

species when superficial characters left it in doubt. It has removed individual judgment as a factor in many cases and allows a final appeal in cases of difference. There is no universal test character, however, and as with all others so sexual characters sometimes fail. Over one hundred species referred to *Carneades* have so nearly the same form of structure that there is no sufficient variation to have specific value in doubtful cases. In some other groups, however, no two species are alike, and the widest variance within generic limits allows definite specific limitation.'

"As I wrote the description of *Æ. Alberta* and the paragraph immediately following, I may be allowed to point out for the information of anyone who may be disposed to accept Mr. W. H. Edwards's statement that *Alberta* and *varuna* cannot be distinguished from each other, that the former may be distinguished from the latter (amongst other points) by the whitish veins on the hindwing below, the absence of fulvous colouring except on the hindwing above, and the presence of a tooth or projection near the middle of the upper edge of the clasp in the male; all which particulars appear, with others, in the description in question."

JAMES EDWARDS, Colesborne, Cheltenham, England."

April 2nd, 1894.

NEW NORTH AMERICAN HOMOPTERA, No. VIII.

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

I. *ATHYSANUS ANTHRACINUS*, n. sp.

Allied to *A. plutonius*, Uhl. Deep, black, highly polished, tibiæ and tarsi of the anterior and intermediate feet yellow. Length, $3\frac{1}{2}$ mm.

Head shorter and more rounded before than in *plutonius*, closely punctured. Vertex $\frac{1}{3}$ longer on the middle than next the eye, sloping and strongly rounded to the base of the front, median carina very feeble; ocelli and two dots on the hind margin fulvous. Antennæ, the basal joint excepted, pale; about six obscure arcs on the front and the rostrum, excepting its tip, fulvous. Sides of the clypeus parallel, tip feebly rounded. Knees, tibiæ and tarsi of the anterior and intermediate feet pale yellow; slender hind edge of the ventral segments fulvous. Pronotum obscurely wrinkled, more prominently rounded before than in *plutonius*. Scutellum closely punctured. Elytra almost coriaceous, deep piceous black, shagreened; nervures inconspicuous. Wings deep smoky brown, nervures blackish.

Valve of the male rather large, rounded. Plates long-triangular, exceeding the pygofers, rounded at apex and armed with a few tawny marginal bristles. Last ventral segment of the female longer than the penultimate, feebly concavely arcuated either side, the lateral angles quite strongly produced, subacute; pygofers short and thick, blunt at apex and armed there with a few feeble bristles, a little surpassed by the oviduct.

Iowa, Kansas and Colorado. Described from one female and two male examples. The Kansan specimen was captured at Madison, by M. C. Van Duzee. That from Iowa I owe to the kindness of Prof. Herbert Osborn, and the example from Colorado is from Prof. C. P. Gillette. Prof. Osborn's specimen came labelled *Conogonus gagates*, Ashm., and in the National Museum is an example labelled *Scleroracus anthracinus*, Uhler. I have adopted Mr. Uhler's specific name as very appropriate for this deep black little Jassid, but I can find no characters to separate it generically from *Athysanus*. Its highly polished semi-coriaceous elytra are peculiar, but hardly constitute a generic character. This insect superficially resembles *Goniagnathus Palmeri*, but they are very distinct.

2. EUTETIX JOHNSONI, n. sp.

Form of *Paramesus Twiningi*. Bright orange-fulvous maculated with white. Anterior edge of the vertex acute, marked above with six black points and below with an interrupted black line. Length, 4-4½ mm.

Head nearly as wide as the pronotum. Vertex flat, depressed, $\frac{1}{4}$ longer on the middle than next the eye, anterior edge acute. Front strongly narrowed below. Clypeus a little expanded toward the rounded apex. Pronotum not twice the length of the vertex, sides rather long, obtusely carinated; latero-posterior angles rounded. Valve of the male broad-triangular, apex truncated; plates broad and short, little more than twice the length of the valve, rounded behind with a short obtuse tip, heavily fringed with soft white hairs; pygofers short, truncated, with a few long white bristles. Last ventral segment of the female long, rounded, sinuated next the lateral angles, produced in a short acute tooth either side of a narrow acute median notch. Pygofers broad, tapering suddenly from the apex of the connexivum to the acute tip, which is somewhat surpassed by the stout oviduct, the sides nearly rectilinear.

Colour bright orange-fulvous, paling to almost yellow beneath and on the legs, and marked with yellow on the anterior edge of the vertex, apex

of the scutellum and more obscurely on the sides of the pronotum and tergum. Two spots on the base of the vertex, three longitudinal lines on the pronotum, the lateral broader and abbreviated before, the basal margin of the clavus, and about eighteen spots on the elytra, white; the latter coalescing in places, and forming about four transverse bands; the two transverse veinlets bounding the postnodal areole brown; nervures fulvous, rather strong. Wings faintly enfumed, highly iridescent, nervures brown. Anterior edge of the vertex with six black points, the two median approximate; base of the front with a black concentric line, crossing the temples and interrupted at the middle and below each ocellus. Claws and antennal setae brown. Tibial spines deeper fulvous. Face with an obsolete pale median line.

The male is a little more deeply coloured than the female, and has the two inner transverse nervures beyond the apex of the clavus brown, and the wings are more deeply fuliginous.

Described from one male and two female examples taken at Philadelphia, Pa., by Mr. C. W. Johnson. This is, perhaps, the most delicately beautiful little Jassid as yet described from our fauna, and it affords me pleasure to dedicate it to Mr. Johnson, who has brought to notice many interesting forms of the *Jassidae* from Eastern Pennsylvania and New Jersey.

This is the smallest species of *Eutettix* yet described. It has nearly the colour and markings of *Paramesus vittellinus*, and the size and form of *P. Twiningi*, and might readily be mistaken for a member of that genus, but the elytral neuration and most of its characters are those of *Eutettix*.

3. *EUTETTIX CLARIVIDA*, n. sp.

Form nearly of *Eutettix seminuda*. Pale greenish-yellow, anterior edge of the vertex with a distant pair of large black spots and two brown points at the apex. Length, $4\frac{1}{2}$ to 5 mm.

Vertex hardly $\frac{1}{4}$ longer on the middle than next the eye, just $\frac{1}{2}$ the length of the pronotum; marked with an impressed median line on the base, either side of which is the usual impressed area near the outer angle of the disc, and anteriorly is the transverse subapical depression common to this species of this genus. Front $\frac{1}{4}$ longer than wide, clypeus scarcely expanded apically; cheeks as in *seminuda*. Valve of the male broad-triangular, about the length of the last ventral segment; plates about twice the length of the valve, their outer edges distinctly arquated near

the base ; pygofers exceeding the plates, obtuse. Ultimate ventral segment of the female rather long, hind edge rounded with a short, abrupt median projection or tooth, about twice as broad as long ; pygofers broad, a little surpassed by the stout oviduct.

Colour : Entire insect pale greenish-yellow, polished, paler on the head and beneath, tips of the tarsal joints embrowned, extreme apex of the rostrum black, anterior edge of the head with a round black spot placed just above and within each ocellus, and two minute equidistant brown points between these on the apex. Mesonotum and sometimes the basal tergal segments black. Eyes brownish. Elytra subhyaline with strong yellowish nervures.

Colorado. Described from two male and four female examples received from Prof. C. P. Gillette. Except in its want of ornamentation this insect is closely related to *Eutettix seminuda*, Say, like which it approaches *Thamnotettix* in many of its characters. But its broader form, the characters of the vertex and the wide front will indicate its relationship.

4. *CICADULA LEPIDA*, n. sp.

Very near *C. diminuta*, Leth, but larger, with the front narrower and less tumid below, and with the clypeus broader at apex. Length, $3\frac{1}{2}$ to 4 mm.

Colour pale yellow somewhat intensified on the abdomen and tinged with green on the vertex. Head marked with two points placed near the hind edge of the vertex about midway between the nearly obsolete median line and the eyes, two large transverse spots at apex, on the basal sutures of the front. A vertical mark either side between the ocellus and eye, about three very short frontal arcs, and a spot at base of the antennæ ; all black. Eyes, frontal sutures below the antennæ, tips of the tarsal joints and a row of minute points at the base of the tibial spines, brown. Disc of the tergum, oviduct, claws and tip of the rostrum black. Elytra whitish, pellucid, faintly tinged with yellow at base and smoky at tip ; nervures slender, pale yellow. Wings white. Last ventral segment short, hind edge entire, very slightly rounded ; pygofers bearing a few white bristles at tip, scarcely surpassed by the oviduct.

Described from two female examples, Kansas, July, Prof. F. H. Snow. New York City, June, Mr. E. B. Southwick. Prof. Snow's specimen was taken at electric light, in Dodge Co., Kansas.