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EIGHT NEW "JASSIDS" FROM THE EASTERN UNITED STATES.

Family Cicadellidae (Hemiptera-Homoptera)

J. G. SANDERS and D. M. DELONG, Harrisburg, Pa.

The mountain regions of Pennsylvania and certain less elevated sections of New Jersey, and those portions of Maryland and Virginia between the Chesapeake Bay and the ocean, have received but scant attention from collectors of Homoptera if existing records are dependable. Although relatively little collecting has been done to date, we are able to describe seven new species of distinct interest, while withholding other apparently new forms for more material and better data.

These new species are described from Pennsylvania, one from New Jersey and three from the Maryland-Virginia peninsula; with one exception, all collected by the senior author during the past two years.

Especially interesting and beautiful is the new *Phlepsius* collected near South Orange, N. J., by Mr. Harry B. Weiss, from "Hercules Club" (*Aralia spinosa*); and also the very distinct and beautifully marked *Deltocephalus* from grasses on the mountain top near Port Matilda in central Pennsylvania, taken by the senior author.

***Platymetopius rubellus* n. sp.**

Plate XIII, Figs. 1, 2, 3, 4.

Form of *cuprescens* with long pointed vertex, but smaller and with reddish color above and on face. Female, 4.75; male, 4.25.

Vertex longitudinally concave, a little more than twice as long as width between the eyes, margins slightly concave, either side to a very acute apex. Pronotum short and broad. Not quite two-thirds as long as vertex, and more than twice as broad as long. Elytra rather short and broad, broadly rounded at apex. From side view, the front is concave and very acutely angled with vertex. Face long, frons extremely narrow, clypeus constricted just above middle, expanded to rounding apex.

Color: Generally reddish brown, shading toward infuscated apices of elytra. Vertex with median apical line and a line either side extending along margin half way to eyes, and then inward on disc, with faint traces toward median basal portion, pale. Median line deep and black on

basal half. Faint traces of vittæ on pronotum and scutellum; the latter with apex and point at middle of either side, white. Median impressed transverse line, black. Elytra reddish brown with veins darker, supernumerary costal veinlets and vermiculate markings brownish, heavier at apex. Apex with a white band. Areoles few and distinct; two along suture on posterior half of clavus, a row along anterior portion of apical cells and posterior portion of antepical cells, and one at anterior end of first and second antepical cells. Front and face uniform reddish brown, often flecked with reddish, and infuscated at apex of vertex, angular line long and very distinct, irregular, dark margin above and below. Eyes red.

Genitalia: Last ventral segment of female with wide sloping to rather prominent angles, then slightly concavely rounded to produced median truncated lobe. Whole segment dark bordered. Male valve broad and roundly produced to a distinctly angled apex twice as long as preceding segment, which is concavely angled on posterior margin. Plates broad at base, wider than valve, gradually narrowed to sharp tips.

Described from two females and one male from Battle Point, Va., June 22, 1918, and a female from Parksley, Va., June 21, 1918. Collected by the senior author.

***Platymetopius collaris* n. sp.**

Plate XIII, Figs. 5, 6, 7.

A blunt-headed pale species with pronotum and scutellum largely black. Length, Female, 5 mm.; Male, 4.5 mm.

Vertex nearly twice as long as width between the eyes. Posterior angle of head flaring. Pronotum strongly arcuate anteriorly, truncate posteriorly, obliquely cut to outer flaring angles. Elytra broadly rounded at tip. Approximately ten supernumerary veinlets along costal margin.

Color: Vertex dull pale orange, elongated median spot at apex, irregular spot at either side ivory white, between these and extending posteriorly, irregular lines and washing of brown merging and fading posteriorly. Median posterior spot white. Line behind eyes black. Pronotum dull yellow, median two thirds black or dark brown, with pale median line. Scutellum before transverse suture black or dull brown, apex bright yellow. Elytra pale to buff, apical cells clouded and with variable tiny vermiculate markings. Areoles few, white, two in clavus, one at base of each apical cell, and at apex of each antepical cell. Supernumerary costal and apical veinlets, black or brown. Frons pale shading to dull orange on the cheeks. Pale line extending from tip of apex across eyes in well marked specimens. White "v" below apex indistinct. Venter mottled with gray and brown; pale orange on plates.

Genitalia: Female last ventral segment strongly and evenly produced to a blunt angle. Male valve large, half as large as plates, strongly produced to a blunt angle. Plates evenly narrowed to blunt tips.

Described from four females and one male swept from *Vaccinium* sp. on the mountain at Penfield, Clearfield Co., Pa., August 24, 1918, by the senior author. Type and paratype in authors' collections.

***Deltocephalus delector* n. sp.**

Plate XIII, Figs. 8, 9, 10.

Similar in form and general appearance to *bilineatus* and *marginatus*, but much smaller, really a minute species with distinct markings. Length, male, 3 mm.

Head well produced, with apex distinctly pointed, as long as pronotum, about one-fourth longer on middle than width between the eyes. Pronotum about twice as wide as long, strongly arcuate in front, lateral margins very short, rounded. Elytra with clavus not reticulate and with middle anteapical cell strongly constricted at middle.

Color: Vertex creamy white, with two broad tawny bands extending from base to apex, where they converge and form two black triangular spots either side of white tip, and extend over margin. Behind these in each band a "v" shaped black spot inclined inwardly. A narrow black curved line extends from eye around ocellus on margin toward apex. Median white band distinctly narrowed to apex. Pronotum white, with four longitudinal tawny bands, one behind either eye, and the central two are extensions of the bands on vertex, continuing across scutellum. Elytra tawny with costal, sutural and apical margins and veins, white. A spot in distal portion of inner apical cell, the costal veinlets of the apical and anteapical cells, and a curved band on inner border of the apical white margin, black. Face pale, a spot on the outer margin of loræ, one above antenna, and inner line of antennal pit, brown. Beneath pale yellow, male plates with inner apical third black, but white margined.

Genitalia: Male valve short and broad, with nearly truncate apex. Plates three times length of valve, gradually sloping to broad truncated apices, the outer margins set with coarse spines.

Described from one male specimen swept from grasses by the senior author on the top of mountain between Port Matilda and Phillipsburg, Pa., August 23, 1918. A second specimen was taken, but escaped.

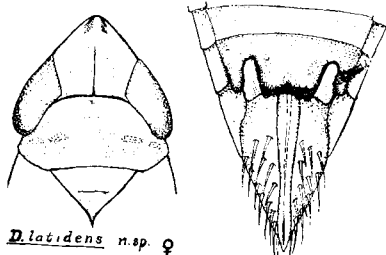
This species is very distinct from others of the *bilineatus* group, on account of its minute size and markings.

***Deltocephalus latidens* n. sp.**

Closely resembling *misellus*, but slightly larger and more robust, with color pattern more vague and with distinct genitalia. Length 3 mm.

Vertex: Flat, slightly longer than width between the eyes, width across eyes almost equaling combined length of vertex and pronotum. Pronotum short, more than twice as broad as long, anterior margin well produced between the eyes. Elytra a little more than twice as long as broad, barely exceeded by abdomen. Face strongly inflated.

Color: Buff irregularly marked with pale orange. Vertex with traces of the four quadrants found in *misellus* usually appearing as a broken, broad transverse band between anterior margins of the eyes, and two indistinct triangular spots approaching apex, pale orange. Pronotum with traces of six longitudinal pale orange bands. Scutellum pale. Elytra generally darker with pale veins and cells pale orange with few dark markings. Two small spots along suture, one on middle of clavus, one just behind anterior cross vein, posterior margin of inner



anteapical and posterior margin of apical cells, brown. Face brown with traces of about eight arcs. Beneath yellow, heavily marked with brown. Ovipositor and broad tooth of last ventral segment in female brown. Male plates brown.

Genitalia: Female last ventral segment more than twice as long as preceding, posterior margin deeply, roundly incised near lateral margins two-thirds to base leaving a broad central truncated tooth one-half width of entire segment produced beyond the lateral angles, which appear as long, narrow spatulate processes. Male valve broadly triangular, convex, twice as broad as long. Plates short and broad, sloping almost uniformly to broadly rounded apices. Outer margins set with fine white hairs.

Described from eleven females and eight males collected in 1916, at Amery, Wis., August 10; Cameron, Wis., August 7; Merrillam, Wis., August 5; Taylors Falls, Minn., August 16; Trout Lake, Wis., September 9; and Sturgeon Bay, Wis., July 19, 1914, by the authors.

This little species resembles *misellus* so closely in general appearance that the two have been confused. The female genital characters, however, are very distinct.

Phlepsius tenuifrons n. sp.

Plate XIII, Figs. 11, 12, 13, 14.

Form of *ramosus*, but shorter, more robust, head more foliaceous and with distinct genitalia. Length 7 mm.

Vertex well produced, almost entirely concave to sharp, foliaceous apex. More than twice as long as broad, almost twice as long at middle as next the eye. From side view almost entire vertex thin, foliaceous, and upturned. Pronotum short and broad, almost two and one-half times as wide as long. Elytra short and broad, flaring. Face very broad, and rapidly narrowed to base of clypeus. Upper portion very concave or almost angled to thin vertex.

Color: Vertex and pronotum pale with numerous brown irrorations. Median portion of vertex with an irregular brown longitudinal line. Face uniformly irrorate, with pale spot at upper angles of loræ. Elytra milky white, but very heavily marked with broken ramose lines; veins brown. Central portion more closely inscribed with brown, and forming a somewhat obscure saddle across the middle, having a suggestion of paler area toward base of elytra. Beneath uniform brown.

Genitalia: Last ventral segment of female about three and one-half times the length of preceding segment. Gradually rounded either side from half its length to posterior margin, forming rounding lobes instead of prominent angles. Then concavely arcuate to a broad produced median lobe, which is keeled, and narrowly notched at middle. Male valve more than three times as broad as long, roundly angled at apex. Plates broad at base, then rather suddenly narrowed at about half their length and produced to blunt apices, a little longer than combined width at base. Pygofers very broad at base, convexly produced and sharply incurved toward tips.

Described from a pair collected at Greensburg, Pa. September 3, 1901, and September 2, 1902. Collected by Mr. M. Wirtner.

The short, broad body with sharp foliaceous head well distinguishes this species from its allies.

Phlepsius tinctorius n. sp.

Plate XIII, Figs. 15, 16, 17, 18.

A moderately robust, round-headed species with bright orange markings on vertex and scutellum. Female, 6 mm. and male 5 mm. long.

Vertex about three-fourths of width between eyes, very obtusely angled, almost evenly rounded and parallel margined, with apex narrowly but decidedly inflated before a distinct depression. Pronotum short and broad, truncate posteriorly with distinct flaring lateral angles broader than head. Scutellum transversely concave. Elytra broad with rounded tips. Face broad and flat with clypeus constricted at base and broadly truncate at apex.

Color: Vertex ivory white with small irregular black spot either side of apex; an irregular semicircular black spot above each ocellus vaguely connected by transverse wavy line following depression. Median suture black; on either side a large quadrangular orange spot posteriorly margined with irregular black lines. Pronotum tawny anteriorly, shading to darker, generally marked with vermicular brown lines. Scutellum bright orange with apex and triangular spot midway of lateral margins ivory white. Transverse suture with central spot and median line, and irregular lines extending anteriorly from lateral white spots, black. Elytra milky to smoky with pale tawny areas, uniformly marked with broken irregular lines; tip of clavus, margin of apex, spots of outer apical cell and costal cross-vein, black. Face black with close irregular white or tawny irrorations. Antennæ black, with pits and apices of basal segments white. Venter generally black or dark brown.

Genitalia: Female segment longer than preceding and smoothly truncate. Male valve half as long as preceding segment, broadly and bluntly angled; plates long triangular, evenly tapering to posterior third with long curved terete tips.

Described from eight females and one male collected by H. B. Weiss from "*Aralia spinosa*" at Irvington and South Orange, Essex Co., New Jersey, July 23 and August 1. Type and paratypes in authors' collections, and in New Jersey State Museum Collection.

***Chlorotettix productus* n. sp.**

Plate XIII, Figs. 19, 20.

Small wedge-shaped species with well rounded vertex, a little more produced than in *viridius*. Female, length 5 mm.

Vertex roundly produced, not angled, almost parallel margined; slightly longer on middle than next the eye, about twice as wide as long. Pronotum strongly and convexly produced, truncated posteriorly, lateral margins well rounded. Front broad, inflated.

Color: Dull yellowish green without definite markings. Vertex and frons shading to buff. Elytra greenish, subhyaline, distinctly shiny. Paler below, tip of ovipositor and bristles, yellowish.

Genitalia: Female last ventral segment one-third longer than preceding and longitudinally striated. Lateral angles roundly produced. Posterior margin concavely sinuate to produced median third, slightly notched at middle. Pygofers with heavy bristles on posterior half.

The produced last ventral female segment distinguishes this species from others of the genus.

Described from three female specimens swept from a low shrub at Battle Point, Virginia, June 23, 1918, by the senior author. Type and paratypes in authors' collections.

Chlorotettix fumidus n. sp.

Plate XIII, Figs. 21, 22, 23.

Resembling *tergatus* in size and color, but narrower, with head well produced and angled. Length, female, 8 mm.; male, 7.5 mm.

Vertex produced, distinctly angled; one-half longer on middle than next the eye, and about twice as wide as long. Pronotum very convex anteriorly and almost truncate posteriorly, length one-half the width. Second apical cell much narrower than in *tergatus*.

Color of vertex dull pale orange; face pale straw-yellow. Pronotum and scutellum smoky green, clytra dark smoky. Body above black; beneath pale yellow.

Genitalia: Last ventral segment of female about one-half longer than preceding; obliquely produced to outer angle, with posterior margin truncate or slightly concave to broad deep median notch two-thirds distance to base. Male valve triangular, as wide as preceding segment, apex rounded and posterior margins slightly sinuate. Plate short and broad, convexly rounded to acute appressed tips.

Described from three female and two male specimens. Type specimen, female, collected at Mt. Alto, Pa., August 24, 1918, by T. L. Guyton. Two females from Moscow, Tenn., collected by the junior author, June 23, 1915; one male from Paris, Tenn., June 26, 1915, and one male from Speeceville, Pa., July 22, 1917, by the senior author. Type and paratypes in authors' collections.

EXPLANATION OF PLATE XIII.

- 1.—*Platymetopius rubellus* n. sp., head (dorsal view).
- 2.—head (side view). 3.—♂ genitalia. 4.—♀ genitalia.
- 5.—*Platymetopius collaris* n. sp., head.
- 6.—♂ genitalia. 7.—♀ genitalia.
- 8.—*Deltocephalus delector* n. sp., head.
- 9.—♂ genitalia. 10.—clytron.
- 11.—*Phlepsius tenuifrons* n. sp., head (side view).
- 12.—head (dorsal view). 13.—♂ genitalia. 14.—♀ genitalia.
- 15.—*Phlepsius tinctorius* n. sp., head (dorsal view).
- 16.—head (side view). 17.—♀ genitalia. 18.—♂ genitalia.
- 19.—*Chlorotettix productus* n. sp., head. 20.—♀ genitalia.
- 21.—*Chlorotettix fumidus* n. sp., head.
- 22.—♂ genitalia. 23.—♀ genitalia.

