

NEW NEOTROPICAL TABANIDÆ (DIPTERA)

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The following new species of Neotropical Tabanidæ are described through courtesy of Drs. C. H. Curran and J. C. Bequaert in whose respective institutions, American Museum of Natural History (AMNH) and Museum of Comparative Zoology (MCZ) of Harvard University, the types are deposited.

Proboscoides new genus

Resembles *Esenbeckia* Rondani in general characters including the closure of cell R_5 of the wing, and sickle-shaped palpi, but differs in the remarkable and complete chitination of the proboscis including the labellæ, which are produced and somewhat tapered in the same axis as the shank. While the proboscis appears unusually heavy as in the African *Subpangonia* Surcouf it lacks the peculiar pectinate labellæ described in both sexes by Bequaert (1930) and others. Genotype, *P. fairchildi* n. sp. from Peru.

Proboscoides fairchildi new species

In appearance, superficially resembles *Esenbeckia* species of the *ferruginea* group but is at once distinguished by the stocky, chitinous proboscis.

Holotype ♀, length of body excluding appendages of head, 12.5 mm. Eyes bare. Front about $4\frac{1}{2}$ times taller than basal width, slightly divergent above and below, yellowish pollinose with a narrow, darker, denuded ridge in the upper half, almost reaching the anterior ocellus. Face not produced, brownish pollinose and sparsely pilose. Antennæ orange to tips, flagellum 8-segmented, of the usual pangoniine shape, the apical segment attenuated and almost three times the length of the preceding. Two basal antennal segments normal with sparse dark brown hairs. Palpi brown, slender, crescentric, subequal in length to antennæ, but a little shorter than shaft of proboscis; invested on the basal segment with yellowish hairs, and on the second, except a long, bare, outer face, with brownish black hairs. Proboscis heavy basally, protruding forward in general axis of body, the labellæ produced to approximately two-thirds the length of the shaft, dark-brown shining chitin over all; length a little longer than the thorax.

Thorax, abdomen, wings and legs uniformly light brown with concolorous hairs above and below, a little darker caudally. Wing translucent yellow; venation as in *Esenbeckia*, the basal spurs on R_4 short. Subepaulets bare. No black hairs on legs.

Middle Rio Ucayali, Peru, December 1, 1923, "F6178 (H. Bassler)." In AMNH.

Named for Dr. G. B. Fairchild, an industrious student of the Neotropical tabanid fauna, to whom the author is greatly indebted for many favors.

Proboscoides rostrum new species
(L., "a beak")

Similar to the preceding but a little more robust, hind legs and abdomen caudally darker, with blackish hairs.

Holotype ♂, 13.5 mm. Eyes bare, contiguous. Ocellar tubercle but little exceeding upper eye level viewed from in front. Frontal triangle grayish laterally, including facial pile, but yellowish mesally and below. Face receding below. Antennæ and palpi as in the preceding but more slender, the latter bare only on outer, apical half, and only a little more than half the length of the shaft of the proboscis. The last, shiny brown chitinized as in *fairchildi*, but less robust basally, and the labellæ more blunt, and less tapered, only about two-thirds the length of the shaft.

Body chiefly yellowish covered with bright, golden yellow hair except as follows: Breast and first 2 pairs of coxæ gray with pale hairs, third and following tergites and sternites with indefinite darker shadows, and black hairs basally on each. Wings and anterior 2 pairs of legs as in *fairchildi* but femora with dark brown hairs. Hind legs including vestiture deep brown to blackish.

Data as for *fairchildi* but "December 26, 1926, F6113." In AMNH.

This was at first considered to be the male of *fairchildi* and may prove to be at most a subspecies when adequate material is available, but until intergrades are found, the tinctorial differences appear to justify separate description at present. Since this peculiar, chitinized proboscis occurs in the male also, it seems unlikely it is a modification to facilitate biting.

Scione grandis new species

A robust, blackish species with brilliant yellow pile on pleura and face, and large, contrasting clear spots on the dark wings.

Holotype ♀, 12.5 mm. Eyes covered with dense, short, brown pile. Front gray, slightly divergent below, about four times taller than basal width, covered with yellowish pile, black decurved hairs above the ocelli. Subcallus and face gray pollinose, latter and cheeks covered with dense, bright yellow pile. Antennæ, palpi and proboscis black. Scape slightly swollen, about three times the length of the pedicel, both covered with coarse black hairs, flagellum with eight annuli, the last not unusually elongated. Basal palpal segment with some yellow hairs, remainder black; second segment slender crescentric with a lateral furrow nearly its full length. Proboscis shorter than height of head, stout, completely chitinized including the labellæ.

Thorax dark with two sublateral narrow grayish lines on the dorsum, a wide contrasting band of coarse yellow hairs running forward from above and below the base of the wings onto the prothorax and base of the fore coxæ; black with blackish hairs below.

Legs and their vestiture entirely black, the apical spurs of the hind tibiæ peculiarly appressed along the base of the metatarsal segments.

Wings with cells R_5 , M_3 , and the anal closed and petiolate at the margin; black except for sharply defined fenestrate areas in the two basal cells, the anal area, cell Cu_1 , the mesal area of the discal and adjacent parts of adjoining cells above and below, and an apical triangle based in the margin of cell R_4 and produced apically into cell R_3 . Subepaulets bare, R_1 setose. Halteres dark brown.

Abdomen very robust, black with black hairs, and violaceous, iridescent pollinosity.

Puerto Bermudez, Rio Pionia, Peru. July 12-19, 1920. In MCZ.

***Stibasoma currani* new species**

A medium-sized, blackish fly, with thoracic margins, face and antennæ bright, contrasting orange, and blackish wings with the tips hyaline. The antennæ and legs have the characteristic shapes of the genus, but the body is a little less compact or "bumblebee-like" than some other species.

Holotype ♀, 16 mm. Eyes bare. Front subparallel, narrow, about six times taller than wide, gray pollinose, with a median blackish keel gradually widened below to almost the width of the front; vertex shining brown, with a vestigial anterior ocellus. Subcallus, face and cheeks yellowish, with bright orange pile on the last (probably worn off the face). Antennæ bright orange, the first two segments normal with a few black hairs, the flagellum with a long dorso-basal tooth, not quite reaching the first annulus, of which there are four. Palpi missing. Proboscis, including labellæ, black, shining, chitinized.

Thorax black, with blackish, iridescent hairs above; pleura bright contrasting orange pollinose and pilose, the chest and coxæ dark brown.

Legs black including hair which is longest on the femora. Tibiæ, particularly the fore pair, thickened. Abdomen bluish black, not particularly robust.

Auyantepui, Venezuela. February, 1938. 1100 m. Phelps Venezuela Exped. In AMNH.

Named for Dr. C. H. Curran whose studies in Diptera are well known.

Tabanus Fabricius

The following two species are described in *Tabanus sens. lat.* because their restricted relationship to available, Neotropical, tabanine genera is not clear. That they will eventually be re-assigned is certain, however, because of the hairy eyes and bare

subepaulets. These characters and the totally different eye banding also prevent their inclusion in Nearctic *Whitneyomyia* Bequaert to which the peculiar head characters appear otherwise to relate; there is not the general subshiny head and body integument seen in *W. beatifica* Whitney. Their restricted generic status is therefore left to the future reviewer.

***Tabanus bequaerti* new species**

A medium-sized brownish species with swollen, bare frontal and facial calli, banded abdomen, and brownish wings with elongated pale streaks in the middle.

Holotype ♀, 16 mm. Eyes apparently with short, sparse hairs (though obscured in this specimen); with two widely separated, narrow, purple lines on a green ground (relaxed), the lower one short and narrowly separated from the lower border. Front yellowish pollinose, about three times taller than wide, slightly convergent upward; no ocelligerous tubercle at vertex. Basal callosity swollen in profile and separated from the subcallus by a deep transverse sulcus; convex, transverse, width about double its height, lower corners rounded, a short, mesal ridge starting upward, but no median callosity. Subcallus more swollen than the callosity in profile, both denuded, pale brown. Face immediately below antennæ also swollen, denuded and pale brown. Except for two smaller denuded areas at either side on the cheeks, remainder of face yellowish pollinose. Antennæ with first two segments pale brown, with coarse black hairs, the plate brick red, and the annuli black, chunky; the plate broad, scarcely excavated, the dorso-basal angle very blunt. Palpi slender, deep yellow, crescentric and acuminate apically. Shaggy yellow hair on lower cheeks and first palpal segments, appressed yellow and black hairs on the second segment. Proboscis fleshy, black, about one-third longer than palpi.

Thoracic integument dark, covered with yellowish pollinosity and pilosity; no evident lines.

Legs yellowish red, fore-coxæ entirely, remainder mostly covered with yellowish hair, a few black ones on femora, and what remains of hind tibial fringe.

Wings opaque brown with pale translucent, longitudinal streaks in cells R_1 and R_3 below the stigma, in the discal and 2nd M cells, and narrowly along the hind margin. Halteres brown, yellow on the knob. Subepaulets bare. All cells open, except anal closed and petiolate; a short spur at base of R_4 , on each wing.

Abdomen yellowish on entire venter, and dorsally except for dark spots in the middle of tergites 1 and 2, and rather narrow dark bands basally on each of the remainder. Vestiture (worn) apparently predominantly yellow, possibly dark over the dark areas.

Allotype ♂, 16 mm. Very similar in appearance to ♀, except for sexual characters. Eyes contiguous, hairs sparse and short, upper areas of enlarged facets moderately enlarged, occupying about two-thirds of the total area.

Vertical tubercle very reduced and small. Frontal triangle extremely protruberant about attachment of antennæ, bare, shining yellow above, yellow pollinose beneath. Scape moderately swollen, about thrice the length of the pedicel, hardly produced above, yellowish with sparse black hairs; pedicel chunky with a short tooth dorsally; plate reddish, narrower than first two segments, the annuli grading from brown to black on the apical ring, terminating bluntly. Palpi about twice as long as thick, entirely covered with yellow hair. The denuded areas on face smaller than in the ♀. Body and wing patterns as in ♀, but thoracic hair longer and wings a little lighter, the markings less contrasting. There is a short spur on only one wing.

Both from El Salto Diego, Mexico, May 29, 1937. 9300 feet (J. Manuel). In MCZ.

The writer takes pleasure in naming this for Dr. J. C. Bequaert, friend and scholar, to whom he is indebted in many ways, and who had already decided the undescribed status of this species as well as similarities to *Whitneyomyia*, from which it seems excluded for reasons given above.

***Tabanus piliferus* new species**

(Gr., "pile + bearing")

Smaller than the preceding and closely related, but much more hirsute and differing as described below.

Holotype ♂, 13 mm. Eyes contiguous, the upper area of facets not as differentiated as in *bequaerti*, and much more densely pilose. The verticle tubercle very small, a striking row of thick, erect, long black hairs across the head behind the eyes. Frontal triangle very swollen at base of antennæ, denuded, yellow mesally, dark brown laterally; another group of suberect, dark hairs between the eyes at the apex. Facial tubercles somewhat swollen on either side with a yellowish, bare area in the disc of each; two small, mesal denuded areas inside the apodemes; face otherwise extensively whitish pollinose. Vestiture dense and creamy white with a few black hairs on either side above. Antennæ in structure and color very like *bequaerti*, but with more dense bushy black hair on the 2 basal segments, the annuli relatively a little longer, and black. Palpi also yellowish with yellow hair, but more blunt, the second segment also about twice longer than thick.

Thoracic integument also dark, but with more dense, paler yellow hair than in *bequaerti*. Color and vestiture of legs the same, but pile, particularly of fore-coxæ, paler. Wings with pattern about the same but more indefinite especially in posterior areas. No spurs. Subepaulets also bare.

Abdomen reddish yellow above and below with a series of large, posteriorly rounded, mesal, dark spots which practically cross all tergites, and also occur on the two basal sternites. These are thus broader on the tergites than in *bequaerti*, and are not produced laterally to form bands. The vestiture consists of long yellowish hairs with a few black ones laterally on each tergite and across the face of the third and following ones.

El Salto Diego, Mexico, May 29, 1937. 9300 feet (J. Manuel).
In MCZ.

Though the locality data are identical, it hardly seems possible this could be a variant of *bequaerti* considering the differences in vestiture, particularly of the head and eyes, and the tinctorial differences. Nevertheless, more material is obviously needed and particularly the female of this to confirm its specific distinctness. Though the hairs on the eyes of the *bequaerti* allotype are obviously somewhat damaged, it does not appear possible so great a difference could have been due purely to mechanical causes.

SUMMARY

The new Neotropical Tabanidæ described in this paper are: *Proboscoides fairchildi*, n. gen., n. sp. (genotype), ♀, *P. rostrum* n. sp., ♂, and *Scione grandis* n. sp., ♀, from Peru; *Stibasoma currani*, n. sp., ♀, from Venezuela; and *Tabanus* (*sens. lat.*) *bequaerti* n. sp., ♂, ♀, and *T. pilosus* n. sp., ♂, from Mexico.

REFERENCE

- BEQUAERT, J. 1930. Medical and economic entomology. In *The African Republic of Liberia and the Belgian Congo* (ed. R. P. Strong *et al.*). Vol. II, pp. 879–880 (*Subpangonia*).



Philip, Cornelius B. 1943. "New Neotropical Tabanidæ (Diptera)." *Journal of the New York Entomological Society* 51, 111–116.

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