

NEW SPECIES OF SAPROMYZIDAE FROM THE MARQUESAS *

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Genus PROCHAETOPS Bezzi

This genus was erected in 1928 for the reception of a species from the Fiji Islands.¹

In the material from the Marquesas submitted to me I find a number of species that are evidently congeneric with the Fijian species, agreeing in the most essential characters cited by Bezzi and shown in Terzi's fine figure of the head of the genotype, *nigriseta* Bezzi, but they differ variously among the several species in minor characters such as the hairing of the arista, the presence or absence of the prescutellar acrostichals and the genal bristles. It appears to me inadvisable to erect new genera for any of these segregates, but I propose to recognize one subgenus, the species having departed more from the typical form than any of the others before me.

In one female I find a remarkable form of ovipositor, possibly in some way connected with a particular method of oviposition, and as the male is not among the material available I deem it wise to allow it to remain in the same genus as others in which there is no exceptional development of this organ in the females. There is also some sexual dimorphism in certain species, or at least my assumption is that some of the species show this in my association of the males and females. I may be mistaken in this conclusion, but there is no means of testing deductions with pinned material. The systematist is at a decided disadvantage as compared with the field collector when it comes to finding out whether a certain male should or should not be associated with a particular female in the collections. Definite decisions on the relationships of some species must await further data obtained in the field, the results presented below being therefore, like many others, merely the summary of conclusions based on available material, conservatively arrived at.

Key to the Species

1. Ocellar bristles present, variously developed; jowls with some hairs, rarely strong, never with one or two outstanding bristles below eye; anterior fronto-orbital bristle nearer to anterior margin of frons than to the upper bristle (subgenus *Prochaetops* Bezzi)..... 2
- Ocellar bristles undeveloped; jowls with at least one long strong bristle below eye; anterior fronto-orbital bristle much closer to the upper bristle than to anterior margin of frons (subgenus *Prochaetopsis*, new).....12. *tahuatae*

¹ Bezzi, Mario, Diptera Brachycera and Athericera of the Fiji Islands, p. 120, London, 1928.
* Pacific Entomological Survey Publication I, article 1.

2. Frons entirely black, with rather dense white dust; prescutellar acrostichals undeveloped 3
 Frons entirely or partly yellow..... 4
3. Species entirely black, halteres yellow with black knobs; wing with a very faint indication of a cloud at apex of costa..... **1. anthrax**
 Species black on dorsum; lower occiput, most of the pleura, venter of abdomen, legs, and halteres testaceous yellow; wing with a very distinct fuscous streak along apex of costal margin..... **2. bicolor**
4. Prescutellar acrostichal bristles undeveloped..... 5
 Prescutellar acrostichal bristles well developed..... 7
5. Frons broadly black on center, only the orbits yellow; black species, the legs fuscous, only the knees distinctly yellow; wings neither abnormal in shape nor distinctly spotted, only a faint brown tinge along the costal margin at apex; arista pubescent..... **3. fusca**
 Frons entirely yellow, or more or less distinctly trivittate with fuscous; thorax, abdomen, and legs at least partly yellow; wings either abnormal in shape or with a conspicuous dark mark at apex of costa..... 6
6. Arista pubescent, the longest hairs not so long as its basal diameter; palpi black at apices; wing normal in shape, with a conspicuous fuscous costal streak from before apex of second to beyond apex of third vein; thorax testaceous yellow, with a broad black vitta on each side of mesonotum which extends along the sides of the scutellum..... **4. bivittata**
 Arista short haired, the longest hairs a little longer than its basal diameter; palpi yellow; wings abnormal in shape (fig. 1, *a*); thorax fuscous, densely grey dusted, the mesonotum with a narrow dark brown vitta along each series of dorsocentral bristles, a broader vitta along inner margin of each humeral callus which is discontinued a little behind the suture, and a linear vitta behind suture on the area between the two just described..... **5. adamsoni**
7. Wing with a small round deep black spot on the tip of second vein (fig. 1, *d*); hind femur of male without distinct ventral bristles..... **6. unipuncta**
 Wings without a small round deep black spot as above described, either entirely hyaline or with a much larger dark mark..... 8
8. Wing blackened from apex of subcosta to tip along costa, and from anterior margin to, or almost to, fourth vein, with a small subtriangular hyaline mark near apex of submarginal cell (R_s), and a cloud over cross vein connecting with the larger one; mid femur of male with a series of black bristles on posteroventral surface from base to beyond middle which become longer apically, and a similar series on both the anteroventral and posteroventral surfaces of the hind femur, the tips of the longer bristles very fine and slightly curled (fig. 1, *h*); hind femur of female with two or three quite strong straight bristles on apical half of anteroventral surface (fig. 1, *j*)..... **7. armatipes**
 Wings hyaline, with at most a faint cloud over apex of second vein..... 9
9. Palpi and antennae entirely yellow; mid and hind femora as in *armatipes*; wings entirely hyaline..... **8. armatipes claripennis**
 Palpi, and usually the third antennal segment, blackened at least apically; mid and hind femora not armed as above..... 10
10. Central portion of the scutellum pale, the sides narrowly infuscated; arista almost bare; palpi fuscous at apices; mid femur with two or three straight and rather strong black bristles on central portion of posteroventral surface, the hind femur with some similar bristles on same portion of posteroventral surface and four or five on apical half of anteroventral surface..... **9. setifemur**
 Central portion of the scutellum black-brown, the sides narrowly yellow..... 11

11. Female ovipositor of the ordinary type (fig. 1, *b*); entire dorsum of abdomen black; hind femur with four or five short fine bristles on apical half or less of anteroventral surface; inner cross vein of wing beyond the middle of the discal cell, the penultimate section of fourth vein about half as long as the ultimate section.....10. *sp. ? unipuncta*
- Female ovipositor prong-like (fig. 1, *c*); abdomen broadly black on sides and with a yellow central stripe on dorsum; hind femur without anteroventral bristles; inner cross vein at or before the middle of the discal cell, the penultimate section of fourth vein not nearly half as long as the ultimate section11. *armiventris*

1. *Prochaetops anthrax*, new species.

Female

Shining black, extreme apices of femora yellowish, frons quite densely whitish grey dusted, the face less evidently so, occiput with distinct whitish dust and not distinctly yellow on lower portion; third antennal segment and arista missing in type; palpi fuscous. Thorax and abdomen black, the former with rather noticeable greyish white dusting, not vittate, abdomen hardly showing any trace of dusting. Wings greyish hyaline, with a very faint trace of brownish clouding on costa from before apex of second to apex of third vein, the veins black. Squamae brownish, margins fuscous. Knobs of halteres black.

Frons slightly longer than wide and almost parallel-sided, anterior orbitals much closer to anterior margin than to upper pair, both pairs and the four verticals long and strong, postverticals not as long as orbitals, but slightly longer than the ocellars; eye distinctly narrowed below; face almost perpendicular, slightly convex; cheek without strong bristles. Thorax with the usual bristles all strong except the anterior sternopleural, which is slightly weaker than the posterior one; intradorsocentral hairs decumbent, black, rather short, and in about eight series; scutellum subtriangular, slightly flattened on disc, with four strong bristles. Abdomen tapered apically, tergites subequal, the apical bristles on second to fifth tergites longer than on sixth. Legs rather stout, all tibiae with well developed apical dorsal bristle, fore femur with a complete series of strong, rather widely separated, posteroventral bristles, and no preapical anteroventral comb of short setulae, mid and hind femora without any ventral bristles, no submedian anterior bristles on mid pair but one near apex on posterior side, the hind pair with one or two near apex on both the anterodorsal and posterodorsal surfaces. Wing rather narrow, third vein ending almost exactly in wing tip, parallel with fourth, the apical section of latter about 1.5 as long as the preapical section, inner cross vein close to middle of discal cell, outer cross vein not twice as long as apical section of fifth vein, the latter evanescent at apex. Length, 4.5 mm.; wing, 5 mm.

Hivaoa: Northeast slope of Mount Temetiu, altitude 2800 feet, August 3, 1929, holotype female, Mumford and Adamson.

2. *Prochaetops bicolor*, new species.

Male

Differs from the preceding species in having the lower occiput distinctly testaceous yellow, the pleura almost all of the same pale color, with dark ill-defined marks on the mesopleura and sternopleura, the lower half of humeri yellow, and most of the postnotum fuscous, the grey dusting on mesonotum denser than in *anthrax*. Abdomen yellow at extreme base on sides and on entire venter. Legs including the coxae testaceous yellow,

apices of fore and hind femora, central portion of tibiae, and base of fore metatarsus, darkened. Wings greyish hyaline, with a quite conspicuous fuscous mark along the costal margin from before the apex of second vein to apex of fourth, veins black. Squamae greyish, margins darker. Halteres with dull brownish yellow knobs.

Third antennal segment about three times as long as second, rounded at apex, the aristae with hairs on entire extent which are slightly longer than its basal diameter; otherwise as *anthrax*. Length, 5 mm.

Hivaoa: Northeast slope of Mount Temetiu, altitude 2500 feet, July 24, 1929, holotype male, Mumford and Adamson.

It is possible that this is the male of the preceding species, but without data to support this belief it is better to recognize them as distinct tentatively.

3. *Prochaetops fusca*, new species.

Female

Type specimen greasy so that the coloration of thorax and abdomen can only be uncertainly decided. Head testaceous yellow, frons with a broad fuscous stripe in center which widens out over posterior margin and entirely covers it; occiput with a large fuscous mark on each side of upper half; jowls black, the dark portion with its anterior margin in line with inner margin of eye, fading out posteriorly and not reaching back of head, the epistome with a narrow fuscous line connecting the two dark marks and the labrum also fuscous; antennae brownish testaceous, third segment infuscated apically; aristae fuscous, palpi yellow at bases, beyond blackened. Thorax apparently fuscous, the mesonotum showing traces of a broad central grey dusted vitta, and on each side anteriorly a narrow yellow vitta on edge of same. Abdomen fuscous, shining, the apices of tergites yellowish. Legs dark brown or fuscous, knees and bases of mid and hind tarsi yellowish. Wings greyish hyaline, with a very narrow and inconspicuous brownish tinge along the costal margin from near apex of second vein to apex of fourth; veins black. Calyptrae yellowish. Halteres dull brownish yellow.

Structurally similar to the next preceding species, but the arista has very much shorter hairs, showing pubescence only under a high power ($\times 34$). Length, 4.5 mm.

Hivaoa: Tepuna, altitude 3000 feet, August 1, 1929, holotype female, Mumford and Adamson.

The peculiarly marked head and the extension of the brownish costal cloud to the apex of fourth vein should distinguish this species from any other now before me and should be found in both sexes.

4. *Prochaetops bivittata*, new species.

Male

Head orange-yellow, frons unicolorous, jowls marked as in the preceding species, but the epistome without a distinct transverse line, ocellar spot fuscous, occiput with a large fuscous mark on each side above; palpi black at apices; antennae testaceous yellow, third segment browned apically; aristae fuscous. Thorax testaceous yellow, mesonotum with a broad blackish brown vitta on each side separated by a densely whitish grey dusted central vitta, all continued over the scutellum; pleura with whitish dusting. Abdomen largely brownish black above, the apices and lateral portions of the tergites testaceous yellow. Legs entirely testaceous yellow, fore coxae with white dust.

Wings greyish hyaline, with a large fuscous mark along the costal margin from before apex of second to apex of third vein, and faintly distinguishable almost to fourth. Halteres yellow.

Structurally similar to *fusca*, the aristae very indistinctly pubescent, but the frons is longer and more flattened, the posterior bristle is farther from the vertical than from the anterior orbital bristle, and the fore femur has one long bristle near apex and some much shorter bristles basad of it on the posteroventral surface instead of a series of long and strong bristles as in all three species already described herein. In other respects the species are very similar. Length, 5 mm.

Hivaoa: Northeast slope of Mount Temetiu, altitude 2500 feet, July 24, 1929, holotype male, Mumford and Adamson.

This again may be the male of *fusca*, but it seems hardly possible and I accept it as distinct.

5. *Prochaetops adamsoni*, new species (fig. 1, a).

Male

Head testaceous yellow, the frons with three greyish vittae which may be rather indistinct, a large ill-defined fuscous mark on each side of upper occiput, and a brownish mark on the jowls; antennae bright yellow, palpi concolorous, aristae fuscous. Thorax fuscous, mesonotum densely grey dusted, with a narrow dark brown vitta along each series of dorsocentrals, traceable on sides of scutellum, a broader vitta of same color along the inner margin of each humeral callus which is interrupted at suture and discontinued before attaining the posterior margin, and a third vitta behind suture between the other two; pleura showing some yellow and dark brown markings. Abdomen with a large black mark on each side of each tergite which leaves only the hind margin and a narrow central stripe yellow. Legs testaceous yellow, with traces of a dark stripe on dorsal surface of fore and hind femora, the fore, and to a less marked degree the hind, tibiae browned, and the third and fourth segments of mid and hind tarsi fuscous. Wings hyaline, with a very faint linear cloud along the apex of costal vein, the veins yellow except at apices. Halteres brownish yellow.

Ocellar bristles very fine; aristae with rather dense short hairs, the longest about as long as its basal diameter. Thorax differing from those already described in having but four series of intradorsocentral hairs, and like them in having no well developed pre-scutellar acrostichal bristles. Abdomen tapered apically, the apical bristles on the tergites as in *anthrax*. Legs with the femora rather strong, the fore pair with a moderately long bristle near base and about four on apical half of posteroventral surface, the apical one of the last series strongest, the others weak; fore metatarsi slender except at base, and longer than the remaining segments combined. Wing as figure 1, the costal vein on the truncate apical section black and thicker than on the remainder of its course. Length, 5 mm.

Uapou: Hakahetau Valley, altitude 2500 feet, December 8, 1929, holotype male, Adamson; Hakahetau Valley, altitude 1000-2000 feet, January 29, 1930, 2 paratype males, Whitten.

6. *Prochaetops unipuncta*, new species (fig. 1, d, e).

Male

Type specimen greasy, but the general color reddish yellow, frons with a broad dark central vitta, third antennal segment fuscous except at base, aristae fuscous, palpi

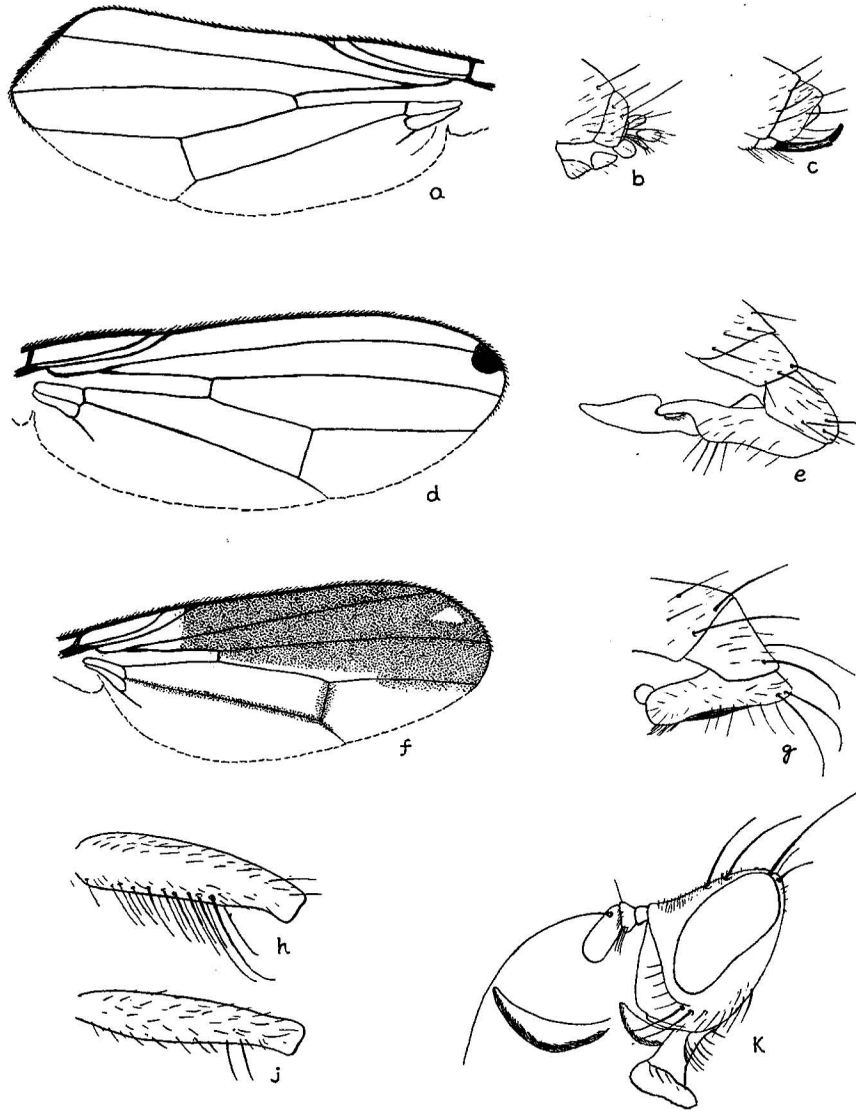


FIGURE 1. Features of *Prochaetops*: a, *Prochaetops (Prochaetops) adamsoni*, wing of male; b, *Prochaetops (Prochaetops)* species (*unipuncta?*), genital segments of female from the side; c, *Prochaetops (Prochaetops) armiventris*, genital segments of female from the side; d, e, *Prochaetops (Prochaetops) unipuncta*, d, wing of male, e, hypopygium of male from the side; f-j, *Prochaetops (Prochaetops) armatipes*, f, wing of male, g, hypopygium of male from the side, h, hind femur of male, j, hind femur of female; k, *Prochaetops (Prochaetopsis) tahuatae*, head from the side, below in front, left palpus.

yellow. Thorax with two broad fuscous dorsal vittae, disc of scutellum black, the sides yellow. Abdomen with a dark fascia on most of the tergites, hypopygium yellow. Legs yellow, tarsi paler than remainder. Wings glassy hyaline, with a round deep black spot at apex of second vein and a slight yellow tinge on the discal and adjoining cells, the veins fuscous. Squamae and halteres yellow.

Frons over 1.5 as long as its width at vertex, rather more narrowed in front than in the other species, the bristling similar; third antennal segment longer and more tapered apically than in the other species, its length fully three times as great as its basal width; aristae finely pubescent. Thorax as in preceding species, the intradorsocentral hairs in about six series, the prescutellar acrostichals well developed but not strong. Thorax short, tapered apically, hypopygium quite large, in type extending forward almost to base of venter (fig. 1, *e*), the bristling as in the other species. Legs not thickened, fore femur with a rather regular series of short bristles on the posteroventral surface which do not exceed in length the diameter of the femur and are rather widely spaced; fore metatarsus not attenuated nor as long as the remaining segments combined; mid and hind femora without well developed anteroventral bristles, some of the hairs setulose near apices. Wings as in figure 1, *d*. Length, 6 mm.

Hivaoa: Vaiepoepo, altitude 2500 feet, June 3, 1929, holotype male, Mumford and Adamson.

The male hypopygium in this species is much larger and therefore much more conspicuous than in any other now before me.

7. *Prochaetops armatipes*, new species (fig. 1, *f-j*).

Male

Head testaceous yellow, vertex, upper occiput, ocellar triangle, and a short stripe on upper part of each frontal orbit fuscous, with grey dusting; bristles and hairs on frons dark, hairs on lower occiput yellow; antennae and palpi clear yellow. Thorax testaceous yellow, mesonotum fuscous except on lateral margins, the dark discal part with grey dust and four darker vittae, scutellum fuscous on sides, yellow in center, and the disc with greyish dust; metanotum fuscous, grey dusted, with a dark vitta extending forward on each side below wing base. Abdomen fuscous, slightly shining, with some greyish dusting, the lateral margins of tergites, the venter, and most of the hypopygium testaceous. Legs testaceous yellow, the bristles fuscous. Wings clear at bases, on hind margin, and a small triangle in apex of submarginal cell, the remainder dark brown, and a paler brown cloud over outer cross vein and along fifth vein (fig. 1, *f*). Halteres brownish yellow.

Head of the same general form as in *anthrax*, the frons a little longer than its width at vertex, and slightly widened anteriorly, the ocellar bristles longer than the postvertical pair but not as long as the orbitals, the orbitals and verticals regularly spaced; third antennal segment about 1.5 as long as wide, regularly rounded at apex; aristae almost bare. Mesonotum with six series of intradorsocentral hairs, and a pair of quite well developed prescutellar acrostichals; propleural bristle well developed, yellow in color. Abdomen subcylindrical, the hypopygium bent forward below venter and rather large (fig. 1, *g*). All femora rather stout, fore pair with a complete posteroventral series of long bristles, mid pair with a similar series which is incomplete apically, hind pair with two series, one on the anteroventral and the other on the posteroventral surface as in figure 1, *h*; mid tibia with the preapical dorsal and apical ventral bristles both strong and long, the fore and hind tibiae with the preapical dorsal bristle long, but not as strong as on the mid tibia, the hind pair with a short rather stout and slightly curved apical anterior bristle which is brownish yellow in color; tarsi normal, the basal

segment of each pair subequal in length to the remaining segments combined; tarsal claws rather large. Wing venation as in figure 1, *f*.

Female

Differs from the male in having the frons with a broad central fuscous vitta, the third antennal segment darkened above, palpi dark at apices, and the femora less thickened and only the posteroventral bristles on the fore pair and two long anteroventral bristles on hind pair (fig. 1, *j*). Length, 4.5 mm.

Nukuhiva: Puokoke, Tunoa Ridge, altitude 3500 feet, October 22, 1929, holotype male; Ooumu, altitude 3500 feet, November 12, 1929, allotype female, Mumford and Adamson.

I assume that the difference in coloration of the head is a sexual one and that my association of male and female is correct, but a decision depends on further data on field collections.

8. *Prochaetops armatipes claripennis*, new variety.

Male

This variety differs from the typical form only in having the wings without dark markings.

Nukuhiva: Puokoke, Tunoa Ridge, altitude 3500 feet, October 22, 1929, type male, Mumford and Adamson.

The apex of abdomen is missing but I deduce from the characters agreeing with those of the male of *armatipes* that it is a male. It is slightly teneral but probably not sufficiently so as to cause the lack of wing markings.

It may be noted here that in all the other species already dealt with, there is a distinct apical anterior bristle on the hind tibia, but it is generally almost straight and always darker in color than in the present species.

9. *Prochaetops setifemur*, new species.

Male

A rather teneral specimen of a general testaceous yellow color, but with traces of two darker vittae on the mesonotum which extend over the sides of the scutellum as in some of the other species, the upper edge of the third antennal segment darkened, and the apices of palpi fuscous. Wings hyaline. Halteres yellow.

Structurally differing from the previously described species in having the third antennal segment about twice as long as wide, with the upper side slightly concave and the upper apical extremity slightly angulate, the lower apical extremity rounded; arista subnude; frons slightly narrowed in front. Intradorsocentral hairs in about six series, the prescutellar acrostichals quite long. Abdomen rather shrivelled so that the hypopygium is not visible. Fore femur with four or five short stout bristles on apical half or more of posteroventral surface, the other femora with fewer similar bristles on central section of same surface, and the hind pair with four or five on the apical half of anteroventral surface; tibiae and tarsi as in *armatipes*. Wing venation as in that species. Length, 5 mm.

Nukuhiva: Ooumu, altitude 4000 feet, November 13, 1929, holotype male, Mumford and Adamson.

10. *Prochaetops* species (fig. 1, b).

Female

This specimen may be a female of *unipuncta*, but it lacks the small black spot at the apex of the wing that characterizes that species, though this may be a sexual distinction. In other respects it agrees perfectly and I have a very strong suspicion that it belongs to *unipuncta*. The genital segments are as in figure 1, b. Length, 5.5 mm.

Hivaoa: Vaiepoepo, altitude 2500 feet, June 3, 1929, 1 female, Mumford and Adamson.

11. *Prochaetops armiventris*, new species (fig. 1, c).

Female

Head testaceous yellow, frons with a broad central fuscous or brown vitta, occiput with a large dark mark on each side above; third antennal segment dark at apex; palpi fuscous, yellow at bases. Thorax testaceous yellow, mesonotum with two broad fuscous sublateral vittae which are sometimes divided behind suture by a narrow yellow line into two narrower vittae, and occasionally fused on posterior margin, the disc of scutellum blackish brown, sides yellow; metanotum broadly blackened in center. Abdomen largely black on dorsum, with narrow apical fascia and more or less distinct central stripe on each tergite yellowish. Legs yellow. Wings hyaline, without distinct apical cloud. Halteres brownish yellow.

Head as in *anthrax*, the third antennal segment narrower and slightly tapered to apex where it is regularly rounded, its length about 2.25 as great as its basal width; arista pubescent. Intradorsocentral hairs in six series; prescutellar acrostichals moderately long. Abdomen subcylindrical, tapered apically, with bristles at apices of the tergites, the ovipositor prong-like as shown in figure 1, c. Legs normal, the fore femur with a series of posteroventral bristles of moderate length; neither the mid nor hind femora with ventral bristles. Wings rather broader than in the other species, of normal structure, the venation similar to that of *armatipes*. Length, 4.5-5 mm.

Hivaoa: Northeast slope of Mount Temetiu, altitude 2500 feet, July 24, 1929, holotype female; Teava Uhia i te Kohu, altitude 2100 feet, February 15, 1930, 5 paratype females on *Hibiscus tiliaceus*; Kopaafaa, altitude 2800 feet, July 2, 1929, Mumford and Adamson.

It would be of interest to find the male of this species, as it may depart more from the typical forms in structure than any of the others now before me.

PROCHAETOPSIS, new subgenus

This subgenus differs from *Prochaetops* in the structure of the head, the frons being much longer, more narrowed in front, and with the two orbital bristles closer together, the upper one being farther from the vertical bristle than from the anterior one, and the other being much farther from anterior margin of frons than from the upper bristle; the palpi are also peculiarly formed (fig. 1, k), and the jowl has one or two long and quite strong for-

wardly directed bristles below the eye. In other respects the two groups agree very well, minor distinctions being included in the description of the type species given below.

12. *Prochaetops (Prochaetopsis) tahuatae*, new species (fig. 1, *k*).

Male

Testaceous yellow, hardly shining. Frons pale brownish in center, parafacials fuscous; palpi with lower margin blackened. Mesonotum with the following black markings: two narrow submedian vittae which do not extend to posterior margin, a large subtriangular presutural mark on each side which does not extend over the humeri, and two slightly curved postsutural vittae which do not extend to posterior margin; pleura without dark markings; scutellum with a fuscous mark at apex; postnotum with two fuscous marks, one on each side, bristles and hairs black. Abdomen apparently slightly darkened on dorsum but all the specimens are teneral and it is not possible to distinguish the markings of the tergites if there are any. Legs pale testaceous. Wings hyaline, with a narrow dark brown stripe along the costa from a little beyond apex of second vein almost to apex of third, the veins fuscous. Halteres yellow.

Head in profile as in figure 1, *k*; frons over twice as long as its width at vertex, the surface with many very short fine hairs, sides convergent in front, ocelli very small and closely placed, the posterior pair not occupying over one-sixth of the width of vertex, the ocellar bristles undeveloped and the cruciate postverticals very short and fine, inner vertical much longer than the other bristles; arista very long and hair-like, nude. Thorax with the bristles as in the preceding genus, all long and strong, including the prescutellar acrostichals, intradorsocentral hairs in four to six series; scutellum not appreciably flattened on disc. Abdomen short and much tapered to apex, the apical bristles on the tergites quite strong; hypopygium small. Legs moderately strong, fore femur with a complete series of strong posteroventral bristles, and no preapical anteroventral comb; mid femur with a series of closely placed black setulae or short bristles on the entire extent of the anteroventral surface, and some very much weaker hairs on posteroventral surface; hind femur with four or five fine bristles on apical half of anteroventral surface; all tibiae with distinct preapical dorsal bristle, the apical ventral bristle of mid tibia long and strong; fore tarsus not as long as fore tibia, normal in form, the basal segment fully as long as the remaining segments combined, the tarsal claws not enlarged. Wing venation much as in *armatipes*, but the wing is narrower, the fourth vein bends down slightly at apex, and the costal division between apices of second and third veins is longer.

Female

Much darker than the male, the face and frons tinged with black, the thorax also fuscous with the same markings as in male black, and the scutellum tinged with dark color and deep black at apex. The legs are also infuscated, but the wings are without a trace of the black costal mark so prominent in the male.

Structurally similar to the male, but evidently the jowl has normally one instead of two bristles, the thoracic bristles are stronger and the mesonotal hairs more numerous, while the mid femur has not as evident a series of anteroventral setulae. Length, 5-6 mm.

Tahuata: Vaitupaahei, altitude 1800 feet, July 9, 1929, holotype, allotype and 5 paratypes, LeBronnec and H. Tauraa.

The sexual dimorphism here is very marked, but I am certain I have correctly associated the specimens.