

*Director ex-officio* (Ontario Agricultural College).—Professor Wm. Lochhead, Guelph.

*Librarian and Curator*—J. Alston Moffat, London.

*Auditors*—J. H. Bowman and W. H. Hamilton, London.

*Editor of the Canadian Entomologist*—Rev. Dr. Bethune, London.

*Editing Committee*—Dr. J. Fletcher, Ottawa ; H. H. Lyman, Montreal ; J. D. Evans, Trenton ; W. H. Harrington, Ottawa ; Prof. Lochhead, Guelph.

*Delegate to the Royal Society*—Rev. Dr. Bethune, London.

*Delegates to the Western Fair*—J. Dearness and Dr. Bethune, London.

*Committee on Field Days*—Dr. Wolverton, Messrs. Balkwill, Bowman, Elliott, Law, Percival, Rennie, and Saunders, London.

*Library and Rooms Committee*—Messrs. Balkwill, Bethune, Dearness, Moffat, and Saunders, London.

The following gentlemen were unanimously elected Honorary Members of the Society :

DR. L. O. HOWARD, United States Entomologist, Washington, D. C.  
PROFESSOR JOHN B. SMITH, Sc. D., Rutgers College, New Brunswick,  
N. J.

PROFESSOR F. M. WEBSTER, Wooster Ohio.

PROFESSOR H. F. WICKHAM, Iowa City, Iowa.

#### SOME NEW DELTOCEPHALINÆ (JASSIDÆ).

BY E. D. BALL, FORT COLLINS, COLORADO.

##### *Deltocephalus callidus*, n. sp.

Form and general appearance of *signatifrons* nearly, more robust, venation slightly variable, resembling that of *compactus*. Length 3 mm.; width 1 mm.

Vertex obtusely angulate, one-sixth wider at base than its middle length, scarcely equalling the pronotum; front long and narrow, but slightly wider than clypeus below; pronotum more than twice wider than long; elytra equalling the abdomen, rather broad, outer claval area slightly reticulated, central anteapical cell usually divided:

Colour: pale creamy white, vertex with a triangular spot either side the apex, an interrupted bar before the ocelli and an ocellate spot on either side at the base, fuscous or black; pronotum irregularly marked with olive and fuscous; elytra with the nervures light, margined with

brownish fuscous, interrupted on a distinct band across the second cross-nervure and the first apical veinlet; below dark, the lower half of face light, with the sutures and a spot on the clypeus fuscous.

Genitalia: female, ultimate ventral segment convex, one-third longer than penultimate, posterior margins roundly emarginate from the acute lateral angles, produced on the middle third into a rounded process which is triangularly notched at the apex, lateral angles light, median process black.

Described from three female specimens from Pullman, Wash. (C. V. Piper).

*Deltocephalus ordinatus*, n. sp.

Similar to *collinus* in form, but with a shorter vertex, vertex shorter than in *Melzheimeri*. Pale straw yellow with brownish olive markings. Length 3.5-4 mm; width 1.5 mm.

Brachypterous form: vertex slightly obtusely angulate, the margin blunt and rounding, one third longer on middle than against eye, as long as the pronotum, slightly wider than long; face as in *collinus*, front rather broad, lateral margins convex; pronotum broad, but slightly emarginate posteriorly; elytra broad and short, exposing the two last abdominal segments, apex evenly rounding from both sides, the apical cells very short; wings rudimentary.

Macropterous form; vertex longer, right-angled; elytra and wings exceeding the abdomen, apical cells long, the appendix present, central ante-apical cell long and parallel margined.

Colour: vertex with the lateral margins and a median stripe, widening posteriorly, pale straw yellow, the disc on either side brownish olive; pronotum with four brownish stripes; elytra pale subhyaline yellowish, more or less of the fuscous on the sides of the abdomen showing through; face pale olive with lighter arcs, below pale yellow.

Genitalia: female, ultimate ventral segment equalling the penultimate, posterior margin roundly emarginate for one-third the distance from the lateral angles, then produced into a pair of slightly divergent, acutely angular processes between which is a short rounding tooth.

Described from six females from Marshall's Pass and one from Ft. Collins, Colo., all taken by Prof. Gillette.

√*Deltocephalus paludosus*, n. sp.

Somewhat resembling *auratus*, but with the elytra flaring rather than compressed. Colour lemon yellow in female, greenish yellow in male.

Elytra with black spots either side of the apex. Length 3.5-4 mm; width 1 mm.

Vertex roundly rectangular, the margins obtusely rounding, apex subconical, length and width about equal, shorter than the pronotum; pronotum twice wider than long, broadly produced between the eyes, posterior margin nearly straight; elytra equalling the abdomen in the female, slightly longer in the male; venation as in the female of *auratus*, the second cross nervure seldom present.

Colour: female pale lemon yellow, the eyes deep green or fuscous, a spot in the second apical and another in the anal cell, and sometimes a line around the apex fuscous; male greenish yellow, the face and vertex sometimes orange, eyes and a spot in each apical cell fuscous, those in the third and fourth coalescing into a line on the margin.

Genitalia: female; ultimate ventral segment equalling the penultimate, the lateral angles somewhat produced, between which the posterior margin is nearly truncate, a large median triangular notch, either side of which there is a black spot. Male: valve long, the apex rounding, plates as broad at the base as the ultimate segment, regularly narrowing to one-half that width at their truncate apices, width at base and length about equal, margins reflexed and armed with stout hairs, a fuscous spot on the tip of each plate and a small black one before it.

Described from twenty-five specimens taken from *Carex*, Ft. Collins, Colo.

*Deltocephalus castoreus* n. sp.

Short compact, with a short conical vertex. Black, with light markings on vertex and three subhyaline light bands on elytra. Length 2.5 mm; width 1 mm.

Vertex conical, obtusely angulate, equalling the pronotum, its basal width one-third greater than its length on middle, anterior margin roundly narrowing to the broad convex front, which is roundly narrowing below to the broad parallel margined clypeus; clypeus two-thirds the length of the front; elytra broad, evenly rounded behind, with a broad, short appendix, covering the abdomen in the male, a little shorter in the female; venation obscure except on the hyaline areas, clavus not reticulated, central anteapical cell short, not divided.

Colour: vertex shining black, a small circle around tip, connected with the ocelli by a slender line, and a broad irregular mark at base light yellow; pronotum black, with a tri-lobate yellow mark along the posterior

margin ; scutellum black ; elytra shining black with an indistinct light band extending from the point of the scutellum obliquely across the first cross-nervure of corium, another band from the apex of clavus transversely across the second cross-nervure, and a third along the apical margin ; below shining black, the margins of the genæ and the spines on the posterior tibiæ orange.

Genitalia : female, ultimate ventral segment half longer than penultimate, posterior margin rounding, slightly excavated, with a small median tooth ; male valve broad, triangular, the margins membranous except at the tip ; plates as broad as the ultimate segment, slightly convexly narrowing two-thirds their length, then curved slightly upwards and extending into a broad finger, the whole three times the length of the valve, equalling the pygofer.

Described from one male and one female from the head waters of the Little Beaver (9,500 ft. alt.), Larimer Co., Colo.

*Deltocephalus satur*, n. sp.

Resembling *compactus*, smaller, scarcely larger than *blandus*, with a shorter vertex. Olive brown with light and fuscous markings. Length : ♀ 2.5 mm., ♂ 2 mm.; width 1 mm.

Macropterous form : vertex convex, sloping, narrowing posteriorly, where it equals the middle length, slightly shorter than pronotum, slightly obtusely angulate, the apex produced, conical ; face convex, front large, lateral margins rounding, clypeus long and prominent ; elytra slightly longer than abdomen in both sexes ; venation similar to *compactus*, inner claval vein approaching the outer and connected by two cross-nervures, outer margin of clavus irregularly reticulated, central anteapical cell divided, the dividing nervure being beyond the apex of clavus. Brachypterous form : elytra short, obliquely truncate, exposing the ultimate and most of the penultimate dorsal segments, apical cells minute, posterior part of central anteapical minute or wanting.

Colour : vertex olive brownish, a light band between the ocelli, another along the anterior margin, these coalescing, omitting a triangular spot either side the apex and a fuscous one inside the ocellus on either side, an oblique fuscous dash on either side near the base ; pronotum olive brown with a submarginal row of fuscous spots and subobsolete light stripes ; elytra subhyaline, the nervures broadly light, irregularly, narrowly margined with fuscous, a spot on the centre of costa, the inner anteapical cell and the second apical, fuscous or black.

Genitalia: female, ultimate ventral segment nearly four times wider than long, posterior margin slightly emarginate with a short broad median tooth; male valve broad, short; plates broad at base, concavely, attenuately pointed, two and one-half times longer than valve, equalling the pygofers, which are thickly beset with stout hairs.

Described from two females and two males from Holly, Colo. The small size and the black spot near the anal angle of the elytra at once distinguish this species.

*Lonatura salsura*, n. sp.

Form and general appearance of *catalina*, but much larger. Pale sordid yellow. Length: ♀ 4.5 mm., ♂ 4 mm.; width 1.25 mm.

Macropterous form: vertex broad, obtuse, convex, one-half longer on middle than against eye, one-third wider than long, anterior margin rounding; front very broad above, rapidly roundly narrowing to the long parallel margined clypeus; pronotum one-fourth longer than the vertex, as wide as the eyes; elytra slightly longer than the abdomen in both sexes, broadly overlapping behind clavus, appendix well developed, nervures indistinct, veins on clavus connected, antepical cells very long, parallel margined, their apices truncate.

Brachypterous form: as above except that the abdomen is elongate and the elytra very short, truncate, only covering the first abdominal segment, the exposed part being one-half the whole length of the insect.

Colour: pale sordid straw in the brachypterous form, macropterous form washed with brownish olive on the head and pronotum, tergum fuscous, partly visible through the hyaline elytra; below dark fuscous except the face. In dark specimens, there are a pair of spots at the apex and an oblique pair near the base of the vertex.

Genitalia: female, ultimate ventral segment slightly emarginate either side of a prominent median tooth, which is as long as its basal breadth, the lateral angles deeply excised, displaying a rounding lobe of a membrane beneath; male valve rounding, almost concealed by the ultimate segment, plates concavely acuminate, longer than ultimate segment, equalling the pygofers.

Described from numerous specimens collected at Ft. Collins and a few from Holly and the Little Beaver, Colo.

#### COLEOPTERA IN SEPTEMBER.

Stone-turning on the hillsides and in the woods, usually productive late in the season, gave very poor returns this year. However, on September 17th, a brother entomologist and the writer visited a locality which would satisfy the most exacting collector. Where the Chicopee River empties into the Connecticut, a depression in the low meadowland marks the course of a former branch of the river. The spot is well wooded with poplars, willows and maples, in whose dense shade