

## PAPER NO. 2. FIVE NEW SPECIES OF CICADELLIDAE.

2246.4. *Phlepsius particolor* n. sp.

(Pl. V, fig. 2.)

General coloration of *Ph. fulvidorsum*, but much larger approaching *Ph. solidaginis* in size. Length, female, 7 mm.

Vertex short, slightly produced, one-half longer at middle than next eye, margin sharply angled with front, and very sharp at tip. Pronotum almost semi-circular to humeral angles, broadly concave behind. Elytra broad, flaring at tips.

Face convex, slightly flattened just beneath margin of vertex. Frons sharply narrowed to the slender clypeus.

Color: Vertex, pronotum and scutellum distinctly yellowish, slightly mottled with brown. Elytra whitish, uniformly, heavily and finely inscribed with dark brown, darker along commissural line, except two white spots at tips of claval veins. Several small, irregular brown spots along costal margin. Face finely irrorate with brown.

Genitalia: Female last ventral segment triangularly produced from base, twice length of preceding segment, apex with broad incision narrowed at half its depth, and extending one-third distance to base. Posterior margin and incision margined with black.

Described from three female specimens collected at Kane, Pa., Aug. 21 and 23, 1919, by D. M. DeLong.

2196.5. *Phlepsius sabinus* n. sp.

(Pl. V, fig. 3.)

Form and size of *Ph. spatulatus* but distinctly and heavily marked with black and brown and with distinct genitalia. Length, female, 7 mm.

Head much narrower than pronotum, distinctly produced and bluntly angled. Pronotum strongly arched and convexly rounded to prominent humeral angles, broadly and abruptly concave behind. Scutellum strongly depressed at middle. Elytra long, narrow with broad appendix, and much exceeding abdomen. Frons long, narrow with clypeus much constricted at base.

Color: Vertex white toward apex, with broad, irregular, black band between eyes, brown posteriorly, and two black triangular spots toward apex. Pronotum pale, variously mottled and splashed with brown, numerous tiny punctures most abundant posteriorly. Lateral margins bordered with white. Scutellum brown mottled anteriorly and pale posteriorly. Elytra milky white, irregularly inscribed and mottled with dark brown pigment. Face pale buff, with nine or ten pairs of irregular brownish arcs, a broad median pale line and with black band at base of clypeus. Margin of frons near antennae, irregular spot and broad line below eyes extending across pronotum below margin, black. Venter pale beneath, except first abdominal segment and sometimes a broad median band, black.

Genitalia: Female last ventral segment two and one-half times length of preceding, posterior margin truncate to a median broad brown-tipped bifid tooth, nearly one-third length of segment.

Described from three females collected at Sabino Canyon, Santa Catalina Mts., Ariz., May 20 and June 29, 1919, by W. D. Edmonston.

2301.5. *Thamnotettix aureovittatus* n. sp.

(Pl. V, fig. 4.)

Allied to *Th. shermani* group, and readily distinguished by the short blunt head and two broad orange-red bands continuous on vertex, pronotum and scutellum. Length, female, 4 mm.

Vertex short and bluntly rounded, a little wider between eyes than length on middle. Pronotum narrower and a third longer than head, lateral margin short almost angulate, very slightly concave posteriorly. Elytra long and narrow much exceeding abdomen, tip of clavus almost reaching tip of abdomen. Face minutely papillose.

Color: Dull straw yellow, vertex with two distinct triangular spots at apex, a faint oblique dash at inner margin of black ocelli, brown. A broad orange-red band on either side of vertex extends from ocellus along margin of eye across pronotum and basal angles of scutellum. These two lines almost coalesce anteriorly on vertex and cover the disk except an irregular median pale stripe. Two fainter narrow stripes either side behind eyes on pronotum. Elytra sub-hyaline, dull yellow with conspicuous milky white veins as in *Th. fitchi*. Veins near apex sometimes faintly margined with fuscous. Face generally pale brown, orange next inner margins of eyes, occasionally with vestiges of pale arcs or dashes. Pale buff beneath, ovipositor black.

Genitalia: Female last ventral segment slightly longer than preceding, abruptly narrowed half way on lateral margin, then gradually sloping to prominent rounded outer angles either side of a broad deep evenly rounded excavation deeply bordered with brown. Lateral plates visible at outer angles of last ventral segment.

Described from four female specimens collected by E. M. Craighead, one at Big Bayou, Fla., March 12, and three at St. Petersburg, Fla., March 26, 1920.

2136.4. *Euscelis ovatus* n. sp.

(Text figure.)

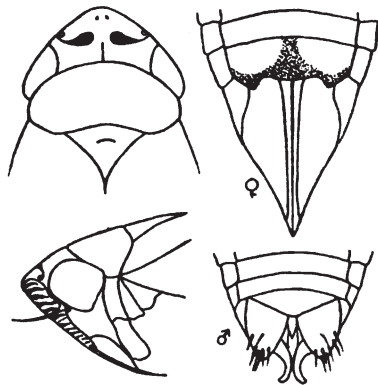
Closely allied to *E. extrusus* which it resembles in general appearance; but easily distinguished from it by the smaller size, shorter elytra, and distinct genital characters. Length, female, 4.6 mm.; male, 3.5 mm.

Rather short and broad. Vertex convex, bluntly pointed almost ovoid, one-third broader between eyes than length at middle. Pronotum slightly longer than vertex, more than twice wider than long, lateral margins short, posterior margin distinctly concave at middle. Elytra short and broad, apical cells very short; in female elytra reaching only to anterior margin of dorsal penultimate segment, in the male they extend almost to middle of dorsal ultimate segment.

Color: Dull yellowish to brownish, vertex with median impressed line and a transverse spot either side between anterior margins of eyes, dark brown or black. These spots are rounded on inner margins and taper to a black line just behind ocelli. Sometimes there is a faint indication of two approximate small triangular spots just back of apex. Pronotum pale with irregular brown mottling, particularly on anterior half, sometimes with vestiges of six brownish bands on posterior margin. Elytra yellowish to brownish, nervures pale often narrowly bordered with brown. Face with eight or nine pairs of black arcs. Antennal pits distinctly black. Venter dirty yellow with numerous black markings. Fore and middle femora broadly annulated with brown.

**Genitalia:** Female last ventral segment about one-half longer than preceding. Lateral angles rounded and sloping inwardly to a produced pointed lobe about one-third the distance from the side. Between these the posterior margin is abruptly but shallowly excavated and slightly produced at the middle. The whole posterior margin and central portion to base is black. Male valve broadly triangular, slightly longer than last ventral segment, three times broader than long. Plates longer than broad, convexly rounded on outer and inner margins to blunt rounded tips, diverging and exposing between them the curved styles which are produced one-half the distance beyond the plates and with recurved divergent tips.

Described from two females and eight males collected by W. H. Larrimer at Wellington, Kansas, April 19 and 21, and May 11, 1915, from wheat. This species apparently has been confused with *extrusus* and probably is of economic importance.



*Euscelis ovatus* n. sp., vertex and pronotum; lateral view of head; female and male genitalia.

#### 2131.5. *Euscelis cuneatus* n. sp.

(Pl. V, fig. 5.)

Resembling *E. striolus* (Fall.) in coloration and general appearance, but smaller and distinctly wedge-shaped behind. Length, female, 3.5 mm.; male, 3 mm.

Head including eyes one-fifth broader than pronotum, vertex slightly produced and rounded, almost parallel margined. Pronotum nearly twice length of head with very short side margins. Elytra, with venation similar to *E. striolus* and generally appressed vertically at tip.

**Color:** Yellowish green, with vertex, pronotum and scutellum in females often brighter yellow. An arcuate infraocellar line, usually a triangular spot at apex and a definite band between eyes just above ocelli sometimes interrupted, black. Elytra smoky subhyaline, somewhat darker toward tips. Nervures yellowish. Face with sutures, antennal pits, spot on clypeus, about seven arcs on frons often coalescing, black. Venter except last ventral segment black, pleurae yellow. Ovipositor black.

**Genitalia:** Female last ventral segment as long as preceding, lateral angles pointed, strongly concave to a short median black tooth. Male valve broadly triangular with rounded apex; plates broad at base, long and gradually tapered to attenuate tips.

Described from a large series of specimens from *Juncus* sp. in many localities in Pennsylvania from June 17th to Sept. 5; also collected by the senior author at Amherst, Mass., July 17, '17; Battle Pt., Va., June 22, '18; and at Allenhurst, N. J., June 20, '19.

This small species is doubtless in many other collections where it has been confused with *E. striolus* (Pl. V, fig. 6) although it is very distinct in several important characters, especially of the genitalia.

*Euscelis parallelus* (VanD.) as figured (Pl. V, fig. 7) shows the distinct shortening and broadening of the male genital plates, quite distinct from the other two species shown in adjacent figures.