Obispo, June 22, 1931. Three paratypes from Santa Margareta, June 9, 1925, and two male paratypes from Muir Woods, June 17, 1934. All specimens taken in the higher mountains of California by the senior author.

Idiocerus cauterus, n. sp.

Form and color of **snowi** G. and B., but larger and with a dark band between the eyes in the male. Length 5-6 mm.

Head wide as in **ramentosus** (Uhler), in profile the head deep and the clypeus paralleling the costa. Venation normal, outer anteapical cell long triangular, nervures not pusulate. Male antenna simple. Male pygofers broad, the plates long, filamentous. Female pygofers inflated, the ovipositor exserted one-third of its length.

Color pale green as in **snowi**, with definite black spots on the vertex. Male with another pair of spots just outside the ocelli and below the spots on the vertex, a dark brown or black band between the eyes omitting large light circles around the spots on the vertex, and a pair of small white spots above the black spots on face that are connected internally with a circle around the ocelli, scutellum with a pair of dark basal triangles. Tips of male pygofers black above. Male elytra smoky towards apex.

Holotype male, allotype female, and 24 paratypes from San Luis Obispo, Calif., June 22, 1931, all taken by the senior author on willows. This species has also been taken at Weed, Big Bear, San Jose, Watsonville, Oxnard, and Pine Valley, Calif.

Readily recognized by the definite black band on the face and the black spot on the pygofers of the male.

A NEW SPECIES OF DELPHACINE FULGORID WITH NOTES ON FOUR OTHER SPECIES*

(Homoptera-Fulgoridae-Delphacinae)

R. H. BEAMER
Lawrence, Kansas

1. **Bakerella muscotana** n. sp.

Brachypterous Form

Resembling **Bakerella bidens** Beamer but appearing larger, generally darker in color, round bumps on wings black and aedeagus without lateral retrorse spines. Length: male, 2-2.2 mm.; female, 2.5-2.8 mm.

Structure: Front widest at middle, of about equal width at base and apex, strongly carinate; crown slightly longer than wide in both sexes; anterior fovea usually almost three times as long as basal width. Elytra slightly longer than broad, apices broadly rounded, veins raised, with a few raised black bumps, some of which bear setae. Dorsum of abdomen with semblance of raised bumps on sides of segments beyond second.

Color: Generally very dark with cinereous basal half of elytra quite contrasting. Front dark, more or less lighted spotted. Elytra usually cinereous

* Contribution from Department of Entomology, University of Kansas.

with about basal half quite dark except narrow uneven apical border light.

Genitalia in Lateral View: Male style widest at base, about half as long as aedeagus, almost straight and slightly narrowing to rounded tip. Aedeagus widest at base, slightly narrowed on outer third and bent ventrad at tip with about seven short teeth on dorsal margin near outer third; anal ring without processes.

Holotype ♂, allotype ♀, 40 ♂ and 28 ♀ paratypes, Muscotah, Kansas, June 28, 1946, R. H. Beamer; other paratypes, 46 ♂♂ and 28 ♀♀, same place and collector, May 30, 1946.

Macropterous Form

Like the brachypterous form except the elytra about one third longer than abdomen, with a narrow zigzag black band arising on basal third of costa, paralleling base of wing to cover apex of clavus, also covering two thirds of cross veins from costal margin and ending near middle of apex, these latter two stripes more or less forming a U-shaped mark.

Holomorphotype ♀, Muscotah, Kansas, May 30, 1946, R. H. Beamer. All types in the Snow Entomological Collections.

2. **Liburnia crocea** (Van Duzee)

Kelisia crocea n. sp. Van Duzee, E. P., Bull. Buff. Soc. Nat. Sci., p. 233, 1897.
Liburnia crocea Beamer, R. H., Jour. Kans. Ent. Soc., Vol. 18, July, 1945, p. 100.

One of the co-types of **crocea** is before me. It is a male collected at Ames, Iowa, by Professor Herbert Osborn. A label on the pin in Van Duzee's handwriting says "**Stenocranus croceus** Van Duzee." This led me to think that there was some doubt in Van Duzee's mind as to the proper genus for this species for he later published it in the genus **Kelisia** and did not change the original label. Osborn and Ball, in 1897, listed it in **Stenocranus** but changed their minds in later years and placed it back in **Kelisia**. Crawford, in 1914, in his monograph on the Delphacidae, Proc. U.S.N.M., p. 591, put it back in **Stenocranus**. Van Duzee, in 1916, in his Check List of Hemiptera, returned it to **Kelisia** where it remained until 1922 when Dozier, in his "Synopsis of the Genus Stenocranus," placed it in **Stenocranus**. The following year Metcalf, in the Jour. of Elisha Mitchell Soc., p. 169, 1923, returned it to **Kelisia** and there it remained until the writer placed it in **Liburnia**. (See above reference.)

The shape of the front of **crocea** resembles **Prokelisia** Osb. but the general facies of the internal male genitalia are similar to those parts in **Liburnia paluda** (Kirk.). Muir and Giffard, Studies in North American Delphacidae, Bull. 15, Jan. 16, 1924, p. 13, placed **K. paluda** Kirkaldy in **Sogata** Dist. Metcalf, Z. P., Catalogue Fulgoroidea, Araeopidae, 1943, p. 366, placed **Sogata** Dist. as a synonym in the genus **Liburnia** Stal. This species does not have clearly defined generic characters but until such time as further information indicates otherwise, I prefer to leave it in **Liburnia**.

Van Duzee's description of **crocea** is very good except the many specimens of this species I have seen, including the co-type, do not show any or only very slight indications of the fumose markings he describes on the elytra. Most specimens are devoid of coloring in the elytra.

Genitalia: Style of male in caudal view broadest at base, narrowed on outer margin to avicephaliform apex with beak pointed in. In lateral view aedeagus with sides almost parallel, curved dorsally in almost a half circle with numerous small teeth on sides of shaft near middle, a few larger teeth on dorsal margin near apex. Anal ring in lateral view with a pair of ventral processes projecting in two directions, the longer projecting ventro-cephalad and the other, much shorter, projecting dorso-caudad. This is an outstanding character of this species and easily separates it from any other I have seen.

Very common in meadow habitats in the central United States.

Lectotype in collection of Iowa State College, Ames, Iowa.

3. Delphacodes fulvidorsum (Metcalf)

Liburnia fulvidorsum Metcalf, Z. P., Jour. Elisha Mitchell Sci. Soc., 1923, p. 210.
Delphacodes fulvidorsum (Metcalf), Z. P., Gen. Cat. Hemip. IV, 1943, p. 448.

Brachypterous Form

This species was described from three brachypterous males collected at Brownsville, Texas, Dec. 10, 1910. It is a striking species with its black elytra and lighter pronotum and head. During Christmas week of 1945 sixty additional males were taken in the Brownsville area along with ten short-winged females.

Genitalia in Lateral View: Anal segment with a pair of closely appressed processes arising near base and slightly turned out on outer third. Aedeagus tubular, almost straight, with slight fold or overhang dorsally at tip; style broader than aedeagus, bent dorsally near base and slightly caudad at apex. **Female:** About same size as male but stramineous in color except abdomen in some specimens quite dark. Elytra with apices rounded, extending to about penultimate segment of abdomen. Hind wings practically absent.

Allotype ♀ and 9 parallotypes, Brownsville, Texas, Dec. 27-29, 1945, R. H. Beamer.

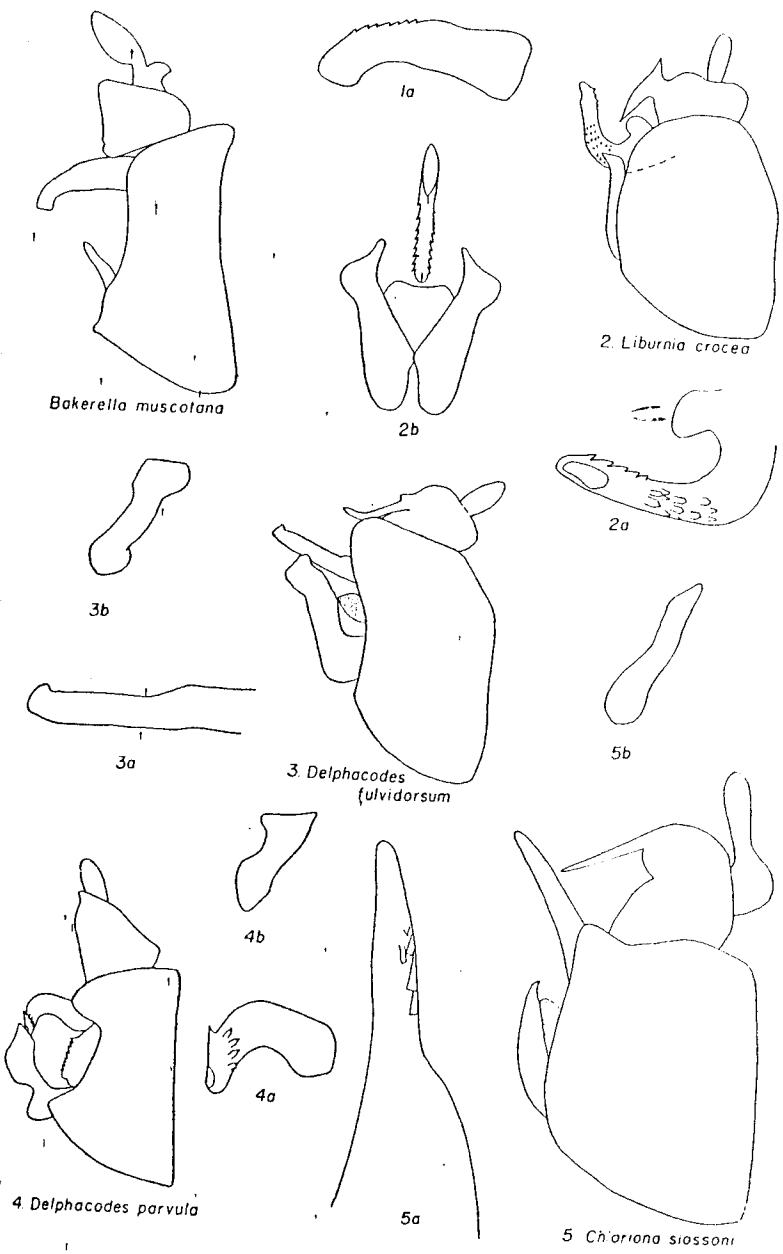
Macropterous Form

Like the short-winged form except color stramineous throughout and elytra widest beyond apex of clavus and extending one third their length beyond the abdomen.

Holomorphotype ♂ and allomorphotype ♀, La Belle, Fla., July 16, 1939,

EXPLANATION OF PLATE

1. Lateral view of genital segment of **Bakerella muscotana** n. sp.
1a. Greatly enlarged lateral view of aedeagus of **Bakerella muscotana** n. sp.
2. Lateral view of genital segment of **Liburnia crocea** (Van Duzee).
2a. Greatly enlarged lateral view of aedeagus of **Liburnia crocea** (Van Duzee).
2b. Caudo-ventral view of styles and aedeagus of **Liburnia crocea** (Van Duzee).
3. Lateral view of genital segment of **Delphacodes fulvidorsum** (Metcalf).
3a. Greatly enlarged lateral view of aedeagus of **Delphacodes fulvidorsum** (Metcalf).
3b. Caudo-ventral view of style of **Delphacodes fulvidorsum** (Metcalf).
4. Lateral view of genital segment of **Delphacodes parvula** (Ball).
4a. Greatly enlarged lateral view of **Delphacodes parvula** (Ball).
4b. Caudo-ventral view of style of **Delphacodes parvula** (Ball).
5. Lateral view of genital segment of **Chloriona slossoni** (Ball).
5a. Greatly enlarged lateral view of aedeagus of **Chloriona slossoni** (Ball).
5b. Caudo-lateral view of style of **Chloriona slossoni** (Ball).



R. H. Beamer; paramorphotypes as follows: 1 ♂, San Antonio, Tex., June 25, 1938, R. I. Sailer; 1 ♀, Homestead, Fla., July 23, 1939, R. H. Beamer; 1 ♀, Okefenokee Swamp, Ga., July 25, 1939, R. H. Beamer.

Brachypterous ♂ holotype and 1 paratype in collection of Ill. Nat. Hist. Survey. Types of this paper in Snow Entomological Collections.

4. Delphacodes parvula (Ball)

Kelisia parvula Ball, E. D., Can. Ent., 34, p. 264, 1902.
Delphacodes parvula (Ball), Beamer, R. H., Jour. Kans. Ent. Soc., Vol. 18, July 1945, p. 100.

The following is the original description: "Size of **pallidula** nearly, but with broader elytra, a shorter species than **salina**, with an unmarked front; front and above entirely pale. Length 3.25 mm.

"Vertex weakly carinate, broad, but little longer than wide, rounding to front; front as in **salina**; elytra longer than abdomen, broad at apex; venation distinct, nervures strong and slightly setigerous, the third apical veinlet but once forked near the apex.

"Colour: pale straw or whitish; vertex and scutellum tinged with orange, the abdomen in male smoky brown and black.

"Described from one female from Coolidge, Kansas, and a pair from Ames, Iowa, all collected by the author."

This is one of the commoner species of **Delphacodes** found in the central United States. It may be collected from a small wiry sedge growing in moist spots of wild prairie upland meadows. Numerous specimens of both macropterous and brachypterous forms are before me.

In general the color is cinereous varying from quite light to very dark. The orange of the front and vertex spoken of in the original description is not very evident in the several hundred specimens examined. The abdomen can be described as either dark with light or orange longitudinal stripes or black with orange or light longitudinal stripes.

Genitalia in Lateral View: Anal segment without hooks or spines; style rather boot-shaped with enlarged toe and prominent heel; aedeagus tubular, bent ventrally at right angles on outer third with a crown of spines near outer fourth; aedeagal brace broad with sharp marginal serrations.

The original description was written from three long-winged specimens. The male from Ames, Iowa, is here designated lectohol0type and the female from the same place, lectoallotype. They are in the E. D. Ball Collection in the U.S. National Museum, Washington, D.C.

Brachypterous Form

Like the long-winged form except front wings oval in shape, not reaching the tip of abdomen, and hind wings about half as wide as eye and about as long. Length ♂ 2 mm.; ♀ 2.5 mm.

Holomorphotype ♂, allomorphotype ♀ and numerous paramorphotypes, Douglas County, Kansas, Aug., 1945, R H. Beamer. These types in the Snow Entomological Collections.

5. Chloriona slossoni (Ball)

Liburnia slossoni Ball, E. D., Can. Ent., Vol. 35, p. 231, 1903.
Stenocranus breviceps Dozier, Ohio Jour. Sci., 22, p. 76, 1922.

The milky, light general coloring of this species, with its two parallel longitudinal dark stripes either side of median pronotal carina along with the dark longitudinal wing pattern, easily identifies it from most others. The original description is accurate and adequate with the exception of the male genitalia.

Genitalia of Male: Genital segment dark brown in color, long and narrow with flaring edges. In lateral view main portion of segment almost rectangular with indentation in posterior dorsal margin; anal segment with two unusually slim, almost straight, ventrally projecting hooks; aedeagus quite wide at base, strongly constricted at middle, gently tapered to apex. In very high magnifications several oddly shaped ridges on dorsal margin before tip; style widest at base, gently tapered to slightly dorsally bent apex, more nearly parallel-sided in ventral view, sharply narrowed on inner margin near apex.

This species was originally described by Doctor E. D. Ball from three female specimens taken at Biscayne Bay, Fla. Dozier's fifteen specimens were from Pascagoula, Miss. The thirty-three specimens in the Snow Collections are from Louisiana, Mississippi, Florida and Georgia, except one male from Nottawa, Mich., collected by Doctor Curtis Sabrosky.

A NEW SUBGENUS AND SEVERAL NEW SPECIES OF SCAPHYTOPIUS* (Homoptera-Cicadellidae)

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In a recently completed taxonomic revision of the tribe **Scaphytopini** in America north of Mexico, one subgenus, nineteen species and three subspecies new to science were discovered. The subgenus, species and subspecies are described in this paper.

Vertanus, a New Subgenus of Scaphytopius

Crown broadly convex on each side of a sharp apex, irregular, sunken, unmarked band before eyes; forewings broad with wide costal cell and several strongly recurved veins to costa; clypeus long, much wider on basal third with a thin median carina on basal half, strongly sinuate at antennae; clypellus slender, slightly enlarged near apex and extending beyond normal curve of genae; lorae oval; lateral margins of genae convex, small pit at base of antennae. Type of subgenus **Scaphytopius (Vertanus) ulcus** n. sp.

Scaphytopius (Vertanus) ulcus n. sp.

A striking species unlike any other north of Mexico, with broad colorless band on crown and sharply carinate clypeus. Length: female 5.2 mm.; male 5 mm.

* Contribution from Department of Entomology, University of Kansas.