NEW NORTH AMERICAN TABANIDAE. XVI. A NEW SPECIES FROM THE SOUTH TEXAS GULF COAST

(DIPTERA)

CORNELIUS B. PHILIP, *PHS, Rocky Mountain Laboratory, Hamilton, Montana*

Spring collecting by Dr. Richard B. Eads on the south coast of Texas has disclosed what is apparently a new, precinctive but uncommon element in the common *Tabanus nigrovittatus* complex, a group of horseflies called "green-heads" that is well-known and often pestiferous in the eastern United States. The new form adds to the complexity of this expanding group of Nearctic flies and likely will be found farther south along the gulf coast of Mexico. Its present known geographic isolation is analogous to that of *T. texanus* Hine (1907) with which it flies, and the 2 probably have had a recent evolutionary derivation from common ancestry.

Tabanus eadsi, new species

(Figs A, B)

A medium-sized fly with lined, red-sided abdomen, bicolored legs, brown costal cell and single eye stripe, related to *T. quinquevittatus* Wiedemann but the costal cells darker, antennal scapes not quite as thickened, frons and callosity of female broader, and upper eye facets of male coarser, a little more extensive. Beard and pleural pile straw yellow, palpi darker yellow.

Holotype ♀, 11 mm. Eyes bare with a single purple eye stripe on green ground (relaxed). Frons yellow pollinose and short pilose, bowed in middle and a little narrowed below as figured, index 1:3.4; callosity piceus, subquadrate with rounded corners, sinuate across top, narrowly separated from eyes and from lanceolate median callus, a very slender, dark median line below vertex. Subcallus and upper cheeks buff-yellow pollinose. Face and lower cheeks pale buff, sparsely yellow hirsute. Antennae red, the style sharply black (2 apical annuli missing), plate shallowly excavated; scape black-haired, not taller than pedicel or plate. Palpi deep yellow, somewhat thickened and with black and yellow hairs bassally, but gradually tapered not slenderized apically, blunt with mostly yellow hairs apically.

Notum and scutellum sparsely buff pollinose over blackish integument, with sparse short yellow and black hairs, and indistinctly lined anteriorly; antealar tubercles pale reddish, black-haired; pleura buff pollinose with pale yellow pile. Fore coxae, femora and apical halves of fore tibiae blackish with mostly black hairs; remainder of tibiae contrasting orange-red, darkened at apices of two hind pairs, with concolorous hairs. Wings hyaline, costal cells brown, venation normal. Halteres orange yellow.

Abdomen with two continuous, regular, dark, black-haired submedian, longitudinal stripes enclosing a subparallel-sided, buff-gray, yellow-haired stripe, the sides of the first 3 tergites broadly brick-red and yellow-haired, the remainder darkened. Venter reddish on first 3 sternites, and incisures of the remainder, a mesal black spot on the first 2 not reaching hind margin of the second; darkened on sides of sternite 3 and thence caudad.

Allotype ♂, 10.5 mm. Like the female except for the usual sex differences. Head enlarged, wider than thorax, area of coarsely enlarged facets occupying the

upper two-thirds and rolled over the occipital margin, eliminating the post-ocular rim seen in the female. Antennal scapes likewise slender. Apical palpal segment long oval, not produced anteriorly.

Both from salt grasses bordering Boca Chica beach on Brazoz Island at south tip of Padre Island, Cameron Co., Texas, 4 April 1961. R. B. Eads. In collection of the author through courtesy of the collector. A paratype female, same data, in collection of R. B. Eads, and another same locality but 17 April. A paratype male in collection CBP, in essential agreement with allotype from "Galveston, Texas, May, F. H. Snow" (same data as for types of *T. texanus* Hine), and one in collection L. L. Pechuman from the beach "7 mi. W. Sabina Pass, Tex., 6.V.58, Evans & Flint." A pair also from Galveston, 10 June 1917, J. M. Aldrich in the U. S. National Museum. The Galveston specimens have few to no black hairs apically on fore coxae.

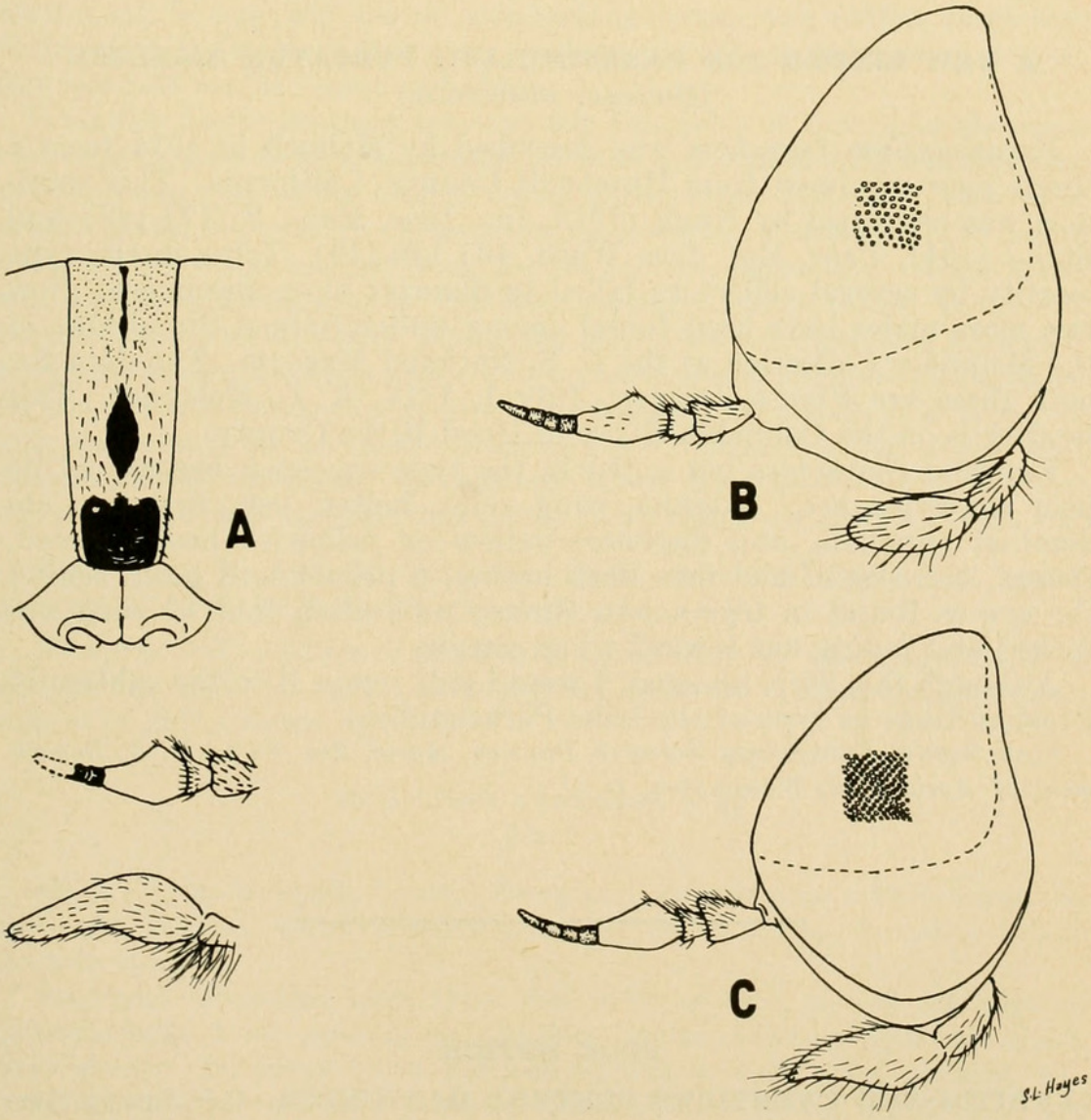
While *T. texanus* Hine, of which Eads has also taken 4 males and many females in the vicinity of Brownsville, including Brazoz Island, has considerable resemblance to the above, the dark abdominal lines in both sexes (including sides of tergites 2 and 3, unlike *eadsi*) are consistently broken into quadrivittate rows of crescentic dashes seldom reaching the hind margins of the tergites; the pale median line is thus composed of a row of distinctly truncated triangles. The general abdominal color is yellowish gray, the more yellowish antennal plate often has a dark lateral line, the paler palpi are more attenuated in the females and less rounded or often pointed apically in the males, while the scapes in the latter sex are a little more enlarged.

Like the more common *T. texanus, T. eadsi* appears to be a geographic segregate from the *nigrovittatus-quinquevittatus* complex on the Texas Coast with some analogy to the smaller, more grayish *T. cayensis* Fairchild of the Florida keys.

Because the syntype male and female of *T. texanus* at Ohio State University carry the same Galveston printed labels and pins as one paratype male of *T. eadsi* above, and were all apparently collected together, the types at Ohio State University were borrowed through courtesy of Professor J. N. Knull for re-study. Both syntypes agree with the present concept of *T. texanus* and the male differs from *T. eadsi* as described above. The female is herewith designated as lectotype which is in conformity with the sex reported by Stone (1938) as "type." It is yellower, especially in the femora, because of age and mild greasing, than any of the considerable series taken by Eads near Brownsville, or than 2 other females I have from Galveston, one from the original Snow series. The palpi are almost entirely white-haired in the type of *T. texanus*. Only one of the four males taken by Eads has palpi as pointed apically as the syntype male, and only one other has a similar, moderate dark blotch in the middle of sternite 4. But these are only minor variations.

Because of the yellowish beard and pleural pile, *T. eadsi* relates to *T. quinquevittatus* Wiedemann more closely than to *T. nigrovittatus* Macquart in spite of its coastal location. The somewhat wider, bowed

fronts with subquadrate callosities and black coxal hairs in the females are distinctive, as are the darker costal cells. *T. nigrovittatus* var. *fulvilineis* Philip is a more eastern, though coastal, form with white beard and pleural pile, pale palpi, yellow median stripe, yellow venter and often femora, while the noncoastal *T. quinquevittatus* is more yellowish with the same ventral dark suffusion but narrower fronts with taller callosities and palpi more slenderized apically in the females. That *fulvilineis* does reach Texas, however, is attested by a pair from a series taken as prey of *Bembex* wasps by Howard E. Evans in June, 1956, on the beach 17 miles west of Sabine Pass, and forwarded to me by L. L. Pechuman. Further collecting may reveal that T. *eadsi* is an earlier spring form.



Tabanus eadsi, n. sp., Cameron Co., Texas. Fig. A, frons, antenna, and palp; fig. B, profile of head, male, compared with that of *T. nigrovittatus* Macq., Stratford, Conn. (fig. C).

In Stone's (1938) keys to both sexes of *Tabanus*, *T. eadsi* would run to *T. vicarius* Walker (= *quinquevittatus* Wied.) but would separate there as indicated above.

REFERENCES

Hine, J. S. 1907. Descriptions of new North American Tabanidae. Ohio Nat., 8, 221-230.

Stone, A. 1938. The horseflies of the subfamily Tabaninae of the Nearctic Region. U. S. Dept. Agric. Misc. Publ. No. 305, pp. 1-172.

A NEW RECORD FOR PARASIMULIUM FURCATUM MALLOCH

(DIPTERA: SIMULIIDAE)

Parasimulium furcatum was described by Malloch in 1914 from a single poor specimen from Humboldt County, California. This specimen was restudied by Knab (1915, Ins. Insc. Mens. 2: 177-180) and Stone (1941, Proc. Ent. Soc. Wash. 43: 146-149). Trips to the type locality by several collectors failed to discover more specimens. Now two more males have been found among undetermined Simuliidae in the Melander Collection at the U. S. National Museum. The data for both these are Viento, Oregon, July 1, 1917, A. L. Melander. This locality is on the Columbia River in Hood River County.

External characters not noted in the type specimen because of its poor condition are: Antenna, wing veins, halter, legs, first two abdominal segments, and distimere yellow or yellowish brown; head, thorax, and rest of abdomen dark brown; a pronounced bulla behind the eye as found in *Gymnopais* Stone; submedian fold of wing unforked and fading out toward wing margin.

Although this fly is unusual, I would still retain it in the subfamily Prosimuliinae as type of the tribe Parasimuliini.

ALAN STONE, *Entomology Research Division, Agric. Res. Serv., U. S. Department of Agriculture, Washington, D. C.*

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