionally mining in leaves. *Scaptomyzella* (*Scaptomyzetta*, *erratum*) includes two species which have the intradorsocentral hairs in four series, two humerals, the face less distinctly elevated centrally, and the larvae true leaf-miners.

Unfortunately the habits of the larvae are not always known to one when specimens are submitted for identification, so this last character can hardly be maintained as of systematic value, particularly as it is not one that can be applied invariably even in the two groups under discussion. We are thus compelled to use only the structures listed above, and to some extent the minor characters of the terminal segments of the abdomen in both sexes mentioned by Hendel. In attempting to apply these to the North American

⁶⁰ Hendel, Friedrich, Über die minierenden europaischen Scaptomyza-Arten und ihre Biologie (Diptera): Zool. Anz., vol. 76, p. 289, 1928.

species we find that *adusta* Loew, which has been found in the larval stage mining the leaves of cabbages, does not fit in either, having one strong humeral bristle and four series of intradorsocentral hairs so that it would appear to require either another genus for its reception or the dropping of the new one proposed by Hendel, *Scaptomyzella*. Of the other three North American species known to me, one would fit into *Scaptomyza*, the other into *Scaptomyzella*, Hendel's genus, but the other, *vittata* Coquillett, though falling into *Scaptomyza* on the characters cited above as to thoracic armature, has an additional pair of dorsocentral bristles and assumably might be considered as the basis for a fourth generic concept. My personal opinion is that one genus might well contain all four types and I suggest that *Scaptomyzella* be considered as a synonym of *Scaptomyza*.

In the Marquesas material before me there are a number of specimens referable to the genus, apparently representing three species, all of them with biseriate intradorsocentral hairs and one humeral bristle, and consequently they belong to *Scaptomyza* in the strict sense as defined by Hendel. I describe two of these as new.

Scaptomyza latifrons, new species.

Female

Length, 3 to 3.5 mm. A testaceous yellow species, with the thorax slightly, and the abdomen more distinctly, shining, ocellar spot hardly darkened, abdomen with a dark lateral mark on apex of each tergite from third to fifth inclusive, a less evident central apical dark mark on the same tergites, usually more noticeable on fifth, and a large fuscous mark on almost the entire dorsal exposure of the sixth. Wings hyaline.

Head entirely yellow. Frons at vertex half of the head width, much narrowed to anterior margin, its length in center about equal to its anterior width, the orbits slightly differentiated and with very faint grey dust, practically uniform in width on their entire length, the triangle poorly defined. Vertical bristles well developed; upper reclinate orbital a little below middle of frons and fully three times as far from vertical as from the proclinate bristle, the anterior reclinate bristle very short and fine, situated slightly laterad and in front of the proclinate one; postverticals situated below vertex and separated by a distance about 1.5 times as great as that across the posterior ocelli. Face much as shown in the figure of that of the next preceding genus, but the carina not as gradually rounded off below, though the nose-like form found in *graminum* Fabricius is quite different. Arista with 7 rays above and 2 long rays below, as compared with the normal 5 above and 1 below in *graminum*. Palpus with a moderately long terminal bristle. Gena not over one-fourteenth of the eye height; marginal hairs moderately long; vibrissa single.

Thorax with the same bristles and hairs as in the genotype, the two pairs of dorso-centrals equally strong, widely separated, and the prealar short but distinct; scutellum with four subequal marginal bristles; sternopleura with one long and one much shorter and finer upper bristle.

Abdomen normal, the apical dorsal process broadly rounded at apex, with numerous fine hairs, two at apex longer than the others; genital lamellae typical of the genus, with numerous small black points on the margin apically.

Legs normal, fore femur with the posteroventral bristles less numerous than in *graminum*, only three on apical half well developed.

Wings rather slender, third vein terminating in tip, the section of the costa beyond it about half as long as the one immediately before it.

Halteres yellow.

Hivaoa: Kopaafaa, altitude 2,770 feet, August 2, 1929, in miscellaneous sweepings, type and 3 paratypes, Mumford and Adamson.

It appears worth noting that the eyes are quite distinctly haired and have a much more marked emargination of the lower posterior border than in the North American species.

Scaptomyza biseta, new species.

Male

Length, 2 mm. A paler species than the one described above, without dark abdominal markings, but the type is rather greasy and it is difficult to determine the true condition.

Differs from *latifrons* in having the head longer, in profile about 1.25 times as long as high, instead of about as high as long, the gena about one-sixth of the eye height, the eyes more distinctly emarginate on lower posterior border, the frons a little less than half the head width and distinctly longer than its anterior width, with the two long orbitals more widely spaced, and the postverticals closer. The outstanding distinction is found in the antennal arista which has only two long upper and no lower rays.

Thorax and abdomen much as in the preceding species.

Fore femur with much weaker posteroventral bristles than in *latifrons*.

Hivaoa: Matauuna, altitude 3,700 feet, March 4, 1930, miscellaneous beating, type, Mumford and Adamson.

Scaptomyza species.

One specimen which is very close to, if not identical with *australis* Malloch. The back of the head is yellow in the center behind the ocelli and black on each side. The eyes are less noticeably emarginate than in the two preceding species. I hope to obtain more material to determine whether this Australian species occurs in the Marquesas.

Hivaoa: Tahauku, July 10, 1929, Mumford and Adamson.

Genus **MARQUESIA**, new genus

This genus is very similar to *Drosophila* Fallen, but differs in having the mesonotum with four pairs of well developed dorsocentral bristles, the anterior pair in front of, the second pair at, the suture. The head is similar to that of *Drosophila*, but the lower margin of the gena is quite densely haired, the mesonotum has about six irregular series of intradorsocentral hairs, and the sixth wing vein is very thick and incomplete, attaining a length of more than half that to the wing margin. For other characters see description of the genotype.

Genotype, *Marquesia major*, new species.

Marquesia major, new species.

Male

Length, 6.5 mm. A large stout testaceous yellow species with conspicuous dark brown markings, the abdomen mainly of the latter color, with a conspicuous yellow, grey dusted spot on each side of the apex of each tergite. Wings pale brownish, darker at base and narrowly so on outer cross vein.

Head testaceous, dull, with greyish dust on the pale parts, the frons dark brown except on angles of the triangle and narrowly along the outer edge of each orbit, face with an irregular dark brown transverse stripe below middle; back of head with a large irregular dark brown mark on each side behind lower half of eye but not attaining the margins of eyes. Antennae brown, third segment almost black, the arista black; palpi fuscous. Frons at vertex about half of head width, with a very noticeable depression on each side of the posterior ocelli, all the vertical bristles long, the postvertical pair about as long as the ocellars, length of frons at center equal to its width at posterior ocelli, the sides convergent slightly in front; orbitals rubbed off but almost in longitudinal line, the smallest one well developed. Eyes narrowed below, the posterior margin appearing transverse from above middle to lower margin, the hairs dense, short, and erect; gena almost linear, with dense biseriate setulose lower marginal hairs which run up to the strong vibrissa, and adjacent to the vibrissa two or three slightly shorter bristles; face with very well developed central vertical carina that is readily seen in profile, and a transverse deeply impressed line about midway from apex of third antennal segment to epistome. Arista with about nine upper rays and two lower. Palpi slightly club-shaped, downy, with one fine apical bristle.

Thorax testaceous yellow, with greyish dust on the pale parts, mesonotum with five broad dark brown vittae, pleura with the surface so broadly dark brown that only a vitta from propleura over middle of mesopleura and a narrow line below that on level of upper margin of the sternopleura remain yellow; scutellum slightly yellow at tip; postnotum brown on sides. Dorsocentrals 1 + 3, prescutellar acrostichals undeveloped; sternopleura with one long lower and two short upper bristles; scutellum with disc flattened, the margin slightly angulate at base of each bristle.

Abdomen dark brown, dull, with a conspicuous yellow, grey dusted spot on each side of apex of all tergites on dorsal exposure, some of the pairs connected, and no pale ventral markings. Hypopygium small, the forceps consisting of opposed rounded lobes that are rather densely haired, and the penis (?) of a slender chitinous downwardly directed blunt tipped process.

Legs dark brown, bases of tibiae and of tarsi testaceous yellow. Fore femora with a rather irregular series of posteroventral bristles; all tibiae with a preapical dorsal bristle.

Wings brownish hyaline, darker at bases, the outer cross vein with a narrow dark cloud. Third vein ending in apex, the section of costa beyond the vein about two-thirds as long as the preceding section; outer cross vein at about its own length from apex of fifth vein; penultimate section of fourth vein hardly shorter than ultimate section; sixth vein short and thick.

Halteres yellow.

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

This species reminds one of some of the very large Hawaiian species of the genus *Drosophila*, but I have found none of the latter in which there are four pairs of well developed dorsocentral bristles, all known to me agreeing with typical species of that genus in having two postsutural pairs.