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SOME NEW SPECIES OF DELPHACODES (Homoptera, Fulgoridae, Delphacinae)

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Part V

^C 46. Delphacodes sucinea n. sp.

19984

Brachypterous form:

Resembling a Pissonotus in general appearance and obviously closely related to Pelphacodes truncata Beamer, according to genital structure. Can be separated from this species by being generally honey colored, by the narrow white stripe on apices of most elytra, by the sharp tooth on ventrocaudal margin of pygofer and by a pair of large, sharp processes on ventral margin of aedeagus near base. Length: § 2mm; § 2.2 mm.

Structure: First antennal segment slightly more than twice as long as wide; front scarcely one half longer than wide, widest at apical third, narrowed to each end, more so toward base, definitely tricarinate; crown almost twice as long as basal width, apex rounded, carinae distinct at base, almost absent at apex; elytra about as wide as long, veins indistinct, apices truncate, mesal margins extending farthest caudad; genital capsule narrowed, almost withdrawn into abdomen.

Color: General color honey brown, surface shiny; elytra usually with a white dash on apical margins; genital parts visible externally, almost black.

Genitalia. In lateral view: pygofer more than twice as wide as long with a prominent tooth at middle of caudo-ventral margin; anal segment more or less rectangular with outer caudal corners rather projecting, not considered processes; aedeagus curved ventrad at base, narrowed near outer third, apex rounded, a pair of large, sharp processes near basal third on ventral margin, aedeagal brace not visible; styles almost straight with sides nearly parallel, tapered on outer third to quite sharp apices; in caudal view: aedeagal brace not extended dorsad; styles with sides almost parallel, extended out on basal half, then curving in to angularly narrowed apices.

Holotype 3, allotype 9, 52 3 and 15 9 paratypes Saucier, Miss., March 5, 1947, R. H. Beamer; Other paratypes: 43 3 and 19, Ocean Springs, Miss., March 3, 1947, R. H. Beamer; 19 Live Oak, Fla., Jan. 1, 1931, P. W. Oman; 13 Hilliard, Fla., Oct. 5, 1938, P. W. Oman; 13, Zolfo Springs, Fla., July 15, 1939, P. W. Oman; 19 North of Picnic, Fla., Sept. 8, 1938, P. W. Oman.

Types and paratypes in Snow Entomological Collections; paratypes in United States National Museum.

^{*}Contribution from the Department of Entomology, University of Kansas.

47. Delphacodes penelutea n. sp.

Brachypterous form:

Resembling **Delphacodes lutea** Beamer but elytra truncate at apices and extending only to about middle of abdomen, while in **lutea** the apices of elytra are rounded and extend almost to genital capsule. Length, δ 2.2 mm.; ρ 2.3 mm.

Structure: First segment of antennae about as long as wide; front not quite twice as long as wide, widest near apical third, narrowed toward each end, more so toward base, distinctly tricarinate; crown about one-third longer than wide, apex rounded, carinae fairly distinct; elytra about as wide as long, semihyaline, veins thickened, apices truncate, extending about to middle of abdomen.

Color: General color stramineous, abdomen of male usually mostly quite dark brown.

Genitalia: In lateral view: pygofer more or less trapezoidal, dorsal margin definitely narrower than ventral; anal segment without processes; aedeagus about four times as wide at base as at ventral bend near apex, two teeth ventrally on each side near middle, 3-4 teeth on dorsal margin at bend, apex sharp; aedeagal brace triangular widest at base; styles almost straight, enlarged at apex; in caudal view: aedeagal brace not extended dorsad; styles widest at base, sinuate on outer margin, more or less bifid at apices.

Holotype 3, allotype 9, 403 and 229 paratypes, Saucier, Miss., March 5, 1947, R. H. Beamer; other paratypes: 13 and 399, Woodville, Fla., March 7, 1947, R. H. Beamer; 433 and 299, Naples, Fla., March 16, 1947; R. H. Beamer; 1233 and 199, Homestead, Fla., March 14, 1947, R. H. Beamer; 233 ame place and date, L. D. Beamer; 133 Wakulla, Fla., July 11, 1939, P. W. Oman; 133 Sanford, Fla., Jan. 15, 1926, E. D. Ball.

Types and paratypes in Snow Entomological Collections; paratypes in United States National Museum.

48. Delphacodes paraparvula n. sp.

Brachypterous form:

Resembles Delphacodes parvula Ball, but anal segment of male with two pairs of processes instead of none. Length 3 1.5 mm.; 9 2.8 mm.

Structure: First segment of antennae twice as long as wide; front not quite twice as long as wide, widest near apical third, narrowed toward each end, distinctly tricarinate; crown about one-third longer than wide, apex rounded, carinae definite at base more or less obscure on apex; elytra semi-hyaline, about twice as long as wide, ending just before genital capsule, apices rounded, veins raised.

Color: General color stramineous, occasionally more or less indications of darker longitudinal rows of spots on abdomen, styles and processes of anal segment dark brown. .

Genitalia: In lateral view; pygofer more or less rectangular, posterior ventral corner greatly extended; anal segment with two pairs of sharp processes, the first many times longer than second; aedeagus widest at base,

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re or less rectangular, posterior ent with two pairs of sharp proecond; aedeagus widest at base, gently narrowing, curving ventrad from near middle to apex, with a pair of truncate teeth on right side near outer third and a pair of sharp teeth on left side in same position; aedeagal brace visible, oval in shape, notched on dorsal margin; styles with very large heels narrowed to more or less avicephaliform apices; in caudal view: aedeagal brace broad, extended dorsad about half its width; styles almost straight with avicephaliform apices, beaks on inner margin long and almost parallel sided.

Holotype \lozenge , allotype \lozenge , 7 \lozenge and 2 \lozenge paratypes. Pearlington, Miss., March 3, 1947, R. H. Beamer.

Types and paratypes in Snow Entomological Collections.

49. Delphacodes concava n. sp.

Brachypterous form:

Resembling **Delphacodes paraparvula** Beamer but elytra longer, usually reaching genital capsule, anal segment of male with one pair of processes, and aedeagal brace in caudal view undercut at each side. Length, 3 2.4 mm.; 2 2.7 mm.

Structure: First segment of antennae slightly more than twice as long as wide; front very slightly more than twice as long as wide, widest near apical third, slightly narrowed toward each end, definitely tricarinate; crown about one-third longer than besal width, apex rounded, carinae distinct; elytra semihyaline, about twice as long as wide, reaching or almost reaching genital capsule, apices rounded, veins thickened.

Color: General color stramineous, darker spot above middle and hind coxae and surrounding ocelli, abdomen generally dark brown with first segment golden yellow or dorsum.

Genitalia: In lateral view; pygofer about one-third wider than long, widest at base; anal segment with a pair of processes near middle; aedeagus widest at base, gradually narrowed and curved ventrad to tip, with four teeth on dorsal margin; aedeagal brace not visible; styles more or less pediform, narrowed on outer half; in caudal view: aedeagal brace extended dorsad about basal width, each margin under cut; styles narrowed in middle, apices avicephaliform, beak on inner margin, very broad.

Holytype 3, allotype 9, 243 and 79 paratypes, Woodville, Fla., March 7, 1947, R. H. Beamer; other paratypes: 433 and 499, Tallahassee, Fla., March 7, 1947, R. H. Beamer; 13 same place and date, L. D. Beamer; 13, Sanford, Fla., Jan. 7, 1925, E. D. Ball; 19, Sanford, Fla., Feb. 16, 1926, E. D. Ball; 199, Sanford, Fla., Aug. 9, 1926, E. D. Ball; 199, Sanford, Fla., July 22, 1926, E. D. Ball; 139, Way Cross, Ga., March 18, 1947, R. H. Beamer.

Types and paratypes in Snow Entomological Collections; paratypes in United States National Museum.

50. Delphacodes ardentis n. sp.

Macropterous form:

Resembling Delphacodes bocana Beamer but dorsum darker, with a median longitudinal light stripe, aedeagal brace visible in lateral view and greatly extended dorsad in caudal view. Length, § 3 mm.; § 3.5 mm.

Structure: First segment of antennae about twice as long as wide; front slightly more than twice as long as wide, widest near apical third, narrowed toward each end, slightly more so toward base, distinctly tricarinate; crown a little longer than basal width, carinae distinct; elytra about one-third longer than abdomen, widest near apex.

Color: General color stramineous; spot on hind coxae darker; area between carinae of front dark brown to black; dorsum with median longitudinal, narrow white line; elytra semihyaline with veins much darker, especially on outer half.

Genitalia: In lateral view; pygofer more or less rectangular, ventral margin about twice as long as dorsal, with small tooth at posterior corner; anal segment with pair of straight, sharp-pointed processes; aedeagus almost straight, about three times as wide at base as on outer third, three or four teeth on dorsal margin of outer third, two larger ones on right side near middle; aedeagal brace visible, triangular in shape, narrowed at base; styles widest near apices, more or less pediform; in caudal view: aedeagal brace greatly extended dorsad, widest at base; styles more or less avicephaliform at apices with beak on inner margin.

Holotype 3, allotype 2, Palatka, Fla., March 10, 1947, R. H. Beamer; 2 3 paratypes, Royal Palm Park, Fla., March 16, 1947, R. H. Beamer. Brachypterous form:

Like the macropterous form except hind wings wanting and front wings reaching about to tip of abdomen.

Holomorphotype δ and $1\,$ 9 paramorphotype, Palatka, Fla., March 10, 1947, R. H. Beamer.

All types in the Snow Entomological Collections.

51. Delphacodes plenatra n. sp

Brachypterous form:

Resembling **Delphacodes opaca** Beamer but smaller, aedeagus curved ventrad and genital capsule not flaring in caudal view. Length, 3 1.2 mm.; 9 1.6 mm.

Structure: First segment of antennae about as wide as long; front about one-third longer than wide, widest near outer third, narrowed toward each end, more so toward base, distinctly tricarinate, median carina enlarged; crown slightly longer than wide, carinae distinct; elytra about as wide as long, reaching to about second segment of abdomen, veins raised, apices rounded; genital capsule not flaring in caudal view.

Color: Male usually dark brown or black, female varying from stramineous to dark brown or black. Basal half of crown often much lighter.

Genitalia: In lateral view: pygofer about one-third longer on ventral than on dorsal margin; anal segment with one pair of more or less avice-phaliform processes; aedeagus widest near middle, furcate on outer half, generally curved ventrad; aedeagal brace not visible; styles barely visible, apices narrowed; in caudal view: aedeagal brace not extended dorsad, slightly V-shaped; styles very large on basal half, narrowed to fourth basal width on outer half.

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t on hind coxae darker; area ick; dorsum with median longialine with veins much darker,

re or less rectangular, ventral small tooth at posterior corner; inted processes; aedeagus almost as on outer third, three or four larger ones on right side near shape, narrowed at base; styles in caudal view: aedeagal brace /les more or less avicephaliform

March 10, 1947, R. H. Beamer; ch 16, 1947, R. H. Beamer.

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otype, Palatka, Fla., March 10,

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out as wide as long; front about ter third, narrowed toward each rinate, median carina enlarged; istinct; elytra about as wide as f abdomen, veins raised, apices lal view.

k, female varying from stramincrown often much lighter.

out one-third longer on ventral one pair of more or less avicemiddle, furcate on outer half, not visible; styles barely visible, al brace not extended dorsad, al half, narrowed to fourth basal Holotype \Im , allotype \Im , 88 \Im and 127 \Im paratypes, Chino Valley, Ariz., July 12, 1947, R. H. Beamer; other paratypes: 18 \Im and 8 \Im \Im , Mescalera, N.M., June 27, 1947, R. H. Beamer; 16 \Im \Im and 10 \Im \Im , Belen, N. M., July 1, 1947, R. H. Beamer; 51 \Im \Im and 21 \Im \Im , Chiricahua Mts., Ariz., July 5, 1947, R. H. Beamer; 27 \Im \Im and 15 \Im \Im , Vernal, Utah, Aug. 2, 1947, R. H. Beamer.

Macropterous form:

Like the brachypterous form except with flight wings which extend about one-third their length beyond the abdomen.

Holomorphotype \circ and 8 \circ paramorphotypes, Chino Valley, Ariz., Aug. 12, 1947, R. H. Beamer.

Types and paratypes in the Snow Entomological Collections.

52. Delphacodes venusta n. sp.

Macropterous form:

Resembling **Delphacodes gillettei** (Van D.) but much lighter in color, aedeagal brace of male extended dorsad in caudal view with undercut sides. Length to tip of wings, § 5 mm.

Structure: First antennal segment about as long as wide; front twice as long as wide, widest near middle, narrowed toward each end, slightly more so toward base; crown distinctly longer than wide, carinae distinct; elytra extend about one-third their length beyond abdomen, widest beyond cross veins, veins raised.

Color: General color stramineous, an occasional specimen with usual darker regions, the average specimen with only a darker spot above hind coxae.

Genitalia: In lateral view: pygofer more or less rectangular; anal segment with one pair of heavy, sharp processes; aedeagus long, sinuate, enlarged on outer third with about three rows of short teeth; aedeagal brace narrow, sides parallel; styles pediform, apices narrowed; in caudal view: aedeagal brace extended dorsad, deeply undercut on either side, apex rounded; styles widest at base, narrowed to rather sharp apices.

Holotype $\, \delta \,$ and 17 $\, \delta \,$ paratypes, Ft. Davis, Tex., June 22, 1947, R. H. Beamer.

Types in the Snow Entomological Collections.

53. Delphacodes compta n. sp.

Brachypterous form:

Resembling Delphacodes lineatipes (Van D.) but with cross bands of white. Length, 3 1.7 mm.; 9 2 mm.

Structure: First segment of antennae slightly longer than wide; front one-third longer than wide, widest near apical third, narrowed to each end, more so toward base, strongly tricarinate; crown slightly longer than wide, widest at apex, carinae distinct; elytra as wide as long, apices truncate, venation not distinct.

Color: General color dark brown to black; carinae of front and crown stramineous, this light portion ending near middle of crown; posterior half of pronotum and apical third of elytra almost white; semblance of broad,

median, dorsal stripe on apical half of abdomen lighter, usually last three abdominal segments with a light spot on lateral margin; legs fulvous.

Genitalia: In lateral view: pygofer narrowed on dorsal margin, with definite tooth on caudo-ventral corner; anal segment without teeth in usual sense but with a short, sharp flange on caudo-dorsal corner; aedeagus widest at base, slightly narrowing and curving ventrad to tip with about four retrorse teeth on dorsal margin of outer half; aedeagal brace not visible; styles widest at base, tapering to apices; in caudal view; aedeagal brace not extended dorsad; styles widest at base, narrowing to more or less avicephaliform apices with beak on inner margin.

Holotype &, allotype ♀, 33 & and 28 ♀ paratypes, Del Mar, Calif., July 22, 1947, R. H. Beamer.

Types in Snow Entomological Collections.

54. Delphacodes munda n. sp.

Brachypterous form:

Resembling Delphacodes campestris (Van D.) but male with black spot on pronotum back of each eye and both sexes with region between frontal carinae brown to black. Length, & 1.9 mm.; Q 2.3 mm.

Structure: First segment of antennae twice as long as wide; front slightly more than twice as long as wide, widest near middle, very slightly narrowed at apex, more so toward base, definitely tricarinate; crown as long as wide, carinae definite; elytra reaching genital capsule, apices rounded.

Color: General color stramineous; parts of coxae, spots above them, most of genae, area between frontal carinae, spot on pronotum back of each eye, sides of scutellum and more or less dorsum of abdomen brown or black.

Genitalia: In lateral view: pygofer about as long as wide; anal segment with a pair of curved, sharp-pointed processes, about as long as basal width; aedeagus widest at base, narrowed to apex, curving ventrad on outer third, four teeth on dorsal margin near base and about six teeth along ventral margin near middle; aedeagal brace not visible; styles widest at base, narrowed on outer third; in caudal view: aedeagal brace extended dorsad about its basal width; styles widest at base, almost parallel-sided on

PLATE VII

PLATE VII

46. Lateral view of genital capsule of male of Delphacodes sucinea Beamer.

46a. Caudal view of styles and aedeagal brace of Delphacodes sucinea Beamer.

46b. Lateral view of aedeagus enlarged of Delphacodes sucinea Beamer.

47c. Lateral view of genital capsule of male of Delphacodes penelutea Beamer.

47a. Caudal view of styles and aedeagal brace of Delphacodes penelutea Beamer.

47b. Lateral view of aedeagu.3 enlarged of Delphacodes penelutea Beamer.

48c. Lateral view of genital capsule of male of Delphacodes paraparvula Beamer.

48a. Caudal view of styles and aedeagal brace of Delphacodes paraparvula Beamer.

49b. Lateral view of genital capsule of male of Delphacodes concava Beamer.

49c. Caudal view of styles and aedeagal brace of Delphacodes concava Beamer.

49b. Lateral view of aedeagus enlarged of Delphacodes concava Beamer.

50c. Lateral view of genital capsule of male of Delphacodes argentis Beamer.

50a. Caudal view of styles and aedeagal brace of Delphacodes argentis Beamer.

50b. Lateral view of aedeagus enlarged of Delphacodes argentis Beamer.

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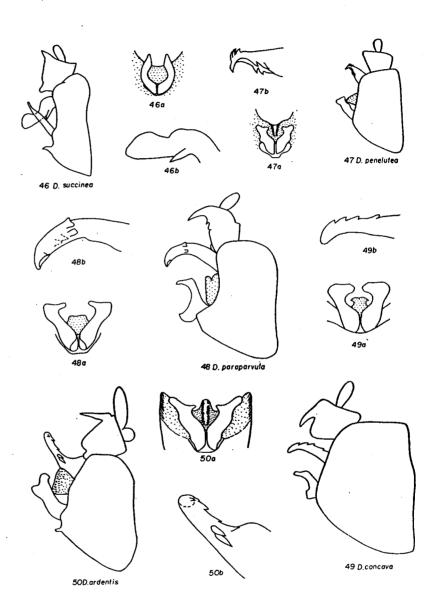
paratypes, Del Mar, Calif., July

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1 D.) but male with black spot ces with region between frontal; 9 2.3 mm.

twice as long as wide; front idest near middle, very slightly lefinitely tricarinate; crown as genital capsule, apices rounded. s of coxae, spots above them, ae, spot on pronotum back of ess dorsum of abdomen brown

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Delphacodes argentis Beamer.
codes argentis Beamer.

basal two-thirds, avicephaliform at apices, long, slender beak on inner

Holotype &, allotype ♀, 1 & and 1 ♀ paratype, Craig, Colo., August 3, 1947, R. H. Beamer.

Types in Snow Entomological Collections.

55. Delphacodes alata n. sp.

Brachypterous form:

Resembling Delphacodes paraparvula Beamer but aedeagus of male straight instead of curved ventrad. Length, 3 2 mm.; 2 2.5 mm.

Structure: First segment of antennae twice as long as wide; front about twice as long as wide, widest on apical third, narrowed toward each end, much more so toward base; crown one-third longer than wide, rounded at apex, carinae indistinct on anterior half; elytra about one-third longer than wide, apices narrowed and rounded, veins raised.

Color: General color stramineous; spot above hind coxae darker; only indications of other usual darker areas.

Genitalia: In lateral view: pygofer more or less rectangular, narrowed posteriorly; anal segment with two pairs of processes, the second very short; aedeagus long and straight, slightly tapered from base, a large, broad, flat process on left side of shaft near apex, another smaller serrated process on right side at tip; aedeagal brace small, more or less rectangular; styles pediform, heels large tips bifid; in caudal view: aedeagal brace broad, slightly extended dorsad; styles enlarged at apices more or less avicephaliform

Holotype $\, \delta \,$, allotype $\, \circ \,$, Big Pine Key, Fla., March 15, 1947, R. H. Beamer; paratypes: 2 & & and 1 \, \text{Naples, Fla., March 16, 1947, R. H. Beamer: 1 \, \dark \text{.} Homestead, Fla., March 14, 1947, R. H. Beamer.

Types and paratypes in Snow Entomological Collections.

PLATE VIII

^{51.} Lateral view of genital capsule of male of Delphacodes plenatra Beamer.
51a. Caudal view of styles and aedeagal brace of Delphacodes plenatra Beamer.
51b. Lateral view of aedeagus enlarged of Delphacodes plenatra Beamer.
52c. Lateral view of styles and aedeagal brace of Delphacodes venusta Beamer.
52b. Lateral view of styles and aedeagal brace of Delphacodes venusta Beamer.
52c. Ventral view of aedeagus enlarged of Delphacodes venusta Beamer.
52c. Ventral view of aedeagus enlarged of Delphacodes venusta Beamer.
53c. Lateral view of genital capsule of male of Delphacodes compta Beamer.
53c. Caudal view of styles and aedeagal brace of Delphacodes compta Beamer.
54c. Lateral view of styles and aedeagal brace of Delphacodes munda Beamer.
54c. Caudal view of styles and aedeagal brace of Delphacodes munda Beamer.
54d. Lateral view of aedeagus enlarged of Delphacodes munda Beamer.
54b. Lateral view of genital capsule of male of Delphacodes munda Beamer.
55c. Lateral view of styles and aedeagal brace of Delphacodes alata Beamer.
55d. Lateral view of styles and aedeagal brace of Delphacodes alata Beamer.
55b. Lateral view of styles and aedeagal brace of Delphacodes alata Beamer.

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eamer but aedeagus of male 3 2 mm.; 9 2.5 mm.

ce as long as wide; front about rd, narrowed toward each end, ird longer than wide, rounded elytra about one-third longer rins raised.

above hind coxae darker; only

or less rectangular, narrowed rocesses, the second very short; from base, a large, broad, flat her smaller serrated process on ore or less rectangular; styles l view: aedeagal brace broad, apices more or less avicephali-

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