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A SYNOPSIS OF THE GENUS STENOCRANUS, AND A NEW SPECIES OF MYSIDIA. (HOMOPTERA).

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The genus *Stenocranus* was founded by Fieber in 1866 and since that time three species have been placed in it from Europe, *minutus* Fab., *fuscovittatus* Stal. and *longipennis* Curt., *Maculipes*, described from South America by Berg in 1879 from a single female, has never been recognized since. In 1914, Crawford in his "Contribution towards a Monograph of the Delphacidae" described *angustus* from British Honduras, *rostrifrons* from Cuba, and *similis* from Alabama.

Stenocranus cræcus of Van Duzee is now wrongly placed in the genus *Kelisia* and *saccharivorus* of Westwood does not seem to belong here. At present there are eight species described from the New World and the following paper brings the total up to twelve.

As the original descriptions are widely scattered, for the most part in publications not readily accessible to the ordinary worker, it seems advisable at this time to review the genus, describing the new species and giving comparative outline drawings of heads and the male genitalia, all drawn to the same scale.

All of the species, so far as known, with the exception of *similis*, occur on coarse grasses, rushes and sedges in swampy and boggy places. *Similis*, however, occurs abundantly on the bamboo-cane, *Arundinaria tecta*.

Nearly all of the members of this genus are of a pale straw to brown color with a more or less distinct dorsal whitish

median vitta that runs from the vertex, over the thorax and scutellum, and is continued on the elytra by the pale commissural nervures. The legs are usually lineated with fuscous.

The genus may be briefly characterized as follows: Body slender, rather long. Head together with the eyes narrower than pronotum; vertex more or less elongate, slightly converging to apex, somewhat rectangular, and produced from one-fourth to two-thirds its length beyond the eyes; frons long and narrow, slightly broader at apex than at base, tricarinate. Eyes more or less compressed, not deeply emarginate below. Antennæ rather short, first segment shorter than the second, the latter usually somewhat tuberculate. Thorax slender; lateral carinæ usually attaining the hind margin; scutellum tricarinate. Calcar tectiform, the margins usually rather close together with pubescence between. Female ovipositor sheath subcylindrical, often broadened or foliaceous and appressed to genital segment. Probable type of genus is *Stenocranus minutus* Fab.

From the present study it seems that the final criterion for specific determination in most of the species is an accurate figure of the male genitalia. This character is constant within the species and quite distinctive.

Figures I and II are the work of Wm. P. Osborn of Syracuse University.

KEY TO THE SPECIES OF STENOCRANUS.

1. Calcar usually large and foliaceous; vertex much produced beyond eyes....2
Calcar not unusually large, seldom foliaceous; vertex shorter.....3
2. Frons pale, with a brown band below antennæ; first antennal segment only a little shorter than the second.....*palæatus* V. Duzee
Frons without band; first antennal segment about as long as the second,
longicornis Dozier
3. Female ovipositor sheath broadened conspicuously, not styliform or cylindrical.....4
Female ovipositor sheath more or less cylindrical, at least on apical two-thirds.....8
4. Frons narrowed above, sides subparallel from ocelli to apex; vertex not produced more than one-third its length beyond eyes.....5
Frons broadest at apex, sides uniformly diverging from base; female ovipositor sheath less foliaceous, narrower.....7
5. Vertex not more than one and a half times as long as broad posteriorly; frons usually less than three times as long as broad.....6
Vertex at least twice as long as broad; frons narrow, fully three times as long as broad, or more, black between carinæ.....*angustus* Crawford
6. Female ovipositor sheath broadly elliptical, broadest midway; frons usually black between carinæ.....*dorsalis* Fitch
Female ovipositor sheath slightly narrower, broadened apically, not as closely appressed as in *dorsalis*.....*vittatus* Stal
Female ovipositor sheath broadest apically, pyriform; frons pale brown between carinæ; vertex and frons relatively shorter.....*felti* V. Duzee
7. Vertex produced considerably more than half its length before eyes, beak-shaped, fully four times as long as broad.....*rostrifrons* Crawford

8. Male pygofer rather long and narrow, with ventral margin deeply and acutely angled emarginate; genital styles long and slender. *breviceps* Dozier
 Male pygofer comparatively small; genital styles large at base, narrowing only slightly beyond middle and enlarging distad, with inner tip pointed, *croceus* Van D.
 Male pygofer medium sized, excavated into a large median spur and two lateral ones; anal tube with a long sharp median process on ventral margin..... *hinei* Dozier
 Male pygofer large, ventral margin roundly emarginate; anal tube long, produced ventrad into two much longer processes than in *dorsalis*; genital styles large, constricted one-third of length from base, distal third converging to acute apex..... *similis* Crawford

Stenocranus dorsalis Fitch.

(1851 Homop. N. Y. St. Cab., p. 46).

Many species bear a close resemblance to *dorsalis* and are often confused with it on superficial examination. The genitalia are quite distinct and characteristic in both sexes and afford the most sure means of specific determination.

Head narrower than pronotum, strongly carinate. Vertex long and narrow, about one and a half times as long as broad posteriorly, produced about one-third its length beyond the eyes. Front long and narrow, narrowed above, slightly but quite abruptly broadened to ocelli, thence parallel to apex; median carina sometimes forked a little below apex of head. Antennæ rather short, the second segment three times as long as the first. Pronotum moderately long, scarcely as long as the vertex, lateral carinæ arcuate, attaining the hind margin. Scutellum about twice as long as pronotum, tricarinate. Elytra long and narrow. Calcar large, half as long as the basal tarsus, somewhat pubescent.

General color light yellowish-brown to brown, the dorsum usually with a long whitish vitta that extends from the vertex to the tip of scutellum and is continued by the whitish margin of the clavus when the elytra are closed; this vitta is variable in distinctness and width. Front and clypeus with the intra-carinal spaces black. Antennæ pale. Elytra usually subhyaline, light brown, occasionally darker, with a more or less prominent brown macula along membrane slightly behind middle and often extending somewhat on to corium. Sexes similar in coloration. Legs pale; femora and tibiæ striped with fuscous.

Female ovipositor sheath greatly broadened, foliaceous, closely appressed to and entirely covering genital segment, elevated on margins, and often covered with floccous secretion.

Male pygofer large; anal tube with two long, acute processes on ventral margin; genital styles large at base, abruptly narrowed midway, thence deeply emarginate, sinuate, acute at tip.

Length of body, 2.50–3 mm.; length to tip of elytra, 4.50–5 mm.

Redescribed from a large series from many states. This is our most common and most widely distributed species of the genus, being found abundantly on sedges over most of the United States and Canada.

Stenocranus vittatus Stal.

(1862 Berliner Ent. Zeits., VI, p. 315).

This species, described from Carolina and Pennsylvania by Stal as *Delphax vittatus*, has not since been recognized. I have on hand a single female, collected at Gainesville, Fla., by the writer in 1917, a series of four females and two males collected by C. J. Drake at the same locality, May 5, 1918, one male from Hattiesburg, Miss., Aug. 10, 1921, and a series of two males and a female taken by the writer sweeping grass and sedges in a swamp near Meridian, Miss., Aug. 14, 1921, that I place as this species.

Although very strongly resembling *dorsalis* and probably long confused with that species, it is quite distinct and is easily distinguished by its smaller size and the shape of the male genital styles.

Identical in structure and wing venation with *dorsalis*. General color darker brown with the median white dorsal vitta very distinct itself and made very prominent by the deeper fuscous of the pronotum, scutellum and elytra. Intra-carinal spaces of front and clypeus dark fuscous. Antennæ pale. Elytra of a much darker fuscous on corium than in *dorsalis* and there is a dark brown macula towards apex, with the apical nervures prominently infuscated. Tergum of female marked with fuscous and red, darker in male. Femora and tibiæ lined with fuscous.

Female pygofer pale fuscous, broad, foliaceous, greatly resembling that of *dorsalis*, but broadest apically and not so closely appressed to the genital segment.

Male pygofer fuscous, comparatively smaller than in *dorsalis*; genital styles broad at base, abruptly narrowed almost midway, thence deeply emarginate, and then roundly drawn out to acute tip; anal tube with two acute lateral processes on ventral margin.

Length of body, 2.25 mm.; length to tip of elytra, 3.50–4.25 mm.

I include here the original description in Latin and a translation of the same:

"*Delphax vittata* Stal.—griseo-straminea, supra infuscata; fronte clypeoque fuscis, pallido-carinatis; vitta verticis thoracis scutellique nec non commissura pure stramineis; tegminibus fusciscentibus apicem versus obscurioribus, maculis duabus parvis marginis commissuralis prope apicem, parteque lata costali subvinaceo-hyalinis, venis transversis apicalibus hujus partis fuscis et fusco-marginatis; capite modice prominente. ♀. Long. cum tegm. 5 millim.

"Patria: Carolina meridionalis et Pennsylvania. (Mus. Holm.)"

Delphax vittata Stal.—gray-stramineous, infuscated above; frons and clypeus fuscous, palely carinated; the vitta on vertex, thorax, and scutellum bright stramineous and also the commissure, stramineous. Tegmina fuscous, rather obscure towards the apex, with two small

spots on the commissural margin near apex, and a wide part of the costa somewhat wine-colored-hyaline, transverse apical veins of this part fuscous and margined with fuscous. Head moderately prominent. Female. Length with tegm. 5 mm.

Country: South Carolina and Pennsylvania. (Mus. Holm.).

Stenocranus felti Van D.

(1910 Trans. Am. Ent. Soc., xxxvi, p. 88).

Closely allied to *dorsalis*, differing principally in having the apex of the vertex broader and more rounded, the front proportionately broader and shorter, and the pygofer of female is much broader apically and almost pyriform.

Head decidedly narrower than the pronotum. Vertex produced about one-third its length beyond the eyes, carinae distinct. Front long and narrow, sides subparallel, narrowed towards base tricarinate. Antennae with second segment about three times as long as the first; seta short. Pronotum as long as the vertex, tricarinate, the lateral carinae attaining the hind margin. Scutellum short, about one and a half times as long as the pronotum, tricarinate. Elytra comparatively very short and broad and are held in a more or less roof-shaped position. Calcar slender.

General color a soiled yellowish-testaceous with the carinae a little paler and the dorsum marked with a whitish vitta from near the front of the vertex to the tip of the scutellum, which is continued by the pale commissural nervure of the closed elytra. Front with the intra-carinal spaces pale brown or almost concolorous. Basal segment of antennae with a black mark inferiorly, a similar mark on the cheek below the ocellus, and the antennal socket has a distinct black marginal spot anteriorly. Venter in the male black with the segments edged with orange. Elytra in the female pale yellowish hyaline with the nervures a little darker, sometimes becoming almost black on the clavus and inner margin of corium; the second apical nervure and the apex of the others deep black. In the male the nervures are almost entirely blackish fuscous, and the black of the second apical nervure is spread over the adjoining areole. Legs lineated with fuscous.

Female ovipositor sheath broadest apically, pyriform, fuscous, foliaceous, closely appressed to and covering the genital segment; anal style large and fuscous.

Male pygofer light brown in color, base fuscous, large, with ventral margin roundly excavated; genital styles reddish-brown, large at base and pointed on either side about middle, then roundly and abruptly emarginate, narrowed and drawn out to an acute tip; anal tube with a sharp, reddish-brown tooth each side.

Length of body 3 mm.; length to tip of elytra, 4-5 mm.

Redescribed from a series of males and females taken at Cranberry Lake, N. Y., July 5, 1917, by C. J. Drake, and a

female from Orono, Maine, taken May 31, 1914, by H. M. Parshley. Also known from New Hampshire. This species occurs in low wooded swamps and bogs.

Stenocranus similis Crawford.

(1914 Proc. U. S. Natl. Mus., xlvii, p. 591, two figs.)

Female of similar color and about the same size of *dorsalis* which it very closely resembles superficially. The usual white vitta is seldom or indistinctly present.

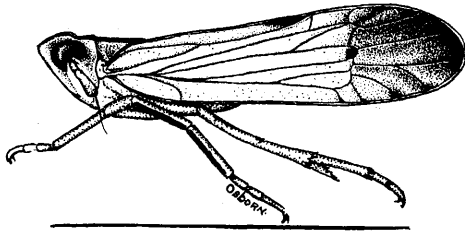


FIG. 1. Female of *Stenocranus similis*

Head narrower than pronotum. Vertex long, wider at base and narrowed towards the apex, produced about one-third its length beyond the eyes, carinae distinct. Frons long and narrow, tricarinate. Second antennal segment three times as long as first; seta fuscous, twice the length of the second segment. Pronotum slightly shorter than vertex, tricarinate, the lateral carinae well-rounded and attaining the hind margin. Scutellum over one and a half times as long as pronotum, tricarinate. Calcar large, but rather slender.

General color light yellowish-brown with the usual white dorsal vitta generally missing or very indistinct. Intra-carinal spaces of front and apex of vertex light to dark fuscous. Antennae pale. Eyes pale yellowish-brown to fuscous. Elytra subhyaline, usually light yellowish-brown, a fuscous spot on inner margin at junction of claval and commissural veins; radio-medial cross-vein and apical ones at their tips, infuscated. In the male the tip of the elytron, beginning with the cross-veins, is deeply infuscated, forming a large round spot. Abdomen pale in female, more infuscated in male. Legs lineated with fuscous.

Female genital segment longer and narrower than in *dorsalis*; ovipositor sheath not foliaceous, cylindrical and extending almost to tip of abdomen.

Male pygofer large; anal tube long, produced ventrad into two much longer processes than in *dorsalis*; anal style short; genital styles large, constricted one-third of length from base, distal third converging to acute apex.

Length of body, female, 3 mm.; male, 2.75 mm.; length to tip of elytra, female, 5 mm.; male 4.25 mm.

Redescribed from a large series of males and females collected in Mississippi by the writer at Aberdeen, June 26, 1921, Columbus, June 23, 1921; Tupelo, July 2, 1921; Fulton, July 4, 1921; and Rokeena, July 20, 1921; and two females taken at Clemson College, S. C., by G. G. Aineslie. These were all swept in abundance from cane-brake and the only definitely known host plant is the bamboo-cane, *Arundinaria tecta*.

Stenocranus palaetus Van D.

(1897 Bul. Buf. Soc. Nat. Sci., v, p. 232).

Form and size of *dorsalis*. Distinguished by its long vertex and large, foliaceous tibial spur and banded frons.

Head decidedly narrower than pronotum. Vertex extended half its length beyond the eyes, carinae prominent except median one, which is faint. First antennal segment a little shorter than the second. Pronotum slightly shorter than the vertex, strongly tricarinate, the lateral carinae attaining the hind margin. Scutellum one and a half times as long as pronotum, tricarinate, the lateral carinae rather indistinct. Calcar unusually large and foliaceous.

Color is fulvous yellow above, paler beneath. Frontal fovæ interruptedly black over the apex of the head from the base of the antennæ to the middle of the vertex; front crossed by a brown band below the antennæ, and another crossing the base of the clypeus and extending over the anterior coxæ and pleural pieces; apex of front and its median carina interruptedly pale. Antennæ somewhat fuscous. Eyes black. Elytra subhyaline, nervures yellowish, the commissural white with a brown line before the apex of the clavus; inner sector of the corium and the apical nervures, except the base of the two outer, fuscous; a smoky cloud covers the anastomosis at the base of the middle apical areole and spreads feebly over the inner area of the membrane. Tergum brownish. Legs pale, femora lineated and the tibiæ banded with fuscous.

Female genitalia typical. Male pygofer trilobate, middle lobe with a somewhat semicircular median notch, each side of which is extended tooth-like; lateral lobes, genital styles, and anal style dark fuscous; anal tube without ventral processes.

Male slightly smaller than female, with slightly shorter vertex; otherwise similar in appearance.

Length of body, male, 2.75 mm.; female, 3.50 mm.; length to tip of elytra, male, 4 mm.; female, 4.9 mm.

Redescribed from two males and two females taken at Gainesville, Fla., May 5, 1918, by C. J. Drake; one female

from Perkinston, Miss., taken June 25, 1921, by F. H. Benjamin; and a female from Ocean Springs, Miss., June 28, 1921.

Nothing is known of its food plant or habitat.

Stenocranus longicornis sp. nov.

Very closely allied to *S. palatus* both in general appearance, large tibial spur, and genitalia but differentiated at once by the very long antennæ and distinct male genitalia.

Vertex proportionately long, produced beyond the eyes slightly more than a third its length, carinæ distinct. Front very long, narrowest between the eyes, enlarging below. Antennæ long, the first segment about as long as the second. Tibial spur unusually large. Pronotum shorter than the vertex, distinctly tricarinate with the lateral carinæ attaining the hind margin. Scutellum about twice the length of pronotum, tricarinate.

General color dark brown. Vertex, pronotum and scutellum dark piceous, whitish along median carina. Front and clypeus dark with edges of carinæ paler. Second antennal segment light brown, first segment paler. Eyes brown. Elytra subhyaline, nervures prominent, fuscous. Tergum fuscous with genitalia paler. Legs pale, faintly and indistinctly lineated with fuscous.

Male pygofer trilobate, lateral lobes curved around behind, ventral margin of median lobe roundly emarginate with a large hairy lateral tooth each side; pygofer pale brown with the drawn out base darker; genital styles rather short and stout, dark; armature of diaphragm produced in two long teeth; aedeagus apparently forked.

Length of body 2.75 mm.; length to tip of elytra, 4 mm.

Described from a single male, taken at light trap at Ocean Springs, Miss., Aug. 3, 1921, by the author. I do not hesitate to describe this species from a single specimen as it is quite distinct.

Type in author's collection.

Stenocranus breviceps sp. nov.

In general appearance of female quite similar to *dorsalis* and *angustatus* but easily distinguished from these and the other members of the genus by its short and very broad vertex, the comparatively long elytra, well rounded at the tips and distinct male genitalia.

Head slightly narrower than prothorax, vertex short, somewhat rectangular in shape, produced about one-fourth of its length beyond eyes, strongly carinate. Frons one-third as broad as long, narrowed above, distinctly carinate. Antennæ rather short, second segment

three times as long as first. Pronotum long, proportionately broad; carinæ on account of their whitish color are indistinct, the lateral ones not attaining the hind margin. Elytra long, narrow, enlarging towards the apex, well rounded at tips. Legs slender; calcar typical, slender, pubescence slight.

General color light yellowish-brown to brown. Dorsum with more or less distinct whitish vitta, continued by the pale commissural nervure of the closed elytra. Carinæ of vertex, front and clypeus whitish with intra-carinal spaces black. Distal end of basal segment of antennæ with black mark, a similar mark on the cheek below the ocellus. Pronotum for the most part of a pale whitish color, a fuscous band bordering each side of the median white vitta, and fuscous markings at sides of pro- and mesonotum. Scutellum whitish. In the female the elytra are of a uniform pale yellowish to brown hyaline, with nervures whitish. In the male the inner half of the elytra below the commissural nervure is more deeply enfolded; the tip of the elytron beginning with the transverse veins is deeply infuscated, forming an almost round apical dark area within which the nervures are fuscous.

Female ovipositor sheath longer and narrower than in *dorsalis*, pale in color, the ovipositor fuscous.

Male pygofer rather long and narrow, with ventral margin deeply and acutely angled emarginate; genital styles long and slender, stouter at base.

Length of body, female, 3 mm.; male, 2.5 mm.; length to tip of elytra, female, 5 mm.; male 4.25 mm.

Described from a series of ten females and five males taken by the writer sweeping sedges and marsh vegetation at Moss Point ferry across Pascagoula River, Pascagoula, Miss., Aug. 8, 1921.

Holotype and allotype in author's collection. Paratypes deposited in U. S. National Museum and collections of the State Plant Board of Mississippi. Prof. Herbert Osborn and Z. P. Metcalf.

Stenocranus croceus Van D.

(1902 Bul. Buf. Soc. Nat. Sci., v, p. 233).

Closely allied to *dorsalis* but very much smaller, of a general yellowish-orange appearance, and the front is shorter and wider.

Vertex short, produced beyond the eyes about one-third its length, carinæ distinct. Front long, rather broad, narrowing gradually to base and slightly rounded to clypeus, tricarinate. First antennal segment one-third as long as second. Pronotum as long as vertex, tricarinate, carinæ attaining hind margin. Scutellum about twice as long as pronotum, tricarinate.

General color pale yellowish-orange, although slightly more sordid in some specimens. Vertex, pronotum and scutellum yellowish-orange or sordid yellow, with whitish band along median carina. Front and clypeus yellowish-orange with pale area along each side of median carina. Antennæ pale. Eyes brown. Elytra subhyaline, nervures, especially the commissural one, pale. Tergum yellowish-orange. Legs pale, without markings; tarsal claws piceous; calcar typical, large and distinctly dentate.

Female ovipositor sheath narrower than in *dorsalis*, and not foliaceous; not closely appressed to nor entirely covering the genital segment; pale orange-yellow with the ovipositor itself darker.

Male genitalia in single specimen on hand obscure. Pygofer fairly large, ventral margin roundly emarginate; genital styles quite different from those of *dorsalis*, large at base, narrowing only slightly beyond middle and enlarging distad, with the inner tip pointed.

Length of body, 2.50–3 mm.; length to tip of elytra, 3.75–4.75 mm.

Redescribed from a single mutilated male and a female from Devil's Lake, N. D., two females from Brookings, S. D., one female from Delphos, Kan., and two females from Springer, N. Mex., all collected during July, 1909, by Prof. Herbert Osborn, and a large series of both sexes from Portland, Maine, August 13, 1913, H. Osborn.

Stenocranus hinei, sp. nov.

Resembles *breviceps* superficially but is smaller, the legs unmarked and the male genitalia quite distinct.

Head slightly narrower than pronotum. Vertex short, produced beyond the eyes about one-fourth its length, carinæ rather indistinct, especially the median one, which is almost obsolete. Front long and narrow, narrowing to base, one-third as broad as long, tricarinate. Antennæ with second segment three times as long as the first; seta fuscous, three times as long as the second segment. Pronotum not quite as long as the vertex, tricarinate, with the lateral carinæ almost attaining the hind margin. Scutellum tricarinate. Elytra long and narrow. Legs slender; calcar typical, long and slender.

General color pale yellowish-brown with whitish median vitta, this vitta accentuated by the fuscous stripes bordering it on the pronotum and scutellum. Frontal carinæ whitish with the spaces between dark fuscous. Genæ dark fuscous next to the lateral carinæ of front, whitish beyond to antennæ. Antennæ pale, unmarked. Eyes light brown. Elytra in both sexes pale soiled yellow to hyaline brown with the commissural nervure whitish; nervures pale, becoming brown in ante-apical cells; radio-medial cross-nervure and anteapical nervures at tips, infuscated. Legs pale, unmarked.

Female ovipositor sheath long, somewhat foliaceous, extending beyond tip of abdomen, sides subparallel.

Male pygofer medium in size, excavated into a large median spur and two longer lateral ones; anal tube with a long, sharp median process on ventral margin; genital styles rather long, larger at base, narrowing in middle, much enlarged, retorsed, and cut off distad, very pale in color; aedeagus of dark fuscous chitin, composed of three parts, the ventral one rather stout, sharp, and barbed, the middle one thorn-like, very long and sharp, the upper one short and stout with a pair of curved hooks at tip.

Length to tip of elytron, male, 4 mm.; female, 4.75 mm.

The male is similar to the female in coloration and markings, but is smaller.

Described from a series of nineteen males and fourteen females, taken sweeping at swamp edge, Los Amates, Guatemala, Jan. 17, 1905, by Prof. J. S. Hine, after whom I name the species.

Holotype and allotype in collection of Prof. Herbert Osborn as well as those paratypes not otherwise designated. Paratypes in U. S. National Museum and in the collections of Z. P. Metcalf and the author.

Stenocranus angustus Crawford.

(1914 Proc. U. S. Natl. Mus., xlv, p. 589).

As I have not seen the original type specimen I am including here the original description.

"Length of body, 3.1 mm.; width of vertex, 0.20; width of frons, 0.22; antennæ, I, 0.05; II, 0.22. General color brown or dark brown, dorsum with conspicuous white vitta; frons black between carinæ; femora striped black; elytra mostly dark brown except outer anteapical and costal cell and small part of membrane light.

Vertex about as long as in *dorsalis*, projecting about one-third its length before eyes, about twice as long as broad; frons one-third as broad as long, slightly narrowed at ocelli.

Thorax slender; prothorax not much broader than head; scutellum long. Calcar slender. Elytra long and very slender.

Male genitalia somewhat similar to *dorsalis*; styles more slender and delicate, very acute and slender distad.

Described from one male, taken at Belize, British Honduras, by J. D. Johnson. This species is similar in many respects to the northern *S. dorsalis*.

Type-specimen.—In collection of Pomona College, Cal."

Stenocranus rostrifrons Crawford.

(1914 Proc. U. S. Natl. Mus., xlvi, p. 591, two figs.)

"Length of body, 3.6 mm.; width of vertex, 0.20; length to apex of head, 0.72; width of frons, 0.21; antennæ I, 0.07; II, 0.21. General color yellowish orange; frons with a slender black stripe near apex of above; antennæ lineated narrowly with black beneath or in front.

Head long, narrower than prothorax, strongly carinate between eyes, produced almost two-thirds of its length beyond eyes, curved down somewhat and resembling very closely a bird's beak, acute at apex; vertex very elongate, narrow, about four times as long as broad, narrowed anteriorly; median carina almost wanting; frons elongate, broadest below, not strongly carinate; eyes rather small; ocelli conspicuous. Antennæ not as long as width of head between antennal sockets, II about three times as long as I.

Thorax slender, long, not strongly carinate; pronotum about two and a half times as long as scutellum, broadly emarginate behind. Calcar typical, pubescence slight. Elytra long, strongly attenuate at base, more rhomboidal apically than in congeners, maculate on membrane veins; venation somewhat different from that of congeners.

Female ovipositor sheath somewhat broadened, about midway between foliaceous and cylindrical.

Described from one female from Habana, Cuba (Baker).

Type-specimen.—In collection of Pomona College, Cal."

Stenocranus maculipes Berg.

(1879 Hemipt. Argentina, p. 223).

This species was placed in the genus *Delphax* by Berg but without question should be assigned to *Stenocranus*, at least until again recognized. I am including here a translation from the original Latin description:

"Female: Fuscous, here and there variegated with testaceous, elytra and legs testaceous, the former with fuscous veins, and infuscated at interior margin, the latter obscurely spotted and banded with fuscous; hind part of head narrower than pronotum, produced beyond the eyes; vertex longer by half than its basal width, somewhat narrowed upwards, margins strongly elevated, median carina lacking, the two lateral carinæ meeting at an acute point; frons and clypeus tricarinate, the former scarcely curving on both sides before the middle, then very slightly widened towards apex, banded with white in front of the middle and at apex; clypeus white at base; first antennal segment somewhat compressed, second somewhat longer and more slender, the latter strongly tuberculate, above and below a little dilated; pro- and mesonotum obscurely fuscous, tricarinate, the former widened behind, carinæ distinct, rather pale, the latter with lateral carinæ somewhat obsolete,

median carina extended all the way to apex of scutellum; elytra much longer than abdomen, subhyaline, all veins and the interior margin partly infuscate; wings hyaline; dorsum and venter of abdomen fuscous; greater part of femora blackish-brown, tibiae with two blackish bands, hind ones bispinose in front of the middle; tarsi light yellowish, partly fuscous. Length of body, $4\frac{1}{2}$ mm.; elytra, $4\frac{1}{2}$; width of meson, 1 mm.

"Country: Province of Buenos Ayres."

Of this species I received from Sr. Ed. Lynch Arribalzaga, one individual that was collected in Rio Lujan during the month of February, 1879.

A comparative study of the male genitalia of the members of this genus show that *dorsalis*, *vittatus*, *felti*, *angustus*, *similis*, and *croceus* are very closely related to each other. *Palætus* and *longicornis* on the other hand form an entirely distinct type of development with the pygofer more or less trilobate. *Breviceps* shows a third type in which the ventral margin of the pygofer is deeply and angularly emarginate. *Hinei* is the sole representative of a fourth type having the pygofer formed of a median and two lateral large teeth and with a single median anal process. *Rostrifrons* is known from a single female and therefore no comparison can be made of the male genitalia.

The relation of these species to one another as shown in a study of the genitalia is borne out by the external structure.

THE GENUS MYSIDIA Westwood.

Many of the members of this genus closely resemble certain small whitish Geometrid moths. They run very swiftly on the upper surface of leaves or when caught in a net, with their wings partially raised. The genus is tropical, at least nine species occurring in Central America and nothing is known of their life-history. Heretofore no species has been known from North America.

For the most part members of this genus are of a white more or less opaque color; the head is narrow and compressed; the antennæ have the first joint short, the second large and swollen, more or less pointed or truncate, the third consisting of a fine seta; the tegmina are very long and rather narrow, much larger than the wings, both vitreous, with the veins very light in color with occasional more or less obscure markings. One of the best characteristics of the genus is the large number of long, narrow, and very regular apical areas.

Mysidia mississippiensis, sp. nov.

Technical description.—Head, antennæ, pronotum and scutellum yellowish, covered more or less with whitish powder, abdomen with greenish tinge; abdominal plates meet in a median ridge; head very narrow, compressed, distinctly produced before the eyes and plainly longer than the pronotum; eyes dark brown; pronotum narrow with sides flaring-like. Tegmina and wings translucent, of a milky-white color, venation distinctly but not strongly marked; tegmina long and rather narrow, with very light fuscous areas especially along the transverse veins and a distinct fuscous patch near middle of the posterior margin of tegmina. Legs very slender, testaceous.

Length of body, male, 2.50 mm.; female, 3 mm.; wing expansion, male, 15 mm.; female, 17 mm.

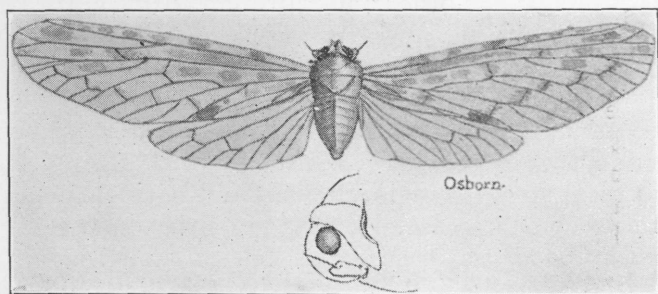
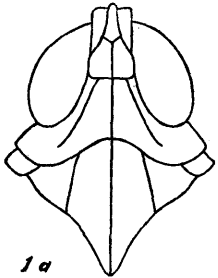


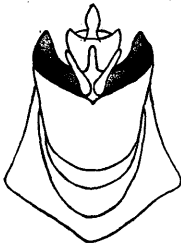
FIG. 2. *Mysidia mississippiensis*

Described from a single female taken by the writer sweeping *Arundinaria* and grass in Oktibbee Swamp near Meridian, Miss., Aug. 14, 1921, and a series of two females and a male taken in a swamp near Leland, Miss., Sept. 15, 1921, by C. J. Drake.

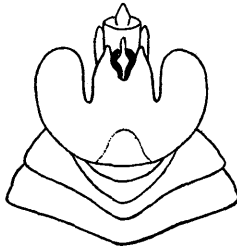
Type in the author's collection. Paratypes deposited in collections of Prof. Herbert Osborn, Z. P. Metcalf, and the State Plant Board of Mississippi.



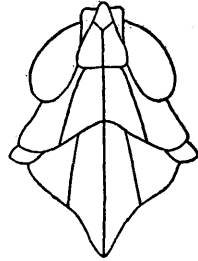
1a
S. breviceps



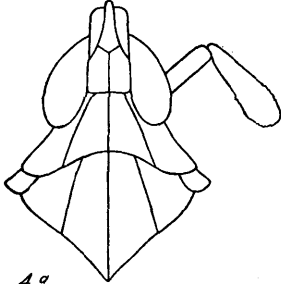
1b



2
palaeus



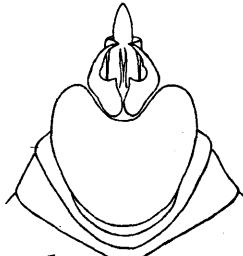
3a
creceus



4a
longicornis



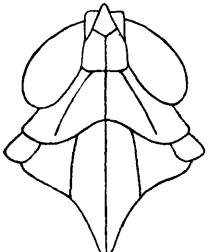
4b



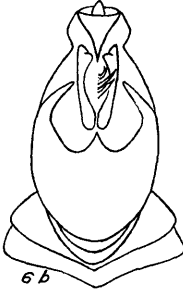
5
felti



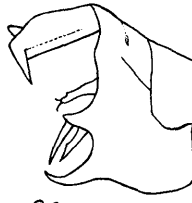
3b



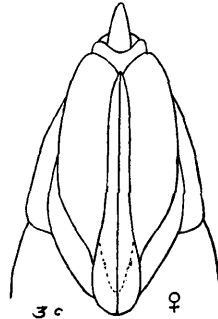
6a
hinei



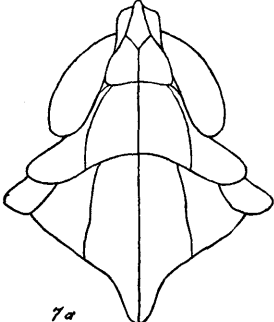
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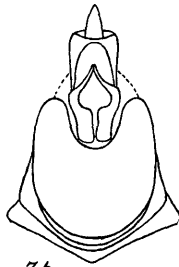
6c



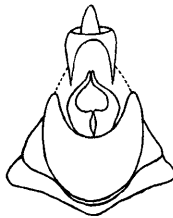
3c ♀



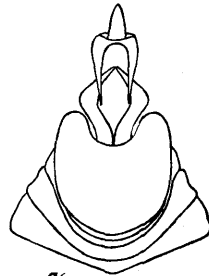
7a
dorsalis



7b



8
vittatus



9
similis