

NEW SPECIES OF *POLANA* (HOMOPTERA:
CICADELLIDAE) FROM BOLIVIA, PERU,
PANAMA, AND FLORIDA¹

Dwight M. DeLong²

ABSTRACT: Six new species of *Polana* are described. Two species, *P. caputa* n.sp. (Bolivia) and *P. carla* n.sp. (Peru) placed in the subgenus *Polana*, and four species, *P. robusta* n.sp. (Florida), *P. tortora* n.sp. (Bolivia), *P. acutica* n.sp. (Panama) and *P. cochlea* n.sp. (Panama), placed in the subgenus *Nililana*.

The genus *Polana* was described by DeLong (1942). A synopsis of *Polana* treating 87 species by DeLong and Freytag was published (1972). Species have since been described by DeLong (1976), (1979), DeLong and Wolda (1978) and DeLong and Triplehorn (1979). Six species are described at this time. All types are in the DeLong collection.

Only one species, *P. quadrinotata* (Spangberg) has previously been recorded for the United States, occurring in the southwestern portion, near Mexico. The species described at this time from Florida, *P. robusta*, is not closely related to *P. quadrinotata*. It is related to *P. spindella* DeLong and Freytag and *P. gelara* DeLong and Freytag which occur in Mexico and Columbia.

Polana caputa n.sp.
(Figs. 1-5)

Length of male 8 mm., female unknown. Crown more than half as long at middle as basal width between eyes. Margin of crown and just above margin with deep concentric grooves and striae. Color, crown brown, light brown along basal margin. Pronotum pale brown with large dark brown broken spots along anterior margin and behind eyes. A small brown circular spot just anterior to large yellow spots, in a yellowish blotch. Scutellum pale yellow with dark brown basal angles and a pale brown area between them. Forewings subhyaline with conspicuous yellow veins and irregular brown spots on clavus, corium and costa.

Male genital plates four times as long as wide at middle, apices rounded. Style slender, abruptly enlarged subapically, then forming a short slender apex. Aedeagal shaft slender, encased by a cylindrical portion on basal half and bearing an apical elongate structure resembling a bird's head with pointed dorsal "beak". Pygofer narrowed and truncate apically.

Holotype male, Bolivia, Department of Santa Cruz, 2 km. S. Montero, Muyurina.

P. caputa is placed in the subgenus *Polanana* and is different from described species, probably closest to *P. truncata*.

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²Department of Entomology, Ohio State University

Polana carla n.sp.

(Figs. 6-10)

Length of male 8 mm., female unknown. Crown more than twice as wide at base, between eyes as median length. Color, crown pale brown with black coloration around antennae, a round black spot at base, each side, behind ocelli. Pronotum mostly dark brown, a yellowish basal marginal area with black spots behind eyes, and lateral margins, narrowly yellow. Scutellum yellow with dark brown basal angles, and pale brown median longitudinal area with black markings at center. Forewings white, subhyaline, with basal half of clavus, corium area extending to costa, and apical area, pale brown to black.

Male genital plates almost twice as long as width at middle, apices rounded. Style slightly widened by convex bulge on ventral margin near base of shaft, apex bluntly pointed. Aedeagal shaft bearing a non-sclerotized portion at apex, also bearing a pair of subapical processes which arise near apex, are almost half as long as shaft, and extend caudolaterally. Pygofer narrowed and bluntly pointed apically.

Holotype male Sinchona, Peru, August 1934. J.G. Sanders coll.

P. carla is placed in the subgenus *Polana* and is related to *P. falsa*.

Polana robusta n.sp.

(Figs. 11-15)

Length of male 8 mm., female 8.5 mm. Crown short, parallel margined, three times as wide at base, between eyes, as median length. Broadly rounded to front. Ocelli widely separated and near anterior margin. Color, crown pale brown, ocelli red. Pronotum pale brown, two large black spots, the larger spots next margin, behind each eye, one third distance to base. Scutellum pale brown. Forewings pale brown, veins dark brown. Two dark brown cross veins on corium and two dark brown terminal spots on first and second claval veins at commissure.

Female seventh sternum with posterior margin concavely rounded, each side, between broadly rounded lateral angles and a median produced lobe. The lobe is one-third width of segment, slightly notched at middle, and is produced to the length of the lateral angles.

Male genital plates two and one-half times as long as width at middle, apices rounded. Style with a conspicuous, ventral pointed tubercle, at half its length, apex bluntly pointed. Aedeagal shaft curved, narrow, bearing a pair of apical processes extending basad, one-third distance to base. A pair of processes arise at base and curve ventrally, then apically and dorsally, extending three-fourths length of shaft. Pygofer bearing a dorsal, hooked process which extends apically and vertically on each side.

Holotype male, Edgewater, Florida, April 8, 1938. D.M. DeLong coll. Paratype female, same data.

P. robusta is related to *P. gelara* and *P. spinella*. They can be separated externally by the shorter head to *P. robusta* and the darker coloration of the forewings. The genitalia can be used for their separation as illustrated.

Polana tortora n.sp.

(Figs. 16-20)

Length of male 7.5 mm., female unknown. Crown one-third as long at middle as basal width between eyes. Ocelli nearer to eyes than median line, and nearer to anterior than to posterior margin of crown. Color, crown pale brown. Pronotum pale brown with darker brown blotches along anterior margin, behind eyes, and disc darker brown. Scutellum dark brown, apex paler brown. Forewings brownish gray, veins brown, brown spots at end of first and

second claval veins along commissure, and on cross veins of corium.

Male genital plates three and one-half times as long as width at middle, apices narrow, rounded. Style straight, with curved hook at apex causing the apical tip to extend basad.

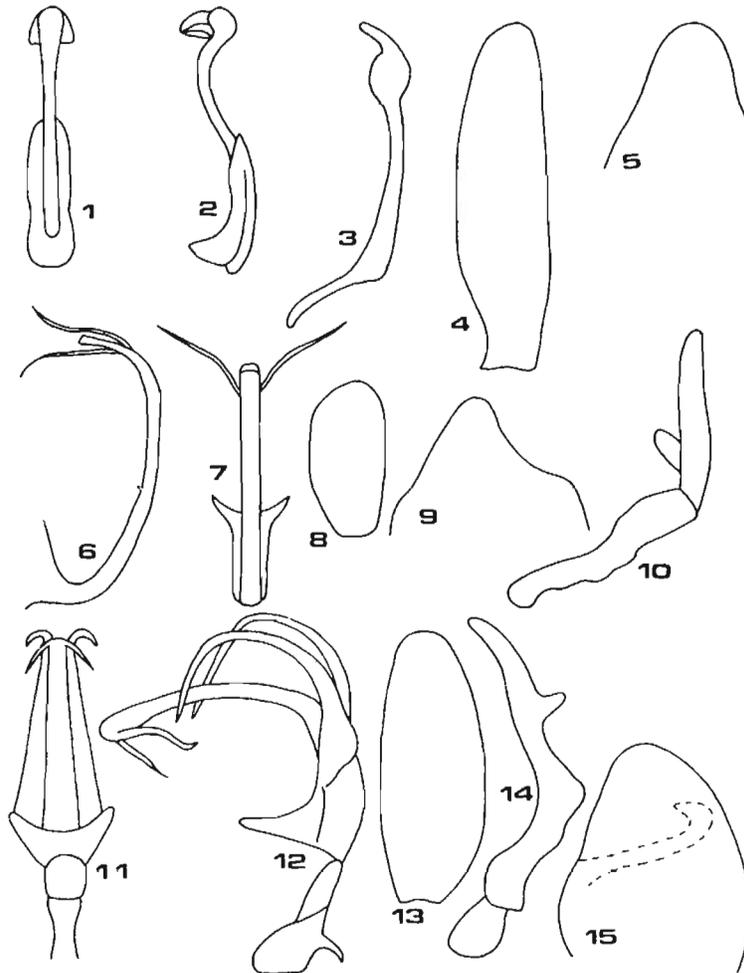


Plate I, Figs. 1-5 *Polana caputa* n.sp. 1. aedeagus ventrally, 2. aedeagus laterally, 3. style laterally, 4. plate ventrally, 5. pygofer, apical portion, laterally. Figs. 6-10 *P. carla* n.sp. 6. aedeagus laterally, 7. aedeagus ventrally, 8. plate ventrally, 9. pygofer, apical portion, laterally, 10. style laterally. Figs. 11-15 *P. robusta* n.sp. 11. aedeagus ventrally, 12. aedeagus laterally, 13. plate ventrally, 14. style laterally, 15. pygofer, apical portion, laterally.

Aedeagal shaft curved and gradually tapered to apex which is only slightly sclerotized and appears divided. Pygofer dorsal hook with one tooth.

Holotype male, Santa Cruz, Bolivia, June 1, 1967, Peredo coll.

P. tortora is placed in the subgenus *Nihilana* and is related to *P. bena*.

***Polana scutica* n.sp.**

(Figs. 21-25)

Length of male 7 mm., female unknown. Crown short, almost parallel margined, more than three times as wide at base, between eyes, as medial length. Ocelli nearer to eyes than to median line and closer to anterior than to posterior margin of crown. Color, crown brown, disc darker brown. Scutellum pale brown, basal angles darker brown. Forewings subhyaline, veins darker brown. Brown spots at apices of claval veins at commissure and on cross veins of corium. Apical portion of forewings pale brown.

Male genital plates three times as long as width at middle, apices narrow, rounded. Style bent dorsally and narrowed at two-thirds its length, apex narrow, blunt. Aedeagal shaft narrow, curved 180°, apical half narrowed, apex divided, forming two pointed apical tips. Pygofer with a dorsal hooked process bearing one tooth.

Holotype male, Panama, Las Cumbres, June 8, 1973, Henk Wolda coll.

P. scutica is placed in the subgenus *Nihilana* and is related to *P. fina*.

***Polana cochlea* n.sp.**

(Figs. 26-30)

Length of male 7.5 mm., female unknown. Crown short, scarcely produced, less than half as long at middle as basal width between eyes. Ocelli nearer to eyes than to median line. Color, pale brown, a pair of small round black spots on basal margin behind ocelli. Pronotum pale brown, a round black spot behind each eye, at one-third length of pronotum, and a row of small black spots extending between them, parallel with anterior margin. Scutellum pale brown. Forewings brownish gray, veins brown. Dark brown coloration on commissure at tips of claval veins, cross veins of corium and apical cell cross veins.

Male genital plates more than three times as long as width at middle, apices narrowed, rounded. Styles widened at middle, by an enlargement on ventral margin, apical half tapered to a narrow, bluntly pointed apex. Aedeagal shaft roundly broadened at apex, bearing a pair of separated apical spines which extend caudally. Pygofer bearing a dorsal hooked spine on inner margin of pygofer dorsal wall.

Holotype male, Panama, Las Cumbres, June 8, 1973, Henk Wolda coll.

P. cochlea is placed in the subgenus *Nihilana* and is related to *P. rixa*.

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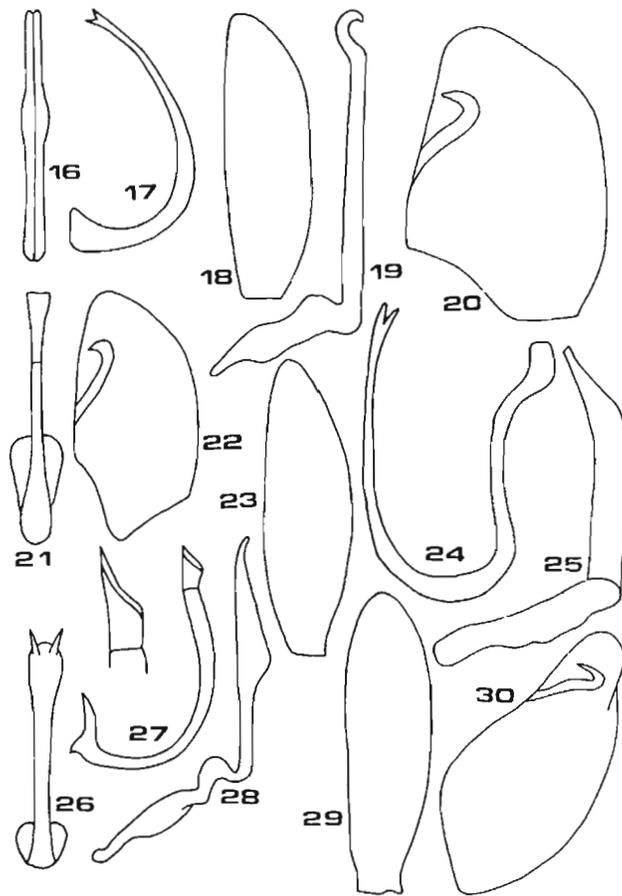


Plate II, Figs. 16-20 *Polana tortora* n.sp. 16. aedeagus ventrally. 17. aedeagus laterally. 18. plate ventrally. 19. style laterally. 20. pygofer laterally. Figs. 21-25 *P. scutica* n.sp. 21. aedeagus ventrally. 22. pygofer laterally. 23. plate ventrally. 24. aedeagus laterally. 25. style laterally. Figs. 26-30 *P. cochlea* n.sp. 26. aedeagus ventrally. 27. aedeagus laterally. 28. style laterally. 29. plate ventrally. 30. pygofer laterally.