

NEW SPECIES OF GYPONA (HOMOPTERA, CICADELLIDAE: GYPONINAE) FROM CENTRAL AND SOUTH AMERICA

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ABSTRACT

Twelve species of *Gypona*, *G. ansa* n.sp. (Brazil), *G. ecloga* n.sp. (Perú), *G. fabula* n.sp. (Panamá), *G. lasua* n.sp. (Brazil), *G. aromata* n.sp. (Colombia), *G. conata* n.sp. (México), *G. rectana* n.sp. (Venezuela), *G. habita* n.sp. (Vene-

zuela), *G. uncinata* n.sp. (Brazil), *G. akrua* n.sp. (Panamá), *G. ansula* n.sp. (Jamaica), and *G. sedula* n.sp. (Venezuela) are described.

INTRODUCTION

The genus *Gypona* was erected by Germar (1821) who designated *Cercopis glauca* Fabricius (described 1803) as the type. Not until 1960 was the male holotype sufficiently studied to determine the specific genital characters and illustrate them.

Metcalf (1949) described the genus *Marganalana* which was placed as a subgenus of *Gypona* by DeLong and Freytag (1964). Most of the described species have been placed in the two subgenera, *Gypona* and *Marganalana*.

A synopsis of *Gypona* was published (1964) by DeLong and Freytag, including 140 species and four subgenera. New species have been added since by DeLong and Martinson (1972), DeLong and Kolbe (1974, 1975), DeLong and Freytag (1975) and DeLong and Linnavouri (1977). Twelve new species are described at this time.

What little is known of the biology of the species of *Gypona* indicates that they lay their eggs in punctures of the stems or twigs of perennial plants and the immature stages and adults feed on the foliage of both perennials and annuals.

GYPONA ANSA N.SP.

(Figs 1 - 5)

Length of male 8 mm., female 8 mm. Crown short, broadly rounded, less than half as long at middle as basal width between eyes. Color golden yellow, a round black spot behind each eye at half length of pronotum. A black spot at apex of first and second claval veins of corium.

Female seventh sternum with posterior margin broadly, shallowly excavated on median third, margin of excavation embrowned.

Male genital plates three times as long as width at middle, apex narrowly roundly produced on inner margin. Style with blade abruptly enlarged on ventral margin at half its length, then sloping to a pointed apex. Enlarged portion serrate. Aedeagal shaft slender, bearing two minute, subapical processes at six-sevenths its length. Shaft rounded at apex. Pygofer narrowed apically, forming two proximal rounded caudal lobes.

Holotype male, Corupa S. Cath. (Hansa Humbolt) Brazil, Dec. 1948. Paratype female Pinhal S. Cath. Brazil Dec. 1947, A. Maller coll., Frank Johnson Donor. Type specimens in American Museum.

G. ansa is placed in the subgenus *Marganalana*. It is closest to *G. sarisa* but apical portion of the plates of *G. ansa* are broader and the aedeagal processes are subapical.

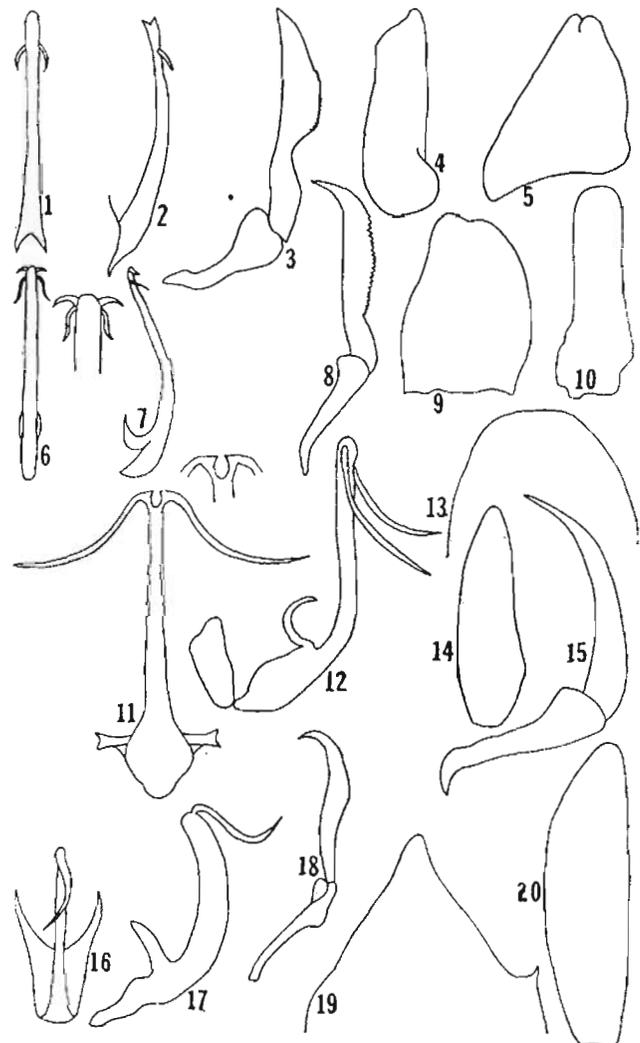
GYPONA ECLOGA N.SP.

(Figs. 6 - 10)

Length of male 8 mm., female unknown. Crown not quite half as long at middle as basal width between eyes. Color orange yellow with a round black spot behind each

eye at half length of pronotum. Forewings with costal half more yellowish.

Male genital plates almost three and one-half times as long as width at middle, apices rounded. Style with blade slightly broadened on median half. Apical half curved dor-



Figs. 1-5 *GYPONA ANSA* n.sp.: 1. aedeagus ventrally, 2. aedeagus laterally, 3. style laterally, 4. plate ventrally, 5. pygofer laterally.— Figs. 6-10 *G. ECLOGA* n.sp.: 6. aedeagus ventrally, 7. aedeagus laterally, 8. style laterally, 9. pygofer laterally, 10. plate ventrally.— Figs. 11-15 *G. FABULA* n.sp.: 11. aedeagus ventrally, 12. aedeagus laterally, 13. pygofer laterally, 14. plate ventrally, 15. style laterally.— Figs. 16-20 *G. LASUA* n.sp.: 16. aedeagus ventrally, 17. aedeagus laterally, 18. style laterally, 19. pygofer laterally, 20. plate ventrally.

sally, tapered to sharp pointed apex. Aedeagal shaft with a very short apical spine each side and a proximal short subapical process which is twice as long as apical spine. Pygofer rounded apically, with a slight indentation at middle.

Holotype male, Utcuyacu, Tarma, Dept. de Junin, Peru, Mar. 11, 1948, 1600 - 3000 m. F. Woytkowski coll., donor Wm. Proctor, in the American Museum.

G. ecloga is placed in the subgenus *Marganalana*. It is related to *G. ansa* but has a narrower style and both apical and subapical aedeagal processes.

GYPONA FABULA N.SP.

(Figs. 11 - 15)

Length of male 10.5 mm., female unknown. Crown broadly rounded, more than twice as wide at base between eyes as median length, appearing almost parallel margined. Color pale brownish, veins of wings scarcely visible.

Male genital plates three and one-half times as long as width at middle, apices narrowed, bluntly pointed. Style with blade gradually tapered from base to sharp pointed apex and curved dorsally. Aedeagal shaft bearing two apical processes almost half as long as shaft which extend laterally. Apex of aedeagus with a deep U-shaped notch. Pygofer broadly rounded apically.

Holotype male, Boquete, Panama, Feb. 1914, J. Zetek coll. in the U.S. National Museum. A specimen from Panama without abdomen is apparently this species.

G. fabula is placed in the subgenus *Marganalana*. It is closest to *G. nasua* but has a more elongate, slender style and the aedeagal processes are longer.

GYPONA LASUA N.SP.

(Figs. 16 - 20)

Length of male 7 mm., female unknown. Crown more than half as long at middle as basal width between eyes, crown yellowish green. Veins of forewings green.

Male genital plates almost four times as long as width at middle, apices narrowed, rounded. Style broadened by convex, extended portion on ventral margin at middle, then bent dorsally to form a curved, narrowed, pointed apex extending dorsally. Aedeagal shaft bearing a single apical process arising on ventroapical margin and extending ventrally. Pygofer tapered apically and bluntly pointed, bearing a prominent ventral spine not far from apex.

Holotype male, Nova Teutonia, Santa Catarina, Brazil, Feb. 22, 1954, F. Plaumann coll. Paratypes: 1 male same except Feb. 8, 1954; 1 male same except Nov. 10, 1953. Holotype and paratype in the North Carolina State University. Paratype in the DeLong collection.

G. lasua is placed in the subgenus *Marganalana*. It is closest to *G. aneta* but the style is more tapered to apex and the aedeagus has a single apical process.

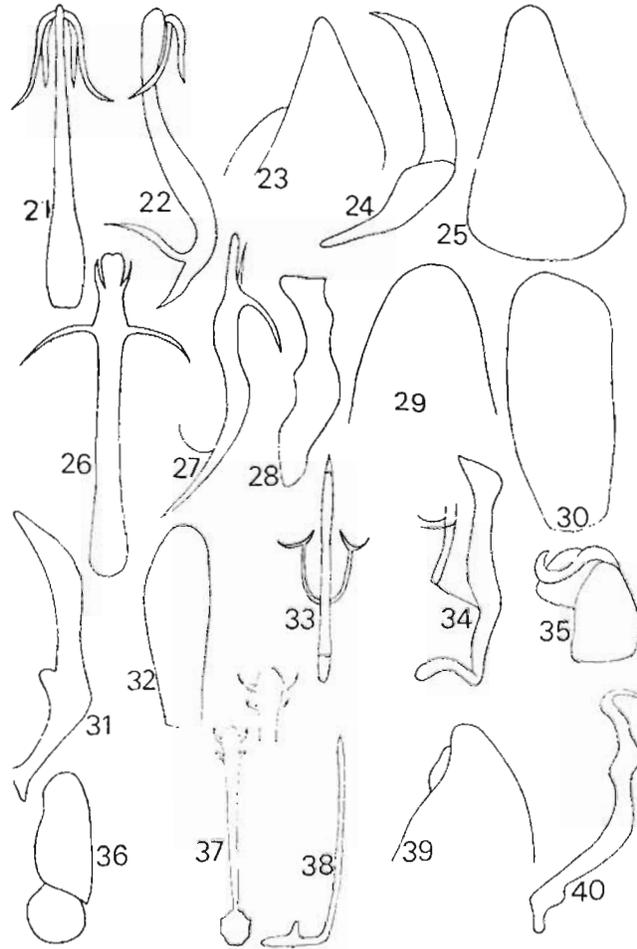
GYPONA AROMATA N.SP.

(Figs. 21 - 25)

Length of male 11.5 mm., female unknown. Crown produced at middle, but rounded apically, more than half as long at middle as basal width between eyes. Color pale green tinged with yellow.

Male genital plates two and one-half times as long as median width, tapered from base to narrow, rounded apex. Style with apical fourth bent dorsally and tapered to a sharp pointed apex. Aedeagal shaft bearing what appears to be four apical processes, two of which arise together, each side, at apex of shaft. The processes are about one-third length of shaft and extend basally. The two processes curving dorsally are longer. Pygofer tapered apically, bluntly pointed at apex.

Holotype male, Colombia, Cundinamarca, Finca San Pablo, 8 km. N, Alban 1800 m. Aug. 1-12, 1967, P. & B. Wygodzinsky, in the American Museum.



Figs. 21-25 *G. AROMATA* n.sp.: 21. aedeagus ventrally, 22. aedeagus laterally, 23. pygofer laterally, apical portion, 24. style laterally, 25. plate ventrally.— Figs. 26-30 *G. CONATA* n.sp.: 26. aedeagus ventrally, 27. aedeagus laterally, 28. style laterally, 29. pygofer laterally, apical portion, 30. plate ventrally.— Figs. 31-35 *G. RECTANA* n.sp.: 31. style laterally, 32. plate ventrally, 33. aedeagus ventrally, 34. aedeagus laterally, 35. pygofer laterally.— Figs. 36-40 *G. HABITA* n.sp.: 36. plate ventrally, 37. aedeagus ventrally, 38. aedeagus laterally, 39. pygofer laterally, apical portion, 40. style laterally.

G. aromata is placed in the subgenus *Marganalana*. It is closest to *G. infusca* but has a straight and pointed style.

GYPONA CONATA N.SP.

(Figs. 26 - 30)

Length of male 8 mm, female unknown. Crown broadly rounded, more than half as long at middle as basal width between eyes. Color, crown black. Pronotum with basal half black, apical half brown, lateral margins broadly white. Scutellum black with pale brown basal and apical angles. Forewings white, subhyaline, with brown veins.

Male genital plates two and one-half times as long as width at middle, broadened apically, broadly rounded. Style short and broad with apex slightly sloping, almost truncate, with a pointed tooth on ventroapical margin. Aedeagus bearing two subapical processes at four-fifths length of shaft. Apex of shaft rather broad, rounded, with a pair of subapical spines arising at base of apical portion and not extending to apex. Pygofer broadly rounded at apex.

Holotype male, San Miguel de Allende, Guan. Mexico, VIII-12-'53, D. Rochefeller, Mex. exp. 1953, C. & P. Vaurie, in the American Museum.

G. conata is closely related to *G. verticalis* and is placed in the subgenus *Gypona*. The style of *conata* is different from the *verticalis* style.

GYPONA RECTANA N.SP.

(Figs. 31 - 35)

Length of male 8 mm, female unknown. Crown broadly rounded, twice as wide at base between eyes as median length. Color, crown black. Pronotum brownish yellow with black coloration along margin, behind eyes, and along lateral margin, disc dark brown. Scutellum yellow with a black circular mark in each basal angle, and two median proximal black spots. Forewings brownish subhyaline, veins dark brown.

Male genital plates three times as long as wide at middle, apices rounded. Style with blade broadened at two-thirds its length, apical third curved slightly, dorsally, and tapered to a narrow, blunt apex. Aedeagal shaft slightly broadened at middle and again at apex where the shaft is rounded ventrally and the dorsal portion extends dorsally and is angled, forming a crude footlike structure. A pair of narrow, sclerotized processes are apparently attached to aedeagal shaft on dorsal surface near base of shaft. Pygofer with a rather large heavily sclerotized spine extending ventrally from apical portion, each side.

Holotype male, Mt. Duida, Venezuela III-5-1929. Ac. 29500, Tate No. 837, in the American Museum.

G. rectana is placed in the subgenus *Gypona* and is not closely related to a described species.

GYPONA HABITA N.SP.

(Figs. 36 - 40)

Length of male 10.5 mm, female unknown. Crown more than twice as wide at base between eyes as median length. Color dull sordid green.

Male genital plates three times as long as width at middle, apices rounded. Style with blade broadened near base and again on ventral margin at two-thirds length of blade, then narrowed to a slender, recurved apex, forming a hooked shaped tip. Aedeagal shaft very slender at base, gradually enlarged to a broadly rounded apex with two pairs of short, subapical spines, the larger spines near apex, the smaller spines proximal but basad. Pygofer narrowed and rounded apically, with a small dorsal sclerotized plate near apex.

Holotype male, Mt. Duida Venezuela, III-5-1929, Ac. 29500 Tate No. 837, in the American Museum.

G. habita is placed in the subgenus *Marganalana* and is related to *G. uncinata*. The styles are similar but the aedeagi are different.

GYPONA UNCINATA N.SP.

(Figs. 41 - 45)

Length of male 10.5 mm, female unknown. Crown broadly rounded, slightly more than one-half length of basal width between eyes. Color, crown and pronotum brownish yellow, disc of pronotum dull green. Scutellum orange, forewings dull greenish subhyaline.

Male genital plates more than two and one-half times as long as width at middle, apices broad, slightly produced and pointed at middle. Apical third of plate only lightly sclerotized. Style with enlargement on ventral margin at almost half its length and a small enlargement on dorsal surface at two-thirds length of style. Apex curved ventrally then dorsally, forming a hook. Aedeagal shaft straight, slender, with an ex curved dorsally and consisting of a plate like portion with spines arising at base each side and a pair of shorter apical spines, one each side of a median, broadly rounded apex. Pygofer with a narrowed, rounded

apical third, and a short rounded process on dorsal margin at two-thirds length of pygofer.

Holotype male, Teffe, Brazil, V1-1920, in the DeLong collection.

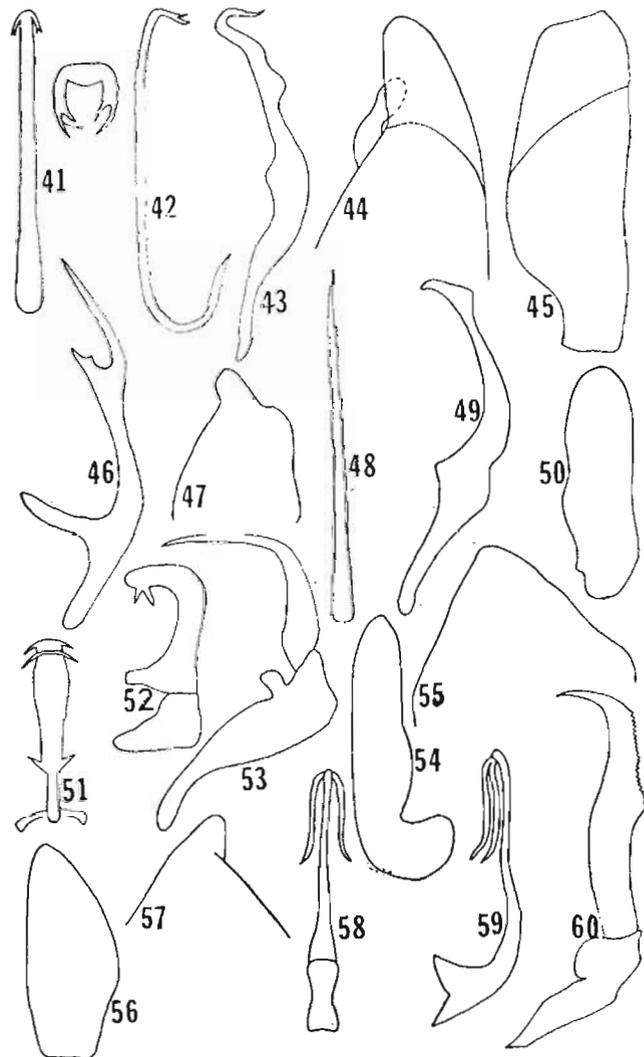
G. uncinata is placed in the subgenus *Marganalana*. It is closet to *G. nepa* but the style is hooked at apex and the apices of the aedeagal processes are bifid.

GYPONA AKRUA N.SP.

(Figs. 46 - 50)

Length of male 12 mm., female unknown. Crown two-thirds as long at middle as basal width between eyes. Color, crown and pronotum yellowish green. Scutellum yellow. Forewings yellowish green subhyaline, veins conspicuous.

Male genital plates three times as long as width at middle, apices rounded. Style with a foot-shaped apex,



Figs. 41-45 *G. UNCINATA* n.sp.: 41. aedeagus ventrally, 42. aedeagus laterally, 43. style laterally, 44. pygofer laterally, apical portion, 45. plate ventrally.— Figs. 46-50 *G. AKRUA* n.sp.: 46. aedeagus laterally, 47. pygofer laterally, apical portion, 48. aedeagus ventrally, 49. style laterally, 50. plate ventrally.— Figs. 51-55 *G. ANSULA* n.sp.: 51. aedeagus ventrally, 52. aedeagus laterally, 53. style laterally, 54. plate ventrally, 55. pygofer laterally, apical portion.— Figs. 56-60 *G. SEDULA* n.sp.: 56. plate ventrally, 57. pygofer laterally, apical portion, 58. aedeagus ventrally, 59. aedeagus laterally, 60. style laterally.

a narrow rounded "toe" extending dorsally. Aedeagal shaft branched at two-thirds its length forming a long tapered, pointed, ventral process extending apically and a shorter dorsal truncate portion with a dorsal, apical spine. Pygofer narrowed to form a median, narrow, produced lobe and a ventral rounded margin.

Holotype male, Cerro Punta, Panama, 6000 f. March 1940, J.G. Sanders coll. in the DeLong Collection.

G. akrua is placed in the subgenus *Marganalana*. It is closest to *G. aneta* but with one portion of apical processes very short and the apex of style foot-shaped.

GYPONA ANSULA N.SP.

(Figs. 51 - 55)

Length of male 7 mm, female unknown. Crown broadly rounded, more than half as long at middle as basal width between eyes. Color yellowish green.

Male genital plates four times as long as width at middle, apices roundly pointed. Style with blade tapered from near enlarged base to slender pointed apex. Blade curved dorsally at half its length. Aedeagus short and broad in lateral view with shaft curved dorsally at half its length, apex blunt, rounded, bearing two pairs of very short, subapical spines. Pygofer sloping to narrow, blunt, rounded apex.

Holotype male, antilles, Jamaica, Falmouth, July 19, 1960 C. & P. Vaurie coll., in the American Museum.

G. ansula is placed in the subgenus *Marganalana*. It is closest to *G. costana* but with style slender and tapered to a slender pointed apex.

GYPONA SEDULA N.SP.

(Figs. 56 - 60)

Length of male 8.5 mm, female unknown. Crown well produced and rounded, three-fourths as long at middle as basal width between eyes. Color yellowish green.

Male genital plates twice as long as width at middle, apices narrowed, rounded. Style broadened by serrate enlargement, on ventral margin, at half its length, then narrowed with apical fourth curved dorsally and tapered to a sharp pointed apex. Aedeagal shaft slender, bearing two slender apical processes which extend basally one-third distance to base. Pygofer narrowed apically and bearing a rounded protruding apical lobe.

Holotype male, Rancho Grande near Maracay, Venezuela, VI-26-1946. Gift of New York Zool. Soc. Dept. Tropical Research, Wm. Beebe Director, in the American Museum.

G. sedula is placed in the subgenus *Marganalana*. The shape of the style will distinguish this from all species with a similar aedeagus.

LITERATURE CITED

- DELONG, DWIGHT M. and PAUL H. FREYTAG. 1964. Four genera of World Gynopinae. A Synopsis of the Genera *Gypona*, *Gyponana*, *Rugosana* and *Reticana*. Ohio Biol. Survey Bull. 11(3): 229 p.
- . 1975. Studies of the Gyponinae (Homoptera: Cicadellidae): Fourteen New Species of Central and South American *Gypona*. Journ. Kans. Ent. Soc. 48:308-318.
- and ALICE B. KOLBE. 1974. Studies of the Gyponinae (Homoptera: Cicadellidae): Four New Species of *Gypona* from Panama. Journ. Kans. Ent. Soc. 47:523-526.
- . 1975. Studies of the Gyponinae (Homoptera: Cicadellidae): Six New Species of South American *Gypona*. Journ. Kans. Ent. Soc. 48:201-205.
- and CANDACE MARTINSON. 1972. Studies of the Gyponinae (Homoptera: Cicadellidae): Fourteen New Species of *Gypona* from Central and South America. Ohio Jour. Sci. 72:161-170.
- and RAUNO LINNAVUORI. 1977. Studies of the Gyponinae (Homoptera: Cicadellidae): Seven New Species of *Gypona* from Central and South America. Journ. Kans. Ent. Soc. 50:335-341.
- GERMAR, E.F. 1821. Bemerkungen über einige Gattungen der Cicadarien. Mag. Ent. 4:1-106.
- METCALF, Z.P. 1949. Tettigellidae and Gyponinae (Homoptera) of Kar-toba, Bertica District, British Guiana. Zoologica 34(4):259-279.