

II.

A Few New Species of *Deltocephalus* and *Athysanus* from Colorado.

CLARENCE P. GILLETTE.

DELTOCEPHALUS PARVULUS, n. sp.

Color greenish yellow, vertex strongly produced and acute, length $2\frac{1}{2}$ to 3 m. m.

Vertex strongly produced, acute, angle at the apex about eighty degrees, surface nearly flat but not depressed, length somewhat exceeding the distance between the eyes; color whitish, with two irregular, diverging, infusate bands extending from the apex to the posterior margin, median line black and sharply defined on the posterior two-thirds. Front slightly infusate, with about six interrupted, transverse, pale yellow arcs; clypeus pale yellow or slightly infusate, broadest at base and gradually narrowing to the rounded apex; genæ greenish yellow throughout with a black spot just outside the middle of the loral suture, in some examples the upper part of the suture is also black. Entire length of the face slightly exceeding the width. Pronotum pale yellowish green, deeper yellow on the anterior margin, in some examples with two longitudinal black dashes above; the length hardly equal to one-half of the width, but slightly exceeding that of the vertex. Scutellum pale yellowish. Elytra deep yellowish green, subhyaline, considerably exceeding the abdomen; nervures very distinct and deeper yellowish green. Tergum black, with the lateral margins of the segments pale yellow. Venter yellowish green with little or no dark shading, last ventral segment broadly produced and oval at the tip. Pygofer and ovipositor yellowish white, the latter bordered with black beneath in some specimens. Legs pale yellowish white throughout.

Male genitalia: Valve rather small, triangular, the apex blunt, the base extending from one-half to two-thirds of the distance across the hind margin of the preceding ventral segment; plates long and rather slender, extending beyond the valve a distance about equal

to twice the length of the latter, and possessing a single row of rather stout, pale yellow spines along the outer margins; color pale greenish yellow. [See fig. 1.]

Described from fifteen females and five males taken by the writer sweeping native plants, in most cases short prairie grass, between August 16th and October 7th, and on May 28th. The points from which specimens were taken are Fort Collins, Colorado Springs,

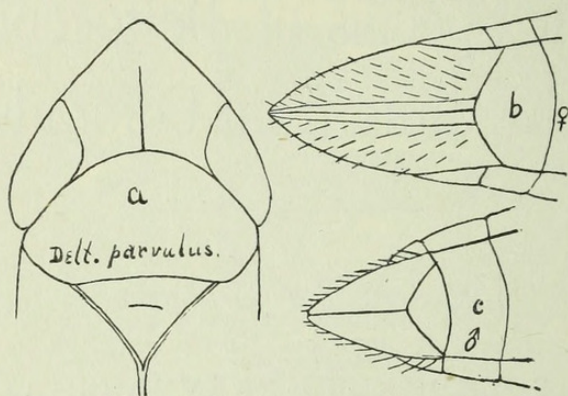


FIG. 1.

Deltocephalus parvulus: (a) upper surface of vertex, pronotum and scutellum; (b) female genitalia from beneath; (c) male genitalia from beneath. Greatly enlarged (original).

New Windsor, and Horsetooth Gulch. This species is a rival of *minimus* O. & B. in minuteness, which species it closely resembles. It is readily distinguished, however, by the broadly rounded, unicolorous, entire last ventral segment of the female, and the smaller, more acute valve in the male.

DELTOCEPHALUS COOKEI, n. sp.

Color cinereous to grayish brown, vertex with dark markings, length $2\frac{1}{4}$ m. m.

Vertex broad, flat, not distinctly depressed nor strongly produced, rounded at the apex; color pale yellowish, variously flecked with dark brown, median line nearly obsolete, length barely equaling the distance between the eyes and less than one-half the width of the head. Front pale brown, with about six incomplete transverse bars, and nearly parallel sided, rather narrow, width at clypeus fully one-half the width at the ocelli; labrum sordid yellow, in most examples streaked with black on the middle, nearly parallel sided, broadest near the rounded apex; genæ sordid yellow streaked with black beneath the eyes, next the antennæ, and along the loræ suture; the inferior angle of the loræ black in some examples, in others entirely yellow; genæ, below the loræ, very narrow. Pronotum on the anterior margin, concolorous with the vertex, darker posteriorly, in some examples nearly unicolorous and in others with a distinct longitudinal dark stripe back of the inner angle of the eye; still others are marked with a small black spot on the anterior margin against the middle of each eye and have from one to three

smaller spots posterior to these and directly behind the inner angle of the eye; distinctly longer than the vertex and a little more than twice as wide as long. Scutellum of the same color as the pronotum, with or without yellow and dusky markings, transverse suture very close to the hind margin of the pronotum. Elytra slightly exceeding the abdomen, pale cinereous, with a few dusky or black dashes within the cells, the heaviest one on the clavus near the suture, rather near the base. In some examples this is the only dark coloration present. Tergum black on basal half, mostly yellow on the last two segments. Pectus and venter almost entirely black; last ventral segment of the female black, short, distinctly inflated, posterior angles, produced and with a short, blunt median lobe; ovipositor yellow on the middle and basal portion, darker towards the tip, slightly exceeding the pygofers. Legs smoky yellow, femora and coxæ mostly black.

Male: With the valve large and broad, with a slight tooth at the apex; plates stout at the base, suddenly constricted before the apex and exceeding the valve by nearly its own length.

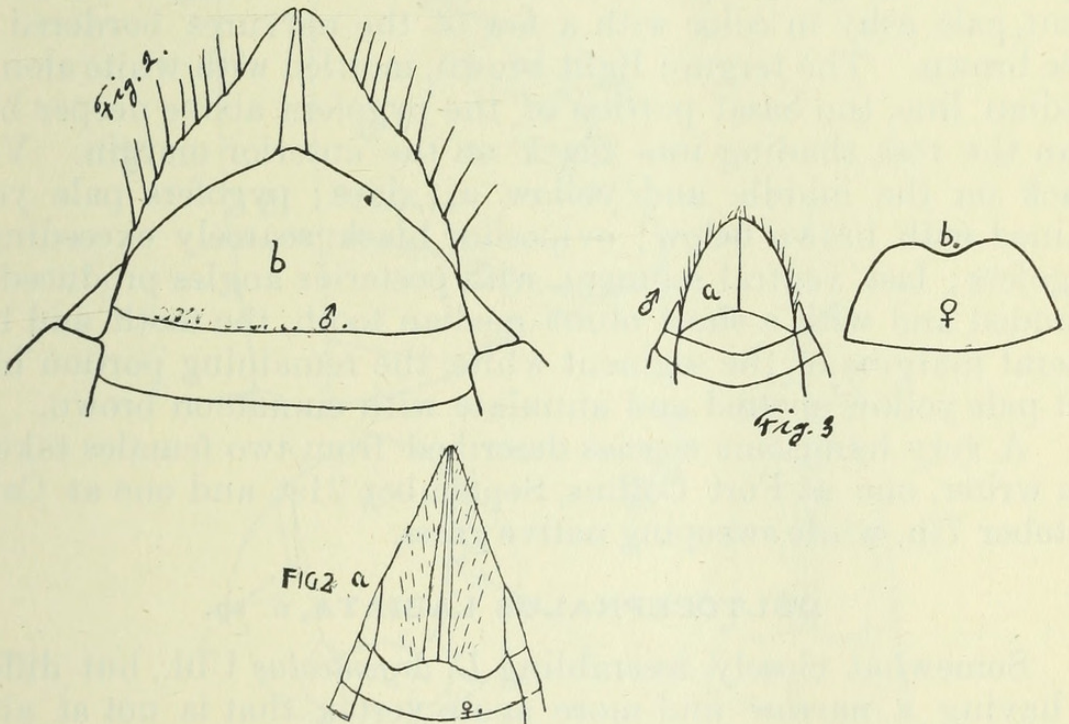


FIG. 2.—*Deltocephalus cookei*: (a) female genitalia from beneath; (b) male genitalia from beneath. Greatly enlarged (original).

FIG. 3.—*Deltocephalus vanduzeei*: (a) genitalia of the male from beneath; (b) last ventral segment of the female from beneath. Greatly enlarged (original).

Described from seven males and five females taken at Manhattan, Colo., October 7th, by Prof. W. W. Cooke, to whom I take pleasure in dedicating this species. It is closely related to *vanduzeei* G. & B., but is readily separated from the latter by the markings upon the vertex and the genital characters, as well as its usual lighter color. In venation this species is an *Athysanus*, but the vertex and face, especially the latter, are *Deltocephaloid* in form. [See figs. 2 and 3.]

DELTOCEPHALUS BLANDUS, n. sp.

Pearl gray, marked with cinnamon brown. Length $2\frac{1}{2}$ m. m. Vertex with a broad white median stripe divided by a brown line on the posterior two-thirds and bordered either side by a broader band of brown in which are two whitish spots, giving the brown color somewhat the shape of the letter B. Near the base of the vertex, either side of the white stripe, are two small deeply colored chocolate spots; ocelli black. Face light cinnamon brown in color with about six irregular transverse pale lines, and about one-sixth longer than broad; clypeus broadest at base and gradually narrowing to a rounded apex; loræ whitish with a large central dark spot; genæ whitish, black beneath the antennæ and moderately broad at the clypeus. Pronotum pale yellowish green, faintly stained with chocolate, slightly concave behind, lateral margins broadly rounded and two and one-fourth times as broad as long. Scutellum concolorous with pronotum, with the basal angles and two longitudinal parallel lines on the disc pale chocolate in color, transverse suture straight. Elytra attaining the posterior margin of the last abdominal segment, pale ashy in color with a few of the nervures bordered with pale brown. The tergum light brown, mottled with white along the median line, the basal portion of the pygofers above deeper brown than the rest, shading into black on the anterior margin. Venter black on the middle and yellow at sides; pygofers pale yellow stained with brown below; ovipositor black, scarcely exceeding the pygofers; last ventral segment with posterior angles produced and rounded and with a short blunt median tooth, the tooth and broad lateral margins of the segment white, the remaining portion black; feet pale yellow spotted and annulate with cinnamon brown.

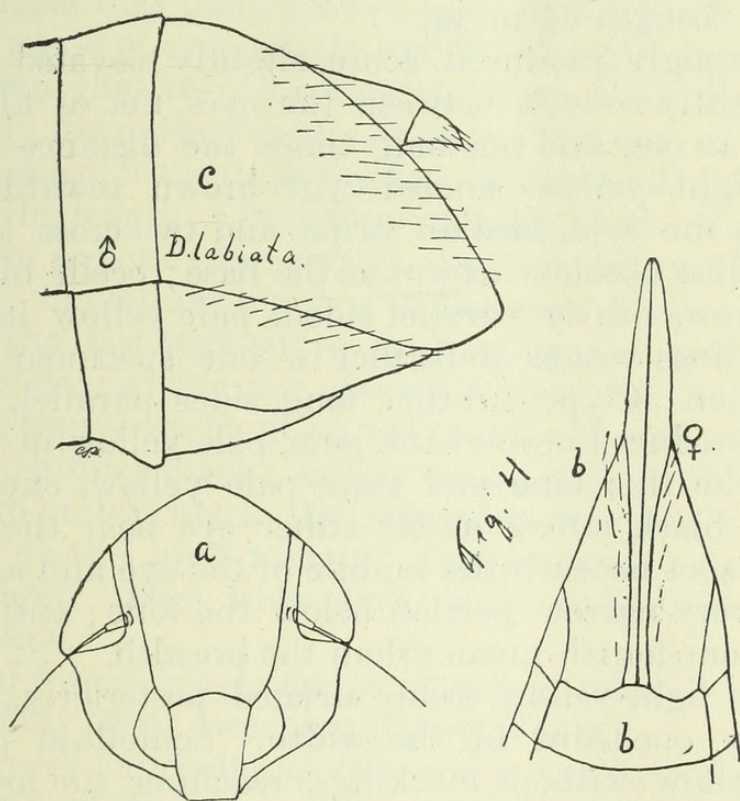
A very handsome species described from two females taken by the writer, one at Fort Collins, September 21st, and one at Calhan, October 7th, while sweeping native grass.

DELTOCEPHALUS LABIATA, n. sp.

Somewhat closely resembling *D. argenteolus* Uhl., but differing in having a narrow and more acute vertex that is not at all depressed above. Length $3\frac{1}{2}$ m. m.

Female: Vertex nearly flat but not depressed between the eyes, slightly sloping forward, conical at the apex, about one-fourth longer than the distance between the eyes, whitish to light lemon yellow in color, with light and brown pencilings on anterior third, ocelli fuscous or black. Front concolorous with vertex with about six more or less distinct dark cross lines, which are interrupted on the middle; clypeus long, lateral sutures straight, a little broadest at base, truncate at apex, extending about one-third of its length beyond the loræ; genæ ivory white with a black spot beneath the antennæ, another beneath the middle of the eye, and a third very

small one on the middle of the loreal suture, narrow below the loræ but, on meeting the clypeus, suddenly expanding and extending to its apex; loræ and clypeus entirely yellow, or with their lower ends blackened; entire length of face distinctly greater than the width. Pronotum colored like the vertex on the anterior margin but shading into greenish posteriorly, rather indistinctly transversely wrinkled on the posterior half, nearly three times as wide as long. Scutellum small, greenish or yellowish without markings, transverse groove rather faint. Elytra of same color as the vertex, about as broad as long, barely reaching the third abdominal segment. First two abdominal segments black above, the following ones light yellow, each having a transverse row of from six to eight light brown spots, except the last segment, which usually has no dark markings. One example has two spots, as in *D. argenteolus* Uhl., and also has black lateral margins at the penultimate segment. Venter black on the middle, yellow at the sides, posterior angles of last segment slightly



Deltocephalus labiata: (a) face; (b) genitalia of female from beneath; (c) genitalia of male from the side. All greatly enlarged (original).

produced, the middle lobe occupying more than half of the hind margin. Pygofer pale yellow, ovipositor about three-eighths of the entire length of the body and strongly exserted. Legs pale yellow, in dark specimens tinged with brown.

Males: The males differ from the females in being only $2\frac{1}{2}$ m. long and being much darker in color; the lower half of clypeus and loræ, the venter, and the tergum, except the last segment, which is white, black. The elytra are darker than in the females, with the

nervures near the posterior margin conspicuously white. The ground color of the vertex is more reddish and the light markings are more distinct on account of darker brown colors bordering them. The valve of the genital pieces is triangular, narrow at the base, with the apex slender and acute; the plates are short and stout and exceed the valve but little. [See fig. 4.]

Described from numerous examples of both sexes taken by the writer during the months of April, May, September and October, sweeping native plants and in the following localities in the state: Fort Collins, Bellvue, Manhattan and Calhan.

Variety *rufus*.—Of this species I have three females that differ from the others in being of a salmon color throughout, with the markings indistinct.

DELTOCEPHALUS ATROPUNCTA, n. sp.

Pale yellow in color, vertex strongly produced with a black spot at apex. Length $3\frac{1}{2}$ m. m.

Vertex strongly produced, acute, slightly elevated towards the apex, disc slightly convex between the eyes, not at all depressed, length equal to one and one-half times the distance between the eyes. Color light yellow shaded with brown towards the apex, paler between the eyes, median stripe and two cross bars whitish, median dark line obsolete except at the base; ocelli black. Front long and narrow, nearly parallel sided, pale yellow in color with fuscous cross lines rather indistinct in one specimen and nearly black in another. Clypeus rather long, sides parallel, tip truncate and strongly produced beyond the loræ, pale yellow in color, infusate towards the tip; loræ and genæ pale yellow, except that the latter have a black streak under either eye near the antenna, a smaller black spot beneath the middle of the eye and a black coloration in the very narrow portion below the loræ; entire length of the face fully one-fourth greater than the breadth.

Pronotum light yellow, feebly striated posteriorly, length a little more than one-third of the width. Scutellum pale yellow. Elytra pale yellow without markings, reaching the middle of the third abdominal segment. Tergum yellow with a black spot midway on the sides of the first segment and indistinct transverse rows of brown spots on the succeeding segments. Venter yellow, with the last segment, only, brownish in one example, and in another the middle of the hind margin is nearly black. The last ventral segment is large, posterior angles somewhat acute and hind margin somewhat produced, and very similar to that of the preceding species. It is readily separated from *labiata* by the greater length of the face, the more produced vertex and the black spot at the tip of the latter.

Described from two females, one taken by Emma A. Gillette at

Laporte, Colorado, May 17th, and one taken by the writer at Fort Collins, Sept. 27th. Both obtained by sweeping native plants.

It is not improbable that this species and the preceding may have to be taken out of the genus *Deltocephalus*. A study of long-winged forms, which probably exist, would help to settle the matter. The short elytra and greatly exserted ovipositors are strikingly similar to those parts in *Deltocephalus argenteolus* Uhl., and *Athysanus curtippennis* G. & B., but the conical shape of the vertex and the strongly produced clypeus is in contrast with those species and also with the species of the genus *Doratura*, J. Sahlb.

ATHYSANUS ORNATUS, n. sp.

A shining black species with posterior portion of the pronotum and the elytra, except three transverse black lines, white. Length 3 m. m. Vertex very broadly rounded, the length a little less than the distance between the eyes and almost exactly equaling the length of the pronotum; color polished black. Face of the same color as the vertex, except that there are two spots on the base of the clypeus, one near the angle of each cheek, and about eight interrupted cross lines on the front that are of a yellowish brown color. Front short and broad, rapidly narrowing to the clypeus; clypeus rounding at the base, parallel sided, truncate at the tip. Entire width of the face once and one-fifth the length. Pronotum shining black on anterior third, pale yellow on posterior two-thirds, and two and one-half times as wide as long. Scutellum black with the apex white. Elytra short, just covering the last segment of the tergum, the corium but little exceeding the clavus; in color glaucous white, with the extreme base, the tip, and a transverse band on the middle of each, shining black. Tergum deep shining black; venter mostly yellow, the bases of the segments more or less black, the last segment entirely black and a little concave on the hind margin; pygofer and ovipositor glossy black and short. Legs blue black with considerable yellowish brown coloration.

Described from a single female, example taken by the writer at Fort Collins, May 28th, sweeping native plants.

This is a very handsome species, and is readily recognized by the black head and white wing covers with the three transverse black lines.



Gillette, C. P. 1898. "A few new species of Deltocephalus and Athysanus from Colorado." *Bulletin* 43, 23–29.

View This Item Online: <https://www.biodiversitylibrary.org/item/248665>

Permalink: <https://www.biodiversitylibrary.org/partpdf/267152>

Holding Institution

University Library, University of Illinois Urbana Champaign

Sponsored by

University of Illinois Urbana-Champaign Alternates

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.