NEW GENERA AND SPECIES OF XYELIDÆ AND LYDIDÆ.*

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The most of the following descriptions have been in manuscript for many months. The names in this paper and some others to be published later are to be used in another place, and they are offered for publication at this time for that reason.

Paraxyela, n. gen.—Front wings with the free part of M arising distinctly before the point of separation of R and Sc₂, the free part of R₅ distinctly shorter than R + Sc₂, frequently less than one-half the length of R + Sc₂; the hind wings with the free part of R₅ present; clypeus triangular in outline, the median portion two or three times as long as the lateral portions; the antennæ with the third segment longer than all the following segments together; the claws cleft, the two parts of the cleft parallel. Type, *Xyela tricolor* Nort.

Macroxyela bicolor, n. sp.—Male: head with a flat depressed area in front of the median ocellus, never crossed by the median fovea; median fovea represented by a linear smooth spot only slightly if at all depressed below the surface of the front; the area of the head between the antennal sockets and the ocellar furrow blackish and coarsely punctured, the remainder of the head and the notum finely shagrinèd; antennæ with the third segment five times as long as all the following segments together; the fourth and fifth segments subequal, each longer than any of the following segments; the body black with the clypeus, the labrum, the malar space, the supraclypeal area, the basal plates at sides above the abdomen, and the legs, rufous. Length, 8 mm.

Habitat.—Columbus, Ohio. Professor J. S. Hine, collector.

Differentiated from the males of all other species of the genus known to me by the greater abundance of rufous.

Macroxyela obsoleta, n. sp.—Female: head with a flat depressed area in front of the median ocellus, never crossed by the median fovea; median fovea a broad, flat, indistinct, depressed area, more distinct near the median ocellus; antennæ with the third segment many times longer than all the following segments together, with a black ring at base; the fourth, fifth and sixth segments subequal in length, the following segments shorter; the head below the ocelli sparsely, coarsely punctured; front wings with

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the radial cross-vein much nearer the point of separation of R_4 than the radio-medial cross-vein; the saw-guides strongly convex above on the basal half and straight or slightly convex below; the body rufous with a spot about the ocelli, a spot near the base of each wing, and the base of the abdomen more or less black. Length 8 mm.

Habitat.—Ithaca, N. Y. J. O. Martin, collector.

Similar in appearance to *infuscata* Norton, but readily separated by the sculpture of the head.

Macroxyela distincta, n. sp.—Female: head with a flat depressed area in front of the median ocellus, never crossed by the median fovea; median fovea a distinct, narrow, elongate, diamond-shaped depression, flat on the bottom; antennæ with the third segment many times longer than all the following segments together; the fourth, fifth and sixth segments subequal in length, the following segments shorter; the head below the ocelli roughened by elongate punctures; the radial cross-vein nearer the point of separation of R_4 than the radio-medial cross-vein; the saw-guides convex above on the basal half and straight below; the body rufous with two spots on the lateral lobes of the mesonotum, and the postscutellum black. Length 8 mm.

Habitat.—Ithaca, N. Y. J. O. Martin, collector.

The male is black with the clypeus, labrum, legs and venter, except at base, apex, and lateral margin of abdomen for the most part, yellowish-rufous.

Separated from *infuscata* Norton and *distincta* Mack by the form of the median fovea.

Protoxyela, n. gen.—Front wings with the free part of M arising distinctly before the point of separation of R and Sc_2 , the free part of R_5 distinctly shorter than $R + Sc_2$, frequently less than one-half the length of this vein; the free part of Sc_2 almost twice as long as the free part of Sc_1 ; Sc_1 much more oblique than Sc_2 ; the cell R_3 usually divided by a supernumerary cross-vein; the hind wings with free part of R_5 present; the clypeus not triangular in outline, the median portion but little if any longer than the lateral portions; the antennæ with the third segment as long as all the following segments together; the claws with an erect tooth at middle. Type, *Xyela cenia* Nort.

Itycorsia angulata, n. sp.—Female: body olivaceous with the basal segments of the antennæ, the clypeal suture, the furrows of the head, the postocellar area in great part, two irregular spots on the posterior orbits,

a crescent-shaped mark on each side on the vertex between the postocellar area and the orbital spot, an irregular band between the dorsal margins of the compound eyes, including the ocelli, the pronotum except the lateral and caudal margin, a spot on the cephalic half of the median lobe of the mesonotum, a spot on each lateral lobe, a round spot on the disk of the mesonotum, the dorsum of the metathorax in great part, the basal plates, the pleural and sternal sutures, and the caudal surfaces of the femora, for the most part, black; the median fovea a pit nearer the ocelli than the antennæ, with a tubercle at its ventral end; antennæ with about thirty-five segments, the third segment as long as the next two; the postocellar area broadly convex, higher than the ocelli; mesal eye-margin distinctly angulate; the head sparsely, punctately roughened except the declivous area, which is polished; front wings with the free part of R_5 and the radial cross-vein interstitial. Length 14 mm.

Habitat.—Axtun, N. Y. (C. O. Houghton and the author, collectors); Manchester, Conn. (A. B. Chamberlin, collector); Wallingford, Conn. (J. K. Lewis, collector).

This species is closely allied with *luteomaculata* Cress.

Cephaleia distincta, n. sp.—Male: Body black with the clypeus, the supraclypeal area, the head between the compound eyes and the antennal sockets, a faint spot on each vertical furrow, the posterior orbits, the tegulæ, a band on the mesopleuræ, the prosternum, the legs beyond the coxæ and the lateral margin of the abdomen, yellow; antennæ with about twenty-five segments, the third segment longer than four and five together; the median fovea extending to the median ocellus; the clypeus slightly carinated; the head sparsely punctured, punctures confluent in the region above the antennal sockets; the mesonotum sparsely punctured; the scutellum almost smooth. Length 10 mm.

Habitat.—Mt. Washington, N. H.; Mrs. Annie Trumbull Slosson, collector.

This species would fall in a table near *mathematicus* Kirby, from which it can be differentiated by the black head.

Cephaleia criddlei, n. sp.—Female: body black with the clypeus, a spot on the inner margin of the compound eye, a broad spot on each vertical furrow, the posterior orbits, a long spot on the lateral lobes of the mesonotum including the scutellum and the dorsum of the abdomen, and extending as an angulated band along the lateral margin, rufous; the antennæ beyond the pedicel, and the legs beyond the tip of the femora,

yellowish white; the head deeply, sparsely punctured; the pleuræ and notum deeply, closely punctured; the median fovea indistinct, not connected with the median ocellus; the wings with a dusky band in the region of the stigma. Length 14 mm.

Habitat.—Aweme, Manitoba; Norman Criddle, collector.

This species is similar to *fascipennis* Cresson. The densely banded wings will differentiate it.

Cephaleia jenseni, n. sp.—Female: body rufous with dusky spots on the antennal sockets; median fovea, posterior orbits, postocellar area, the meson of the prothorax and line at sides of the prothorax, a line on the median lobe of the mesonotum, the coxæ and the cephalic and caudal margins of the femora, black; the posterior orbits and the antennæ, white, somewhat rufous at base; median fovea a rounded pit; median ocellus in a rounded depression; the head sparsely punctured; the median lobe of the mesonotum, the shoulders of the lateral lobes and the scutellum, polished; the remainder of the notum sparsely punctured; the third segment of the antennæ longer than the fourth and fifth together; the wing-veins brownish, slightly infuscated along the veins. Length 11 mm.

Habitat.—Eagle Bend, Minnesota. J. P. Jensen, collector.

This species is similar to *criddlei* Mack. It lacks the fuscous banded wings and the form of the median fovea is different.

Pamphilius transversa, n. sp.—Female: body black, with the clypeus, the face, the first segment of the antennæ beneath, the antennæ on its apical third, the cheeks, the posterior orbits, the tegulæ, the scutellum, the legs except the posterior tibiæ, and the abdominal segments three and four and part of five, varying from whitish to yellowish and rufous; the wings hyaline; the veins brownish; the stigma dark; the head finely sparsely punctured; the notum almost smooth, sparsely punctured on the posterior angles; the scutellum roughened; the antennæ with the third segment wider and slightly longer than the fourth; antennæ with about twenty-eight segments; the mesopleuræ finely roughened and setaceous. Length 12 mm.

Habitat.—Franconia, New Hampshire. Mrs. Annie Trumbull Slosson, collector.

This species is similar to *perplexa* Cresson.

Pamphilius dentatus, n. sp.—Body black with the terminal half of the antennæ, the clypeus, a dentate spot on the inner orbits extended as a parenthesis-shaped mark to the caudal aspect of the head; an emarginate

spot in front of the median ocellus and an angular line behind it, a parenthesis-shaped mark at the lateral margin of the vertical furrow, the margin of the pronotum, the tegulae, the V-spot, the scutellum, the postscutellum, a spot on humeral angle beneath the wings, the front and middle legs and the hind legs except the tibiae, white; the abdomen rufous beyond the basal plates; antennae with about twenty-seven segments; supraclypeal area carinated; head depressed about the median ocellus, sparsely punctured; declivous area smooth; median lobe of mesothorax smooth, lateral lobes densely punctured and scutellum sparsely punctured: wings hyaline; veins brownish. Length 8-10 mm.

The male differs in having the entire declivous area yellow and the notum, except the scutellum and the postscutellum, black.

Habitat.—Wilbraham, Mass.—J. O. Martin, collector. Hamden, New Haven, and Wallingford, Connecticut—B. H. Walden, collector.

This species is near *rubi* Rohwer.

Pamphilius fletcheri, n. sp.—Male: body black with the front and clypeus below the transverse ridge, the proximal segment of the antennae beneath, the apical half of the antennae, the inner and posterior orbits, a line on each side of the caudal margin of the head, a narrow line on the collar, the tegulae, the scutellum, the postscutellum, and the legs except the posterior tibiae, the tarsi becoming more or less rufous, white; abdominal segments three to five rufous; antennae with about twenty-six segments, the second and third segments equal in length; the declivous part of the head roughened; the median ocellus in a heart-shaped depression, the apex being behind the ocellus, the median fovea a pit below this depressed area; the head strongly elevated and roughened on each side between the lateral ocelli and the compound eyes; the mesonotum polished; the scutellum sparsely punctured; wings hyaline. Length 8 mm.

Female.—Body black, with an anchor-shaped area on the head, the front margin of the clypeus, the mandibles, the distal half of the antennae, a line on the posterior orbits, the cheeks, the inner orbits, bifurcating near the middle of the compound eyes, one part extending obliquely toward and almost to the lateral ocelli, the other extending along the margin of the compound eyes, swollen at their upper inner margin, narrowed again on the posterior orbits, triangularly expanded at the caudal margin of the head and extending along its caudal margin on each side, two spots in front of the median ocellus, a line on the collar, the tegulae, two converging bars on the median lobe of the mesonotum, the scutellum, the post-

scutellum, and the legs below the middle of the coxæ, except the distal five-sixths of the posterior tibiæ, white; the abdomen beyond the first segment rufous; the head and mesonotum sparsely punctured; the third segment of the antennæ distinctly longer than the fourth; antennæ with about twenty-four segments; the median foveæ wanting; the median ocellus located in a heart-shaped depression; the frontal declivity broadly and deeply broken by the antennal furrows; wings hyaline, the veins and stigma brown. Length 9 mm.

Habitat.—St. John, New Brunswick.

Described from two males and a female received from Dr. C. Gordon Hewitt, Division of Entomology, Ottawa, Canada, where the type is deposited. These specimens were reared from larvæ received from St. John, New Brunswick. The larvæ feed on the leaves of raspberry (see Annual Report of Experimental Farms for year 1899 (1900), pp. 180-181). The species is named for the late Dr. James Fletcher.

This species is near *rubi* Rohwer and *dentatus*.

SMERINTHUS CERISYI KIRBY AND *SMERINTHUS OPHTHALMICUS* BDV.

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It is not very often that I take notes on Sphingidæ, or take much notice of them at all outside my own district; but recent observations casually brought to my notice the fact that two good species were probably involved under the above two names, though I had long ago taken it for granted that such was not the case, and I became immediately interested, and followed the matter up. My first observation in the matter was made while I was somewhat hastily glancing through this family in Mr. Winn's collection at Montreal last January. Thereon I wrote: "Under *cerisyi*, two specimens, Biddeford, Me. and Montreal; have much crenate s. t. lines and apical mark almost lunate as in *geminatus*," and "two from B. C. under *ophthalmicus* have lines fairly even, wavy, and apical marks not lunate." Shortly afterwards, whilst in England, I compared this note with Kirby's figure and concluded that it must really represent the form I have so long known as *cerisyi* at Calgary which is the one Mr. Winn has taken on the east coast. Kirby's figure is probably somewhat exaggerated, and has the apical mark almost as lunate, well defined and contracting as *geminatus*. The dark marks near the anal angle of primaries are also more

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