

NEW NEOTROPICAL THYSANOPTERA COLLECTED BY  
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The earlier paper of this series was published in *Psyche*, Vol. XXXII, pp. 48-69, 1925, and made known five new genera and thirty-six new species. During its preparation several doubtfully distinct forms belonging to difficult genera were reserved for further study. These—leven in number—and one new genus, are described below. Two are named after their collector, whose careful field work has done much to increase our knowledge of the Thysanoptera of tropical America.

The holotypes, allotypes, and a portion of the paratypes will remain in the collection of the author.

**Sericothrips williamsi** sp. nov.

*Female (macropterous).*—Length about 1.0 mm. Color yellow, paler by reflected light, with head, fore coxæ, metascutum, and a narrow basal band (wider laterally) on tergites 2-6 of abdomen, brown; pronotal blotch conspicuous by reflected light, invisible by transmitted light, lateral margins straight and parallel, anterior margin roundly, and posterior margin subangulately, concave; antennæ with segment 1 white; 2 and 3 gray, the latter darkened just beyond pedicel; 4-8 dark blackish brown, 4 and 5 with a light spot near base; legs yellow, with mid and hind femora brown at apex and mid tibiæ brown at base; fore wings grayish brown shading to nearly white in apical portion and pale also just beyond scale, darkest in scale and just beyond the subbasal pale band. Mouth cone long and slender, decidedly surpassing base of prosternum, heavily chitinized, labrum nearly black apically. Antennæ noticeably long and

<sup>1</sup>Contributions from the Entomological Laboratories of Cornell University.

conspicuously slender, segment 3 about 3.5, and 4 nearly four, times as long as wide, 8 hardly four times as long as wide.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	24	36	67	60	51	54	11	15
Width ( $\mu$ )	27	26	19	16	15	15	6	4
Total length of antenna 0.32 mm.								

Described from one female taken by Mr. C. B. Williams March 9, 1915, on the island of St. Croix, then Dutch, now American, West Indies. It was found in sweepings from grass.

Aside from the differences in coloration, which are conspicuous, this species may be known from *tricinctus*, undoubtedly its closest relative, by the very much longer and more acute mouth cone.

#### ***Sericothrips tricinctus* sp. nov.**

*Female (macropterous).*—Length about 1.0 mm. Color pale yellow, with ocellar area, anterior half of pterothorax, and abdominal segments 2, 3, and 7 abruptly dark blackish brown; segment 8 of abdomen pale brown; pronotum without trace of dark blotch; antennæ with segments 1-3 nearly white, 3 grayish apically; 4-8 dark gray, with pedicel of 4 pale; legs pale yellow, hind femora and usually mid femora lightly brown at apex; fore wings brown at extreme base and in scale, nearly white in remainder of basal fourth, dark gray beyond, fading to white at tip. Mouth cone moderate in length, hardly attaining base of prosternum. Antennæ very long and slender, segment 3 about 3.5 times as long as wide, and 8 more than four times as long as wide.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	24	36	60	58	50	59	14	17
Width ( $\mu$ )	28	28	17	17	16	16	6	4
Total length of antenna 0.32 mm.								

Described from several females collected by C. B. Williams in Martinique (type locality), Dominica, Guadeloupe, and Trini-

dad. All except one, which was found in a flower of *Hydrangea*, were taken by sweeping grass.

The long, slender antennæ and the coloration make this a very distinct species.

**Sericothrips inversus** sp. nov.

*Female (macropterous)*.—Length about 1.1 mm. Color by transmitted light nearly uniform yellow, with a few brown spots on prothorax two on the metascutum, and one on each side of abdominal tergites 2-7, behind a narrow, transverse, subbasal brown line; antennæ gray in segments 1-3, the first palest, 2 and 3 lightly darkened at sides; 4-8 abruptly dark blackish brown, excepting distal constriction of 4, which is conspicuously pale; legs pale grayish yellow, sometimes lightly washed with brown; fore wings gray, darker in scale and shortly beyond it, paler at tip. By reflected light, the color is nearly white, with a large gray pronotal blotch (which has a concave anterior margin and is darkest at anterior angles), two gray spots on metascutum, and the bases of abdominal tergites each with a narrow transverse gray band. Mouth cone very long and acute, attaining base of prosternum. Antennæ long and slender; segment 3 about three times as long as wide, 4 decidedly narrowed in distal third, urn-shaped, 8 unusually slender, more than four times as long as wide.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	24	42	62	52	48	54	14	19
Width ( $\mu$ )	27	26	19	19	16	16	6	4
Total length of antenna 0.32 mm.								

Described from several females taken by Mr. C. B. Williams in Dominica and Trinidad, by sweeping grass.

The coloration of the antennæ—abruptly dark brown in segments 4-8, save for the pale gray *apex* of segment 4, which is decidedly narrowed—should serve for its recognition. The second segment of the antenna is longer than usual in this portion of the genus, and segment 8 is especially long and slender.

**Hercothrips** gen. nov.

(ἔρκος, a net; θρίψ, a wood worm.)

Body reticulate, at least in head and thorax, abdomen frequently striate. Head always broader than long, with vertex elevated between eyes but not produced to overhang insertion of antennæ. Eyes usually distinctly protruding, pilose. Ocelli approximate, borne on the elevated vertex. Antennæ eight-segmented, with segment 1 small, 2 much longer and broader, 3 and 4 stem-like at either end and with forked trichomes, 6-8 closely united, 8 long and slender. Maxillary palpi two-segmented. Prothorax strongly transverse, shorter than head, without strong bristles, notum foveate. Hind coxæ approximate, separated by a fraction only of their transverse width. Wings slender, not conspicuously broadened at base nor much narrowed beyond it, with two longitudinal veins frequently united with ambient vein; costal bristles and costal fringe distinct, subequal in length. Abdomen not sharply constricted basally; tenth segment rarely divided above.

*Genotype*: *Heliothrips striatus* Hood.

The following species are known to belong here: *aulmanni* (Karny), *bicinctus* (Bagnall), *brunneipennis* (Bagnall), *cinctipennis* (Hood), *fasciapennis* (Hinds), *fasciatus* (Pergande), *femorialis* (Reuter), *indicus* (Bagnall), *marginipennis* (Hood), *minutissimus* (Bagnall), *pattersoni* (Bagnall), *phaseoli* (Hood), *punctipennis* (Hood), *sculptilis* (Hood), *striatopterus* (Kobus), and *striatus* (Hood), in addition to the five new species described in this paper.

It will be noted that *Hercothrips* comprises essentially those species which we used to place in *Heliothrips*, minus the genotype *hæmorrhoidalis*. In *Heliothrips* as now restricted, is found a somewhat different type of wing, lacking as it does the costal fringe of bristles and having the anterior vein separate from the ambient vein through most of its length, as well as being decidedly broadened basally. In *Heliothrips*, too, the third and fourth antennal segments are differently formed and lack the forked trichomes of *Hercothrips*, while the metascutum is more differentiated, with an elevated triangular central area which

overhangs laterally and posteriorly and serves in this way to hold the wings more firmly in position. Most important of all, however, is the closely approximate condition of the hind coxæ of *Hercothrips*—a type of structure which I have learned to associate with the jumping habit, but with what degree of accuracy I am not sure.

*Selenothrips* is perhaps the closest relative of *Hercothrips*; but in it is found a fore wing with conspicuous, enlarged bristles on the costal margin and on the two longitudinal veins, many of them much longer than the width of the wing; a pronotum which instead of being reticulate is transversely striate; and an abdomen in which the distal segments are shortened.

### ***Hercothrips insularis* sp. nov.**

*Female (macropterous).*—Length about 1.1 mm. Color nearly blackish brown, *head and thorax not noticeably paler*; coxæ brown; fore and mid femora yellow, shaded with brown at middle, hind femora yellow at base and blackish brown beyond; tibiæ yellow at either end, brown between, hind pair darkest; tarsi lemon yellow; fore wings *brown at base* (excepting costal margin and end of scale), *with a narrow nearly white band just before the fork in the principal vein, nearly uniform brown beyond, very slightly paler toward tip of wing, ambient vein in distal eighth of wing and all veins in third eighth, dark blackish brown*; antennæ with segments 1, 2, and 6-8 blackish brown, 1 paler; 3-5 pale yellowish, indistinctly darkened apically. Head broadest across eyes, 1.25 times as wide as long, cheeks nearly straight, curving slightly to eyes and to base; dorsal surface reticulate (though not deeply) with faint indication of occipital line, roughened within the reticules; frontal costa nearly as wide as first antennal segment. *Eyes about 0.6 as wide as their interval*, of normal structure. Ocelli of normal form and position. Antennæ normal, segments formed almost exactly as in *phaseoli*.<sup>2</sup> Prothorax with reticulation much like that of head. Metascutellum distinctly reticulate except at sides. Fore wings with bristles and veins as

<sup>2</sup>See *Psyche*, Vol. XIX, Pl. 8, fig. b; 1912.

in *phaseoli*.<sup>3</sup> Abdomen reticulate, not striate, strongly roughened within the reticules; segment 10 divided dorsally to near base.

Measurements of holotype (♀): Length 1.13 mm.; head, length 0.118 mm., greatest width (across eyes) 0.148 mm., least width (at posterior angles of eyes) 0.136 mm.; eyes, length 0.068 mm., width 0.040 mm., interval 0.068 mm.; prothorax, median length of pronotum 0.108 mm., width 0.195 mm.; pterothorax, width 0.230 mm.; fore wings, length 0.780 mm., width at middle 0.042 mm., width near base 0.068 mm.; abdomen, greatest width 0.269 mm.; segment 8, length to fringe 0.078 mm., segment 9, length 0.114 mm., segment 10, median length 0.056 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	20	40	46	40	33	27	15	31
Width ( $\mu$ )	24	28	21	21	20	17	7	5
Total length of antenna 0.25 mm.								

Described from a number of females collected in St. Croix (type locality), Grenada, Tobago, Martinique, Trinidad, Porto Rico, and Cuba, by C. B. Williams, F. W. Ulrich, T. H. Jones, and S. C. Bruner. Most of the specimens were taken by sweeping, though the Cuban and Porto Rican ones came from corn, sugar cane, and possibly from molojillo.

This is a member of the group which includes *fasciatus*. The long head will distinguish it from that species, while the italicized characters will serve for its separation from *cinctipennis*, to which it is more closely allied.

### **Hercothrips nanus** sp. nov.

*Female (macropterous)*.—Length about 0.84 mm. Head and thorax brownish yellow, the head darkened with brown in posterior half and with a narrow, nearly black line along posterior margin, the thorax darkened with brown along sides and in anterior portion of mesothorax, *dorsum of metathorax very pale*; abdomen with segment 1 concolorous with dorsum of metathorax, 2-8 dark brown, and 9 and 10 pale brown; antennæ with segments

<sup>3</sup>L. c., Pl. 8, fig. a.

1 and 2 gray or very pale brown, 3-5 pale gray with apices (particularly of 3 and 4) darker, and 6-8 dark gray-brown; femora pale brown, mid and hind pairs with their apical thirds nearly colorless; tibiae pale yellowish, with a brown band at middle; tarsi pale yellow; fore wings clear white in basal third, dark gray brown in middle third, and white in apical third save the tip, which is dark gray brown. Head about 1.5 times as wide as long; cheeks nearly straight, rounded to eyes and slightly converging posteriorly; dorsal surface distinctly but not conspicuously reticulate, roughened between the lines of reticulation; *frontal costa broad, 1.2 times as wide as first antennal segment, the interval between antennae fully 1.3 times the width of first antennal segment*; vertex subcarinate in front of ocelli. Eyes not prominently protruding, pilose. Ocelli approximate, opposite center of eyes. *Antennae about 2.1 times as long as head, formed almost exactly as in phaseoli,<sup>4</sup> but slightly stouter. Prothorax more than twice as wide as long, shorter than head and with similar reticulation. Wings of fore pair 13 times as long as width at middle, venation as usual; principal vein at base with five bristles, the first three of which are slender and white, the other two stout, approximate, nearly black, and situated at the fork; anterior vein with two bristles near apex, the latter one nearly black; posterior vein with four equidistant bristles at middle, the second and fourth ones nearly black and situated, respectively, near the outer margin of the dark band and at the middle of the white band. Abdomen with tergites 2-8 closely striate laterally, the striae transverse toward middle of segments and longitudinal at sides, almost exactly as in phaseoli;<sup>5</sup> tergite 10 without longitudinal dorsal suture, though irregularly weakened toward tip.*

Measurements of holotype (♀): Length 0.84 mm.; head, length 0.102 mm., greatest width (behind eyes) 0.157 mm., least width (across eyes) 0.151 mm.; interval between antennae 0.031 mm.; eyes, length 0.065 mm., width 0.038 mm., interval 0.075 mm.; prothorax, median length of pronotum 0.081 mm., width 0.176 mm.; pterothorax, width 0.228 mm.; fore wings, length

<sup>4</sup>See Psyche Vol. XIX, Pl. 8, fig. b; 1912.

<sup>5</sup>L. c., fig. c.

0.585 mm., width at middle 0.045 mm., near base 0.061 mm.; abdomen, width 0.236 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	17	34	43	37	30	23	10	23
Width ( $\mu$ )	23	28	21	21	18	16	7	4
Total length of antenna 0.22 mm.								

Described from 18 females from Trinidad and Tobago, British West Indies, taken by F. W. Urich and C. B. Williams, respectively, principally on a wild vine belonging to the genus *Couania*.

Very close to *phaseoli*, but the smaller size and the italicized characters will separate them readily.

#### ***Hercotrips masculinus* sp. nov.**

*Female (macropterous).*—Length about 1 mm. Color uniform gray brown, ocellar pigment dull orange yellow by transmitted light, lemon yellow by reflected light; antennæ largely brown and nearly concolorous with body, segment 1 paler, 2 dark blackish brown; 3 with stem white, globose portion and apex gray brown; 4 with brief pedicel nearly white, remainder dark blackish brown, but paler basally; 5 clear white except for a slight brownish cloud at extreme apex; 6-8 dark blackish brown; legs largely brown, knees, tarsi, and most of fore tibiæ pale yellow; *fore wings dark gray brown, with a narrow white band just beyond scale and another in eighth tenth, a few darker streaks at base* and a small slightly elevated dark spot on the costal margin just beyond the pale subbasal band, this spot darker because covered with longer and heavier pubescence than the rest of wing, all veins darker, especially the ambient vein at tip of wing, scale paler. Dorsal surface of head and thorax, lateral thirds of abdominal tergites 1-8, and a narrow median portion of tergites 1 and 2, with dark polygonal reticulation, surface roughened within the reticles. Head broad, without occipital line or neck-like constriction, cheeks nearly straight but somewhat converging posteriorly, rectangularly narrowed to eyes; ocellar area opposite center of eyes, slightly elevated but not produced no

overhanging. Antennæ separated by somewhat more than the width of segment 1; segments 3 and 4 much as in *phaseoli*<sup>6</sup> but more globose and with the pedicel of 4 more abrupt and shorter; 5 slightly slenderer; 8 longer and slenderer; 3 and 4 with forked trichomes. Wings of fore pair with about 18 short, inconspicuous bristles on costal margin, *those in basal portion of wing half as long as distal ones and less than half the width of wing, fringe about as long as distal bristles*; anterior vein with one near fork and one near tip, very inconspicuous and pale; posterior vein with about five similar bristles. Abdomen with *segment 9 long, 2.5 times the length of 10 and about 1.2 times as wide at base as long, width at apex (across bases of lateral bristles) about 0.66 that at base, its inner pair of dorsal bristles shorter than outer, which are slightly longer than segment 10, both pairs approximate and disposed in a straight transverse line.*

Measurements of holotype (♀): Length 1.05 mm.; head, length 0.118 mm., greatest width (behind eyes) 0.174 mm., least width (at base) 0.160 mm.; eyes, length 0.072 mm., width 0.044 mm., interval 0.080 mm.; prothorax, median length of pronotum 0.104 mm., width 0.212 mm.; pterothorax, width 0.255 mm.; fore wings, length 0.735 mm., width at middle 0.044 mm., near base 0.057 mm.; abdomen, width 0.261 mm.; segment 8, length to fringe 0.078 mm.; segment 9, length 0.128 mm., width at base 0.156 mm., width across bases of lateral bristles at apex 0.104 mm.; segment 10, length 0.050 mm., width at base 0.082 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )			43	38	35	22	8	25
Width ( $\mu$ )		23	30	22	21	18	17	9
Total length of antenna (approximate only) 0.23 mm.								

Described from a unique female taken from bamboo at St. Annes, Trinidad, in the British West Indies, March 28, 1915, by C. B. Williams [C. B. W. No. 612].

The elongate and only slightly tapering ninth abdominal segment seems to be unique in the genus, occurring in none of

<sup>6</sup>See Psyche, vol. XIX, Pl. 8, fig. b; 1912.

the other fourteen species before me, and aids in giving the female a most decidedly male-like appearance when seen under a low-power objective. Other important differentiae are those italicized above.

**Hercotrips williamsi** sp. nov.

*Female (macropterous).*—Length about 1.05 mm. Color dark brown (nearly black to the naked eye), darkest in abdominal segments 5 and 6, head yellow between eyes, save for the ocellar area and a narrow brown line from it to the frontal costa; antennæ with segment 1 brownish yellow; distal constriction of 3, pedicel and distal constriction of 4, and all of 5 clear white, the intervening portions dark blackish brown; legs blackish brown, the mid and hind pairs darkest; tarsi and tips of tibiæ yellow; fore wings dark brown, paler between veins and in a narrow transverse band just beyond scale, with a darker streak at base in front of longitudinal vein and a small, round, slightly elevated dark spot on the costal margin just beyond the pale subbasal band, this spot darker because covered with longer and heavier pubescence than the rest of the wing. Dorsal surface of head, thorax, and median portions of abdominal tergites 1 and 2 with conspicuous subequal polygonal reticulation, formed by raised black chitinous lines, not roughened between the lines of reticulation. Head broad, with a prominent lateral swelling at anterior end of cheeks, sides abruptly converging posteriorly to a transverse groove on each side which shallows dorsally and disappears before attaining the median line; ocellar area opposite center of eyes, slightly elevated but not at all produced nor overhanging, with a narrowly grooved ridge running from it downward to frontal costa. Antennæ separated by 1.8 times width of segment 1; segments 3 and 4 with a subglobose middle portion, pedicels slender, distal portions slender and much prolonged; forked trichomes on 3 and 4 exceptionally long. Wings of fore pair with about 20 dark bristles on costal margin, averaging fully as long as width of wing and subequal in length to fringe; anterior vein with one similar bristle near fork and 3 in distal fourth of wing; posterior vein with about 8 equally spaced bristles; about four bristles on vein

basal to fork. Abdomen with last segment short and broad; *tergites 2-7 striate, rather than reticulate, at sides*, the lines curving outward and backward; bristles not long, yellowish and inconspicuous.

Measurements of holotype (♀): Length 1.05 mm.; head, length 0.140 mm., greatest width (behind eyes) 0.196 mm., least width (across eyes) 0.184 mm.; eyes, length 0.082 mm., interval 0.096 mm.; prothorax, median length of pronotum 0.102 mm., width 0.220 mm.; pterothorax, width 0.293 mm.; fore wings, length 0.810 mm., width at middle 0.044 mm.; abdomen, width 0.318 mm.; segment 9, length 0.116 mm.; segment 10, length 0.049 mm., width at base 0.080 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	24	48	73	58	40	34	16	30
Width ( $\mu$ )	26	32	24	23	17	16	8	5
Total length of antenna 0.32 mm.								

Described from a unique female taken at St. Annes, Trinidad, in the British West Indies, March 28, 1915 by C. B. Williams, from an unidentified plant. [C. B. W., No. 614.]

A very distinct and most interesting species, resembling *brunneipennis* in wing coloration but related more intimately to *striatus*, *phaseoli*, and their allies. The sculpture, large head, anteriorly tubercled cheeks, and peculiarly colored antennæ are distinctive.

#### ***Hercotrips funebris* sp. nov.**

*Female (macropterous).*—Length about 1.1 mm. Color nearly black (quite so in abdomen), head and thorax paler; antennæ brown, with segments 1 and 2 paler, and the basal half of 3, basal third of 4, and basal two-thirds of 5, grayish white; fore legs brown, with trochanters, tips of tibiæ, and tarsi pale yellow, nearly white; mid and hind legs similarly colored, but with the dark portions nearly black; fore wings nearly uniform dark brown, with a pale transverse band just beyond scale, with a dark streak at base in front of principal vein and another behind it, and with the costal half of wing just beyond the pale band and the extreme tip, nearly black. Dorsal surface of head,

thorax, and abdomen strongly and prominently reticulate with heavy black lines, not roughened between the lines of reticulation, except for a few dots in basal reticules of head. Head broad, cheeks rounded and swollen, with a strong neck-like constriction which is bounded in front by a heavy chitinous line. Antennæ separated by about 1.7 times the width of segment 1, formed almost as in *phaseoli*,<sup>7</sup> forked trichomes on 3 and 4 exceptionally long, that on 4 attaining apex of segment 5. Metascutum without differentiated triangle; metascutellum strongly reticulate. Wings of fore pair with about 22 inconspicuous brown bristles on costal margin, averaging in length less than the width of wing, fringe fully twice as long; anterior vein usually with one similar bristle at the fork and four in distal half; posterior vein with about eight and principal vein with six. Abdomen of normal form, opaque black, reticulation coarse and heavy, not absent from middle portions of tergites but extending entirely across them and strongest just beyond the irregular, subbasal, transverse line; segment 10 with an irregular dorsal suture in apical half; all abdominal bristles pale and short.

Measurements of holotype (♀): Length 1.08 mm., head, length 0.105 mm., greatest width (behind eyes) 0.176 mm., least width (near base) 0.135 mm.; eyes, length 0.085 mm., width 0.045 mm., interval 0.087 mm.; prothorax, length 0.102 mm., width 0.201 mm.; pterothorax, width 0.267 mm.; fore wings, length 0.780 mm., width at middle 0.041 mm., near base 0.067 mm.; abdomen, width 0.300 mm., segment 8, length to fringe 0.076 mm.; segment 9, length 0.087 mm.; segment 10, length along median dorsal line 0.036 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	24	41	59	49	36	28	12	25
Width ( $\mu$ )	24	30	22	23	20	17	8	5
Total length of antenna	0.27 mm.							

*Male (macropterous).*—Length 0.87 mm. Color of body and appendages like that of female. Tergite 9 with the two pairs of bristles slender, the inner pair shorter, slenderer, and with their bases more distal, the four thus being disposed on a semicircle.

<sup>7</sup>See *Psyche*, vol. XIX, Pl. 8, fig. b; 1912.

Described from one female and one male, taken by J. B. Rorer at Hacienda Pretoria, near Barraganetal, Equador, December 29, 1917, on "cojojo" [C. B. Williams, No. 1058.]

Close to *errans* and *brunneipennis*, but differing from both in the non-specialization of the metascutum, the clouded antennæ, the incompletely divided tenth abdominal segment, and various other details.

### **Tryphactothrips lineatus** sp. nov.

*Female* (*macropteros*).—Length about 1.05 mm. Dorsal surface deeply reticulate. Color yellowish brown, with head, prothorax, middle of pterothorax, and last two or three abdominal segments more yellowish; segment 10 of abdomen gray in apical sixth; antennæ yellow, with segment 2 decidedly darker than 1 and brownish at sides and base, 3-5 clear lemon yellow, 6-8 blackish brown excepting yellowish base of 6; fore legs yellow with tibiæ shaded with blackish brown on inner surface, mid and hind legs brown with tarsi, knees, and bases of femora yellow; fore wings yellowish at base and along veins, with two indistinct brown bands, one occupying the third tenth, the other the seventh tenth, and with two or three very faint maculations between the bands and one at extreme tip of wing, all of these wing markings produced by darker pubescence; wing bristles nearly black in basal half, nearly white beyond. Vertex produced, overhanging insertion of antennæ; occiput without a crescentic series of large reticulations; *antennæ eight-segmented*; segment 1 short, sub-cylindrical, about as broad as long; 2 broadest in entire antenna; 3 slender, vasiform, about 4.3 times as long as wide; 4 asymmetrical, swollen on outer surface; 5 clavate, broadest at apical fourth or fifth; 6 with a stout pedicel which is nearly twice as thick as that of 5, somewhat obliquely united at apex to 7, the two forming a compact mass; 8 slender, about six times as long as basal width; sense cones slender, those on 3 and 4 bifurcate beyond base (Y-shaped). Mesoscutum without median suture, but acutely notched behind. Wings of fore pair with first longitudinal vein united with ambient vein, posterior vein not so united, one bristle at their fork and three basally; anterior vein

with six bristles beyond fork and posterior vein with seven or eight, positions not constant; all wing bristles long, broad, flattened, and dilated, as long as width of wing at middle. Abdomen strongly and sharply constricted at base of segment 2, which is the longest in the entire abdomen; dorsal surface with the usual deep, prominent reticulation at sides, but with the *dorsal surface of segments 3-7 with three or four perfectly parallel transverse lines* at base, between the areas of reticulation; segment 10 long, tubular, reticulate, somewhat constricted at base, divided above by a longitudinal suture; bristles at apex of segment 9 about one-half as long as 10.

Measurements of holotype (♀) Length 1.05 mm.; head, length 0.100 mm., greatest width (across eyes) 0.172 mm., least width (near base) 0.152 mm.; eyes, length (approximate) 0.092 mm., width (approximate) 0.040 mm.; prothorax, median length of pronotum 0.090 mm., width 0.180 mm.; pterothorax, width 0.248 mm.; fore wings, length 0.780 mm., width at middle 0.046 mm., just beyond scale 0.076 mm.; abdomen, width 0.285 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length ( $\mu$ )	20	34	65	42	36	25	12	30
Width ( $\mu$ )	24	30	15	17	18	17	11	5
Total length of antenna 0.26 mm.								

Trinidad; C. B. Williams; on an unidentified plant.

This is the only New World species with eight-segmented antennæ. The curious transverse lineation of the abdomen is also distinctive.

### **Tryphactothrips brevipilus** sp. nov.

*Female (macropterous).*—Length about 1.04 mm. Dorsal surface deeply reticulate. Color yellowish brown, with middle of pterothorax and last three or four abdominal segments paler and more yellowish; segment 10 of abdomen shading to *gray in apical fourth*; antennæ yellow, with segment 2 decidedly darker than 1 and brownish at sides and base, 3-5 pale lemon yellow except apex of 5 which is washed with gray, 6 yellowish gray;

femora yellowish brown, paler at base and sometimes at apex, middle pair lightest; tibiæ yellow at base and apex, brown between; tarsi lemon yellow; fore wings brown in first tenth (except the yellowish costal margin and the paler outer half of scale) and with brown bands (due to dark pubescence) occupying most of the third tenth, all of eighth tenth, and the extreme tip of wing, between the bands with three or four faint maculations, the veins somewhat darkened with brown; bristles on veins of wings unicolorous, brown. Vertex strongly produced, about attaining second segment of antenna, overhanging. Antennæ six-segmented, segment 5 with a more or less distinct transverse suture at distal third; segment 1 short, subcylindrical, about as broad as long; 2 broadest in entire antenna; 3 slender, vasiform, about 4.6 times as long as wide; 4 asymmetrical, swollen on outer surface, with a rather long and slender pedicel; 5 subfusiform, pedicellate; 6 long and very slender; sense cones slender, those on 3 and 4 bifurcate beyond base (Y-shaped). Mesoscutum with a longitudinal, median suture extending nearly to anterior margin, *the reticles on either side with their inner margins not at all deflected posteriorly*. Wings of fore pair with first longitudinal vein united with ambient vein, posterior vein free, one bristle at their fork and three basally; anterior vein and costa together with about eleven bristles beyond fork, the two series indistinguishable; posterior vein usually with six bristles beyond fork; *all wing bristles short, stout, but not dilated, averaging about one-half as long as width of wing at middle*. Abdomen strongly and sharply constricted at base of segment 2, which is the longest in the entire abdomen; dorsal surface with the usual deep, prominent reticulation at sides, the intervening portion with transversely elongate polygons of reticulation arranged in regular transverse rows; segment 10 nearly tubular, about three-fourths as long as prothorax, *not constricted at base*, reticulate, divided above by a longitudinal suture; *bristles at apex of segment 9 about one-third as long as 10*.

Measurements of holotype (♀): Length 1.04 mm.; head, length 0.116 mm., greatest width 0.190 mm.; eyes, length 0.056 mm., width 0.042 mm., interval 0.101 mm.; prothorax, length 0.106 mm., width 0.183 mm.; pterothorax, width 0.266 mm.;

fore wings, length 0.720 mm., width at middle 0.041 mm., near base 0.076 mm.; average length of bristles near middle of wing 0.020 mm.; abdomen, greatest width 0.293 mm.

Antennal segments:	1	2	3	4	5	6
Length ( $\mu$ )	24	40	73	43	59	28
Width ( $\mu$ )	26	31	16	19	20	5
Total length of antenna 0.27 mm.						

Trinidad: C. B. Williams; on creepers, bushes, and a leaf of Arum Lily.

The characters italicized in the description separate it from *constrictus*, the only New World species with which it agrees in the possession of six-segmented antennæ and a divided mesoscutum.

**Eurythrips cinctus** sp. nov.

*Female, forma macroptera*.—Length about 1.16 mm. Color yellowish brown, with transparent red subhypodermal pigmentation, sides of head and all of thorax and apical abdominal segments darker, the base of abdomen (especially segments 2 and 3) decidedly paler and almost free of red pigmentation, giving the insect a distinct yellowish band at middle; antennæ nearly uniform blackish brown, somewhat paler in basal portion of segment 1, apical portion of 2, and pedicel of 3; femora brown, shading to lemon yellow beyond middle of tibiæ; fore wings pale brown, decidedly darker at base. Head nearly 1.2 times as long as greatest width; ocelli rather widely separated, nearly touching margins of eyes, the interval between posterioro celli about 0.54 that between eyes; postocular bristles about 0.4 as long as head, pointed or very nearly so; postocellar bristles very minute, about attaining posterior margins of posterior ocelli; mouth cone broadly rounded, somewhat surpassing middle of prosternum; prothorax with anterior marginal bristles minute, all others long, pale, and very nearly pointed; fore tarsus with a small, claw-like, somewhat forwardly-directed tooth arising from the inner distal angle of the first tarsal segment; fore wings without accessory hairs at tip and with the three subbasal bristles short, slightly dilated apically.

Measurements of holotype (♀): Length 1.16 mm.; head, length 0.165 mm., greatest width 0.139 mm., least width (across eyes) 0.131 mm.; eyes, length 0.046 mm., width 0.035 mm., interval 0.061 mm.; postocular bristles, length 0.068 mm.; prothorax, length of pronotum 0.120 mm., width across coxæ 0.240 mm.; pterothorax, width 0.248 mm.; abdomen, greatest width 0.300 mm.; tube, length 0.124 mm., width at base 0.071 mm., at apex 0.035 mm.

Antennal segments:	1	23	4	56	7	8
Length ( $\mu$ )	40	48	51	48	50	46 44 34
Width ( $\mu$ )	38	32	32	31	30	26 25 16
Total length of antenna	0.36 mm.					

*Female, forma brachyptera.*—Apparently identical with the macropterous form except for the following: Legs much paler, the tibiæ, tarsi, and distal portions of femora lemon yellow; ocelli wanting; wings reduced, the fore pair represented by a pair of small oval brown pads, each with two rather long, nearly pointed bristles.

Described from three females taken by Mr. C. B. Williams at Caura Valley, Trinidad, British West Indies, April 20, 1916, by sweeping grass.

Very close indeed to *E. harti*, but readily known by the italicized characters.



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