

STUDIES OF THE GYPONINAE (HOMOPTERA:
CICADELLIDAE): SIX NEW SPECIES OF *PONANA*
FROM CENTRAL AND SOUTH AMERICA^{1, 2}

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ABSTRACT

Six new species of *Ponana*, *P. hilara* n. sp., *P. panera* n. sp., *P. sena* n. sp., *P. seresa* n. sp., *P. serrella* n. sp., and *P. tabula* n. sp., are described. Three species, *P. sena*, *P. seresa*, and *P. tabula*, are from Guatemala; *P. panera* was collected in Mexico; and *P. hilara* and *P. serrella* are from Peru.

A revisional study of the species of *Ponana*, published by DeLong and Freytag in 1967, treated 69 species which were placed in three subgenera, *Ponana*, *Neoponana*, and *Bulbana*. Species of *Ponana* are known to occur only in the Americas, though several of the types are in European museums. The types may be represented by only one sex, which in several cases is the female. Only the males are readily separated by morphologic characters of the genital chamber, and in general males and females cannot be referred to the same species name unless collected together in the field. Since completing and publishing the above synopsis, material from Central and South America which contains apparently undescribed species has been obtained from the American Museum of Natural History (J. G. Rozen), North Carolina State University (D. A. Young), and the DeLong Collection at The Ohio State University. These are designated as "apparently undescribed" because the males described here cannot be associated with previously described females.

Of the six species described here, four, *P. panera*, *P. sena*, *P. seresa*, and *P. tabula*, belong to the subgenus *Ponana* and two, *P. hilara* and *P. serrella*, are placed in the subgenus *Neoponana*.

***Ponana tabula* n. sp.**

(Figs. 1-5)

Length of male 7 mm. Crown broad, rounded, more than one-half longer at middle than basal width between eyes. Color: Crown yellow. Pronotum pale brown with a row of darker brown spots along anterior margin. Scutellum brown. Forewings yellow, veins brown, two pairs of dark brown spots along commissure, one at anterior end and one at posterior end of discal cell.

Male genitalia with plates almost three times as long as median width, apices rounded. Style with apical fourth curved dorsally, apex pointed and curved basad. Aedeagal shaft slender, with a broad U-shaped notch at apex. Paired parameres curving inwardly at enlarged apices, tips pointed.

Ponana tabula is related to *P. yera*, but can be separated by the more extended apex of the style and the shorter parameres of *P. tabula*. In appearance *P. tabula* resembles *P. seresa*, but can be separated from it by the deep V-shaped apical aedeagal notch of *P. seresa*.

Holotype male labeled Morales, Guatemala, October 1930 (J. J. White) in the North Carolina State University Collection.

***Ponana seresa* n. sp.**

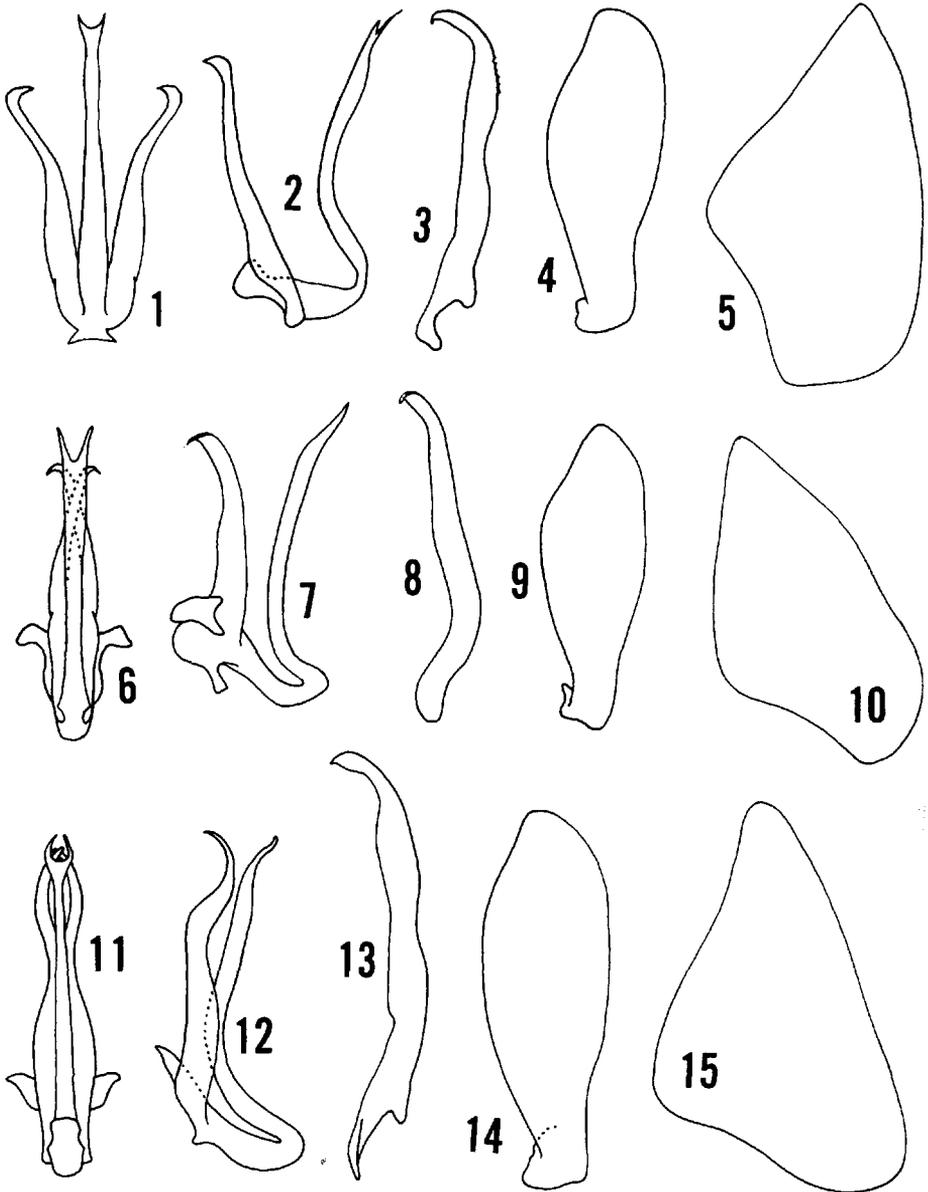
(Figs. 6-10)

Length of male 7.5 mm. Crown broad, rounded, more than half as long at middle as basal width between eyes. Color: Crown yellow with a dark-brown spot caudad to each ocellus, at

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base. Pronotum yellow with a row of six brown spots across anterior margin; central and posterior portions with numerous brown punctate spots. Scutellum yellow. Forewings yellow with brown punctate spots on basal portion of cavus and caudal costal area. Two pairs of dark-brown spots along commissure on clavus and dark-brown spots on corium.



FIGS. 1-15. FIGS. 1-5 *Ponana tabula* n. sp. 1-aedeagus, ventrally. 2-aedeagus, laterally. 3-style, ventrally. 4-plate, ventrally. 5-pygofer, laterally. FIGS. 6-10 *Ponana seresa* n. sp. 6-aedeagus, ventrally. 7-aedeagus, laterally. 8-style, ventrally. 9-plate, ventrally. 10-plate, laterally. FIGS. 11-15 *Ponana panera* n. sp. 11-aedeagus, ventrally. 12-aedeagus, laterally. 13-style, ventrally. 14-plate, ventrally. 15-pygofer, laterally. 50X.

Male genitalia with plates three times as long as broad, apices narrowed, bluntly pointed. Style with blade bending dorsally at apex, tip pointed. Aedeagal shaft slender, apex with a deep V-shaped notch. Paired parameres not reaching apex of aedeagal shaft, tips curved, pointed.

Ponana seresa can be separated from *P. tabula* by the deep V-shaped apical aedeagal notch of *P. seresa*.

Holotype male labeled Morales, Guatemala, October 1930 (J. J. White) in the North Carolina State University Collection.

***Ponana panera* n. sp.**

(Figs. 11-15)

Length of male 9 mm. Crown broad, rounded, slightly more than half as long at middle as basal width between eyes; anterior margin slightly elevated, with conspicuous striae. Color: Crown pale brown with a darker brown spot caudad to each ocellus at base. Pronotum pale brown with a row of dark brown markings across anterior margin. Scutellum dull yellow with brown basal angles. Forewings pale brown with darker brown spots located in bands across wings; four across anterior portion, four across middle, and a band of smaller spots across wings at apex of clavus.

Male genitalia with plates three times as long as median width, apices narrow, blunt, rounded. Style with blade narrowed subapically by concavity on dorsal margin; apex enlarged, pointed at tip. Aedeagal shaft enlarged at apex (in ventral view) with a broad apical U-shaped notch. Paired parameres appearing concavely excavated on dorsal margin on apical fourth and narrowing to form slender apices which curve dorsally.

Ponana panera is closely related to *P. quatemala*, but can be separated by the ventral subapical enlargement of the style of *P. quatemala* and the broad apical excavation of the aedeagal shaft of *P. panera*.

Holotype male labeled Orizaba, Vera., Mexico X-8-41 (DeLong, Good, Caldwell, Plummer) in the DeLong Collection.

***Ponana serrella* n. sp.**

(Figs. 16-20)

Length of male 8 mm. Crown short, broad, more than twice as wide between eyes at base as median length. Color: Crown yellow, a large round black spot caudad to each ocellus, at base. Pronotum dull yellow, a black spot caudad to each eye, at half length of pronotum. Scutellum pale brown. Forewings dull yellow, veins pale brown, a dark-brown spot on costa at half length of forewing. Three dark-brown spots on apical third of costa and on first and second apical cross veins.

Male genitalia with plates three times as long as median width, apices broad, rounded. Style roundedly notched on ventral margin near base; median third broadened and serrate on ventral margin, apical portion tapering to a dorsally bent, sharp-pointed tip. Aedeagal shaft narrowly notched at apex, with a pair of short, apical processes bending basad on ventral margin. Paired parameres narrow, extending to apex of shaft and tapering to slender apices.

Female genitalia with lateral angles rounding to posterior margin, the median two-thirds of which is produced into a rounded lobe, slightly concave at middle. The lobe is more than one-third length of segment, slightly concave at middle of apex and produced well beyond the apical margins of lateral angles.

Ponana serrella is related to *P. hilara*, but can be separated from it by the enlarged apical portion of the style of *P. serrella*.

Holotype male labeled Tingo Maria, Huan., Peru, January 11, 1947, Alt. 2200 ft. (J. C. Pallister coll., Frank Johnson donor) in American Museum of Natural History Collection.

***Ponana sena* n. sp.**

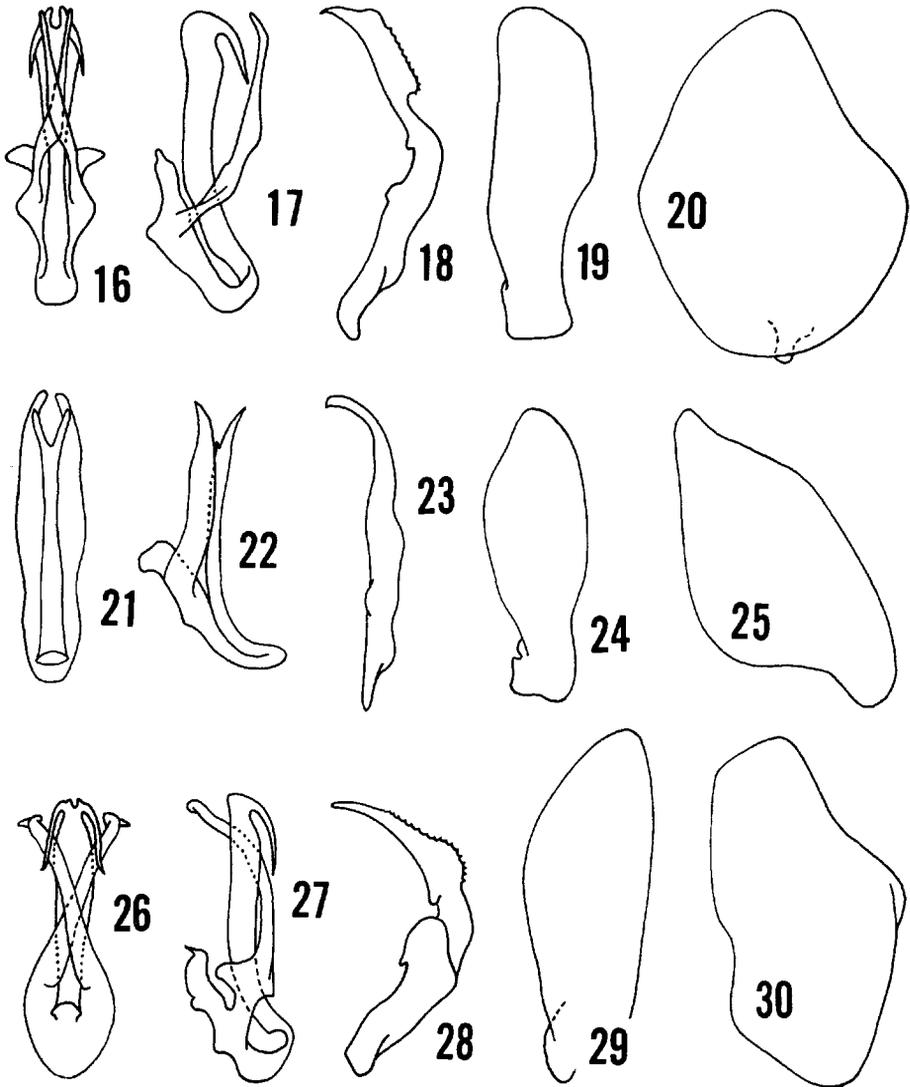
(Figs. 21-25)

Length of male 7.5 mm. Crown broad, rounded, more than one-half longer at middle than basal width between eyes. Color: Crown yellow with a dark-brown spot at base caudad to each ocellus. Pronotum yellow with six dark-brown spots across anterior margin; posterior and cen-

tral portions with brown punctate spots. Scutellum yellow. Forewings yellow with brown spots on clavus and corium; a row of brown spots just anterior to claval vein.

Male genitalia with plates two and one-half times as long as median width, apices narrowed, rounded. Style with apical third of blade curved dorsally, apex blunt. Aedeagal shaft slender with a V-shaped notch at apex; parameres stout, exceeding aedeagal shaft in length, apices bluntly pointed.

Ponana sena is related to *P. panama* and *P. tresia*. It can be separated from these species by the larger V-shaped notch of the aedeagus and the stouter straight parameres of *P. sena*.



FIGS. 16-30. *Ponana serrella* n. sp. 16-aedeagus, ventrally. 17-aedeagus, laterally. 18-style, ventrally. 19-plate, ventrally. 20-pygofer, laterally. FIGS. 21-25 *Ponana sena* n. sp. 21-aedeagus, ventrally. 22-aedeagus, laterally. 23-style, ventrally. 24-plate, ventrally. 25-pygofer, laterally. FIGS. 26-30 *Ponana hilara* n. sp. 26-aedeagus, ventrally. 27-aedeagus, laterally. 28-style, laterally. 29-plate, ventrally. 30-pygofer, laterally. 50X.

Holotype male labeled Morales, Guatemala, September 1928 (J. J. White) in the North Carolina State University Collection.

***Ponana hilara* n. sp.**

(Figs. 26-30)

Length of male 8.5 mm. Crown produced, rounded anteriorly, more than half as long at middle as basal width between eyes. Anterior margin of crown slightly elevated, with rather deep striae. Color: Crown pale yellow. Pronotum pale yellow with four round, black spots across anterior margin; one caudad to each eye and to each ocellus. Scutellum yellow with basal angles pale brown. Forewings pale yellow with a few larger black spots and numerous smaller black spots located, one at base of each forewing, a pair along commissure near base, a pair near middle of commissure, and the largest spot on disc of forewing.

Male genitalia with plates three times as long as median width, apices narrowed, rounded. Style with blade roundedly enlarged, on ventral margin near middle, ventral margin serrate; apical half tapering to a slender-pointed apex. Aedeagal shaft bearing a pair of apical processes extending basad on ventral margin. Paired parameres enlarged near base then narrowed, extending to apex of shaft, slightly enlarged at apex.

Ponana hilara can be distinguished from all other described species by the tapered, serrate style.

Holotype male labeled Santa Isabel, Cusco, Peru Dec. 3, 1951 (F. L. Woytkowski) in the North Carolina State University Collection.

LITERATURE CITED

- DeLong, Dwight M., and Paul H. Freytag. 1967. Studies of the world Gyponinae (Homoptera: Cicadellidae). A synopsis of the genus *Ponana*. Amer. Entomol. Institute, 1(7): 36 p.