

# New species of Leafhoppers from Central and South America (Homoptera: Cicadellidae, Deltocephalinae, Neobalinae, Xestocephalinae)

RAUNO E. LINNAVUORI and DWIGHT M. DELONG

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The following new leafhopper species from South America are described: subfamily Deltocephalinae: *Scaphytopius (Cloanthanus) pallescens* n.sp. (Bolivia), *S. (C.) thea* n.sp. (Brazil), *Reventazonia pusilla* n.sp. (Brazil), *Bolivaia spinosa* n.sp. (Bolivia), *Haldorus vicarius* n.sp. (Bolivia), *H. bellator* n.sp. (Bolivia), *Neophlepsius bicuspidatus* n.sp. (Brazil), *Parandanus cruciatus* n.sp. (Bolivia), *Chlorotettix septempunctus* n.sp. (Brazil), *C. virgus* n.sp. (Brazil), *Cahya spinosa* n.sp. (Brazil), *Lascumbresa armata* n.gen. et n.sp. (Panama), *Atanus impictus* n.sp. (Bolivia), *A. perplexus* n.sp. (Brazil) and *A. sagittifer* n.sp. (Bolivia); subfamily Neobalinae: *Benala curticeps* n.sp. (Bolivia), *B. tricornis* n.sp. (Bolivia) and *Neobala hilaris* n.sp. (Brazil); subfamily Xestocephalinae: *Portanus retusus* n.sp. (Bolivia). The male genitalia of *Scaphytopius (Cloanthanus) sulphureus* (Obs.) and *S. (C.) irrorellus* DeL. and the structure of the ovipositor of the subfamily Neobalinae (*Neobala permata* Kram.) are illustrated for the first time.

R. E. Linnavuori, SF-21220 Somersoja, Finland.

D. M. DeLong, Dept. of Ent., Ohio State Univ., 1735 Neil Ave., Columbus, Ohio 43210, USA.

## Deltocephalinae

### 1. *Scaphytopius (Cloanthanus) sulphureus* (Osb.) Figs 1-4

Male genitalia illustrated in figs 1-4. Side lobes of pygofer roundedly triangular, strongly setose, ventral margin broadly turned mesad. Genital plates short, sharp-tipped, provided with a row of macrosetae. Shaft of aedeagus short, with a pair of claw-like apical appendages, pseudostyles falcate.

*Material studied:* Bolivia, San Esteban, 49 km N Sta Cruz, 1120 ft, 2 exx, 7.XII.1959, R. Cummings. Originally described from Province del Sara, Bolivia.

### 2. *S. (Cloanthanus) pallescens* n.sp. Figs 5-6, 8-9, 12

*Type locality:* Bolivia, San Esteban.

*Type material:* Holotype ♂, Bolivia, San Esteban, 49 km N Sta Cruz, 1120 ft, 7.XII.1959. Leg. R. Cummings, in coll. DeLong.

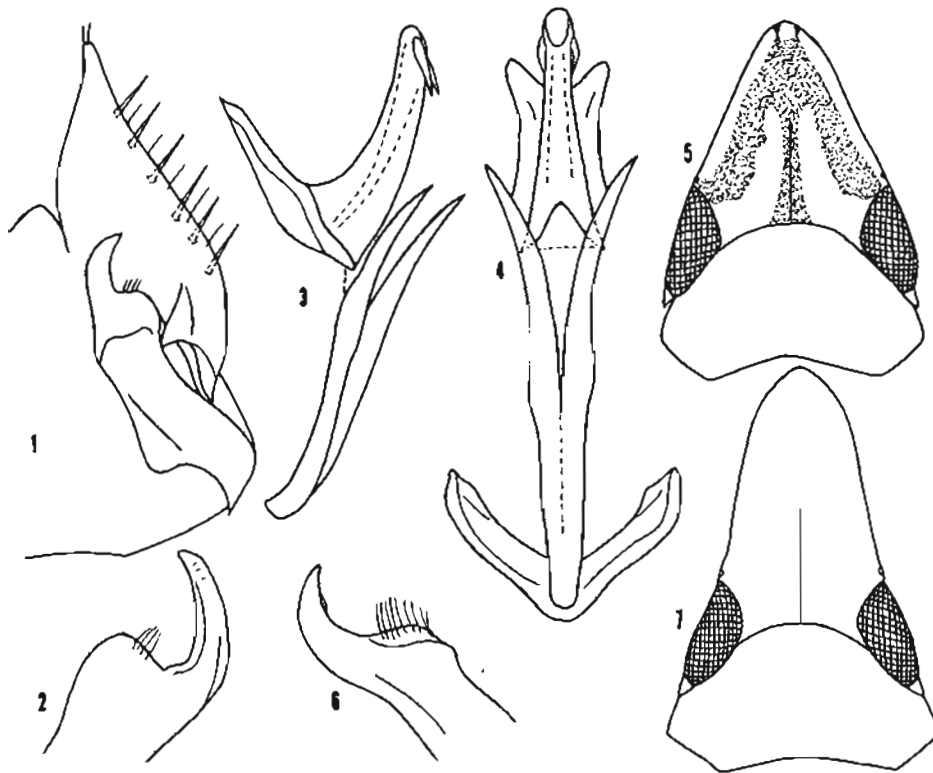
*Diagnosis:* Related to *S. sulphureus* (Osb.) but readily distinguished by the pale coloring and the male genitalia.

## Description

Length 4.5 mm. Shiny. Whitish yellow. Upper margin of frontoclypeus with an inverted V-shaped pale orange figure, lower part with a few orangish lateral arcs. Crown whitish, apex with two small dark dots, disk with an arrow-shaped pale orange figure. Eyes pale grey. Anterior margin of pronotum tinged with yellow. Basal triangles and median band on scutellum yellow. Elytra uniformly golden hyaline, veins whitish. Under surface pale yellow. Legs pale ochraceous.

Body relatively elongate. Head as broad as pronotum. Face slightly concave in profile. Crown sharply angular, 2.33 × as long at middle as near eyes, 1.35 × as long as broad between posterior angles of eyes, 1.47 × as long as median length of pronotum. Pronotum 2.52 as broad as long at middle.

Male genitalia in figs 6, 8-9 and 12. Side lobes of pygofer elongate, roundedly triangular, setose. Genital plates short and broad, with a row of macrosetae. Shaft of aedeagus rather long, in ventral aspect broadening apicad, with a pair of falcate apical appendages, pseudostyles long and rather incrassate.



Figs 1-7. - 1-4. *Scaphytopius sulphureus* (Osb.). 1. Genital plate and style. - 2. Apex of style. - 3. Aedeagus in lateral aspect. - 4. Same and connective, ventral aspect. - 5-6. *S. pallescens* n.sp. 5. Head and pronotum. - 6. Apex of style. - 7. *S. irrorellus* DeL., head and pronotum.

3. *S. (Cloanthanus) irrorellus* DeL.

Figs 7, 10-11, 13-15

The species was incorrectly placed in the subgenus *Convelinus* Ball by Linnavuori (1959: 71). Head and pronotum in fig. 7. Male genitalia in figs 10-11 and 13-15. Ventral surface of aedeagal shaft deeply scored concealing apices of the falcate pseudostyles.

**Material studied:** Brazil, Campinas, São Paulo, 1 ♂, holotype, 12.IV.1936, E. J. Hambleton in coll. DeLong. Bolivia, San Esteban, 49 km N Sta Cruz, 1120 ft, 2 exx, 26.X.1959, R. Cummings.

4. *S. (Cloanthanus?) thea* n.sp.

Fig 16

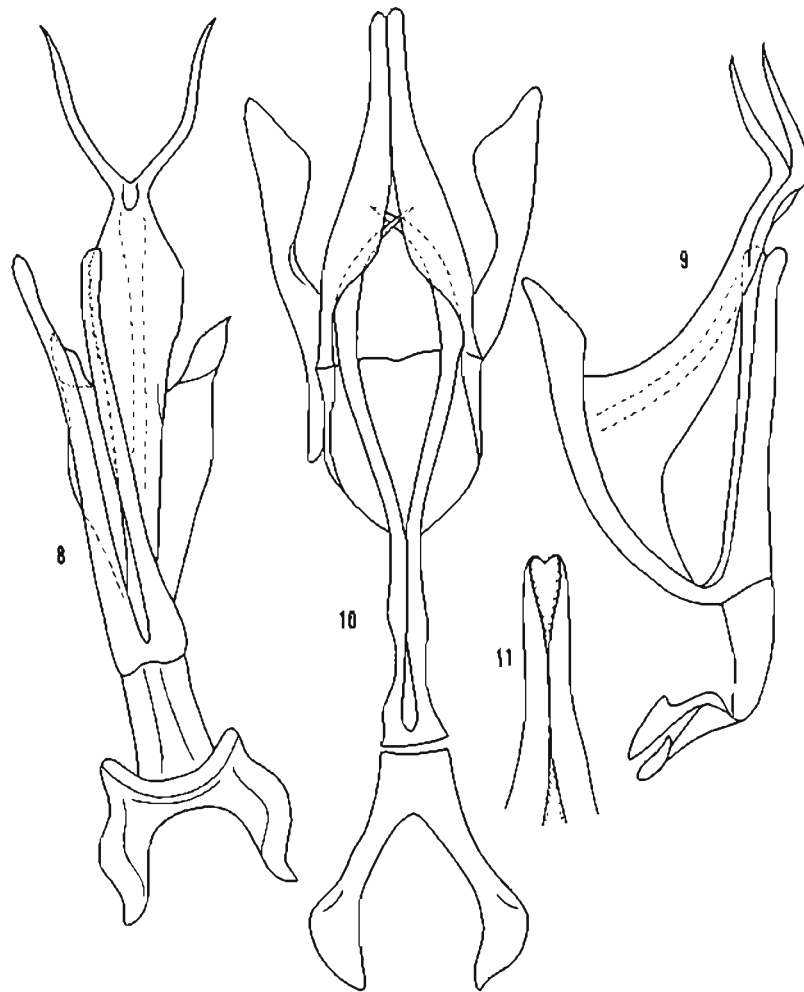
**Type locality:** Brazil, Nova Teutonia.

**Type material:** Holotype ♀ Brazil, Nova Teutonia, alt. 300-500 m, 11.X.1952. Leg. F. Plaumann, in coll. DeLong.

**Diagnosis:** A unique species readily distinguished by the coloring.

**Description**

Length 5.25 mm. Fairly shiny. Face reddish upper part of frontoclypeus with a short pale inverted V-shaped middle spot. Crown dark orange with small whitish spots as indicated in fig. 16. Eyes reddish grey. Pronotum dark orange, margins and a narrow median line pale yellow, anterior margin with a small whitish spot behind either eye. Scutellum orange, basal margin with 4, apical part with 3 small whitish spots. Elytra hyaline, pale to whitish yellow basal quarter orange, sharply delimited by dark fuscous posteriorly, two small round whitish spots surrounded by fuscous on clavus, an indistinct pale spot in front of the fuscous band in costal margin; apical quarter (to tip of clavus) dark fuscous, apical cells with small, apical subapical cells with large milky spots, concolorous, in apical part orange, veins of apical cell dark. Dorsum of abdomen yellow. Under surface orangish to pale yellow.



Figs 8-11. -8-9. *Scaphytopius pallescens* n. sp. 8. Aedeagus and connective in ventral, 9. in lateral aspect. - 10-11. *S. irrorellus* DeL. 10. Aedeagus and connective, ventral aspect. - 11. Apex of aedeagus, ventral aspect.

Legs pale ochraceous. fore and middle femora slightly embrowned.

Body robust. Head narrower than pronotum. Face nearly straight in profile. Crown bluntly roundedly angular, 1.53 × as long at middle as laterally, 1.15 × as long as broad, as long as median length of pronotum. Pronotum 2.6 × as broad as long at middle, lateral margins curved, strongly diverging caudad. 7th sternite (♀) long, ligulate.

**3. *Reventazonia pusilla* n. sp.**

Figs 17-21

**Type locality:** Brazil, Amazonas, Santarem.

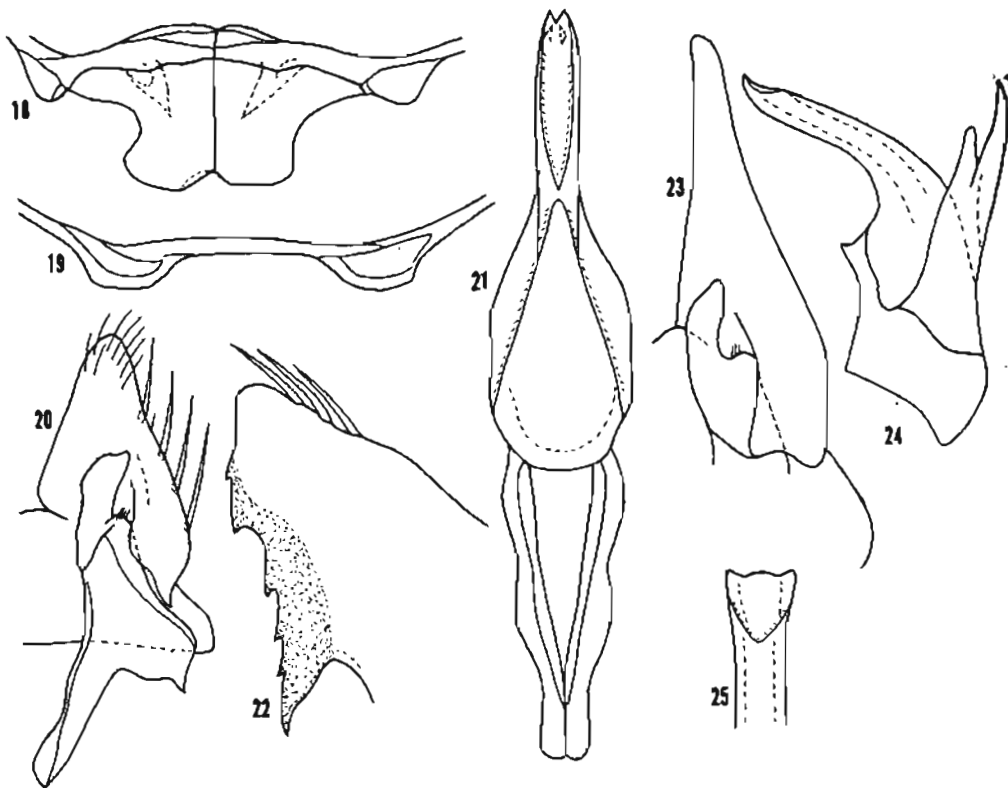
**Type material:** Holotype ♂, Brazil, Amazonas, Santarem, 11.1943. Leg. L. Berry, in coll. DeLong. -

**Paratype:** 1 ♂, same data as holotype.

**Diagnosis:** Differing from the other species (*R. atrifrons* Lv., *R. lawsoni* (DeL.) and *R. pallida* Lv. & DeL.) in the small size, short and flat crown, pale coloring and the male genitalia.

#### Description

Length 3 mm. Shiny. Pale ochraceous. Face subopaque. frontoclypeus light brown with pale lateral arcs. Crown with 4 faint brown spots in anterior margin and traces of two irregular longitudinal brownish discal bands. Eyes greyish. Pronotum with 6 very faint longitudinal brown bands. Scutellum with basal triangles and median stripe yellowish. Elytra yellowish hyaline, immaculate, veins pale. Under surface and legs



Figs 12-17. - 12. *Scaphytopius pallescens* n.sp., genital plate and style. - 13-15. *S. irrorellus* DeL. 13. Same. - 14. Apex of style. - 15. Aedeagus, lateral aspect. - 16. *S. thea* n.sp., head, thorax and base of elytra. - 17. *Reventazonia pusilla* n.sp., aedeagus, lateral aspect.

pale ochraceous. Hind tibiae with small dark dots.

Very small, resembling certain *Amplicephalus* species in general appearance. Head broader than pronotum. Face rather convex, densely shagreened, frontoclypeus distinctly broadening upwardly, ocellocular area narrow. Crown roundedly, 1.22-1.25 × as long at middle as laterally, 0.7-0.8 × as long as broad, disk flat, frontal region not elevated. Elytra with 3 closed subapical cells. Spinulation of fore tibiae 1 + 4. Apodemes of 1st and 2nd sternites in figs 18-19.

Male genitalia in figs 17 and 20-21. Genital plates short. Apophysis of style short and incrassate, minutely dentate, preapical angle rounded. Basal part of aedeagus broad, apical part narrow, provided with a pair of small triangular lobes on dorsal surface; gonopore very long, on ventral surface.

#### 6. *Bolivaia spinosa* n.sp.

Figs 27-33

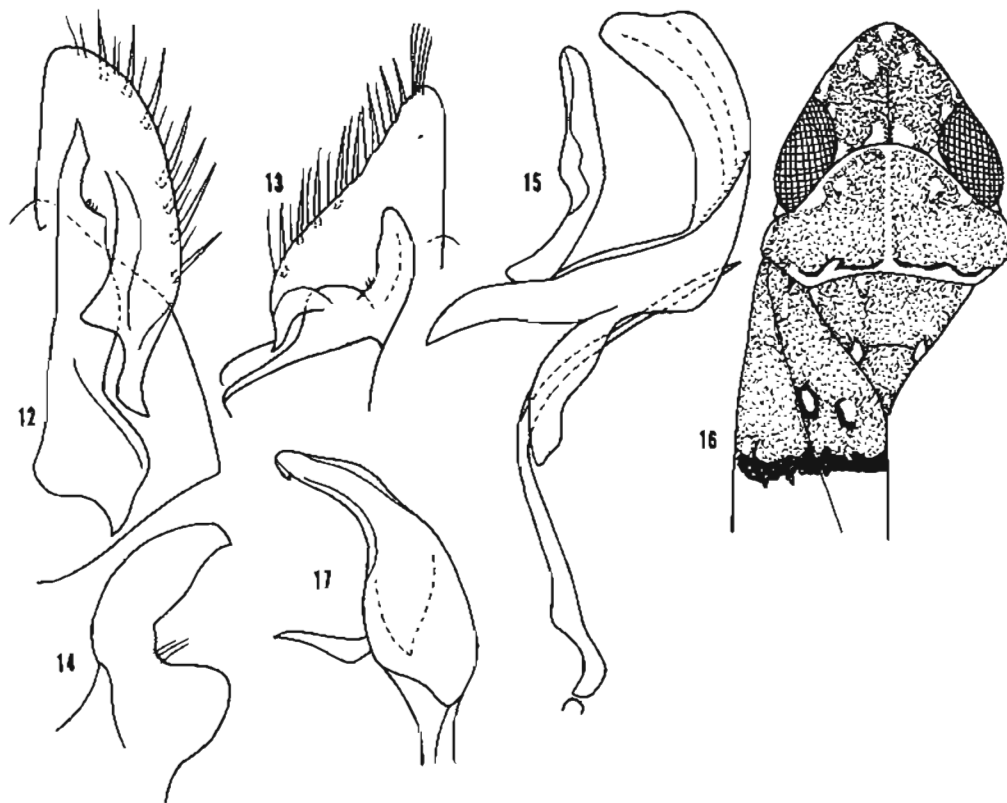
*Type locality:* Bolivia, San Esteban.

*Type material:* Holotype ♂, Bolivia, San Esteban 49 km N Sta Cruz, 1120 ft, 26.X.1959. Leg. R. Cummings, in coll. DeLong. - Paratype: 1 ♂, same data as holotype. Two more specimens, ♀♀, same data as holotype, probably belong to this species.

*Diagnosis:* Like *B. lobata* Lv. & DeL. but smaller and with dissimilar male genitalia.

#### *Description*

Length ♂ 3.5, ♀ 3.75 mm. Like *B. lobata* Lv. & DeL. (Linnavuori & DeLong, 1959) but smaller. Male genitalia in figs 27-33. Lobes of pygofer strongly setose, ventral margin turned mesad and provided with a claw-like process directed caudomesad. Anal tube



Figs 18–25. – 18–21. *Reventazonia pusilla* n.sp. 18. Apodemes of 1st sternite ( $\delta$ ), broad aspect. – 19. Apodemes of 2nd sternite. – 20. Genital plate and style. – 21. Aedeagus and connective, ventral aspect. – 22–25. *Haldorus vicarius* n.sp. 22. Side lobe of pygofer. – 23. Genital plate (without macrosetae) and style. – 24. Aedeagus from side. – 25. Apex of aedeagus, ventral aspect.

branous. Genital plates elongately triangular, lateral margins only slightly insinuated. Style elongate, apophysis gracile, preapical angle rounded. Shaft of aedeagus slender, slightly recurved ventrad, ventral surface with a blunt median keel; gonopore apical. 7th sternite ( $\varnothing$ ) twice as long as 6th, hind margin subtruncate.

7. *Haldorus vicarius* n.sp.  
Figs 22–26

*Type locality*: Bolivia, San Esteban.

*Type material*: *Holotype*  $\delta$ , Bolivia, San Esteban, 49 km N Sta Cruz, 1120 ft, 7.XII.1959. Leg. R. Cummings, in coll. DeLong. – *Paratype*: 1  $\varnothing$ , same data as holotype.

*Diagnosis*: Like *H. furcatus* Old. (description of male genitalia in Linnavuori & DeLong 1979) but shaft of aedeagus straight in profile (curved in *furcatus*)

and aedeagal processed bifid apically (hooked in *furcatus*).

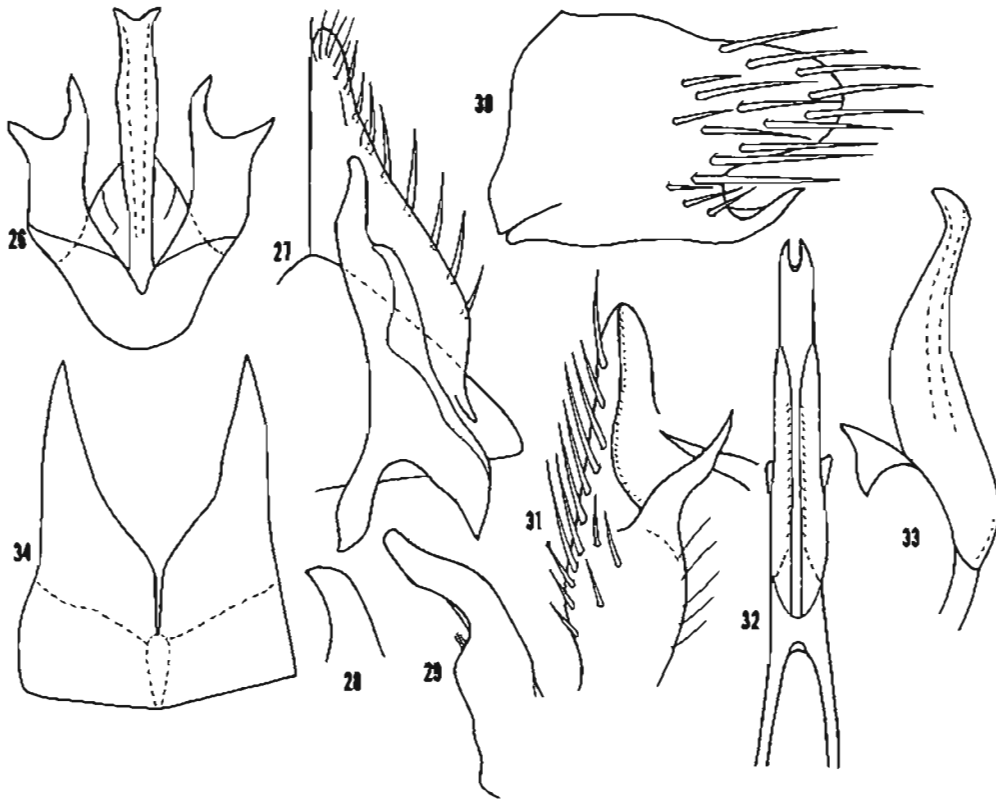
*Description*

Length 2.75–3 mm. Externally like *H. furcatus* Cld. Male genitalia in figs 22–26. Ventral margins of side lobes of pygofer sclerified and irregularly dentate. Genital plates long and narrow. Aedeagus provided with a pair of thick basal processes bifid apically, shaft short, nearly straight in lateral aspect. Hind margin of 7th sternite ( $\varnothing$ ) truncate.

8. *H. bellator* n.sp.  
Figs 35–37

*Type locality*: Bolivia, San Esteban.

*Type material*: *Holotype*  $\delta$ , Bolivia, San Esteban, 49 km N Sta Cruz, 1120 ft, 7.XII.1959. Leg. R.



Figs 26-34. - 26. *Haldorus vicarius* n.sp., aedeagus, ventral aspect. - 27-33. *Bolivaia spinosa* n.sp. 27. Genital plate and style. - 28-29. Apex of style. - 30. Side lobe of pygofer in lateral, 31. in ventral aspect. - 32. Aedeagus in ventral, 33. in lateral aspect. - 34. *Neophlepsius bicuspidatus* n.sp., 7th sternite (♀).

Cummings, in coll. DeLong. - *Paratype*: 1 ♂, same data as holotype.

*Diagnosis*: Related to *H. paraguayensis* Lv. but readily distinguished by the pale coloring, long genital plates and shape of the aedeagus.

#### Description

Length 3.5 mm. Externally like *H. sexpunctatus* (Berg). Male genitalia in figs 35-37. Genital plates long, sharply-triangular. Apophysis of style digitate. Aedeagus provided with 3 long falcate basal appendages directed apicad, shaft with a pair of claw-like processes recurved ventrad.

#### 9. *Neophlepsius bicuspidatus* n.sp.

Fig. 34

*Type locality*: Brazil, São Paulo.

*Type material*: *Holotype* ♀, Brazil, São Paulo, without

date. leg. J. Lane, in coll. DeLong.

*Diagnosis*: Differing from the other species (*N. multifarius* (Berg) and *N. corpulentus* Lv.) in the shape of the 7th sternite (♀).

#### Description

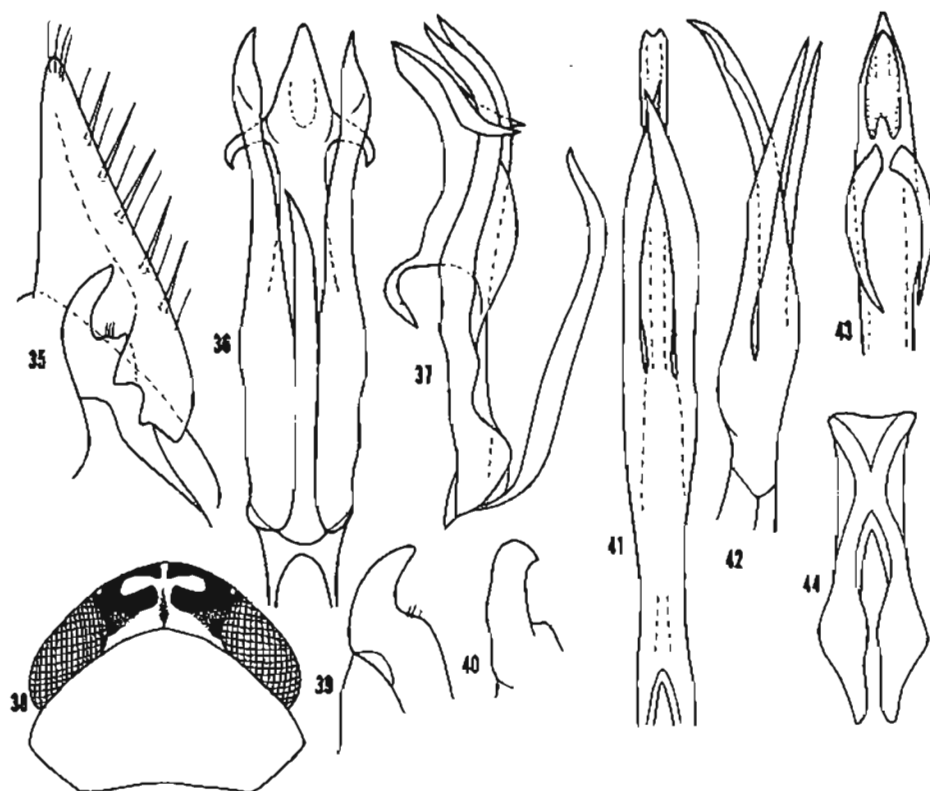
Length 7 mm. Like *N. multifarius* (Berg) but ground color somewhat more yellowish, brown irroration on pronotum and elytra more abundant and 7th sternite (♀) (fig. 34) very dissimilar with hind margin deeply insinuated and caudo-lateral angles long and acute (7th sternite elliptical in the other species, Linnavuori 1959: 192-194).

#### 10. *Parandanus cruciatus* n.sp.

Figs 38-42.

*Type locality*: Bolivia, Cochabamba, Limbo.

*Type material*: *Holotype* ♂, Bolivia, Cochabamba;



Figs 35-44. - 35-37. *Haldorus bellator* n.sp. 35. Genital plate and style. - 36. Aedeagus in ventral, 37. in lateral aspect. - 38-42. *Parandanus cruciatus* n.sp. 38. Head and pronotum. - 39-40. Apex of style. - 41. Aedeagus in ventral, 42. in lateral aspect. - 43-44. *Cahya spinosa* n.sp. 43. Apex of aedeagus, ventral aspect. - 44. Connective.

Chapare Prov., Limbo, 24.X.1959. Leg. R. Cummings, in coll. DeLong.

*Diagnosis:* Distinguished from the other species (*P. hilaris* Lv. & DeL. and *P. ornatus* Lv. & DeL.) by the coloring and the male genitalia.

#### Description

Length 6 mm. Shiny. Yellow-brown. Upper margin of face black, lower part of frontoclypeus embrowned with pale median stripe and lateral arcs; also other parts somewhat embrowned. Anterior margin of crown black with ocelli and a cruciate middle spot pale; a small black spot at basal angles of eyes, disk around them slightly embrowned. Eyes grey. Pronotum with 6 broad longitudinal brown bands. Scutellum with basal triangles and a narrow median stripe brown. Elytra hyaline, yellow-brown, veins pale, ± bordered with brown. Under surface and

legs dark yellow-brown, hind tibiae with dark dots.

Body form as in the other species. Crown of nearly uniform length, 1.5 × as broad as long.

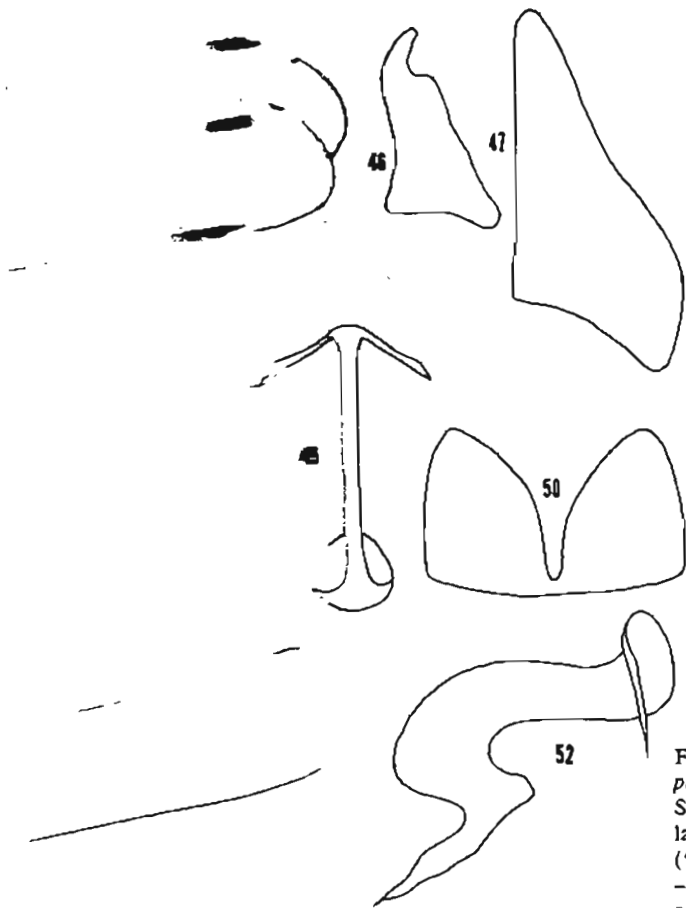
Male genitalia: Apophysis of style (figs 39-40) short. Aedeagus (figs 41-42) with a pair of falcate basal processes directed apicad, shaft gracile and nearly straight. Other genitalia as in *P. hilaris* Lv. & DeL. but lateral margins of genital plates nearly straight (distinctly insinuated in the two other species).

#### 11. *Chlorotettix septempunctus* n.sp.

Figs 45-50

*Type locality:* Brazil, Surnum, Roraima.

*Type material:* Holotype ♂, Brazil, Surnum, Roraima, IX.1956. Leg. M. Alvarenga & F. M. Oliverira, in coll. DeLong. - *Paratypes:* 1 ♀, same data as holotype.



Figs 45-52. - 45-50. *Chlorotettix septempunctus* n.sp. 45. Head and thorax. - 46. Style. - 47. Genitale plate. - 48. Aedeagus in lateral, 49. in ventral aspect. - 50. 7th sternite (♀). - 51. *C. virgus* n.sp., 7th sternite (♀). - 52. *Portanus retusus* n.sp., aedeagus, lateral aspect.

from *C. duospinus* DeL. by  
 each on crown, pronotum  
 structure.

broadly rounded and  
 than twice as wide at  
 median length. Color  
 with a median black  
 and a black spot above  
 with two black marginal  
 eye. A triangular black  
 of scutellum. Forewings  
 face with a black spot  
 and a black spot ventral  
 seventh sternum (fig. 50)  
 side lobes convexly  
 (fig. 47) triangular, narrow,  
 with apical portion narrow,

curved outwardly. Aedeagus (figs 48, 49) with a pair of apical processes extending dorsally, diverging, apices of processes spear-like. Pygofers rounded apically.

12. *Chlorotettix virgus* n.sp.  
 Fig. 51

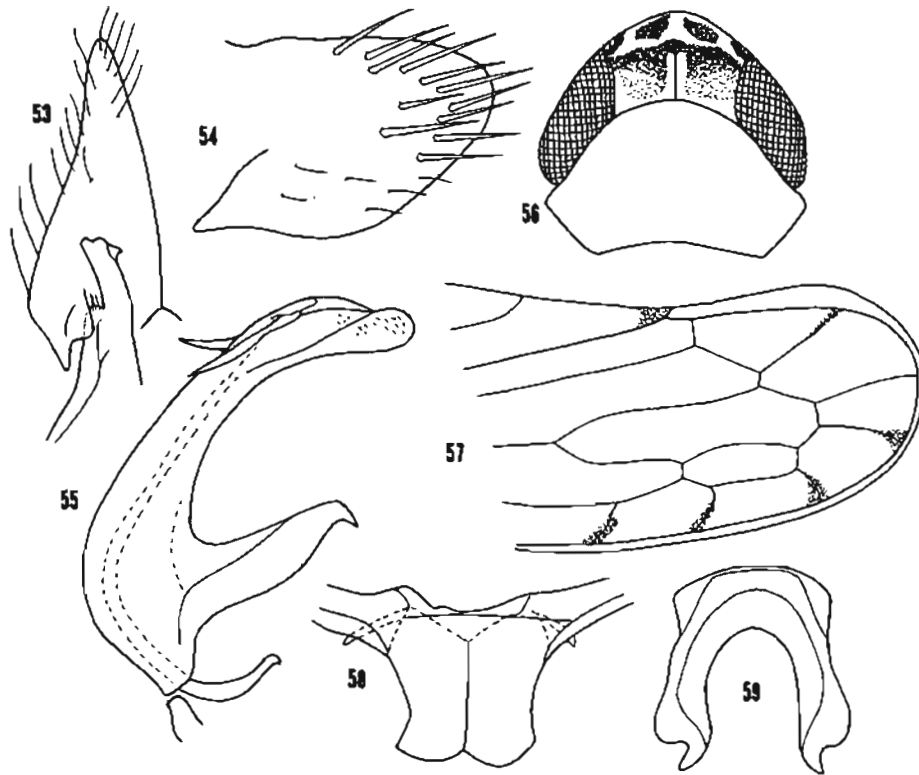
*Type locality:* Brazil, Surnum, Roraima.  
*Type material:* Holotype ♀, Brazil, Surnum, Roraima, IX.1966. Leg. M. Alvarenga & F. M. Oliverira, in coll. DeLong. - *Paratype:* 1 ♀, same data as holotype.

*Diagnosis:* Resembling *C. septempunctus* Lv. & DeL. in general form but the striking coloration will distinguish *virgus* from any of the described forms.

*Description*

Length of female 6 mm., male unknown.  
 Crown broadly rounded, appearing parallel





Figs 53-59. - 53-55. *Cahya spinosa* n.sp. 53. Genital plate and style. - 54. Side lobe of pygofer, lateral aspect. - 55. Aedeagus, lateral aspect. - 56-59. *Lascumbresa armata* n.gen., n.sp. 56. Head and pronotum. - 57. Apex of elytron. - 58. Apodemes of 1st sternite ( $\delta$ ), broad aspect. - 59. Connective.

margined, and rounded to front, one third as long at middle as basal width between eyes. Color buff, crown with a conspicuous black spot next each ocellus on rounded margin. Pronotum and scutellum buff unmarked. Forewings buff, a narrow marginal line along commissure; a broad brown longitudinal stripe extends from base of wing across corium to apex, broadening at tip to cover apical cells. Female 7th sternum (fig. 51) with posterior margin broadly shallowly emarginate.

13. *Cahya spinosa* n.sp.  
Figs 43-44, 53-54

*Type locality*: Brazil, Ter. Amapa, Rio Anicohi.  
*Type material*: Holotype  $\delta$ , Brazil, Ter. Amapa, Rio Anicohi, 14.VI.1959. Leg. J. Lane, in coll. DeLong. - Paratypes: 8  $\varnothing$ , same date as holotype.  
*Diagnosis*: Differing from the two other species of the

genus, *C. pulchella* (Osb.) and *C. variabilis* (DeL.), (redescription in Linnavuori 1959:276-278) in the bigger size, the strongly spinose side lobes of the pygofer and the shape of the 7th sternite ( $\varnothing$ ).

#### Description

Length 5.0-5.5 mm. Shiny. Yellow-green. Basal margin of pronotum in  $\varnothing$  with a small dark spot on either side. Elytra yellowish hyaline, veins concolorous. Legs pale ochraceous, immaculate.

Body as in *C. pulchella* (Osb.) but more robust. Crown of nearly uniform length, about 1.13  $\times$  as long at middle as laterally, 1.35-1.46 ( $\delta$ ) or 1.58 ( $\varnothing$ )  $\times$  as broad as long.

Male genitalia in figs 43-44 and 53-55. Side lobes of pygofer rounded, provided with several macrosetae. Genital plates sharply triangular. Apophysis of style rather slender with apex

slightly expanded. Shaft of aedeagus flattened, a pair of claw-like subapical appendages on ventral surface; gonoduct sclerified basad of aedeagus and forming a short loop. Hind margin of 7th sternite (♀) truncate.

*Lascumbresa* n.gen.

*Type species: Lascumbresa armata* n.sp.

*Diagnosis:* A distinctive genus resembling *Bergolix* Lv. and *Bandara* Ball (and the nearctic *Eutettix* V. Dz. and the genera of the *Aligia* group) in the elevated frontal region of the crown but differing in the coloring, cephalic structure and the male genital structure.

*Description*

Medium-sized golden brown leafhoppers with dark brown and orange pattern on crown.

Body rather elongate. Head as broad as pronotum, anterior margin subacute. Face fairly flat, a little broader than high, lower part roundedly bluntly angular in outline; anteclypeus broadening apicad; frontoclypeus narrow, expanding upwardly; lora rather large; genae shallowly insinuated near eyes; ocellular area very narrow, in upper part nearly absent; flagellum of antennae long. Crown roundedly angularly produced, frontal region densely shagreened and distinctly elevated, discal region sloping apicad, finely longitudinally striated, indistinctly shagreened; coronal suture long, postfrontal suture distinct; ocelli in anterior margin nearly touching the large eyes. Lateral margins of pronotum short. Elytra hyaline, appendix distinct, 2 closed subapical cells, cross veins of 4th and 5th apical cells and an extra costal veinlet reflexed and darkened (fig. 57), a cross vein between the lower claval vein and claval suture. Spinulation of fore tibiae 1+4, of hind knees 2+2+1. ♂: 1st sternite with long parallel-sided apodemes (fig. 58). Apodemes of 2nd sternite short and rounded.

Male genitalia: Pygofer short and broad with a deep transverse incisure at middle, rather shallowly insinuated behind the tubular sclerified anal tube; side lobes nearly square, with several macrosetae, ventral margin with a long appendage. Genital plates broad, lateral margins irregularly sinuated, a fluctuate row of macrosetae arising rather far from the margin. Apical part of style elongate and relatively slender, apophysis hooked, preapical angle rounded; basal part

broad. Connective (fig. 59) short and broad, Y-shaped, articulated. Aedeagus small, lamellate, with a pair of short apical processes; gonopore subapical on dorsal surface.

14. *Lascumbresa armata* n.sp.

Figs 56-66

*Type locality:* Panama, Las Cumbres.

*Type material:* Holotype ♂, Panama, Las Cumbres, 18.I.1975. Leg. Henk Wolda, in coll. DeLong.

*Diagnosis:* Cf. diagnosis of the genus.

*Description*

Length 4.9 mm. Shiny. Golden brown. Frontoclypeus dark brown, short lateral arcs, a diffuse median stripe and longitudinal lateral spots above antennal pits pale; median stripe on anteclypeus, margins of lora and antennal pits dark. Anterior margin of crown whitish with two apical spots and a stripe around either ocellus dark brown, a transverse fuscous band along postfrontal suture, disk with a large orangish spot on either side. Eyes dark grey. Pronotum with 6 faint orangish longitudinal bands. Basal triangles of scutellum orangish, lateral margins with small pale spots. Elytra hyaline golden brown, cells with indistinct milky spots and elongate dark dashes, tip of clavus dark; veins brown, tips of claval veins and reflexed costal veinlets dark brown. Under surface faintly embrowned. Legs yellow-brown; femora with faint fuscous markings, hind tibiae with dark dots.

Body as above. Crown 1.17 × as long at middle as laterally, 1.6 × as broad as long, 0.54 × as long as median length of pronotum. Pronotum twice as broad as long at middle.

Male genitalia in figs 59-66.

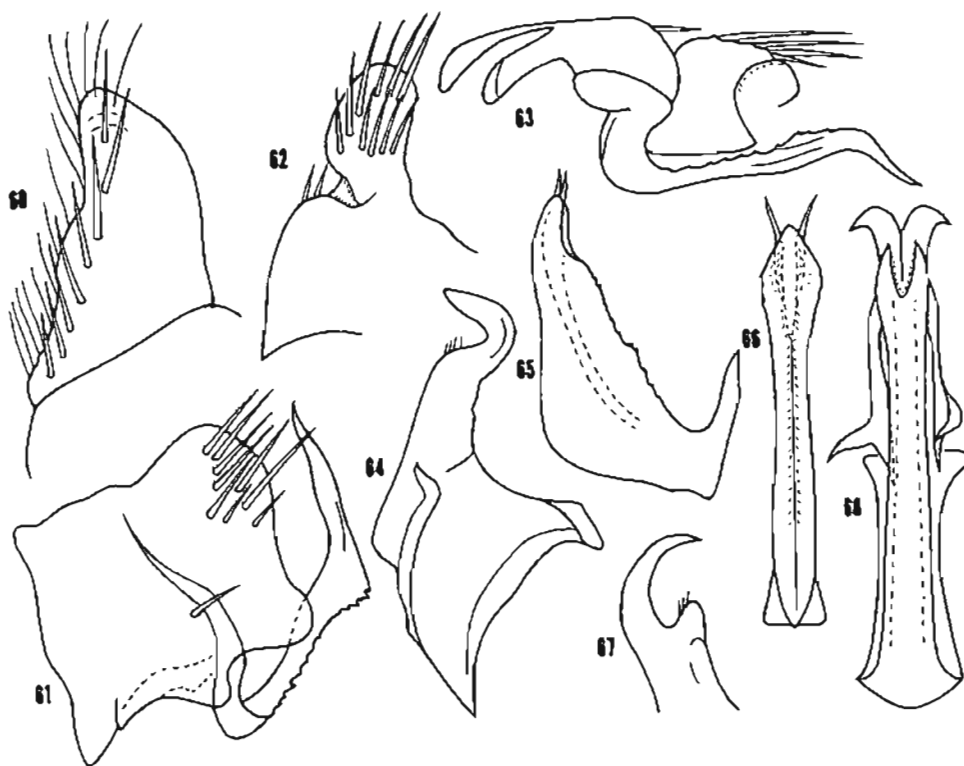
15. *Atanus impictus* n.sp.

Figs 67-69

*Type locality:* Bolivia, San Esteban.

*Type material:* Holotype ♂, Bolivia, Esteban, 49 km N Sta Cruz, 1120 ft, 7.XII.1959. Leg. R. Cumming, in coll. DeLong. - Paratype: 1 ♂, same data as holotype.

*Diagnosis:* Resembling *A. coronatus* (Berg) differing in the pale coloring and shape of the aedeagus.



Figs 60-68. - 60-66. *Lascumbresa armata* n.gen., n.sp. 60. Genital plate. - 61. Side lobe of pygofer in lateral, 62. in dorsal, and 63. in ventral aspect. - 64. Style. - 65. Aedeagus in lateral, 66. in ventral aspect. - 67-68. *Atanus impictus* n.sp. 67. Apex of style. - 68. Aedeagus in ventral aspect.

#### Description

Length 4 mm. Shiny. Uniformly pale ochraceous. Eyes greyish. Elytra yellow hyaline, commissural margin of clavus with 3 very indistinct brown spots.

Resembling *A. coronatus* (Berg). Crown of nearly uniform length, 1.5 × as broad as long. Male genitalia (figs 67-69) as in *A. coronatus* (redescription in Linnavuori 1959:297-298) but apophysis of style more gracile and aedeagus dissimilar: apex of shaft split with branches recurved laterodorsad, apical appendages bifurcate apically with branches subequal in length (in *coronatus* the dorsal branch much longer than the ventral one).

16. *Atanus perplexus* n.sp.

Figs 70-74

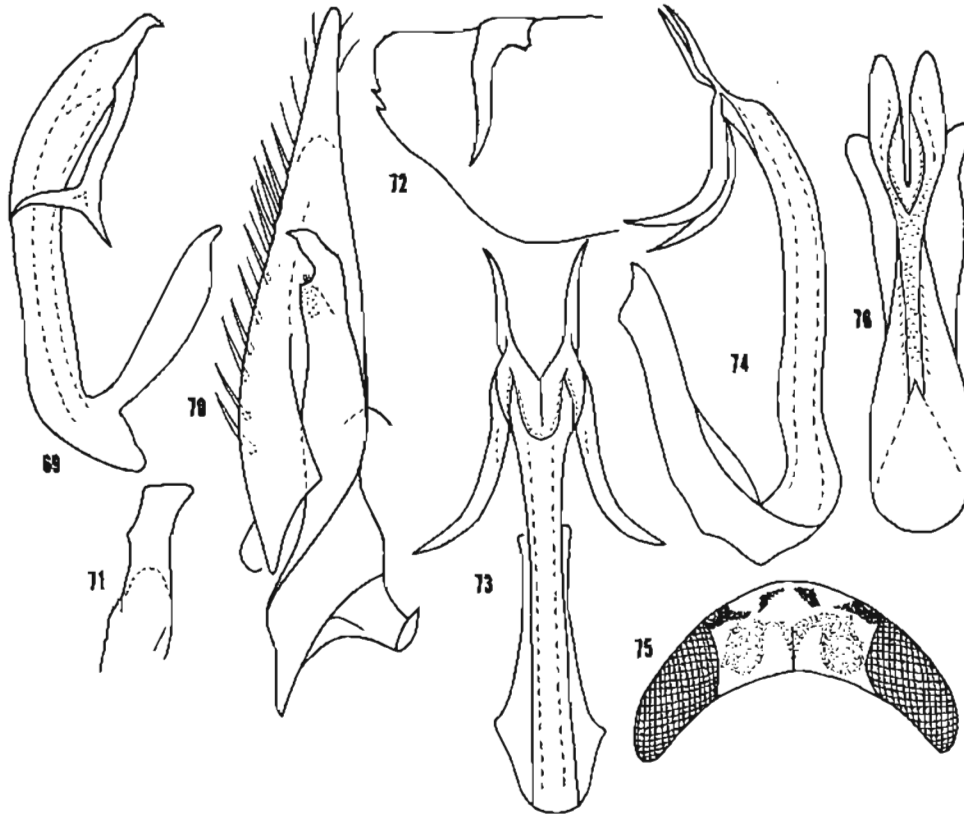
Type locality: Brazil, M. G. Varginha.

Type material: Holotype ♂, Brazil, M. G. Varginha, 20.IV.1966. Leg. M. Alvarenga, in coll. DeLong.

**Diagnosis:** A distinctive species sharing certain characters of the genus *Paratanus* Young (coloring as in *P. wygodzinskyi* Lv., shagreened discal region of crown, sclerified anal tube) but male genitalia as in the *Tubulanus* group of *Atanus*.

#### Description

Length 3.9 mm. Shiny. Yellow. Discal region of crown brown. Eyes brownish. Pronotum dark brown with lateral margins narrowly yellow. Scutellum dark brown. Elytra with a broad dark brown band from scutellar margin of clavus to apex of elytron, where it is broadened occupying the apical cells I-IV, two small spots at commissural margin of clavus, an apical spot in inner discal cell, small spot in apex of inner subapical cell and bases of I-III apical cells and a large triangular spot in 4th apical cell, milky; lateral margin of corium broadly yellow to milky; veins concolorous. Under surface and legs yellow, hind tibiae with faint brown dots.



Figs 69-76. - 69. *Atanus impictus* n.sp., aedeagus from side. - 70-74. *A. perplexus* n.sp. 70. Genital plate and style. - 71. Apex of style. - 72. Side lobe of pygofer, median aspect. - 73. Aedeagus in ventral, 74. in lateral aspect. - 75-76. *A. sagittifer* n.sp. 75. Head. - 76. Aedeagus in ventral aspect.

Crown of nearly uniform length, 1.7 × as broad as long at middle, also discal region finely shagreened (longitudinally striated in the other species).

Male genitalia in figs 70-74. Dorsal margin of side lobes of pygofer provided with a falcate appendage arising near the base of the sclerified anal tube, apical margin finely dentate. Genital plates long and narrow. Apical part of style strongly prolonged, narrow. Connective short as in the other *Atanus* species. Aedeagus with two pairs of long apical appendages.

17. *Atanus sagittifer* n.sp.

Figs 75-82

*Type locality*: Bolivia, San Esteban.

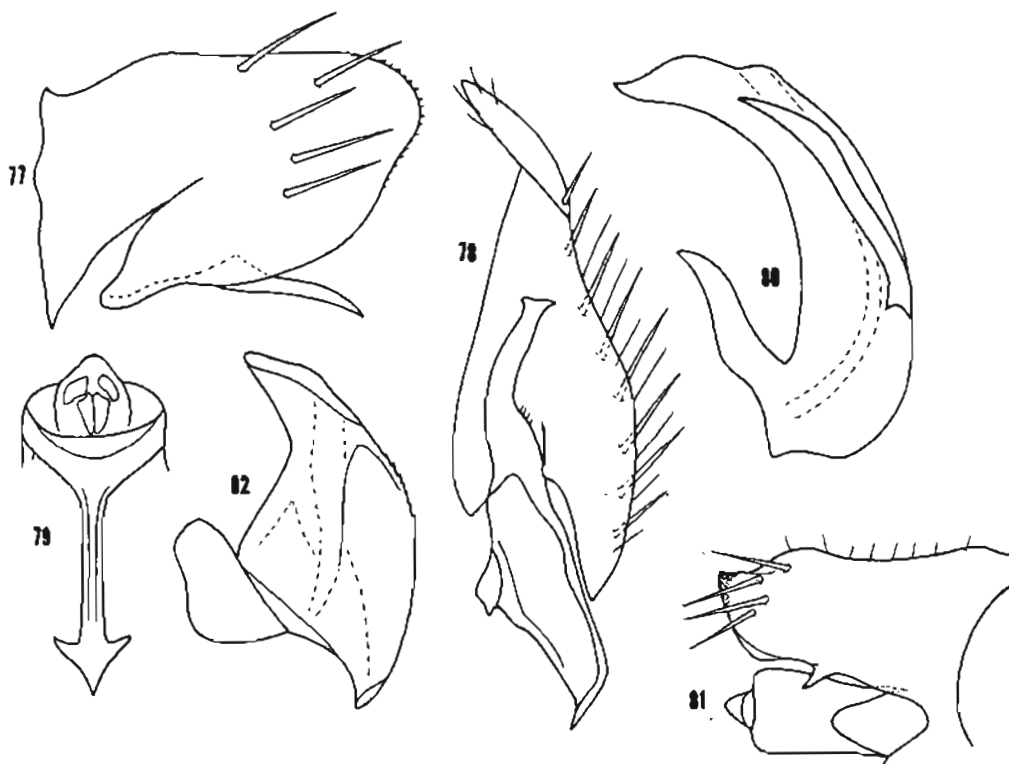
*Type material*: Holotype ♂, Bolivia, San Esteban,

49 km N Sta Cruz, 1120 ft, 7.XII.1959. Leg. R. Cummings, in coll. DeLong. - *Paratype*: 1 ♀, same data as holotype.

*Diagnosis*: Of the *Tubulanus* group. Readily distinguished from the other species by the male genitalia (apical appendage of anal tube, very short aedeagus).

*Description*

Length ♂ 3.75 mm, ♀ 4 mm. Whitish ochraceous. Frontoclypeus slightly embrowned with pale lateral arcs. Anterior margin of crown with 4 small blackish spots, disk with orangish figure as indicated in fig. 75. Eyes pale grey. Pronotum with 4 irregular longitudinal orangish bands, anterior margin with a few dark dots. Basal triangles on scutellum orangish, median spot brownish. Elytra yellowish hyaline, apical part



Figs 77-82. - 77-79, 82. *Atanus sagittifer* n.sp. 77. Side lobe of pygofer, lateral aspect. - 78. Genital plate and style. - 79. Anal tube, caudal aspect. - 82. Aedeagus from side. - 80-81. *Benala curticeps* n.sp. - 80. Aedeagus, lateral aspect. - 81. Anal tube and pygofer, dorsal aspect.

of corium and inner margin of clavus partly embrowned, cells with a few dark dashes, commissural margin of clavus with milky spots; veins pale, in apical part of corium dark, cross veins of 5th apical cell with blackish triangles. Dorsum of abdomen infuscate at middle, sides pale with a square dark spot in each tergite. Under surface and legs mainly pale, hind tibiae with dark dots.

Crown of uniform length, twice as broad as long.

Male genitalia in figs 76-82. Side lobes of pygofer with a falcate process on ventral margin. Anal tube with an arrow-shaped apical process directed ventrad. Genital plates broad basally. Apex of apophysis of style bidentate. Aedeagus lamellate, short, in lateral aspect very broad, simple.

## Neobalinae

### 18. *Benala curticeps* n.sp.

Fig. 80

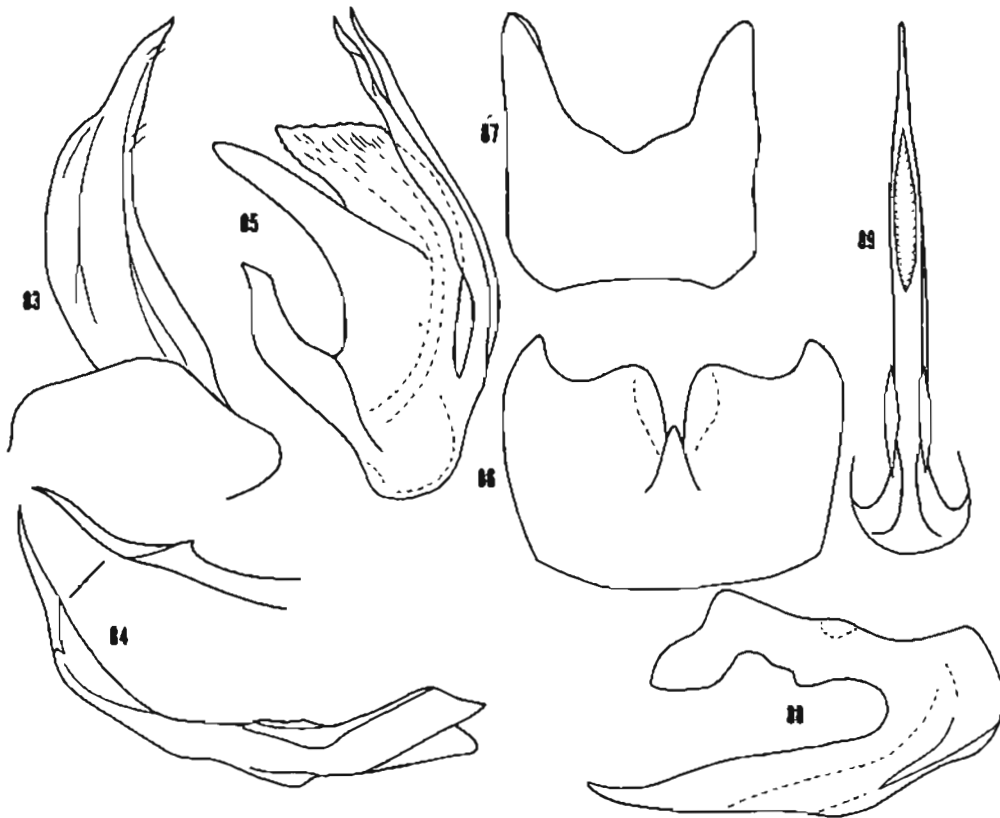
*Type locality:* Bolivia, San Esteban.

*Type material:* Holotype ♂, Bolivia, San Esteban, 49 km N Sta Cruz, 1120 ft, 7.XII.1959. Leg. R. Cummings, in coll. DeLong.

*Diagnosis:* Like *B. tumida* (Osb.) (redescription in Linnavuori 1959:19-20) but crown shorter and aedeagus longer and narrower.

### *Description*

Length 3.75 mm. Like *B. tumida* but crown considerably shorter and blunter,  $1.54 \times$  as long at middle as laterally,  $0.85 \times$  as long as broad (in *tumida* crown sharply angulate,  $1.72 \times$  as long



Figs 83-89. - 83-86. *Benala tricornis* n.sp. 83. Genital plate. - 84. Style. - 85. Aedeagus in lateral aspect. - 86. 7th sternite (♀). - 87. *B. tumida* (Osb.), same. - 88-89. *Neobala hilaris* n.sp. 88. Aedeagus in lateral, 89. in ventral aspect.

at middle as laterally, 0.95-1.0 × as long as broad) and aedeagus (fig. 80) longer and much narrower.

19. *Benala tricornis* n.sp.  
Figs 81-86

*Type locality:* Bolivia, San Esteban.

*Type material:* Holotype ♂, Bolivia, San Esteban, 49 km N Sta Cruz, 1120 ft, 26.X.-7.XII.1959. Leg. R. Cummings, in coll. DeLong. - Paratype: ♂♂ and ♀♀, same data as holotype.

*Diagnosis:* Like *B. tumida* but color pattern more variegated and the male genitalia and the 7th sternite (♀) dissimilar.

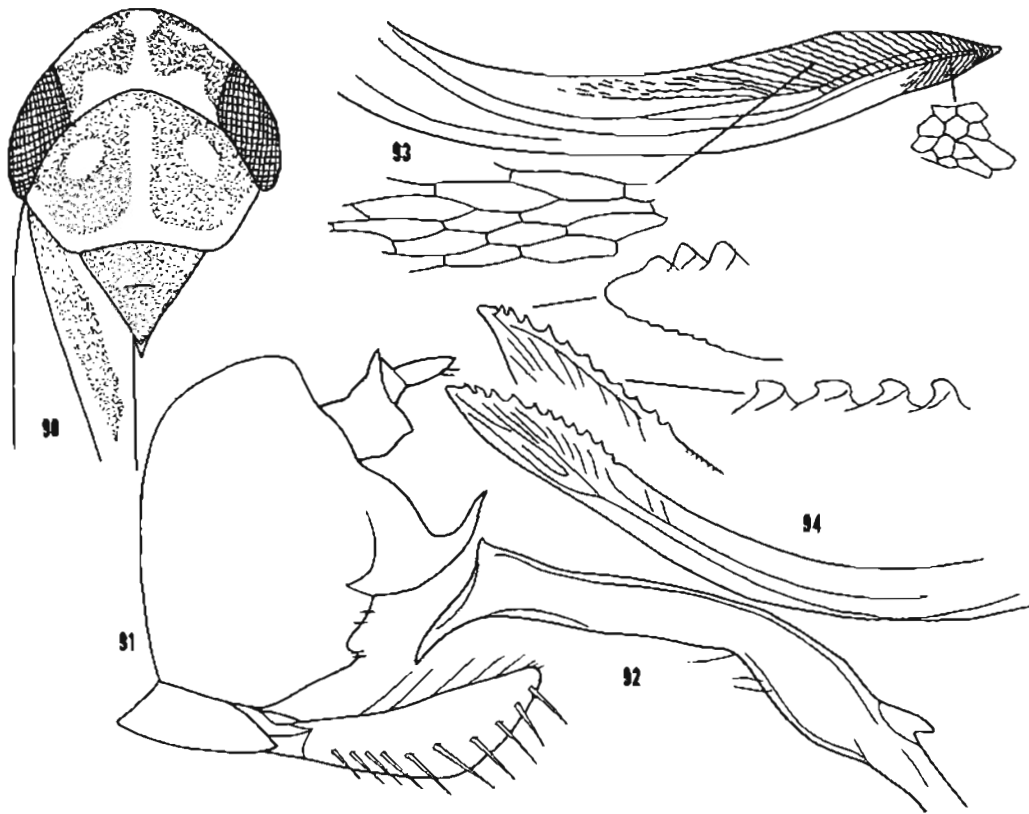
*Description*

Length 3.5-3.75 mm. Like *B. tumida* but darker. Pattern of elytra more variegated: inner

margin of clavus with conspicuous white patches (one small in scutellar margin, three large along commissural margin) ± surrounded by dark fuscous (in *tumida* these spots are small and inconspicuous), and corium with more distinct fuscous markings (a basal spot on costal margin, irregular transverse spot at base of subapical cells, apical cross veins, most of 3rd apical cell). Also under surface more largely dark brown. Genital segment in both sexes dark brown (largely pale in *tumida*).

Crown 1.7 × as long at middle as laterally, about 0.95 × as long as broad.

Male genitalia in figs 81-85. Aedeagus with a pair of long slender basal processes, shaft with a horn-shaped process on the dorsal surface; 7th sternite (♀) (fig. 86) with a narrow median incisure (7th sternite of *tumida* in fig. 87).



Figs 90-94. - 90-92. *Neobala hilaris* n.sp. 90. Head, thorax and base of elytron. - 91. Genital segment ( $\delta$ ) from side. - 92. Style. - 93-94. *N. permuta* Kram. 93. 1st valvula. - 94. 2nd valvula.

20. *Neobala hilaris* n.sp.  
Figs 88-92

*Type locality:* Brazil, M. G. Vargihna.

*Type material:* Holotype  $\delta$ , Brazil, M. G. Vargihna, 24.IV.1966. Leg. M. Alvarenga, in coll. DeLong.

- Paratypes: 3  $\delta$ , same data as holotype.

*Diagnosis:* Distinguished from all other species of the genus (Linnavuori 1959:23-25, Kramer 1963) by the coloring and the genitalia.

*Description*

Length 5 mm. Greyish ochraceous. Lower part of frontoclypeus, anteclypeus, lora and antennal pits blackish; a band between upper angles of eyes and a transverse bar at middle of

upper margin of face orange. Crown with two spots in anterior margin and a broad transverse discal band broken at middle bright orange. Eyes reddish grey. Pronotum, excluding lateral and basal margins, median band and two round spots, entire scutellum and a longitudinal band on basal part of clavus bright orange. Elytra otherwise hyaline, greyish brown, veins brown. Sides of dorsum of abdomen with reddish spots. Under surface mainly black. Legs pale ochraceous. Hind femora blackish basally. Also hind tibiae darkened.

Body as in the other species of the genus. Male genitalia in figs 88-89 and 91-92. Side lobes of pygofer with a claw-like apical process recurved dorsad. Apophysis of style broad. Shaft of aedeagus narrow, strongly tapering apicad in lateral aspect.

21. *Neobala permuta* Kram.  
Figs 93-94

Structure of ovipositor in figs 93-94. 1st valvulae long, margins smooth, microsculpturing elongately reticulate. 2nd valvulae long and narrow, dorsal margin coarsely dentate apically.

*Material studied:* Brazil, Surumu, Roraima, 6 exx, IX.1966. Leg. M. Alvarenga & F. M. Oliveira.

Originally recorded from Venezuela and Brazil (Kramer 1963:208-210).

### Xestocephalinae

22. *Portanus retusus* n.sp.  
Figs. 52

*Type locality:* Bolivia, Cochabamba, Chapare Prov.

*Type material:* Holotype ♂, Bolivia, Cochabamba, Chapare, Prov. Lamba, 24.X.1959. Leg. R. Cummings, in coll. DeLong.

*Diagnosis:* Distinguished from *P. minor* Kramer by the larger size and the quite different aedeagal structure.

### Description

Length of male 6.5 mm, female unknown. Head blunt, tip rounded, not conical, antennae more than half as long as body. Color brown, flecked with dull yellow. Crown brown with margin almost black. Forewings brown subhyaline, veins alternating white and brown as in most species of *Portanus*. Male with aedeagal shaft (fig. 52) rather broad in lateral view, curved at base and near apex, S-shaped, apex blunt, curved, extending dorsally.

### References

- KRAMER, J. P., 1963. New neotropical Neobalinae with keys to the genera and to the species of *Conala* (Homoptera: Cicadellidae). - Proc. ent. Soc. Wash. 65:201-210.
- LINNAVUORI, R. E., 1959. Revision of the neotropical Deltocephalinae and some related subfamilies (Homoptera). - Ann. Zool. Soc. Vanamo 20:1-370.
- & DELONG, D. M., 1979. New genera and species of the tribe Deltocephalini from South America (Homoptera: Cicadellidae, Deltocephalinae). - Ent. scand. 10:43-53.