

SEVENTEEN NEW SPECIES AND THREE NEW GENERA OF
CENTRAL AND SOUTH-AMERICAN DELTOCEPHALINI
(HOMOPTERA: CICADELLIDAE)

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ABSTRACT

The following new Cicadellidae taxa are described: *Spangbergiella erratica* sp.n. (Mexico), *Tenucephalus pusillus* sp.n. (Panama), *Scaphytopius barroensis* sp.n. (Panama), *S. cumbresus* sp.n. (Panama), *S. chiquitanus* sp.n. (Honduras), *Polyamia majuscula* sp.n. (Panama), *P. chiquitana* sp.n. (Honduras), *P. acuticeps* sp.n. (Panama), *Loreta modesta* sp.n. (Brazil), *Planicephalus crassistylus* sp.n. (Panama), *P. gamboanus* sp.n. (Panama), *Vicosa bicornis* gen. et sp.n. (Brazil), *Parabahita bicornis* sp.n. (Bolivia), *Huachia trilobata* sp.n. (Brazil), *Neohegira breviceps* gen. et sp.n. (Bolivia), *Zabrosa aquareza* sp.n. (Argentina) and *Comayagua taeniata* gen. et sp.n. (Honduras). The male genitalia of *Calliscarta boliviana* (Osborne) are illustrated and the genus *Acurhinus* Osborne synonymized with *Hododoecus* Jacquin.

Specimens collected in six countries of Central and South America and placed in twelve genera are described. One species is Mexican, three are from Honduras and seven were collected in Panama. The other six species were collected in either Argentina, Bolivia or Brazil. All types are in the DeLong collection, the Ohio State University.

Subfamily Neobalinae

Calliscarta boliviana (Osborne). Male genitalia in Figs. 1-4. Side lobes of pygofer long and narrow, apex bifid. Shaft of aedeagus lamellate, in lateral aspect blade-shaped, ventral margin with a pair of slender claw-like basal processes.

Material studied: Bolivia, Cochabamba, Chapare, Alto Palmar, 1100 m, 4 exx, X.1960, F. H. Walz. Originally described from Coroico, Bolivia.

Subfamily Deltocephalinae
Tribe Hecalini

Spangbergiella erratica sp.n. ♂. Length 5–5.5 mm. Like *S. mexicana* Bak. but aedeagus (Figs. 11–12 and 16) dissimilar: shaft nearly cylindrical, long, recurved dorsad, in lateral aspect slender and tapering apicad, provided with a pair of long falcate apical appendages directed obliquely laterodorsad, medioapical process reduced.

Mexico: Tamazunchale S.L.P., 1 ♂, type, 14.IX.1939, DeLong; Córdoba V. C., 1 paratype, 8.X.1941 and Fortin V. C., 1 paratype, 9.X.1941, DeLong, Good, Caldwell & Plummer; Mexico, 1 paratype, A. Dampf.

S. mexicana Bak.: Aedeagus (Figs. 6–8 and 14) with shaft lamellate, slightly recurved ventrad apically, in lateral aspect broad and relatively short, with 3 falcate apical appendages. *S. quadripunctata* Laws.: Aedeagus (Figs. 9–10 and 15) with shaft nearly cylindrical, slightly recurved dorsad, in lateral aspect distinctly shorter and broader than in *erratica*, with 3 falcate apical processes, the lateral processes long and directed lateroapicad, the median process recurved ventrad.

Tenucephalus pusillus sp.n. ♀. Length 4 mm. Shiny. Face light yellow, immaculate. Anterior margin of head whitish, bordered with a fine dark brown line both above and below. Crown, pronotum and scutellum relatively bright yellow. Eyes dark brown. Elytra yellow hyaline, veins concolorous. Dorsum of abdomen infuscate medially, broadly yellow laterally. Under surface and legs pale yellow, immaculate.

Body as in *T. marginellus* DeL. but much smaller and more gracile. 7th sternite (Figs. 17–18): hind margin subtruncate with a slight median notch, a pair of small and indistinct brown spots near the insinuation.

Panama, Las Cumbres, 1 ♀, type, 2 paratypes, VI–VIII.1973, H. Wolda.

T. marginellus DeL. (Mexico) is bigger, length (♀) 4.25–4.3 mm, darker (dark marginal bands of head broader, upper surface of head and thorax greyish yellow, dorsum of abdomen largely black), and with dissimilarly shaped 7th sternite (Figs. 5 and 13): hind margin shallowly insinuated with a rounded median lobe, the margin bordered with undulate brown figure. The other species of the genus (*T. longicauda* Lv. & DeL., Panama, *T. sagittarius* Lv. & DeL., Peru and *T. quadricornis* Lv. & DeL., Bolivia) are much bigger.

Tribe Scaphytopiini

Scaphytopius (Cloanthanus) barroensis sp.n. Length ♂ 4 mm, ♀ 4.5 mm. Face orange, upper margin, submarginal "shark's mouth" and two pairs of short lateral

arcs on frontoclypeus, white. Crown whitish, anterior margin bordered with a fine brown line, a dusky ring behind white spot on apex, two irregularly shaped orange spots on disk; eyes greyish. Pronotum whitish grey with 4 indistinct longitudinal yellowish bands with very faint brown irroration. Scutellum yellow with very faint and scanty brown irroration. Elytra whitish, clavus and upper part of corium partly tinged with orange, fuscous irroration relatively sparse; costal margin broadly not irrorate, with several reflexed dark fuscous veinlets; apex of elytra with narrow fuscous submarginal band; veins mainly yellow. Dorsum of abdomen and venter dark brown, margins bright yellow. Under surface of thorax pale. Legs pale, hind tibiae dark-dotted.

Resembling *S. dilatus* (DeL.). Crown sharply triangular, twice (δ) or 1.85 (♀) x as long in middle as laterally, twice (δ) or 1.8 (♀) x as long as broad, 1.45 (δ) or 1.3–1.4 (♀) x as long as median length of pronotum. Face slightly concave in profile.

Male genitalia in Figs. 21–26. Side lobes of pygofer elongately triangular, with numerous macrosetae. Genital plates short and broad, apical margin concave with apicolateral angle rounded and sclerified and apicomedian angle triangularly pointed; macrosetae absent. Anal tube with two fairly large patches with numerous short spines on apical part of ventral surface. Apophysis of style bent laterad, with apex sharp and median margin minutely tuberculate. Aedeagal paraphyses long and slender, in lateral aspect upcurved apically, in dorsal aspect undulate and recurved mesad apically. Shaft of aedeagus broad and very short, flattened, a tooth present in middle of dorsal surface. 7th sternite (δ) as in Fig. 41.

Panama, Barro Colorado Is., 1 δ , type, 9.V.1974, 1 ♀ paratype, 4.XII.1973, H. Wolda; Las Cumbres, 1 ♀ paratype, 24.VI.1973, H. Wolda.

Of the *dilatus* group. In *S. dilatus* (DeL.) (material studied: Panamá City, 1 δ , type, J. G. Sanders, in coll. DeLong; several exx from Las Cumbres, VI–VIII.1973, H. Wolda and Santa Fe, Darien Prov., 2.VI.1967, DeLong & Triplehorn) the genital plates (Figs. 27–28) are broadly rounded apically, the apophysis of the style is longer and slenderer and the 7th sternite (♀) (Fig. 40) is differently shaped. In *S. limbatus* (Osb.) (material studied: México, Tamazunchale) the crown is shorter, the genital plates (Fig. 19) are narrower and rounded apically, the aedeagal paraphyses (Fig. 20) are in dorsal aspect close to each other and the 7th sternite (♀) is dissimilar with hind margin gradually produced from lateral margins to form a pair of rounded, slightly produced lobes either side of a short narrow V-shaped notch at middle.

S. (Cloanthanus) cumbresus sp.n. Length δ 4 mm, ♀ 4.25–4.75 mm. Like the preceding species. Crown in ♀ slightly longer, twice as long at middle as laterally, 1.86–1.9 x as long as broad, 1.5–1.56 x as long as median length of pronotum.

Male genitalia in Figs. 30–34. Side lobes of pygofer elongately triangular, with numerous macrosetae. Spinose patches on ventral surface of anal tube small. Genital plates short and broad, rounded apically, without macrosetae. Apophysis of style straight, expanding apicad, minutely tuberculate. Aedeagal paraphyses relatively short, fused with each other basally. Shaft of aedeagus narrow, flattened. Hind margin of 7th sternite (♀) (Fig. 42) curved, with a V-shaped median notch.

Panamá, Las Cumbres, 1 ♂, type, 11.V.1974, and 2 ♀ paratypes, VI–VIII, 1973, H. Wolda.

Distinguished from the other species of the *dilatus* group by the male and female genitalia. The shape of the apophysis of the style and of the aedeagal paraphyses is distinctive.

S. (Cloanthanus) chiquitanus sp.n. Length 4.25 mm. Face reddish brown with minute pale irroration, upper margin and a submarginal "shark's mouth" whitish. Crown whitish, with a fine brown marginal band broken at middle; disk largely reddish brown with minute pale irroration, the whitish ground coloring forming only a narrow apical triangle, two irregular and narrow longitudinal bands and a spot along either eye; eyes pale grey. Pronotum whitish with dense brown and yellowish irroration, the pale ground coloring forming 5 very narrow irregular longitudinal bands. Scutellum whitish, basal triangles orangish, disk with dense brownish irroration. Elytra whitish hyaline, clavus and inner part of corium largely tinged with orange and rather densely irrorate with dark brown; costal margin not irrorate, with numerous dark fuscous reflexed veinlets, other veins yellowish. Under surface and legs pale ochraceous, tibiae with dark dots.

Body relatively robust. Crown bluntly angular, 1.54 x as long at middle as laterally, 1.1 x as long as broad, slightly shorter (20:21) than median length of pronotum. Face a little convex in profile.

Male genitalia in Figs. 35–39. Side lobes of pygofer elongately triangular, with numerous macrosetae. Anal tube without spinose patches on ventral surface. Genital plates sharply triangular with lateral margins insinuated, without macrosetae. Apophysis of style gracile, claw-like. Aedeagal paraphyses sharp-tipped, edentate, fused with each other basally. Shaft of aedeagus short and broad, not flattened.

Honduras, Rancho Chiquita, Comayagua, 1 ♂, type, 29.V.1964, Blanton, Woodruff & Broce.

Differing from the *dilatus* group in the shape of the genital plates and in the slender apophysis of the styles. Resembling in these characters *S. serrellus* (DeL.) from Mexico but readily distinguished by the much shorter crown, different coloring and the shape of the aedeagus.

Tribe Deltocephalini

Polyamia majuscula sp.n. Length 4.1 mm. Pale ochraceous. Frontoclypeus dark brown with upper margin, lateral arcs and middle spot pale; also other parts of face with brown spots. Anterior margin of crown with two triangular apical spots and two dots behind either ocellus black; disk with two irregularly shaped longitudinal orangish figures; eyes brown. Pronotum greyish with 6 broad longitudinal orangish bands. Scutellum yellowish, basal triangles orangish. Elytra orangish hyaline; veins white, narrowly bordered with fuscous. Under surface largely embrowned. Legs dark-spotted.

Body fairly large. Head a little narrower than pronotum. Face flat; frontoclypeus narrow, nearly parallel-sided. Crown bluntly angular, 1.36 x as long at middle as laterally, as long as broad, 0.75 x as long as median length of pronotum; frontal region somewhat elevated, discal region concave. Elytra elongate, longer than abdomen; venation of clavus: a cross vein from tip of upper vein to lower one, 2 or 3 cross veins between the latter and claval suture; venation of corium: 3 closed subapical cells, central one divided, no extra cross veins.

Male genitalia in Figs. 43–46. Side lobes of pygofer roundedly triangular, with several macrosetae. Valve large. Genital plates long, sharply triangular, lateral margins slightly insinuated. Apophysis of style fairly long, digitate, nearly straight, preapical angle sharp. Shaft of aedeagus very long, band-like, with two claw-like apical processes.

Panama, Las Cumbres, 1 ♂, type, 3.VI.1973, H. Wolda.

This and the following two species are only tentatively placed in *Polyamia* DeL. that undoubtedly is a heterogeneous genus and in a need of a revision. *P. majuscula* belongs to the *reimoseri* group (aedeagal shaft long, ± band-like, provided with two short apical processes). Distinguished from the other species (*dualis* DeL. & Thamb., *arachnion* Kram., *gangamon* Kram., *nidula* DeL., *reimoseri* (Lv.), *reticulata* (Lv.) and *scina* DeL. & Thamb.) by the large size, the long and straight apophysis of the styles and the shape of the apex of the aedeagus. Descriptions of the other species in DeLong & Thambimuttu 1973, Kramer 1963 and Linnavuori 1959: 98–98.

P. chiquitana sp.n. Fig. 47. Length 3 mm. Pale ochraceous. Face yellow-brown, frontoclypeus dark brown with pale lateral arcs and middle spots, anteclypeus dark with two pale middle spots, also margins of lora, antennal pits and spots on ocellocular area darkened. Anterior margin of crown with 6 small dark brown spots, disk with two irregularly shaped longitudinal pale orange bands; eyes pale grey. Pronotum with 6 longitudinal orangish bands. Basal triangles of scutellum orange. Elytra hyaline, orangish, with a few dark fuscous spots; veins whitish, bordered with dark fuscous. Under surface of thorax largely darkened. Legs yellow-brown, dark-spotted.

Body elongate. Head a little broader than pronotum, anterior margin rather sharp in profile. Face flattish, frontoclypeus narrow, nearly parallel-sided. Crown sharply angular, 1.62 x as long at middle as laterally, as long as broad, slightly shorter (13:14) than median length of pronotum; frontal region shagreened, flat, discal region indistinctly shagreened, concave. Elytra narrow, longer than abdomen; venation of clavus: a cross vein from apex of upper vein to lower one, a few cross veins (only 1 complete) between the latter and claval suture; venation of corium: 3 closed subapical cells, central one divided, an extra cross vein (only in the left elytron) near basal cross vein of 5th apical cell. Spinulation of fore tibiae 1 + 4.

Male genitalia in Figs. 48–51. Pygofer not incised dorsally, side lobes roundedly triangular, with several macrosetae. Anal tube membranous. Valve short. Genital plates long, elongately triangular, relatively broad apically, lateral margins slightly insinuated, macrosetae very long. Apophysis of style short, digitate, preapical angle round. Shaft of aedeagus recurved dorsad, in ventral aspect tapering apicad, apex split, dorsal surface membranous with poorly delimited subapical gonopore.

Honduras, Rancho Chiquita, Comayagua, 1 ♂, type, 29.V.1964, Blanton, Woodruff & Broce.

Apparently a member of the *satur* group (aedeagus of the *Amplicephalus* type with poorly delimited gonopore on the membranous dorsal surface). Differing from the other species (*duella* DeL. & Thamb., *frustrata* DeL. & Thamb., *incerta* (Beam. & Tutth.), *satur* (Ball)), descriptions in DeLong & Thambimuttu 1973) in the pointed head, the apically much broader genital plates and the shape of the aedeagus. Style and aedeagus of the closely related *P. duella* illustrated in Figs. 52–53.

P. acuticeps sp.n. Fig. 54. Length 3–3.25 mm. Whitish yellow. Face dark brown with lateral arcs and middle spot on frontoclypeus and small spots on other parts pale. Anterior margin of crown with 4 small dark brown spots, disk with two irregularly shaped longitudinal fulvous bands. Eyes greyish. Pronotum with 6 faint longitudinal fulvous bands. Basal triangles and middle spot on scutellum yellow. Elytra yellowish hyaline, apex of inner subapical cell fuscous; veins whitish, only indistinctly bordered with fuscous. Dorsum of abdomen yellow. Under surface of thorax largely darkened. Venter pale ochraceous, sides ± darkened. Legs yellow-brown with numerous dark spots.

Body gracile. Head slightly broader than pronotum, anterior margin sharply angular in profile. Face flattish, frontoclypeus narrow, nearly parallel-sided. Crown sharply angular, 1.7 x as long at middle as laterally, 1.42 x as long as broad basally, 1.13 x as long as median length of pronotum; frontal region shagreened, flat, discal region indistinctly shagreened, concave. Elytra narrow, longer than abdomen; venation of clavus: upper and lower veins united by a cross vein between the lower vein and claval suture; venation of corium: 3 closed subapical cells, central one divided. Spinulation of fore tibiae 1 + 4.

Male genitalia in Figs. 55–59. Pygofer shallowly incised dorsally; side lobes roundedly triangular, with several macrosetae. Anal tube membranous. Valve fairly long. Genital plates sharply triangular, lateral margins insinuated. Apophysis of style short, incrassate, preapical angle sharp. Aedeagus short and robust, shaft recurved dorsad, apex broadly split, dorsal surface membranous with poorly delimited large subapical gonopore. Hind margin of 7th sternite (♀) truncate with blunt median lobe.

Panama, Darien Prov., Santa Fe, 1 ♂, type, 1 ♀ paratype, 29.V.1967, DeLong & Triplehorn.

Related to the preceding species but readily distinguished by the pale coloring, the acute head and the male genitalia.

Loreta modesta sp.n. Length 3.9 mm. Pale yellowish. Frontoclypeus brown with lateral arcs and a faint median stripe pale. Apical margin of crown with two triangular apical spots and a dash behind either ocellus blackish, disk with two irregularly shaped pale orange longitudinal bands; eyes brownish grey. Pronotum with 6 longitudinal orangish bands. Basal triangles of scutellum orangish. Elytra hyaline, golden brown, apical cells partly smoky; veins pale, narrowly bordered with brown, cross veins of 5th apical cell without hyaline triangles. Under surface of thorax somewhat embrowned. Tibiae with black spots.

Body elongate. Head a little broader than pronotum. Crown of nearly uniform length, 1.2 x as long at middle as laterally, 0.75 x as long as broad, 0.67 x as long as median length of pronotum. Elytra elongate, appendix broad; 3 closed subapical cells, the outer long and narrow, the central divided; lower claval vein and claval suture united by a cross vein.

Male genitalia in Figs. 60–64. Pygofer sclerified dorsally; side lobes acutely triangular, with numerous macrosetae. Anal tube membranous. Valve large, rounded. Genital plates acutely triangular, lateral margins nearly straight. Apophysis of style stout, digitate, preapical angle small but prominent. Aedeagal shaft long, dorsoventrally flattened, ending in a pair of falcate processes directed apicad, phragma large; gonopore subapical on dorsal surface.

Brazil, Vicosia, 1 ♂, type, XII.1929, E. J. Hambleton.

Readily distinguished from the other species (descriptions in Linnavuori 1950: 132–135) by the pale coloring, absence of the hyaline triangles on the cross veins of the 5th apical cells of the elytra and the male genitalia.

Planicephalus crassistylus sp.n. Fig. 65. Length 3.75 mm. Yellow-ochraceous. Frontoclypeus blackish with upper margin, lateral arcs and middle spot pale; margins of lora, antennal pits and spots on ocellocular area dark. Anterior margin of

crown with two apical spots and a stripe behind either ocellus black, disk with two pale orange longitudinal bands; eyes greyish. Pronotum with 6 pale orange longitudinal bands. Basal triangles of scutellum pale orangish. Elytra hyaline, orangish, costal margin with yellow tinge; veins whitish, faintly bordered with fuscous. Dorsum of abdomen \pm infuscate at middle. Under surface of thorax largely dark brown. Venter mainly pale. Legs with dark spots.

Resembling *P. flavicosta* (St.) but anterior margin of head in profile more sharply angular.

Male genitalia in Figs. 66–69. Pygofer dorsally membranous at middle; side lobes broad, dorsoapical angle horn-shaped and minutely tuberculate, ventroapical angle broadly rounded, dentate. Lateral margins of genital plates rounded. Apophysis of style very short and broad, truncate apically, preapical angle rounded. Shaft of aedeagus recurved dorsad, sharp-tipped, ventral surface with a pair of triangular lobes; gonopore subapical on ventral surface. Hind margin of 7th sternite (♀) somewhat curved and provided with two black spots.

Panama, Las Cumbres, 1♂, type, 11.X.1974, 1 ♀ paratype, 6.II.1974, H. Wolda.

Readily distinguished from the other species of the genus (revised by Kramer 1971: 255–261) by the shape of the styles.

P. gamboanus sp.n. Length 3 mm. Yellow-ochraceous. Pattern as in the preceding species but anteclypeus blackish, costal margin of elytra usually brighter yellow, and legs pale yellow with only faint dark spots.

Body as in *P. flavicosta* but somewhat smaller. Male genitalia in Figs. 70–73. Pygofer short, broadly conical, deeply incised but not totally membranous dorsally; side lobes broad with apical margin concave, dorsoapical angle sharp, ventroapical angle rounded. Genital plates sharply triangular, lateral margins insinuated. Apophysis of style claw-like, preapical angle blunt. Aedeagus short and stout, in ventral aspect elongately pear-shaped in outline, apex bifid; gonopore large, subapical on ventral surface. 7th sternite (♀) as in *P. flavicosta*.

Panama, Gamboa C. Z., 1♂, type, numerous paratypes, 14.II.1921, J. G. Sanders.

Readily distinguished by the sharp-tipped genital plates and the shape of the aedeagus.

Vicosa gen.n. Small pale yellow leafhoppers. Anterior margin of crown with small dark spots, disk and pronotum with longitudinal orangish bands. Elytra orangish hyaline, veins pale, narrowly bordered with fuscous.

Resembling *Neodeltocephalus* Lv. Head a little broader than pronotum, anterior margin bluntly rounded to face. Face rather flat; frontoclypeus broadening

upwardly, fairly broad. Crown roundedly bluntly angular, frontal and discal regions not sharply delimited; ocelli large, close to eyes. Lateral margins of pronotum very short. Elytra elongate, appendix broad; 3 closed subapical cells, the outer long and narrow, the central one divided; a cross vein between lower claval vein and claval suture.

Male genitalia: Pygofer conical, only shallowly incised dorsally; side lobes elongate, with numerous macrosetae, ventral margin provided with a sclerified falcate process directed mesad. Anal tube membranous. Valve large, triangular. Genital plates sharply triangular, lateral margins slightly rounded, macrosetae marginal, apex with stiff bristles on dorsal surface. Apophysis of style incrassate, nearly straight, preapical angle obtuse. Aedeagus with a large elongate basal part; shaft very short, tubular, arising from dorsomedian part of the basal plate; gonopore apical.

Type: *V. bicornis* sp.n.

Distinguished from the related genera after the following key

- 1(4) Apical margin of side lobes of pygofer concave with dorsal and ventral angles prominent, \pm sclerified and dentate (edentate in *Planicephalus gamboanus*) 2
- 2(3) Aedeagus asymmetrical. Ventroapical angle of side lobes of pygofer with a claw-like process *Neodeltocephalus* Lv.
- 3(2) Aedeagus symmetrical. Pygofer without claw-like processes *Planicephalus* Lv.
- 4(1) Apical margin of side lobes of pygofer not concave 5
- 5(6) Frontoclypeus long and rather narrow, nearly parallel-sided. Frontal and discal regions of crown rather well delimited. Aedeagus without enlarged base, shaft lamellate and provided with basal appendages *Tumupasa* Lv.
- 6(5) Frontoclypeus fairly broad, expanding upwardly. Frontal and discal regions of crown not sharply delimited. Aedeagus with a large elongate basal part; short tubular shaft arising from its dorsal portion *Vicosa* gen.n.

V. bicornis sp.n. Fig. 74. Length 3.5 mm. Pale yellow. Frontoclypeus brown with lateral arcs and median stripe pale. Anterior margin of crown with 6 small blackish spots, disk with two irregularly shaped longitudinal orange bands; eyes reddish grey. Pronotum with 6 longitudinal orange bands. Basal triangles of scutellum orange. Elytra hyaline, orange, veins pale, narrowly bordered with fuscous. Under surface of thorax somewhat embrowned. Legs with dark spots.

Crown 1.33 x as long at middle as laterally, 0.83 x as long as broad, 0.75 x as long as median length of pronotum; frontal region densely but rather finely shagreened, discal region slightly concave, finely microsculptured.

Male genitalia in Figs. 75–82. Apophysis of style with a small subapical tooth. Apex of aedeagal shaft with a pair of triangular lateral lobes and a single blunt median process on dorsal surface.

Brazil, Vicosá, 1 ♂, type, XII.1929. E. J. Hambleton.

Tribe Euscelini

Parabahita bicornis sp.n. Length 6 mm. Externally like *P. vezenyii* Lv. but readily distinguished from it and the related species by the male genitalia (Figs. 83–87): Side lobes of pygofer short, broadly rounded apically, with two appendages, one falcate process arising from ventral margin and recurved dorsad, the second apically slightly expanded appendage arising from dorsal angle and directed ventrad. Genital plates elongately triangular, lateral margins nearly straight. Apophysis of style slender, falcate. Shaft of aedeagus strongly recurved dorsad, deeply split forming two long and gracile apical processes lying close to each other.

Bolivia, Cochabamba, Chapare, Alto Palmar, 1100 m, 1 ♂, type, 1 ♂ paratype, X.1960, F. H. Walz.

P. cumbresana Lv. & DeL. from Panama that also has two appendages on the side lobes of the pygofer, is much smaller, length 5 mm, and has dissimilar genitalia: genital plates much broader with lateral margins strongly insinuated at middle; dorsal appendage of side lobes of pygofer much thicker and ventral appendage directed caudad. All other species have only a single process on the side lobes.

Huachia trilobata sp.n. Fig. 88. Length 6 mm. Opaquely shiny. Pale ochraceous. Face dark yellow-brown, upper margin with transverse black band; frontoclypeus brown with pale lateral arcs; anteclypeus, lora, antennal pits and ocellular area brown. Anterior margin of crown black, disk with a transverse brown figure with pale irroration on either side; eyes pale grey. Pronotum with anterior margin pale ochraceous, irrorate with light brown in middle, spotted with dark brown laterally; disk dark brown with dense and minute pale irroration. Scutellum with large dark brown basal triangles, disk embrowned with pale irroration. Elytra hyaline, brown, corium with milky spots, a pale yellowish spot in middle of costal margin, reflexed costal veinlets with dark brown triangles; veins dark brown, narrowly bordered with milky. Under surface mainly dark brown. Femora dark brown, tibiae yellow-brown with dark spots.

Body robust. Head broader than pronotum. Face flat; anteclypeus broadening apicad, frontoclypeus strongly expanding upwardly. Crown roundedly produced, 1.35 x as long at middle as laterally, 2.6 x as broad as long, 0.5 x as long as median length of pronotum; entire crown densely and strongly, somewhat papilloso-shagreened; ocelli large, close to eyes. Pronotum 2.3 x as broad as long at middle, lateral margins fairly long; anterior margin densely shagreened, disk densely and coarsely transversely sulcate. Scutellum large, densely and distinctly shagreened.

Elytra with cross veins of 4th and 5th apical cells and about 4 extra costal veinlets reflexed; outer subapical cell, in left elytron also base of central subapical cell, with extra cross vein; a cross vein between both claval veins like also between lower claval vein and claval suture. 7th sternite (♂ (Fig. 89) tapering apicad, hind margin with prominent lateral angles and a strongly produced median lobe.

Brazil, Piracicaba, São Paulo, 1 ♀, type, 16.XII.1965, Triplehorn.

H. rugicollis Lv. (Bolivia, Ecuador) is bigger, length (♂) 7 mm, and has a dissimilarly shaped 7th sternite: hind margin truncate at sides, with a broad, shallowly U-shaped median notch. Description of *H. rugicollis* in Linnavuori 1959:191.

Neohegira gen.n. Robust pale ochraceous leafhoppers with fuscous pattern. Crown with two transverse dark bands. Elytra hyaline, without reflexed costal veinlets.

Head a little broader than pronotum, short and broad, anterior margin rounded to face. Face flattish, fairly elongate, about 1.3 x as broad as long, lower part roundedly bluntly angular in outline; anteclypeus broadening apicad; frontoclypeus about 1.25 x as long as broad, nearly parallel-sided; lora large; genae broad, only slightly insinuated near eyes; ocellocular area rather broad, of uniform width. Crown of uniform length, about 3 x as broad as long; frontal region broad occupying about half of the crown, densely shagreened slightly elevated (seen best in profile), discal region sloping apicad, indistinctly microsculptured; coronal suture short, postfrontal suture fairly distinct; ocelli small, nearly twice of their diameter from eyes. Pronotum broad, lateral margins short. Elytra elongate, appendix distinct; two closed, nearly parallel-sided subapical cells, the outer shorter than the central one. Spinulation of fore tibiae 3 + 5 (or 6), of hind knees 2 + 2 + 1.

Male genitalia: Pygofer short and broad, not incised dorsally; side lobes bilobate, upper lobe with a few macrosetae and a process arising from the inner surface, lower lobe broadly rounded, turned mesad, marginally tuberculate. Anal tube long and narrow, extending beyond pygofer, sclerified. Valve reduced, band-like. Genital plates very large, extending far beyond pygofer, elongately triangular; lateral margins upcurved with numerous very long hairs on apical half, dorsal surface of apical half provided also with short stiff setae, macrosetae absent. Style very small; apophysis digitate, preapical angle sharp, nearly as long as apophysis, basal part broad. Connective (Fig. 96) robust, shaft rather short, arms slender and strongly divergent. Aedeagus with large basal part, short digitate shaft, provided with a pair of falcate basal appendages, arising from its dorsal portion; gonopore subapical on ventral surface.

Type: *N. breviceps* sp.n. Apparently related to *Hegira* Om. (similar general habitus; genital plates without macrosetae). But in that genus the frontoclypeus expands upwardly, the ocellocular area is narrow, the crown is longer and flat, the spinulation of the fore tibiae is 1 + 4, and the genitalia are dissimilar: valve longer;

genital plates shorter and broader; preapical angle of styles shorter; connective longer with arms subparallel, and aedeagus without enlarged basal part. *Neohegira* resembles externally rather much *Sanestebania* Lv. & DeL. of the *Bahita* group, but the male genital structure is very different (in *Sanestebania* the genital plates are provided with numerous well developed macrosetae, etc.).

N. breviceps sp.n. Fig. 90. Length 5.5 mm. Shiny. Pale ochraceous. Frontoclypeus brown with lateral arcs and median stripe pale; anteclypeus brown, antennal pits black, ocellular area with dark spots. Crown with black band along anterior margin and a faint brown bar at postfrontal suture; eyes brown. Pronotum with faint brown mottling. Basal triangles and median band on scutellum orangish, bordered with brown. Elytra hyaline, with slight brownish tinge; central subapical cell and inner discal cell with faint longitudinal brown stripe; veins dark brown. Under surface of thorax with dark spots. Legs yellow-brown, hind tibiae dark-spotted.

Crown 3.1 x as broad as long, 0.35 x as long as median length of pronotum. Pronotum 2.1 x as broad as long at middle.

Male genitalia in Figs. 91–98.

Bolivia, Cochabamba, Chapare, Alto Palmar, 1100 m, 1 ♂, type, X.1960, F. H. Waltz.

Zabrosa aquareza sp.n. Length 5.25–5.5 mm. Like *Z. amazonensis* (Osborne) (re-description in Linnavuori 1959: 246–247) but somewhat smaller and narrower, coloring more yellowish, dark transverse spots on crown shorter, and genitalia different (Figs. 99–105): Pygofer elongately conical, deeply incised dorsally with a triangular basal lobe in middle; side lobes broad, ventral margin with a slender falcate appendage. Anal tube long, cylindrical, sclerified laterally and apically. Genital plates elongately triangular, lateral margins slightly insinuated, macrosetae not regularly arranged. Apophysis of style relatively thick with apex truncate. Shaft of aedeagus long, relatively narrow, strongly recurved dorsad, apex expanded and split.

Argentina, Salta, Aquarez, 1 ♂, type, 14.II.1950, and Salta, Embarcación, 2 ♂ paratypes, 3.II.1950, R. Golbach.

Comayagua gen.n. Medium-sized greyish leafhoppers with fuscous irroration and spots on upper surface. Anterior margin of head white, bordered with a black band both above and below. Elytra with milky spots along claval commissure.

Body elongately wedge-shaped. Head broader than pronotum, anterior margin rounded to face. Face rather faintly microsculptured, moderately convex, broad, lower part roundedly angular in outline; anteclypeus slightly broadening apicad; frontoclypeus expanding upwardly; lora normal; genae shallowly insinuated near

eyes; ocellocular area strongly tapering upwardly. Crown of uniform length; frontal region shagreened, flat, discal region indistinctly microsculptured, shallowly concave; postfrontal suture fairly distinct; ocelli close to eyes. Lateral margins of pronotum short. Elytra elongate, appendix distinct, two closed subapical cells, claval veins united with a cross vein, a cross vein also between lower claval vein and claval suture. Spinulation of fore tibiae 1 + 4, of hind knees 2 + 2 + 1.

Male genitalia: Pygofer conical, dorsally incised near to base; side lobes broad, provided with a few macrosetae arising near base of anal tube and with a falcate apical appendage. Anal tube long, sclerified apically and laterally. Valve large, parabolic. Genital plates elongately triangular, apical part relatively broad and well sclerified, lateral margins insinuated, macrosetae uniseriate, apex with very long hairs. Style with apophysis very short, thick, somewhat T-shaped, preapical angle rounded, basal part elongate. Connective (Fig. 107) long, arms diverging basally, converging apically. Aedeagus slender, without enlarged base, shaft recurved dorsad, apex membranous, a pair of long subapical appendages; gonopore apical.

Type: *C. taeniata* sp.n.

Belonging to the *Atanus* group. Distinguished from the related genera after the following key

- 1(6) Connective long (Fig. 107) 2
- 2(3) Anterior margin of head white, bordered with a black band above and below. Side lobes of pygofer with only a few macrosetae arising near base of anal tube. Connective gracile *Comayagua* gen.n.
- 3(2) Coloring different. Side lobes of pygofer with several macrosetae. Connective more robust 4
- 4(5) Body wedge-shaped, somewhat depressed. Color not yellow. Arms of connective diverging apicad *Paratanus* Young
- 5(4) Body elongate. Color yellow. Arms of connective closely approximated *Ollarianus* Ball
- 6(1) Connective short 7
- 7(8) Color uniformly reddish or orange. Pygofer broadly incised dorsally near to base, without appendages. Connective gracile *Caranavia* Lv.
- 8(7) Color different. Pygofer shallowly incised dorsally. Connective robust . . 9

9(10) Color yellowish, a few fuscous or black spots on crown and pronotum. Body rather parallel-sided. Elytra without milky spots along commissural margin of clavus *Ollarianus* Ball

10(9) Color different. Body \pm wedge-shaped. Elytra with milky spots along commissural margin of clavus *Atanus* Om.

C. taeniata sp.n. Fig. 106. Length 3.75–4 mm. Shiny. Pale grey. Anterior margin of head white, bordered with a black band both above and below. Face pale yellow or greyish, immaculate or with faint brown lateral arcs on frontoclypeus. Crown with transverse irregularly shaped yellow-brown discal band; eyes grey. Pronotum with 4 yellow-brown longitudinal bands with dark irroration and with a few irregular dark spots along anterior margin. Scutellum with basal triangles orangish, bordered with fuscous, median band embrowned. Elytra hyaline, costal margin broadly whitish, other parts colorless or with slight brownish tinge, cells with fuscous patches, commissural margin of clavus with milky spots; veins dark brown. Dorsum of abdomen dark brown, sides and segmental margins pale. Under surface and legs pale, hind tibiae with dark dots.

Body form as above. Male genitalia in Figs. 107–114. Side lobes of pygofer with a falcate appendage arising from apicoventral angle and directed caudodorsad. Appendages of aedeagus long, falcate, close to each other, directed apicad.

Honduras, Rancho Chiquita, Comayagua, 1 σ , type, 4 σ paratypes, 29.V.1964, Blanton, Woodruff & Broce.

Tribe Stirellini

Hododoecus Jac.

Hododoecus Jacobi 1910:126. Type: *H. acuminifrons* Jac.

Stenometopius Matsumura 1914:217. Type: *S. formosanus* Mats.

Acurhinus Osborn 1920:158. Type: *Dorydium maculatum* Osb., syn.n.

Afrolimnus Evans 1955:38. Type: *A. ribauti* Ev.

The genus *Acurhinus* was incorrectly regarded as a synonym of *Flexamia* DeL. by Linnavuori (1959:89), since, according to the original description, the generotype, *A. maculatus* (Osb.), was closely related to *Flexamia pyrops* (Crumb). *Acurhinus*, on the contrary, is a synonym of the Stirelline genus *Hododoecus* Jac. that was incorrectly included in the Nirvaninae by Evans (1947:177). *Stenometopius* Bak. and *Afrolimnus* Ev. are further synonyms of *Hododoecus*, but *Kosasia* Dist. (type: *K. typica* Dist.) from Africa that was synonymized with *Hododoecus* by Evans, is an entirely different Nirvanine genus.

Hododoecus closely resembles *Stirellus* Osb. & Ball but differs in the cephalic structure: crown much longer; frontoclypeus much longer and narrower, with

distinct median keel in upper part; upper margin of face strongly depressed on either side of the median keel, anterior margin of head therefore somewhat lamellate; ocelli 2–3 x of their own diameter from eyes lying below anterior margin of crown and therefore not visible from above. Also the venation of the elytra (Fig. 116) is different: outer subapical cell very small, triangular; cross veins of 4th and 5th apical cells reflexed.

Range: Intertropical.

H. maculatus, the only representative of the genus in the New World, closely resembles the African species in the sharply triangular crown. Since all specimens studied were either females or without abdomen, a thorough comparison is not possible. *H. maculatus* obviously represents a recent immigration by adventitious means from Africa.

H. maculatus (Osbn.), comb. n.

Dorydium maculatum Osborn 1909:464.

Head, pronotum and elytron illustrated in Figs. 115–116.

Material studied: Guatemala, Los Amates, 1 ♀, type, 4 paratypes, 17.I.1905, in coll. Osborn, the Ohio State University.

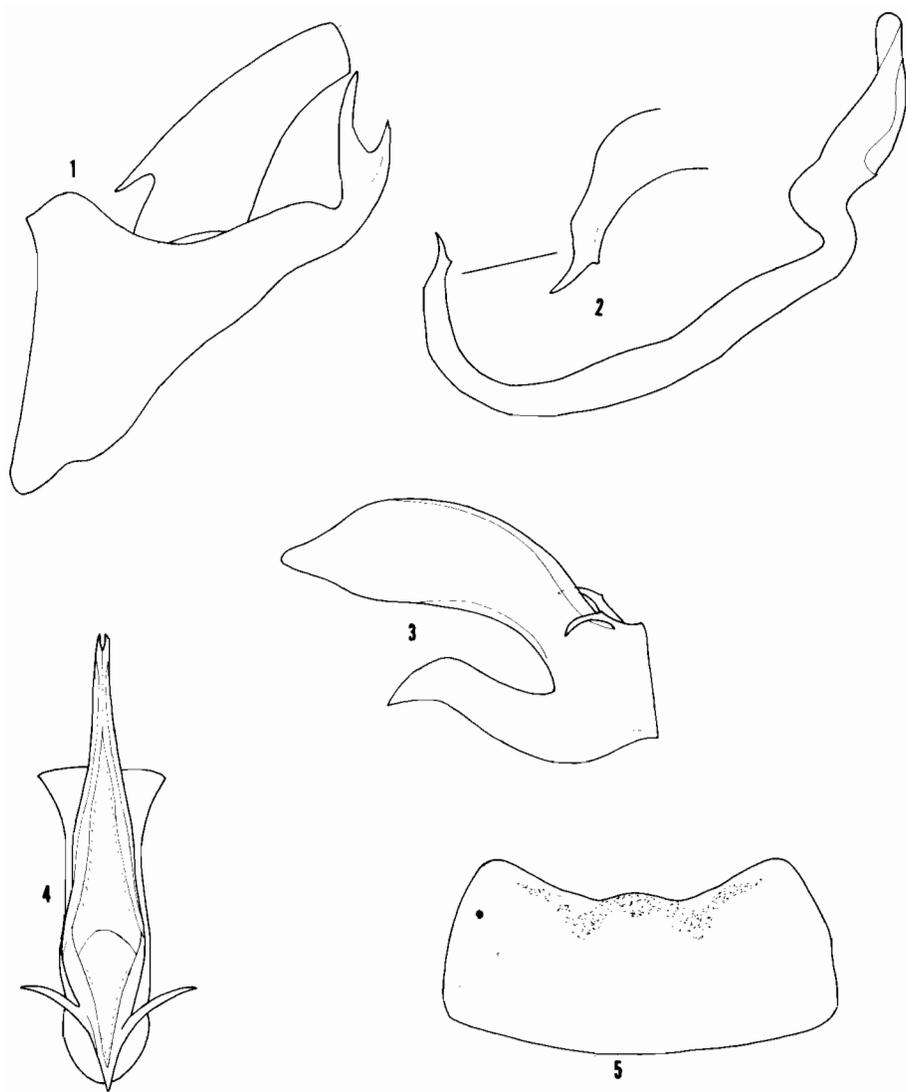
Resumen

Se describen diecisiete nuevas especies y tres nuevos géneros de homópteros cicadélidos deltocefalinos procedentes de América Central, México y varios países de América del Sur.

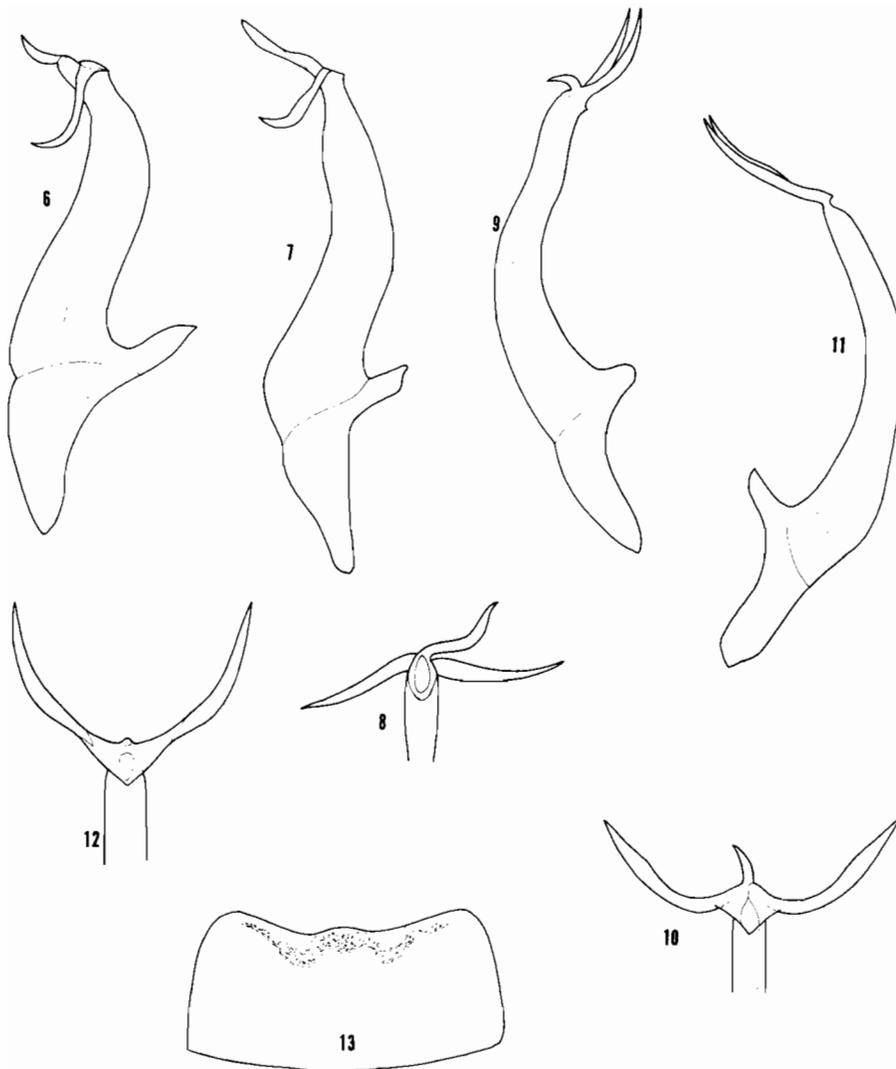
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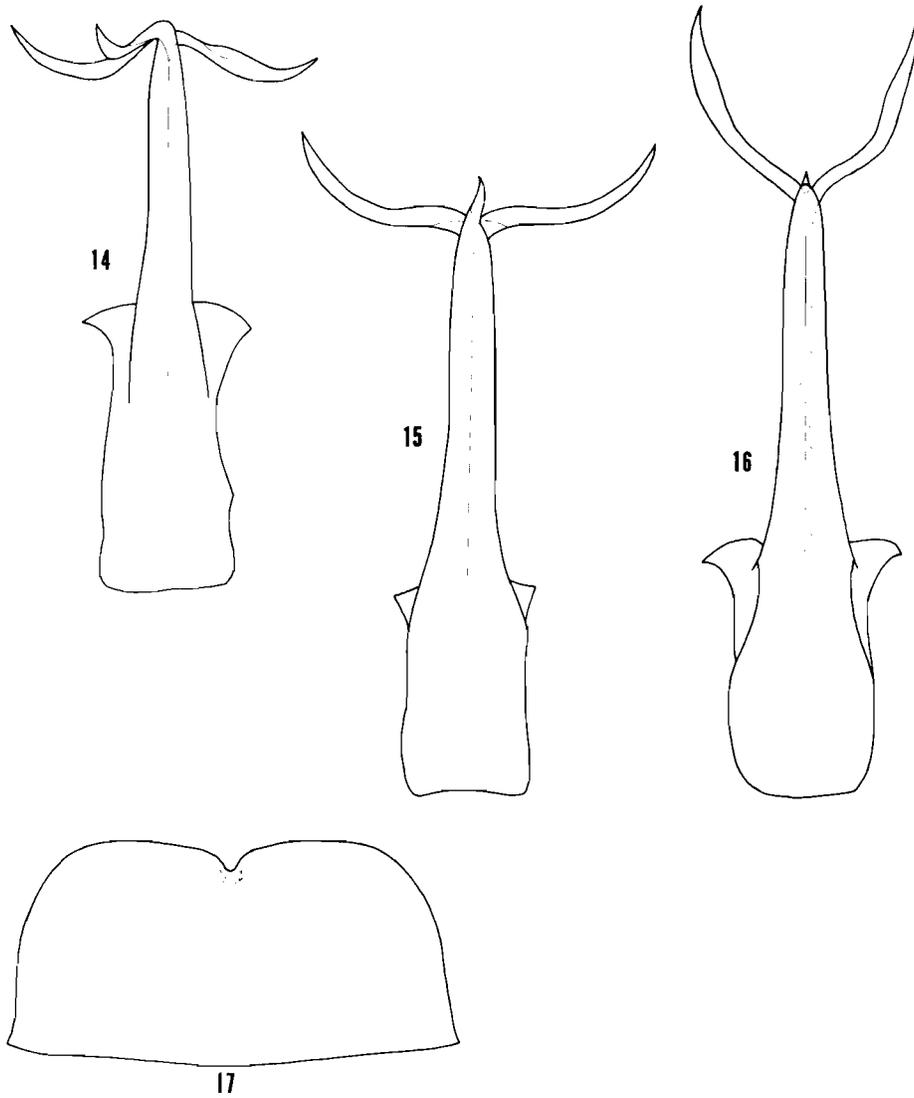
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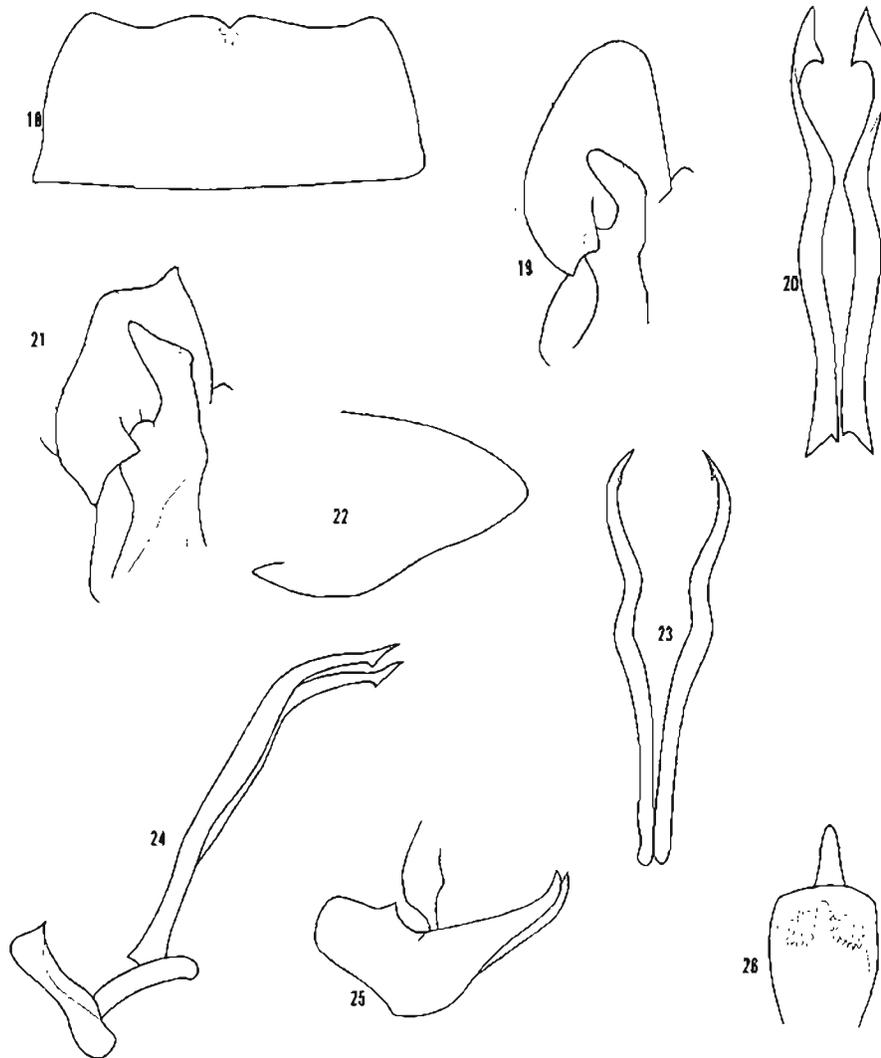
Figs. 1–5. *Calliscarta boliviana* (Osb.): 1 pygofer and anal tube, lateral aspect; 2 style; 3 aedeagus in lateral, 4 in ventral aspect. *Tenucephalus marginellus* DeL.: 5 7th sternite (♀)



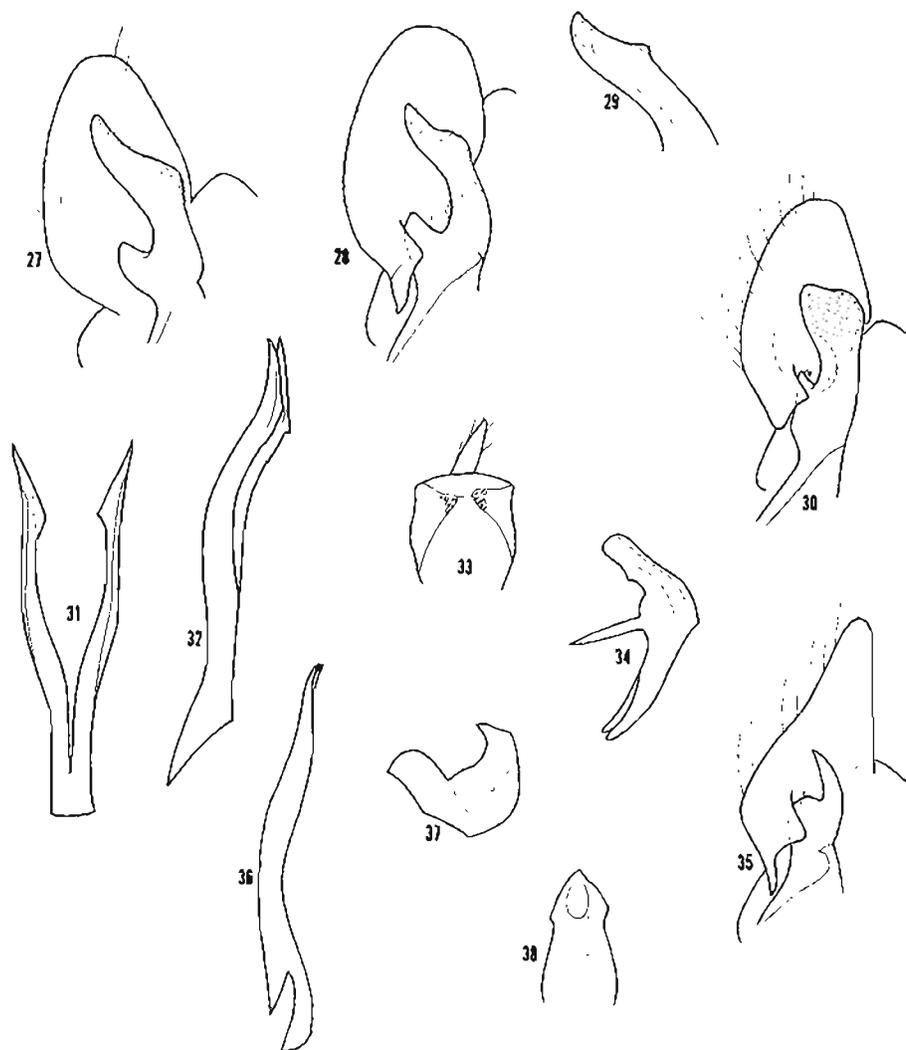
Figs. 6–13. *Spangbergiella mexicana* Bak.: 6–7 aedeagus of two exx, lateral aspect; 8 apex of aedeagus, apical aspect. *S. quadripunctata* Laws.: 9 aedeagus, lateral aspect; 10 apex of same, apical aspect. *S. erratica* sp.n.: 11–12 same. *Tenucephalus marginellus* DeL.: 13 7th sternite (♀) (another ex).



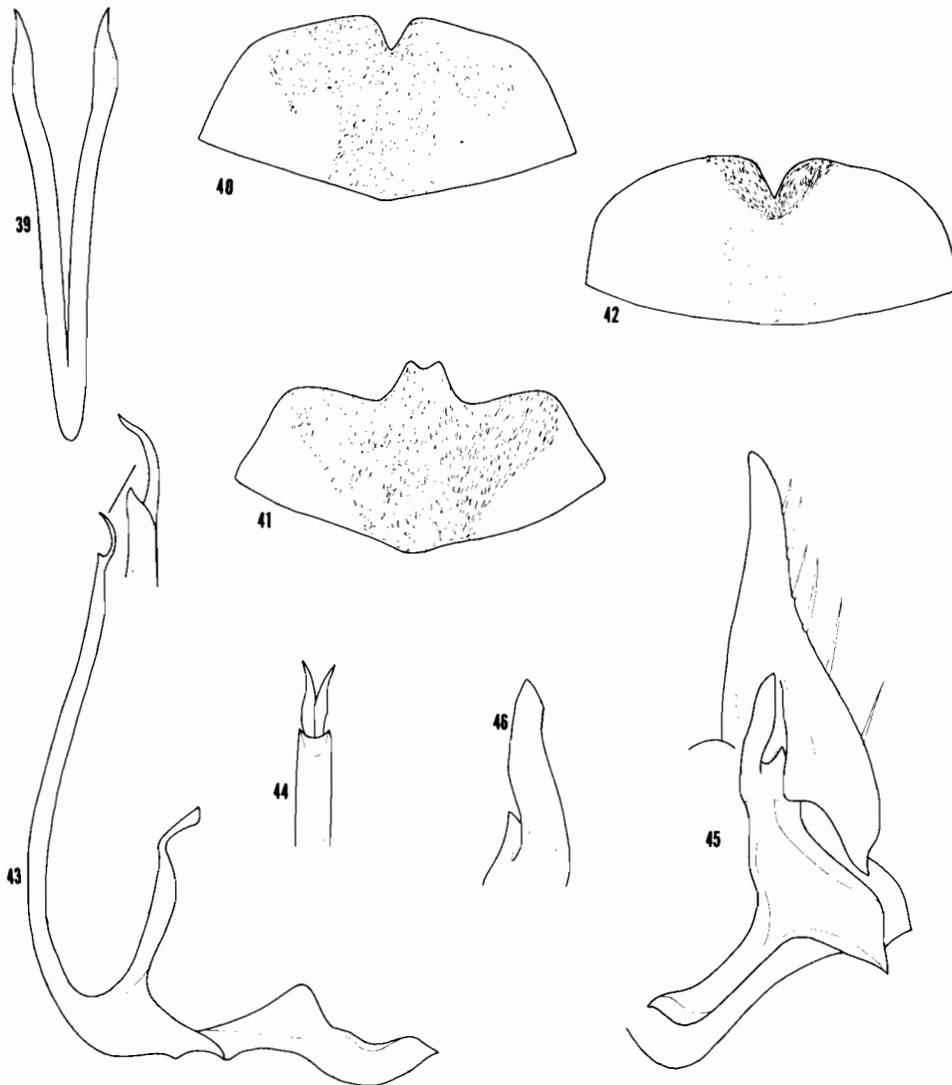
Figs. 14–17. *Spangbergiella mexicana* Bak.: 14 aedeagus, ventral aspect. *S. quadripunctata* Laws.: 15 same. *S. erratica* sp.n.: 16 same. *Tenucephalus pusillus* sp.n.: 17 7th sternite (♀).



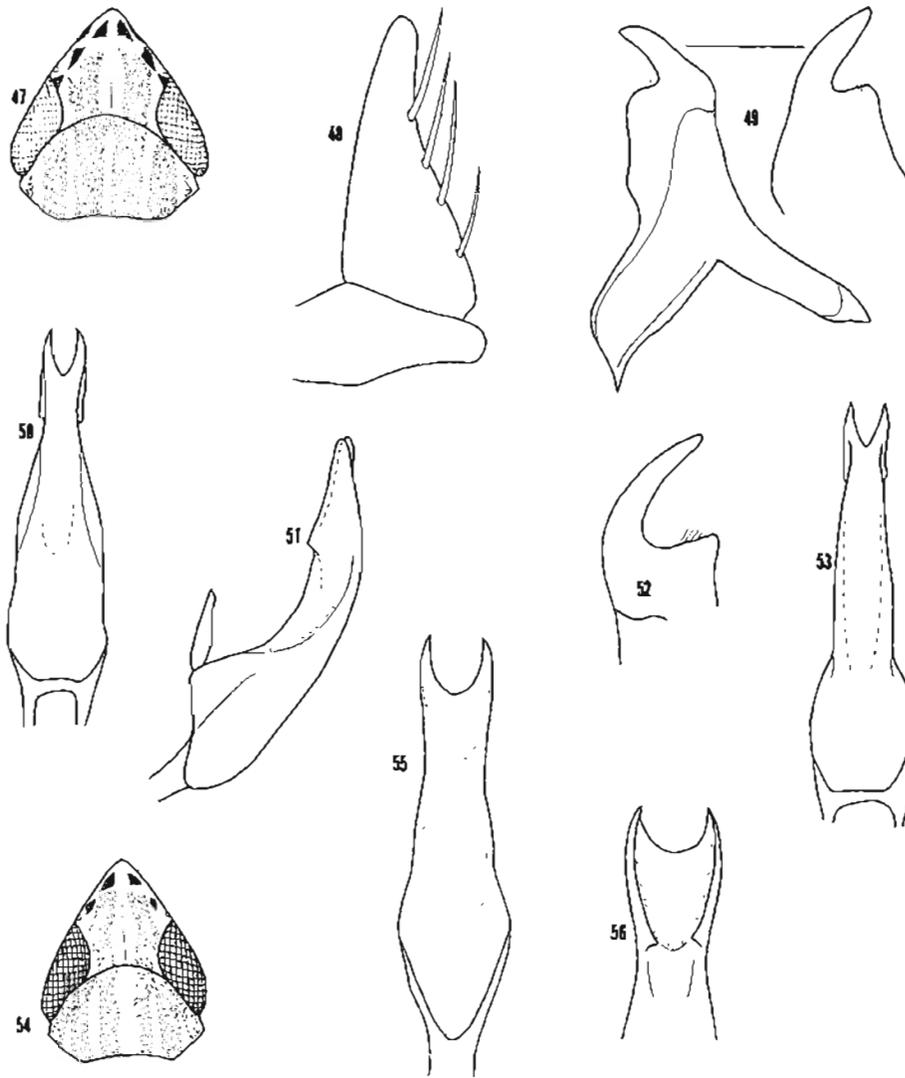
Figs. 18–26. *Tenucephalus pusillus* sp.n.: 18 7th sternite (♀) (another ex). *Scaphytopius limbatus* (Osb.): 19 genital plate and style; 20 aedeagal paraphyses, dorsal aspect. *S. barroensis* sp.n.: 21–22 same; 23 side lobe of pygofer (without macrosetae), lateral aspect; 24 aedeagal paraphyses, lateral aspect; 25 aedeagus, lateral aspect; 26 anal tube, ventral aspect.



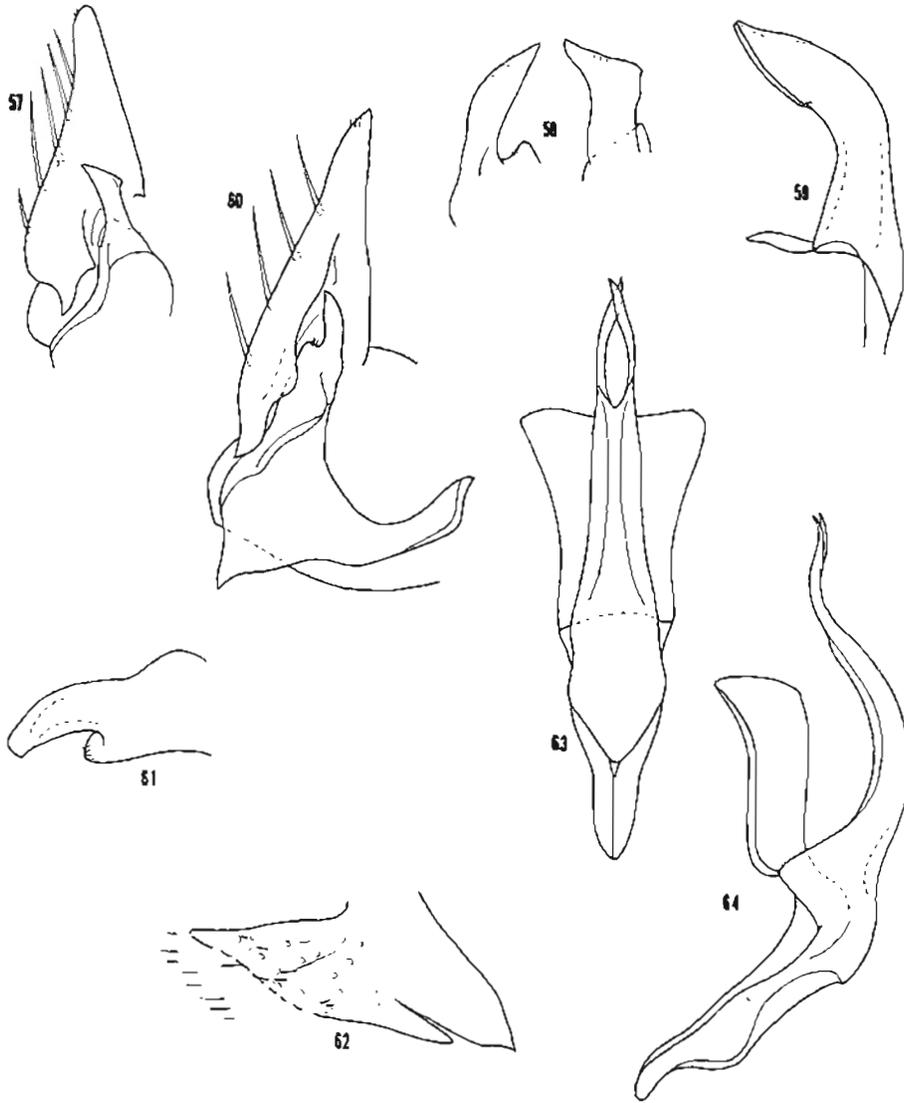
Figs. 27–38. *Scaphytopius dilatus* (DeL.): 27 genital plate and style (holotype); 28–29 same (ex from Santa Fe). *S. cumbresus* sp.n.: 30 same; 31 aedeagal paraphyses in dorsal, 32 in lateral aspect; 33 anal tube, ventral aspect; 34 aedeagus, lateral aspect. *S. chiquitanus* sp.n.: 35 genital plate and style; 36 aedeagal paraphyses, lateral aspect; 37 aedeagus in lateral, 38 in ventral aspect.



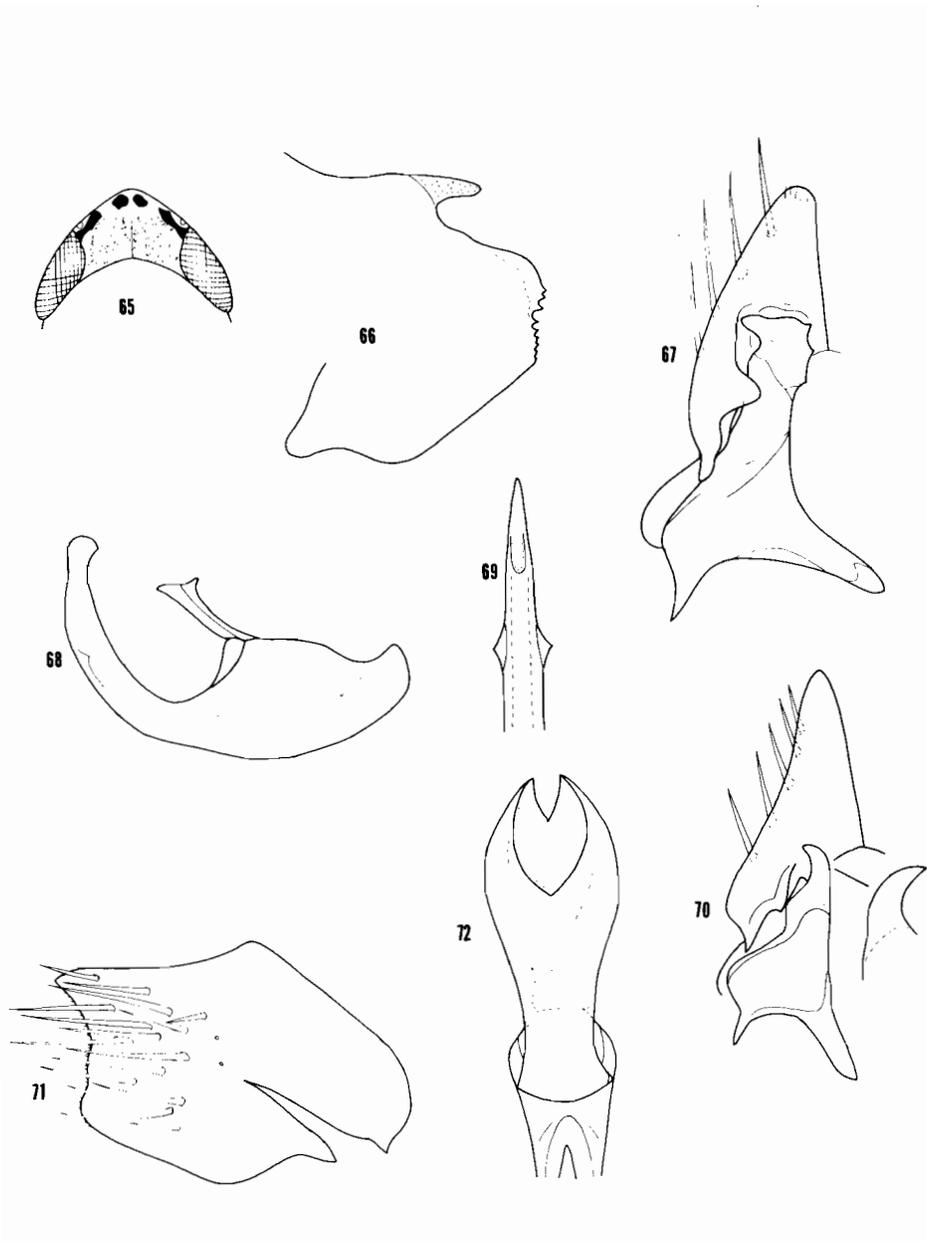
Figs. 39–46. *Scaphytopius chiquitanus* sp.n.: 39 aedeagal paraphyses, dorsal aspect. *S. dilatus* (DeL.): 40 7th sternite (♀). *S. barroensis* sp.n.: 41 same. *S. cumbresus* sp.n.: 42 same. *Polyamia majuscula* sp.n.: 43 aedeagus, lateral aspect; 44 apex of same, ventral aspect; 45 genital plate and style; 46 apex of style.



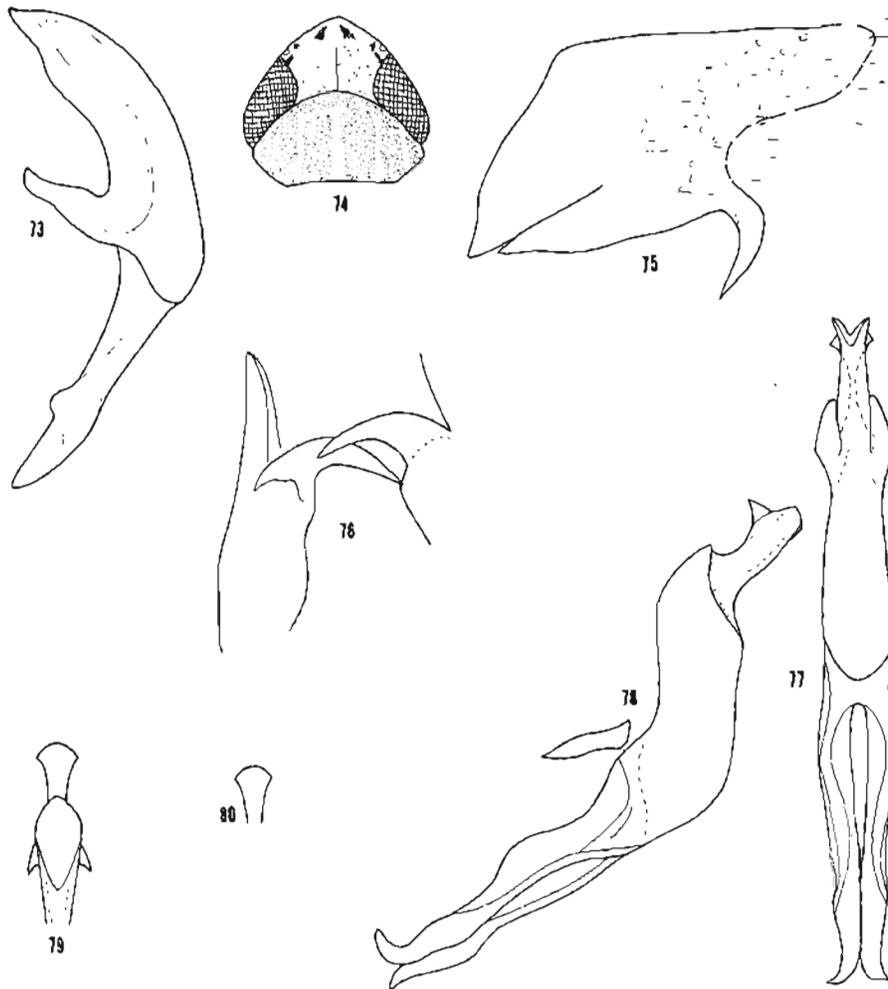
Figs. 47–56. *Polyamia chiquitana* sp.n.: 47 head and pronotum; 48 genital plate and valve; 49 style; 50 aedeagus in ventral, 51 in lateral aspect. *P. duella* DeL. & Thamb.: 52 apex of style; 50 aedeagus, ventral aspect. *P. acuticeps* sp.n.: 54 head and pronotum; 55 aedeagus, ventral aspect; 56 apex of same, dorsal aspect.



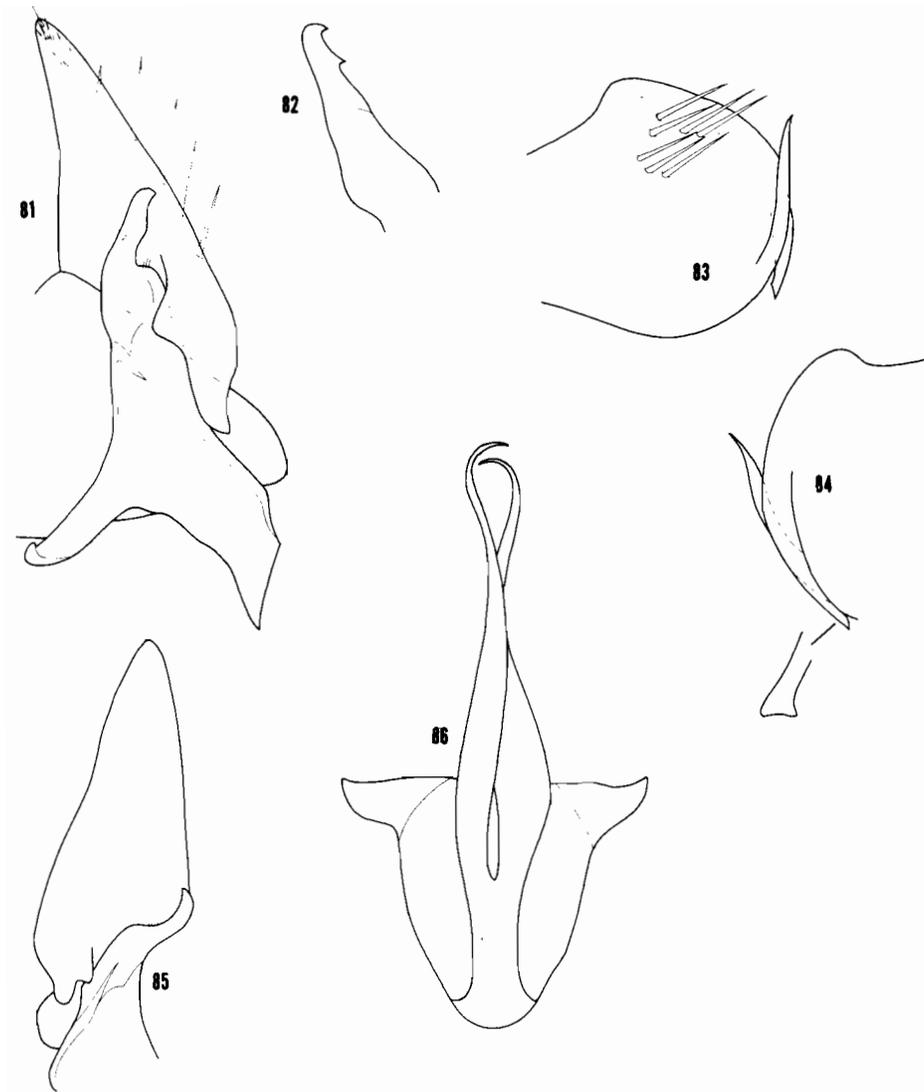
Figs. 57–64. *Polyamia acuticeps* sp.n.: 57 genital plate and style; 58 apex of style in two aspects; 59 aedeagus, lateral aspect. *Loreta modesta* sp.n.: 60 genital plate and style; 61 apex of style; 62 side lobe of pygofer, lateral aspect; 63 aedeagus in ventral, 64 in lateral aspect.



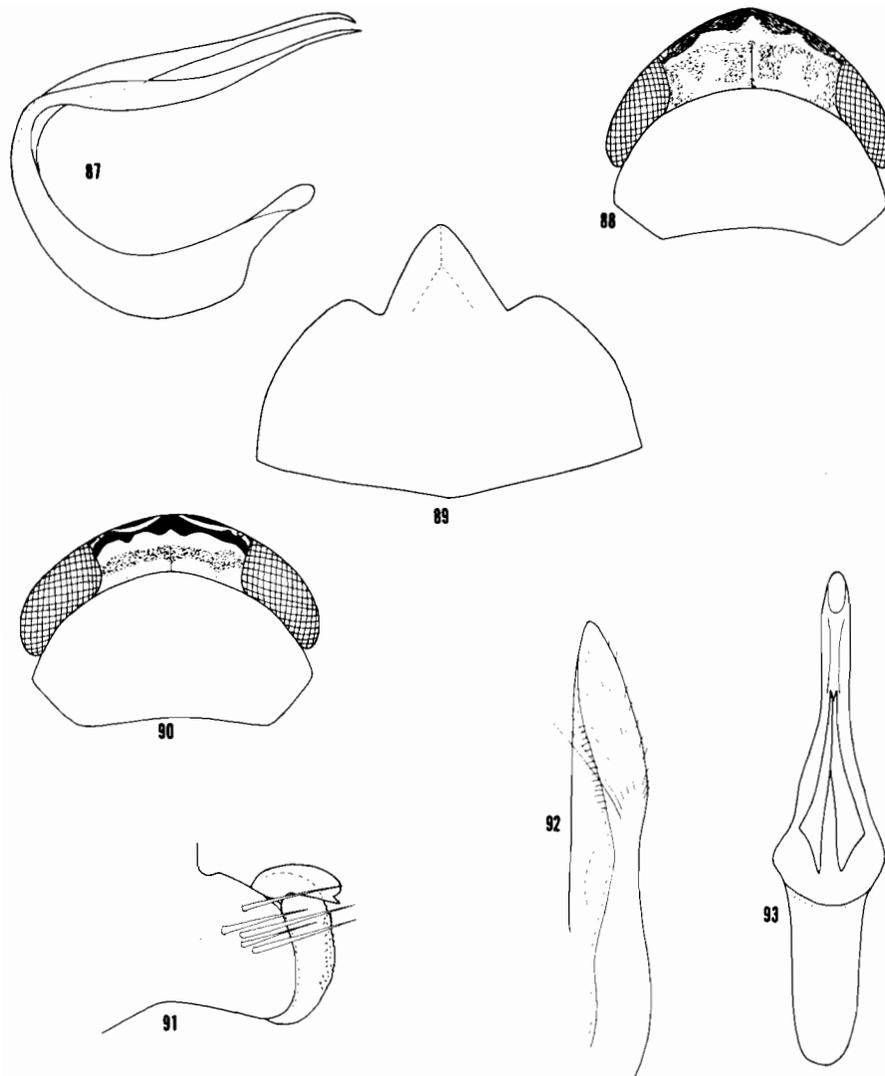
Figs. 65–72. *Planicephalus crassistylus* sp.n.: 65 head; 66 side lobe of pygofer (without macrosetae), lateral aspect; 67 genital plate and style; 68 aedeagus, lateral aspect; 69 apex of same, ventral aspect. *P. gamboanus* sp.n.: 70 genital plate and style; 71 side lobe of pygofer, lateral aspect; 72 aedeagus, ventral aspect.



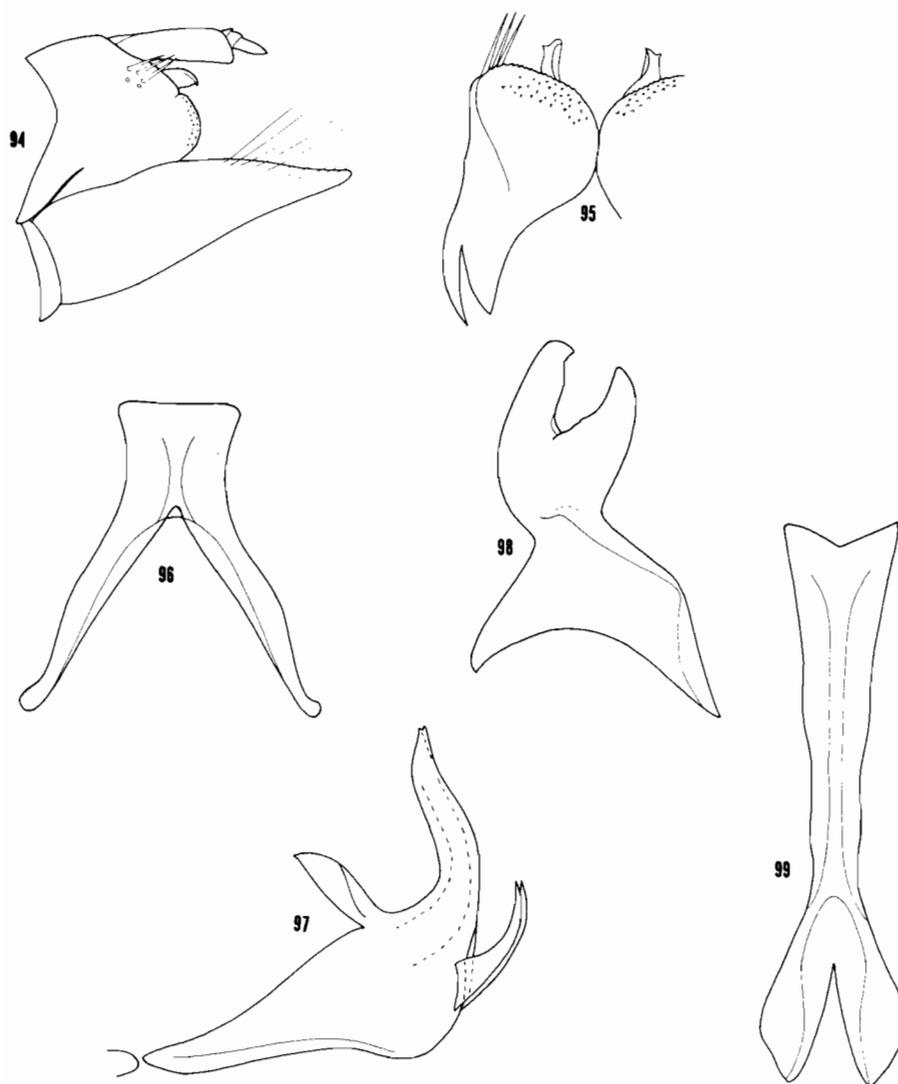
Figs. 73–80. *Planicephalus gamboanus* sp.n.: 73 aedeagus, lateral aspect. *Vicosia bicornia* gen. et sp.n.: 74 head and pronotum; 75 side lobe of pygofer, lateral aspect; 76 same (without macrosetae) ventral aspect; 77 aedeagus and connective in ventral, 78 in lateral aspect; 79 apex of aedeagus, apical aspect; 80 dorsal process of same, broad aspect.



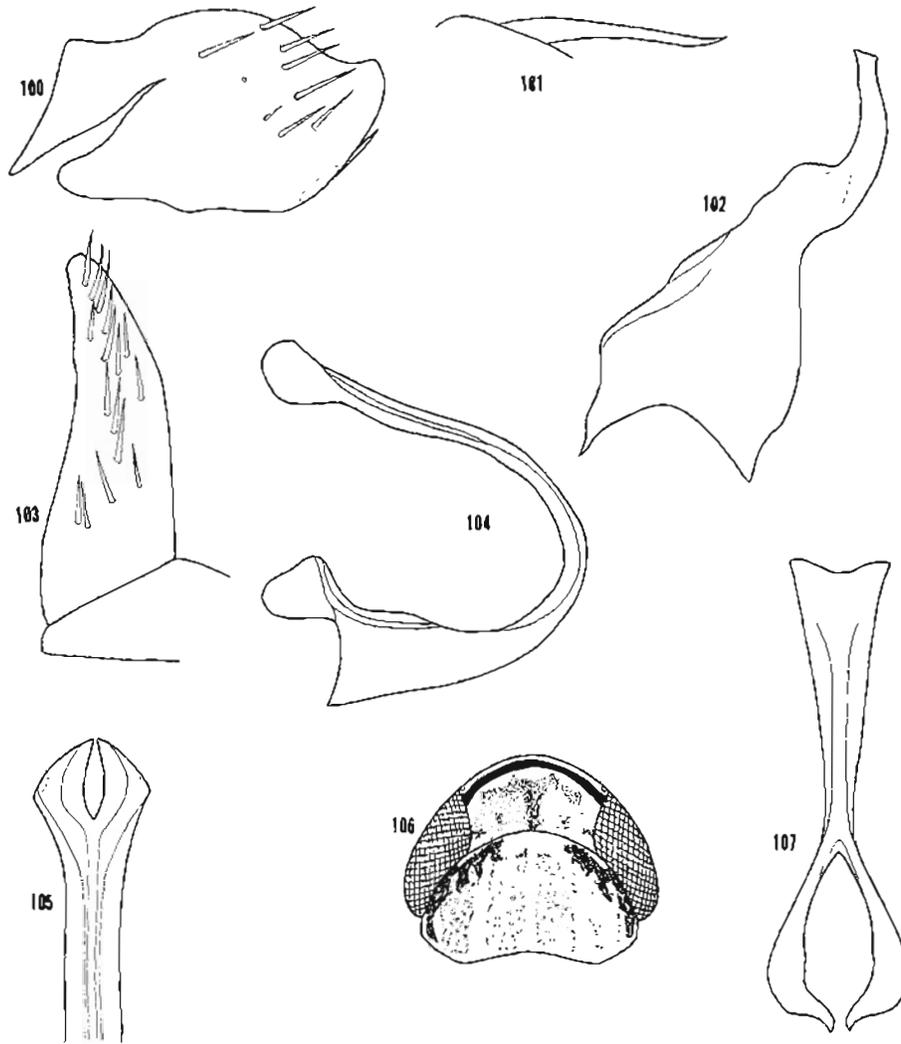
Figs. 81–86. *Vicosa bicornis* sp.n.: 81 genital plate and style; 82 apex of style. *Parabahita bicornis* sp.n.: 83 side lobe of pygofer in lateral, 84 in median aspect; 85 genital plate (without macrosetae) and style; 86 aedeagus, ventral aspect.



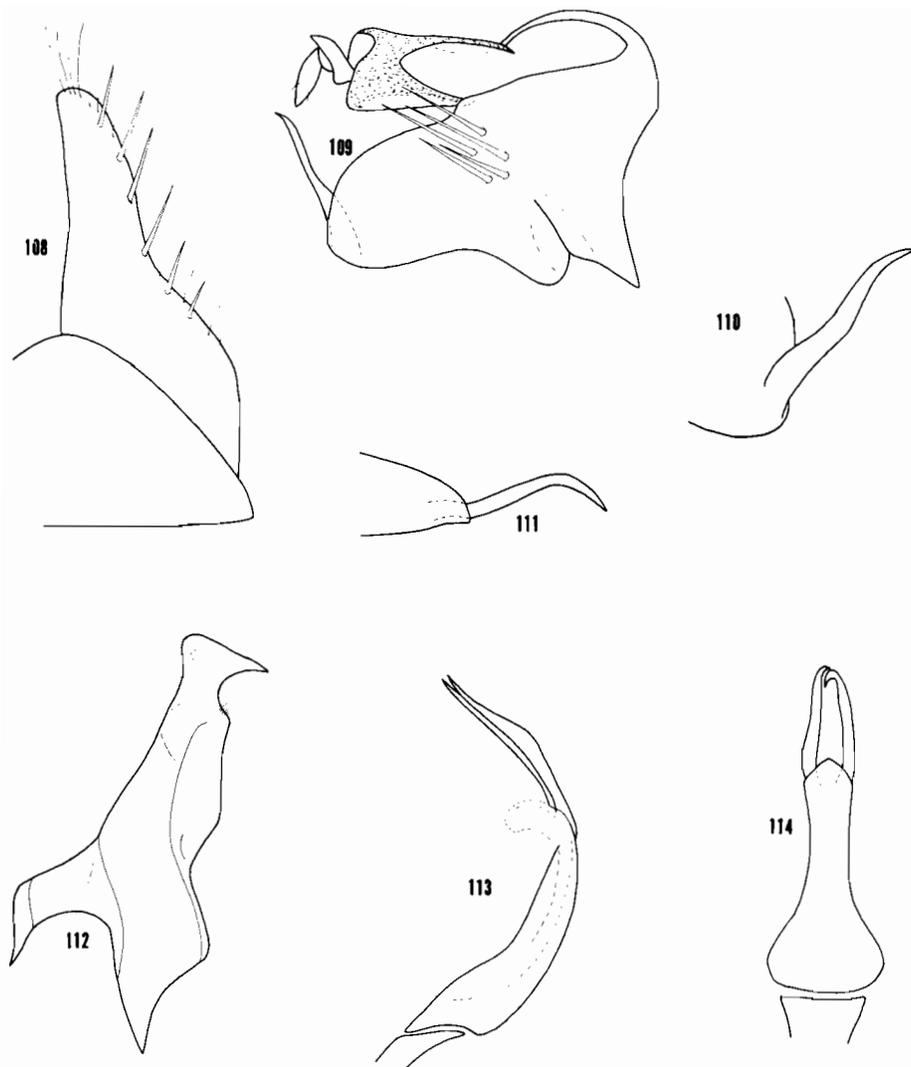
Figs. 87–93. *Parabahita bicornis* sp.n.: 87 aedeagus, lateral aspect. *Huachia trilobata* sp.n.: 88 head and pronotum; 89 7th sternite (♀). *Neohegira breviceps* gen. et sp.n.: 90 head and pronotum; 91 side lobe of pygofer, dorsal aspect; 92 genital plate, dorsolateral aspect; 93 aedeagus, ventral aspect.



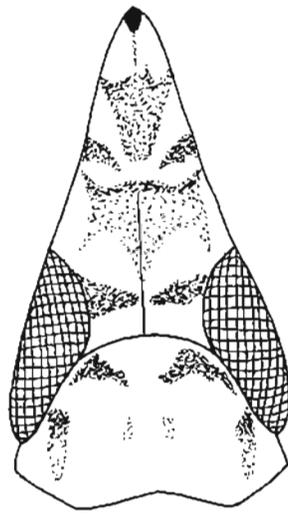
Figs. 94–99. *Neohegira breviceps* sp.n.: 94 genital segment from side; 95 pygofer, ventral aspect; 96 connective; 97 aedeagus, lateral aspect; 98 style. *Zabrosa aquareza* sp.n.: 99 connective.



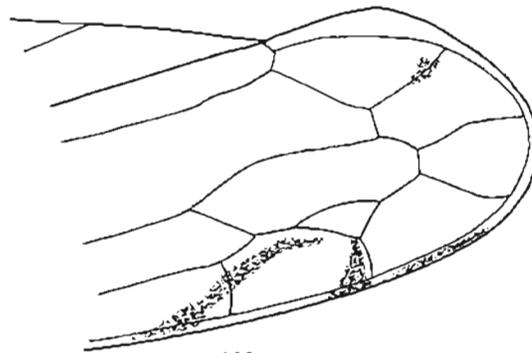
Figs. 100–107. *Zabrosa aquareza* sp.n.: 100 side lobe of pygofer, lateral aspect; 101 appendage of same; 102 style; 103 genital plate and valve; 104 aedeagus, lateral aspect; 105 apex of same, ventral aspect. *Comayagua taeniata* gen. et sp.n.: 106 head and pronotum; 107 connective.



Figs. 108–114. *Comayagua taeniata* sp.n.: 108 genital plate and valve; 109 anal tube and pygofer, lateral aspect; 110 side lobe of pygofer in median, 111 in ventral aspect; 112 style; 113 aedeagus in lateral, 114 in ventral aspect.



115



116

Figs. 115–116. *Hododoecus maculatus* (Osborne): 115 head and pronotum; 116 apex of elytron.