

# Descriptions of some new North American Homopterous Insects

By E. P. VAN DUZEE, BUFFALO, N. Y.

## 1. IDIOCERUS, NERVATUS, n. sp.

Small. Pale green, sometimes paler and tinged with yellow beneath especially on the face. Pronotum in clearly marked examples showing three longitudinal pale vittæ. Basal angles of the scutellum with a blackish spot mostly covered by the pronotum which is there discolored. Elytra hyaline with the nervures very indistinct; the costal, and sometimes one of the discal, pale greenish. Wings hyaline, iridescent, with strong brown nervures which are visible through the elytra as oblique brown lines. Tergum and at times the femora tinged with yellow. Tibiæ and tarsi green with brown spines. Length  $4-4\frac{1}{2}$  mm.

The front is broader in this species than in *pallidus*, its nearest ally, with its sides more oblique and the apex of the clypeus less abruptly expanded. Two last ventral segments of the female of nearly equal length, the ultimate a very little subangularly advanced at the middle, the edge either side nearly rectilinear to the rounded lateral angles. Its form is thus very similar to that of *amamus*. In the males the slender plates are much shorter than in *pallidus*, extending for only about two thirds the length of the pygofers.

N. Y., N. J., Mich. Described from one male and four female examples: One pair taken by me at Lancaster, N. Y. June 28th, 1889; a female taken in New York City by Mr. E. B. Southwick, another taken at Anglesea, N. J. May 28th, by Prof. J. B. Smith and one from Agricultural College Mich., received from Mr. G. C. Davis.

This species may be recognized by its small size, green color, the dusky basal angles of the scutellum, and the brown nervures of the wings which are plainly visible through the hyaline elytra. This may be the *Bythoscopus obsoletus* of Walker but it is impossible to decide without an examination of his type.

## 2. PLATYMETOPIUS LORICATUS n. sp.

Small. Dark brown varied with whitish, face entirely pale yellow. Last ventral segment of the male angularly excavated, valve broadly rounded behind. Length, 4 mm.

Vertex well produced, subacute, twice as long on the middle as next the eye, the edges before the eyes feebly convexly arquated, the hind edge almost angularly excavated. Front unusually narrow, the clypeus a little

expanded at apex. Plates of the male about as long as the valve, triangular, apex acute, the sides a little concavely arcuated and fringed with pale stiff bristles.

Color dark brown tinged with reddish, irrorated and reticulated with pale, vertex with a short white median line at tip and a few longitudinal yellowish dashes forming an angulated broken transverse band before the eyes. Pronotum with five obscure pale longitudinal vittæ. Scutellum paler, varied with yellow on the middle. Elytra spotted with yellowish along its sutural nervure, the costa broadly whitish and crossed by numerous oblique brown veinlets, the disc minutely reticulated with pale along the nervures and marked by about a dozen round white dots in the areoles a few of which are larger. Wings faintly enfumed, iridescent, with strong brown nervures. Face entirely yellow, the front very faintly clouded and minutely irrorated with paler and showing an obsolete pale angular mark at base. Breast and venter nearly black, pruinose, the disc of the plates pale. Femora edged and dotted with pale, the tibiæ pale dotted with brown.

California. Described from four male examples received Mr. D. W. Coquillett. This is a smaller and darker species than *acutus* with the plates and valve much shorter and the face entirely pale yellow. *P. frontalis* has a shorter vertex, the outer margins of the cheeks are brown and the form of the genitalia is quite different.

### 3. **PLATYMETOPIUS FUSCIFRONS** n. sp.

Brown, finely irrorated with pale. Elytra white reticulated with brown, face entirely fulvous-brown minutely irrorated with pale, basal angles of the scutellum orange-fulvous. Vertex shorter and more obtuse than in the preceding species; hind edge but feebly arcuated between the eyes. Pronotum with an obscure slender pale median line. Scutellum tinged with fulvous and marked with an orange-fulvous spot, edged with fuscous, with the basal angles, the outer edge at base and the apex white. Elytra white the nervures and a few reticulations within the areoles, sometimes coalescing, brown; Costal area crossed by about ten oblique brown veinlets; commissural nervure yellowish.

Front broader than in the preceding species, the edges a little sinuated, clypeus contracted on the middle. Face brown, minutely dotted with paler, marked with a pale line behind the eyes and an angular mark on the base of the front. Pleural pieces pale brown more or less invaded with fuscous on their disc. Tergum blackish with a pale margin; venter brown irrorated with paler. Valve of the male large, sinuated on the sides, the apex broadly rounded. Plates broad and short, but slightly exceeding the valve, rounded at apex. Pygofers considerably surpassing the plates, obtuse. Last ventral segment of the female short, of nearly equal length, across its whole width, feebly sinuated on the middle, with an obsolete median keel below, pygofers stout, obtuse, a little exceeded by the oviduct. Length  $4\frac{1}{2}$  mm.

Arizona. Described from one male and two female examples received from the Morrison Collection at Cornell University. These came labelled *P. albopunctatus*, Fitch, but that is a very distinct species inhabiting the United States east of the Rocky Mountains and now known as *P. frontalis*, Van D.

4. **ALLYGUS COSTOMACULATUS**, n. sp.

Form nearly of *Jassus jucundus*, Uhl. Cinerous; elytra irregularly inscribed and marked with four brown costal spots. Length 6 mm.

Head rather tumid, broadly rounded before. Vertex nearly flat, but little longer on the middle than next the eye. Front rather narrow, the sides but feebly arcuated. Clypeus but little expanded apically. Cheeks narrow, scarcely surpassing the loræ, outer angles rounded. Last ventral segment of the female feebly produced on the middle of the apical margin, outer angles rounded; pygofers slender, scarcely exceeded by the oviduct.

Color cinerous tinged with testaceous and clouded with the same color on the discal areoles of the elytra. Vertex whitish before, marked with two brown points at the tip and another above each ocellus; face testaceous; front with about six brown arcs and a brown basal line, sometimes obscure; two points on the disc of the cheeks and the antennal pits brown or blackish. Legs and beneath soiled white with some brown areas on the pleural pieces; two bands on the femora, the tips of the tarsal joints and a row of dots at the base of the tibial spines on the posterior pair, piceous. Abdomen testaceous, an irregular cloud on the base of the venter and the middle of the ultimate segment brown; disc of the tergum blackish either side of the middle. Pronotum irrorate with darker with a row of brown points on the anterior submargin. Elytra sparsely inscribed with brown pigment lines as in *Phlepsius* omitting most of the costal region; disc of the clavus with a brown oblique band, costa with four brown spots three of which are near the apex; nervures brown, the outer branch of the first sector bearing an elongated white spot just beyond the first costal brown point. Wings white iridescent, nervures heavy, brown.

Described from two females received from Prof. Herbert Osborn and labelled "Texas Aaron."

5. **DELTOCEPHALUS, FUSCINERVOSUS**, n. sp.

Form of *D. flavocostatus*. Brown, varied with pale and black, elytral areoles edged with fuscous. Length 3 mm.

Vertex  $\frac{1}{2}$  longer at the middle than next the eye, apex obtuse, disc convex, pale yellowish, marked with a broad black transverse band before the eyes, behind which is a dot near the eye, a curved line nearer the middle and the impressed line dark brown and behind the polished apex are two approximate black points. Face black with a few short arcs, a broken median line on the front, the disc of the cheeks and loræ and the sides of the clypeus, pale tawny yellow. Pronotum with five abbreviated pale longitudinal vittæ, the lateral mere spots, and a few black points on the anterior submargin;

basal angles, median and transverse lines of the scutellum blackish. Elytra pale, the areoles bordered with fuscous and the transverse veinlets marked with white. Breast and abdomen deep black, the narrow edges of the abdominal segments and pleural pieces pale. Legs pale, anterior and intermediate femora twice banded with blackish, the posterior blackish without; tibiae with a row of black points at the base of the spines. Last ventral segment of the male long, hind edge concave; valve small, transverse, rounded behind; plates long, triangular covering the pygofer, more than three times the length of the valve, margins straight, fringed with stout bristles. Ultimate ventral segment of the female  $\frac{1}{2}$  longer than the penultimate, narrowed posteriorly, the hind edge feebly excavated with a minute rounded median tooth, the obtuse lateral angles marked with a tawny spot; pygofer stout, equalling the oviduct, the narrow inner edge and the base of the stout spines pale.

California. Described from a single pair received from Mr. D. W. Coquillett labelled *Cicadula fuscivertosa*, Uhler, M. S. This little species agrees very closely both in color and ornamentation with *D. pulicarius*, Fallen. It seems to be subject to considerable variation in the extent of the black markings especially on the vertex but the form of the genitalia is distinctive.

#### 6. DELTOCEPHALUS, CONCENTRICUS, n. sp.

Head much wider than the pronotum, very feebly angled before. Vertex rounded to the base of the front, but 1.6 longer on the middle than next the eye, disc quite strongly impressed. Sides of the clypeus rectilinear and nearly parallel. Cheeks wide, outer edge deeply excavated below the eye, Pronotum short. Valve of the male a little longer than the last ventral segment, triangular, the apex with a shallow excavation either side of an acute median tooth; plates broad-triangular, apex obtuse; pygofer long, armed with a heavy brush of stout spines at the apex. Length, 4 mm.

Color black, Head fulvous; anterior edge of the vertex with a pale transverse band bordered above and below by a heavy black line; disc with a transverse black spot not attaining the margin of the eyes. Face black; frontal arcs, sides of the clypeus at base with the apex of the front and the lower half of the loræ, yellow. Cheeks pale with a black cloud below the eyes. Pleural pieces, abdominal segments and the valve at base slenderly edged with yellow. Legs pale yellow; base of the anterior femora and its inferior edge, three bands on the intermediate and the posterior below, all the tibiae on their inner edge and tips of the tarsal joints, black; spines of the tibiae pale, those of the pygofer black. Pronotum whitish, fulvous on its anterior border, its disc and a few marks before fuscous. Scutellum fuscous, the margins of the apical field and two spots on the basal either side of the middle, fulvous. Elytra whitish tinged with fulvous on the costa; nervures concolorous; all the areoles bordered with fuscous, the apical enfused.

Mountains of N. W. Colorado. Described from a single male example received from Prof. C. P. Gillette.

7. **ATHYSANUS GAMMAROIDES**, n. sp.

Female: Deep black; slender hind edge of the vertex, a transverse band between the ocelli, bisinuated above, and the apex of the ovipositor fulvous. Rostrum knees and spines of the posterior tibiae pale. Length  $3\frac{1}{2}$  mm.

Front convex in both diameters, its length and breadth equal; clypeus oblong, its sides parallel, base a little elevated, apex and sides depressed. Cheeks broad, strongly angled without where the surface is longitudinally striated. Vertex sloping and broadly rounded before, but little longer on the middle than next the eye. Pronotum broad and short,  $\frac{1}{2}$  longer than the vertex, its surface strongly transversely rugose, and punctured on the anterior margin. Scutellum small, shorter than the pronotum, apex slender, acute, sides concavely arquated, surface closely punctured, with two discal impressions. Elytra short, coriaceous, roughly punctured and shagreened, together nearly square, their apex truncated, reaching onto the second abdominal segment. Abdomen tapering rapidly posteriorly and tipped with the long exerted oviduct. Last ventral segment short, feebly concave behind, the outer angles cut off obliquely.

Described from a single female example captured in Madison Co., Kansas, by my brother M. C. Van Duzee. Another female from Colorado was in a lot received from Prof. C. P. Gillette.

8. **EUTETTIX SOUTHWICKI**, n. sp.

Allied to *E. lurida*, but much smaller with the vertex more sloping and the pronotum more strongly concave behind. Length 4 mm.

Color deep fulvous-brown blotched with pale on the base of the vertex and the anterior margin of the pronotum. Cheeks lute and clypeus tinged with yellow and duller in color; sutures and a cloud below the eye blackish; clypeus more than usually expanded at apex. Pronotum with an obscure pale median line and tinged with greenish on the disc as is also the base of the elytra. Apical margin of the scutellum yellow. Elytra bright smoky-fulvous, a little more embrowned at apex; nervures slender and nearly concolorous, those of the clavus marked with brown at apex. Wings smoky, highly iridescent, imparting a coppery tint to the closed elytra. Pectoral pieces blackish on their disc. Venter pale with three longitudinal more or less distinct bands not attaining the sixth segment, the median broader and carrying a yellow spot at base. Plates with a longitudinal line and tip dusky. Disc of the tergum more or less invaded with black. Legs pale with a row of fine black points on the edges of the femora and some larger dots at the base of the tibial spines. Valve broad and short, rounded behind; plates large, as in *lurida*, acute at apex, outer edge moderately arquated at base and a little concave near the tip.

New York. Described from two male examples taken near New York City by Dr. E. B. Southwick who has added much to our knowledge of the New York hemipterous fauna and to whom this species is respectfully dedicated. By its deep rich

brown color this is quite distinct from any other species yet described. Were it not for its small size it might be presumed to be the male of *marmorata*.

9. **EUTETTIX SLOSSONI**, n. sp.

Form and size of *lurida* to which it is closely allied. Face whitish tinged with fulvous on the clypeus and disc of the front; a dash below the lower angle of the eye, a point at the base of the antennæ and a broad transverse band on the base of the front, black, the latter bisected by a pale median longitudinal line. Eyes rufous. Vertex, pronotum and scutellum pale yellowish, an obscure interrupted band near the base of the pronotum and a few clouds on the basal field of the scutellum fulvous. Elytra whitish hyaline, nervures and broad basal and sutural margins fulvous, deepened in color next the commissural nervure and interrupted by the pale tips of the two claval nervures and a common large oval greenish-white commissural spot just anterior to the tip of the clavus; apical areoles embrowned. Wings hyaline, smoky at tip and somewhat iridescent. Below whitish, pectoral pieces and base of the venter with a large black spot. Tergum yellowish becoming fulvous posteriorly and banded with black on the third, fourth and fifth segments. Pygofers fulvous, nearly equalling the oviduct. Last ventral segment pale, posterior margin excavated either side of an obtuse median tooth almost exactly as in *lurida*. Length  $5\frac{1}{2}$  mm.

Described from one female specimen captured at Charlotte Harbor, Florida, by Mrs. Annie Trumbull Slosson to whom I take pleasure in dedicating this interesting form. It is a typical *Eutettix* agreeing with *lurida* in most of its characters. The elytra are marked somewhat as in *marmorata* but it is smaller. The broad black bisected band on the apex of the head will distinguish this from all our other described species of *Eutettix*.

10. **SCAPHOIDEUS LUTEOLUS**, n. sp.

Form and size of *auronitens*. Dull fulvous-brown, brighter on the vertex and scutellum; apex of the head and base of the vertex whitish in the males, tinged with fulvous in the females; anterior edge of the head with about three concentric black lines, one above connecting the ocelli, another on the extreme edge and the other below at the base of the front. Below pale tawny yellow, tinged with fulvous on the face and marked with a few pale arcs toward the base of the front, apex of the scutellum paler, in the female whitish and calloused. Membrane of the elytra paler with a broad fuscous cloud at apex, the postnodal cell subhyaline, nervures fuscous heavily margined beyond the middle. Wings smoky with strong fuscous nervures. Posterior feet banded with fuscous at the tip of the tibia and base of the second tarsal joint. Abdomen in the male blackish, the segments narrowly edged with pale, last ventral segment and genital pieces pale, the former dusky at apex, tip of the pygofers blackish. The female has the abdomen concolorous with the breast with the seg-

ments narrowly edged with white and with a large black spot at the apex of the last ventral segment. Length 4 mm.

Valve of the male large, obtuse. Plates large, oval, tapering to a slender point, much surpassed by the narrow pygofers. Last ventral segment of the female long at the middle, the outer angles retreating; pygofers slender, surpassed by the thick oviduct.

Described from one female taken at Anglesea, N. J., on July 16th by Prof. J. B. Smith, and three males captured near New York City, by Mr. E. B. Southwick, on July 6th, and August 12th, 1891. In this species the female is more brightly colored than the male with a pale transverse band on the pronotum, and the males when fresh have a large pruinose patch on the middle of the costal margin as in *Acinopterus acuminatus*, *Nestocephalus tessellatus* and a few other species of Jassidae.

#### 11. SCAPHOIDEUS LOBATUS, n. sp.

Form of *immistus* nearly but with a shorter and broader vertex and longer pronotum, elytra fulvous becoming deep brown on the clavus where there is a lobate ivory-white commissural mark. Length 6 mm.

Vertex a little over one half the length of the pronotum. Front proportionately broader than in *immistus*. Color greyish testaceous, whitish above, Vertex faintly washed with brown omitting a white basal area; anterior edge white bordered behind by a wavy brown line; anterior submargin with a deep brown concentric line. Front pale brown with a few obsolete whitish arcs; temples showing a brown dot and a brown cloud covers the antennal depression and invades the cheek outwardly. Pronotum irrorated with brown, with three nearly obsolete longitudinal pale vittæ. Scutellum whitish with four brown marginal points, the basal angles fulvous. Beneath whitish, faintly clouded and marked with brown on the incisures of the connexivum. Tergum brown, the lateral margins and narrow edges of the segments pale. Apical one half of the tarsal joints of the hind feet and a row of dots at the base of the tibial spines, dark brown. Elytra fulvous with the nervures and numerous irregular veinlets or pigment-lines, more regular in the costal areole, dark brown; disc of some of the areoles and a cloud within the apex dark brown; clavus mostly ivory-white with a large irregular fulvous-brown cloud resting on the suture and becoming deep blackish-brown toward the pale commissural nervure where it is bisinuate; this, when the elytra are closed, leaves a white, more or less distinctly trilobate commissural mark which expands over the base of the clavus. Wings smoky, iridescent, with fuscous nervures. Valve of the male small, brown, Plates narrow, their slender recurved tips brown and fringed with long white hairs. Last ventral segment of the female long on the middle, its apical margin feebly sinuated and rapidly retreating either side, median line feebly keeled, extreme tip brown; pygofers brown, a little exceeded by the oviduct and armed with numerous brown bristles.

New York. Described from a fine pair taken at Lancaster, N. Y. and a number of examples of both sexes taken by Mr. E.

B. Southwick near New York city. This pretty species is most nearly related to *S. intricatus* Uhler, from which however it is quite distinct. A pair of the latter, which apparently is a rare species, was captured at Agricultural College, Mich., by Mr. G. C. Davis in Aug. and Sept.

12. **THAMNOTETTIX PERPUNCTATA**, n. sp.

Allied to *T. Fitchi* but smaller and more slender, very similar in color and ornamentation to *Deltocephalus nigrifrons* Forbes. Length  $3\frac{1}{2}$  mm.

Vertex nearly flat,  $\frac{1}{4}$  longer on the middle than next the eye, color pale yellow, greenish testaceous on the pronotum, vertex obsoletely clouded with fulvous near the eyes and behind the apex; four dots placed on the anterior edge superiorly, two on each temple and another on each ocellus; antennal pits, sutures of the face, a line on the middle of the clypeus expanded near the apex, and about six arcs on each side of the front, black. In typical examples the black frontal suture is continued around each compartment of the front connecting with more or less of the lateral arcs, or the front may be black with an interrupted median line and about five short arcs yellow. Cheeks with a brown discal cloud. Abdomen and breast black. Connexivum, margin of the tergum and sometimes the narrow edge of the propleura yellow; tips of the coxæ and the legs pale testaceous, the femora sometimes clouded with brown. Pronotum with about five pale vittæ sometimes nearly obsolete. Scutellum yellow, at times marked with a brown longitudinal vitta, impressed line black. Elytra pale, subhyaline, sometimes clouded toward the apex and on the tip of the clavus, nervures greenish white. Wings whitish hyaline, highly iridescent, nervures slender, brown. Ultimate ventral segment of the female a little concave behind, sometimes with a small median tooth; pygofers acute at apex, hardly exceeded by the stout oviduct. Valve of the male short and rounded, the plates triangular, constricted near their apex, edge but feebly arcuated at base and fringed with long white bristles. In *D. nigrifrons* the plates are broader and more obtuse at apex, with the edges rectilinear or slightly convex and armed with shorter bristles.

This insect, though quite distinct generically from *Deltocephalus nigrifrons* is difficult to distinguish in its specific characters, the markings are almost identical and the form of the facial and genital pieces differ but little. *D. nigrifrons* is much the stouter insect and has a broader front and vertex, the latter more convex and obtuse before and marked with a transverse brown cloud before the middle in *nigrifrons*. *Th. Fitchi* is a larger insect with but four black spots on the anterior edge of the vertex.

New York, N. Carolina, Mississippi. Described from numerous individuals of both sexes received from Mr. Howard Ewart Weed, taken in Miss. The N. C. specimens were collected on



Mt. Balsam, near Asheville, in July, by Mr. J. W. Palmer, Jr. of Buffalo, N. Y. Mr. E. B. Southwick has sent me examples from the vicinity of New York city and I have taken it about Buffalo in August.

13. **THAMNOTETTIX AUREOLA**, n. sp.

Allied to *Th. flavocapitata* but larger with a more pointed vertex. Length 5 mm.

Vertex nearly  $\frac{1}{2}$  longer on the middle than next the eye. Clypeus a little expanded toward its broadly rounded apex. Color pale whitish yellow, deeper on the abdomen; vertex fulvous; eyes rufous, pronotum and scutellum deep fulvous-brown; elytra subhyaline, washed with clear greenish yellow at base and bearing on the sutural margin a large ill-defined smoky patch, which may be extended along the suture to the tip and become broken by the turgid yellow apex of the outer claval nervures, nervures of the corium slender, yellowish. Tergum blackish on the disc; beneath and the feet immaculate. Valve obtuse, triangular, the sides a little concave; plates rather large, subacute, fringed with long white bristles, Wings faintly smoky-hyaline, iridescent, with brown nervures.

California. Described from a single male example received from Mr. D. W. Coquillett labelled *Thamnotettix aureola*, Uhl. It is a beautiful little species quite characteristic of this genus which seems to be well represented on the Pacific Coast.

**TINOBREGMUS**, n. g.

Allied to *Jassus*. Head narrow, short conical, obtuse. Vertex narrow, widened anteriorly, and expanded posteriorly behind the eyes, tumid before. Ocelli on the vertex near its apex. Front rather strongly elongated; temples very narrow. Eyes large. Clypeus large; Cheeks long and expanded below; loræ small and narrow. Pronotum short, wider than the head, the anterior and posterior margins subparallel scutellum very small, scarcely apparant. Elytra abbreviated, reaching the middle of the abdomen, first sector forked before its middle, the inner branch with one transverse nervure connecting it with the second sector, apical areoles five, the outer much larger and formed by the forking of the outer branch of the first sector. Wings rudimentary. Rostrum short, scarcely surpassing the elongated clypeus. Posterior tibiae armed with numerous stout spines.

This genus is remarkable for its very small scutellum and its elongated face. The head is narrower than the pronotum and the eyes are angled behind leaving a triangular area either side at the base of the vertex. The pronotum is very short and the base of the front is reflected onto the apex of the vertex leaving the ocelli distinctly superior. This character and the elongated face seem to connect this genus with the *Tettigonido* near genus *Eucanthus* but its true position is probably near *Jassus*.

14. **TINOUREGNUM VITTATUS**, n. sp.

Form of *Liburnia vittatiformis* Uhler nearly; tawny yellow marked with darker. Length  $6\frac{1}{2}$  mm.

Vertex twice as long as its least width, its disc slightly raised above the level of the eyes, shagreened and obliquely furrowed anteriorly, ocelli a little more distant from one another than from the eyes. Front feebly convex, closely punctured, its length three times the width at the extremities, sides moderately arcuated. Clypeus as broad as the apex of the front, slightly widened to the point of the cheek then narrowed to the broad apex which is excavated for two thirds of its width. Loræ narrower than the clypeus and about one-half its length. Cheeks about the breadth of the front, widest opposite the base of the clypeus, sides parallel above, surface distinctly wrinkled without. Pronotum shorter than the vertex, the sides rounded, ecarinate, disc obsolete transversely wrinkled. Pygofers large considerably exceeded by the stout oviduct. Last ventral segment long, feebly keeled, the hind edge subangularly produced on the middle. Hind tarsi elongated, first joint longest, second short.

Color pale tawny yellow. An arcuated spot behind each ocellus and the basal sutures of the front piceous; front marked with a broad longitudinal vitta on each side in which may be indications of transverse striæ; pronotum with six longitudinal vittæ, the middle pair fulvous, the others piceous. Elytra dusky-fulvous with heavy pale nervures and about four fuscous spots next the apex. Tergum mostly black at base, the four apical segments with an obscure transverse brown band across the middle of each and a common indistinct median line; genital segments piceous on the sides. Pectoral pieces mostly black which color may be extended over the coxæ and base of the venter.

Florida. Described from two female specimens received from Mr. C. W. Johnson of Philadelphia.

**XESTOCEPHALUS**, n. g.

Trans. Am. Ent. Soc. XIX, p. 298, Dec. 1889.

Form ovate, Head narrower than the pronotum tumid or subconical and rounded before, closely punctured, without rugæ, Vertex sloping, convex in both diameters, ocelli on the rounded anterior edge of the head, placed a little superiorly and distant from the eyes. Front very broad above, tapering rapidly to the broad and short clypeus. Cheeks wide; temples very narrow, antennæ crowded close against the eyes, basal joint rather long. Eyes subtriangular, a little excavated against the antennæ. Elytra almost coriaceous, more or less rugose or punctured, appendix wanting; inner branch of the outer sector united to the second sector by two transverse nervures; apical areoles five, the postnodal large, the second still larger; anti-apicals three, the outer small and narrow, the middle as large as both the others. Wings forming a narrow margin exterior to the costal nervure, the latter forked at the stigma, the outer branch evanescent, the inner united to the outer branch of the adjoining nervure by a transverse veinlet long before the apex; marginal vein extending only to the inner sector as in *Acecephalus*; the four apical nervures either attain the edge of the wing or they end blindly.

The three known species of this genus are shiny little creatures of a brown mottled aspect. The termination of the marginal nervure of the wing before the apex and the position of the ocelli will at once show their relationship with *Acocephalus*, from which genus their tumid punctured head will separate them. The ocelli are placed more inferiorly than is usual in the *Acocephalina* on account of the encroachment of the vertex onto the base of the front.

15. **XESTOCEPHALUS PULICARIUS**, n. sp.

Brown varied with pale yellowish. Vertex twice as long on the middle as next the eye, marked with a double pale median line which is deflected to either side just before the tip and runs parallel with the anterior edge to the outer angle of the eye. Sometimes this line forms a loop behind the ocellus where it may break and form a dot on the disc: Usually there is a dot at the basal angle of the eye, a line between the ocellus and eye and two concentric wavy lines on the base of the front: apex of the head fulvous. Pronotum marked with four dots on the anterior submargin, the outer angles, a dot adjoining and a few obscure marks on the disc. Basal field of the scutellum with two median pale vittæ, diverging posteriorly, apical field pale, dusky on the disc. Elytra brown marked with one or two whitish spots in each areol except the costal which is subhyaline nearly to its base. These spots frequently become confluent along the inner margin of the corium and at its apex. Face tawny yellow, more or less washed with brown especially on the front and loræ. Beneath and legs tawny, posterior tibiæ and base of the venter generally embrowned. Last ventral segment of the female emarginate at the middle leaving a feebly rounded lobe on either side; pygofers triangular, broad at base, the acute tip moderately exceeded by the stout oviduct. Ultimate ventral segment of the male nearly double the length of the penultimate, its posterior edge broadly excavated. Valve scarcely apparent, slightly arcuated behind: plates ligulate at base, tapering beyond the middle to the obtuse apex which is fringed with long, soft white hairs and armed along the inner edge with a few stout spines. Length  $2\frac{1}{2}$  to 3 mm.

New York, Canada. This pretty little insect is sometimes abundant in August and Sept. about Buffalo in swampy pastures where *Carex vulpinoidea* grows. I have also taken it at Ridgeway Ont., and Mr. E. B. Southwick has sent me two examples captured near New York City in August. The markings of the vertex and pronotum are at times partially obliterated but the geminate median line on the vertex and the divergent vittæ on the base of the scutellum seem to be constant.

16. **XESTOCEPHALUS FULVOCAPITATUS**, n. sp.

A little larger than the preceding with the head clay-yellow or tinged with fulvous, generally immaculate except a brown spot on the loræ and a black cloud beneath the antennæ, sometimes the females exhibit an oblique brown dash on either side on the disc of the vertex. Pronotum and scutel-

lum pale brown or tawny yellow. In fully colored examples the former has a blotch behind the eyes and the basal angles of the latter are brown, frequently these marks are absent and the apex of the scutellum may be fulvous like the vertex. In this form the elytra are more distinctly marked than in *pulicarius*. On the corium are two semipellucid spots at base and about six at apex, more or less coalescent; an oval spot on the base of the anti-apical areoles and two more, sometimes forming a band before the middle, are whitish. Wings milky with the nervures at apex brown as in the preceding species. Abdomen brown with the convexum, edge of the tergum, apical half of the last ventral segment and narrow margin of the others, pale. Genital characters as in *pulicarius*. Length  $3\frac{1}{2}$  mm.

New York. Of this species I have taken one male and four female examples at Lancaster, N. Y., in August and September in company with the preceding of which it may prove but a variety.

#### 17. **XESTOCEPHALUS TESSELLATUS**, n. sp.

Pale testaceous. Vertex with dark-brown irrorations which become aggregated either side of the middle; ocelli placed on large pale dots; face brown irrorated with pale in the female, or pale and nearly immaculate in the male. Pronotum testaceous-brown, darker on the disc, irregularly irrorated with pale and marked with a blackish spot behind the inner angle of the eye. Scutellum pale brown, obsolete'y dotted with paler, the basal angles and sometimes a line between them partly covered by the pronotum, blackish; the apex pale. Elytra testaceous, the nervures alternated with dark brown and white; a mark on the base of the clavus, two quadrate spots on the costa including two dots between them, blackish; apex of the elytra paler marked with four large squarish, brown marginal spots. Wings white with pale brown nervures. Disc of the tergum, base of the venter and some clouds on the pleural pieces brown. Apical margin of the last ventral segment of the female feebly concave and minutely notched at the middle; pygofers proportionately a little shorter than in *pulicarius* and the plates of the male are more strongly narrowed from near the base to a slender point. Valve concealed. Length 4 mm.

Charlotte Harbor, Florida, Mrs. Annie Trumbull Slosson; Mississippi, Howard Ewarts Weed; Texas, "Aaron." Described from one male and four female specimens. This species is larger than the foregoing and may be distinguished by its irrorated vertex and pronotum, the blackish basal angles of the scutellum, the testaceous elytra marked with large marginal brown spots, and the variegated elytral nervures. Most of the specimens show a large oval white pruinose spot on the middle of the costal margin of the elytra, but this may be characteristic only of the breeding season.