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NEW SPECIES OF *PONANA* AND *NULLANA*  
(HOMOPTERA: CICADELLIDAE)  
FROM CENTRAL AND SOUTH AMERICA

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ABSTRACT

Three new species of *Ponana*, *P. fuscara* n.sp. (Mexico), *P. meadi* n.sp. (Florida), *P. woodruffi* n.sp. (Mexico), and 6 new species of *Nullana*, *N. alera* n.sp. (Peru), *N. sinchona* n.sp. (Peru), *N. gelbana* n.sp. (Brazil), *N. verdana* n.sp. (Peru), *N. alena* n.sp. (Guyane) and *N. woldai* n.sp. (Panama) are described.

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The genus *Ponana* was described by Ball (1920) as a subgenus of *Gypona* and he designated *Ponana scarlatina* (Fitch) as the type. DeLong (1942) recognized *Ponana* as a genus and placed 26 species, 6 described as new, in the genus. A synopsis of the genus *Ponana* was published by DeLong and Freytag (1967), treating 70 species, 45 described as new, and placed in 3 subgenera. Six additional species were described by DeLong and Martinson (1973). One species from Mexico was described by DeLong and Kolbe (1974). The genus *Nullana*, closely related to *Ponana*, was described by DeLong (1976) who described 4 new species and designated *Nullana huallaga* as the

type. Three species of *Ponana* and 6 species of *Nullana* are described at this time. Holotypes not otherwise designated are in the DeLong collection, the Ohio State University.

*Ponana fuscara* DeLong and Martinson, NEW SPECIES  
(Fig. 1-5)

Length of ♂ 8 mm, ♀ unknown. Crown more than half as long at middle as wide at base between eyes. Color pale brown. Pronotum with a round black spot next to lateral margin, behind each eye. Scutellum with apical angle paler brown. Forewings brown with 4 prominent black spots on each wing, 2 on corium and 2 at ends of 1st and 2nd claval veins at commissure. Clavus yellowish between the 2 brown spots.

Male genital plates 2.5 X as long as wide at middle, apices rounded. Style slightly enlarged on basal 3rd, apical 4th curved dorsally, apex pointed. Aedeagal shaft slender, extending ventrally, bent back upon itself near base then turned caudad. Shaft broadened apically, forming 2 separated, caudally directed, pointed processes and a short pointed, median tooth. The paraphyses arising at base curved ventrally, then dorsally, at apex. Pygofer narrowed, apex bluntly pointed.

HOLOTYPE MALE: Veracruz, Mexico, Lake Catemaco, Coyame, 1-8-VII-1963, black light trap. R. E. Woodruff coll. Paratypes: 2 ♂♂ same data as holotype: Holotype and paratype in the Florida State Collection of Arthropods, Gainesville; paratype in the DeLong collection, Ohio State University.

*Ponana fuscara* is related to *P. velara* DeL. & Frey. and can be separated by the shorter apical processes of the aedeagal shaft and the more slender paraphyses which are only slightly broadened at middle.

*Ponana meadi* DeLong and Martinson, NEW SPECIES  
(Fig. 6-10)

Length of ♂ 9 mm, ♀ 11 mm. Crown produced and broadly rounded, two-thirds as long at middle as wide at base between eyes. Crown pale brown, pronotum brownish yellow, with 6 dark brown spots varying in intensity. The 2 posterior to ocelli usually are distinct in all specimens. The 2 posterior to eyes and the 2 on lateral margins may be faint or almost missing. Scutellum yellowish with dark brown basal angles and yellow apex. Forewings pale brown, with numerous small round spots on entire wing. Two larger brown spots on clavus and 2 on corium.

Female 7th sternum with posterior margin concavely notched next to each lateral angle, between which posterior margin produced to form 2 broad median lobes separated by a short v-shaped notch. Lobes produced beyond margin of lateral angles.

Male genital plates 3.5 X as long as wide at middle, apices bluntly rounded. Style broadened at middle on dorsal margin, apex curved dorsally, narrowed and sharp pointed. Aedeagal shaft narrowed subapically and bearing a narrow transverse apex, extending twice width of shaft and bearing a pair of caudally extended processes, which become proximal apically. Paraphyses arise dorsally from recurved base and extend to apex of shaft with apices narrowed and curved dorsally. Pygofer narrowed and rounded at apex.

HOLOTYPE MALE: Edgewater, FL, 6-IV-1948, D. M. DeLong, coll, Fe-

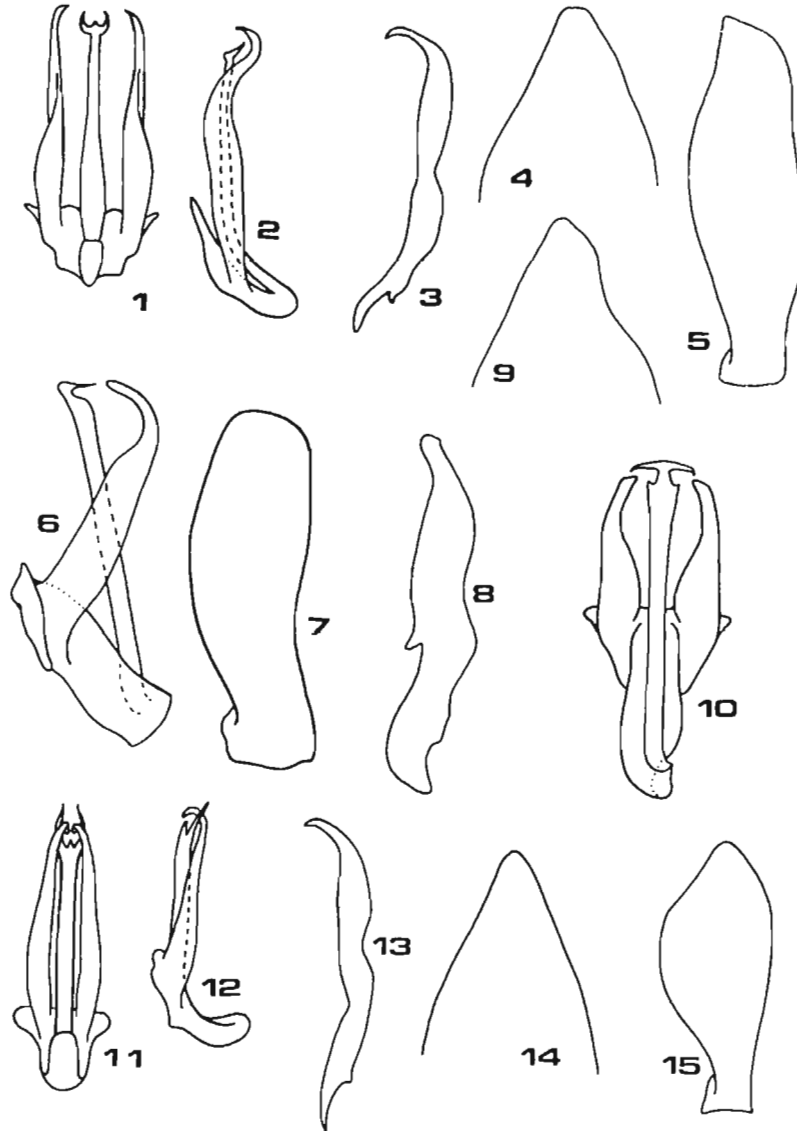


Fig. 1-5. *Ponana fuscara* n. sp. 1. aedeagus ventrally, 2. aedeagus laterally, 3. style laterally, 4. pygofer laterally, apical portion, 5. plate ventrally. Fig. 6-10 *Ponana meadi* n. sp. 6. aedeagus laterally, 7. plate ventrally, 8. style laterally, 9. pygofer laterally, apical portion, 10. aedeagus ventrally. Fig. 11-15 *Ponana woodruffi* n. sp. 11. aedeagus ventrally, 12. aedeagus laterally, 13. style laterally, 14. pygofer laterally, apical portion, 15. plate ventrally.

male allotype same data as holotype; 1 ♀ paratype Gainesville, FL, 8-V-1958, F. W. Mead coll.; 1 ♀ paratype Santa Rosa Co., FL, 21-VII-1955. Holotype and allotype in the DeLong collection, paratypes in the Florida State Collection of Arthropods, Gainesville.

We take pleasure in naming this species for Dr. Frank W. Mead, the collector.

*Ponana meadi* can be separated from *P. divergens* DeL., by the aedeagal shaft notched just before the laterally pointed transverse apex, the bluntly pointed paraphyses, and the bluntly rounded apices of the styles.

*Ponana woodruffi* DeLong & Martinson, NEW SPECIES  
(Fig. 11-15)

Length of ♂ 6.5 mm, ♀ unknown. Crown more than two-thirds as long at middle as wide at base between eyes. Brownish yellow, pronotum with 6 black spots, of which 4 are round, prominent spots near anterior margin; a larger spot behind each ocellus and one behind each eye. A faint, minute brown spot at margin, each side. Scutellum with dark brown lateral angles. Forewings pale brown with 2 small, dark brown spots on clavus at commissure and 2 on corium. Apical portion of wing subhyaline.

Male genital plates more than twice as long as wide at middle, apex abruptly narrowed, bluntly pointed. Style with apical 3rd of blade narrowed, curved dorsally. Aedeagal shaft bent back upon itself; apex pointed and bearing a pair of subapical processes which curve lateroapically with apices pointed and almost meeting apically. Paraphyses arising basally, apices curved dorsally. Pygofer narrowed and bluntly pointed apically.

HOLOTYPE MALE: Puerto Macuilapa near Los Amates, Chiapas, Mexico 22-V-1964, R. E. Woodruff coll. Paratype ♂ same data as holotype. Holotype and paratype in the Florida State Collection of Arthropods, Gainesville.

We take pleasure in naming this species for Dr. Robert E. Woodruff, the collector.

*Ponana woodruffi* is related to *P. velora* DeL. & Frey, and can be separated by the apically notched aedeagal shaft, in lateral view, the medially slightly broadened paraphyses, and the shorter and apically broader styles.

*Nallana alera* DeLong & Martinson, NEW SPECIES  
(Fig. 16-20)

Length of ♂ 9.5 mm, ♀ unknown. Crown more than twice as wide at base between eyes, as long at middle. Ocelli closer to anterior than posterior margin. Dull yellow, a large black spot each side, at base, behind ocellus. Pronotum dull yellow, 2 black spots, the inner 1 elongate, each side behind eyes. Scutellum dull yellow. Forewings pale gray with 2 large black spots, 1 on middle costa and 1 on anterior corium with many small spots and "cross veinlet" markings.

Male genital plates 3X as long as wide at middle, apices rounded. Style broadened at a little more than half its length then narrowed and bent dorsocaudally where it tapers to a slender, dorsally extended, sharp pointed apex. Aedeagal shaft curved dorsally, narrowed at four-fifths its length, then broadened into a laterally curved, apically rounded, terminal process. Pygofer bluntly pointed apically.

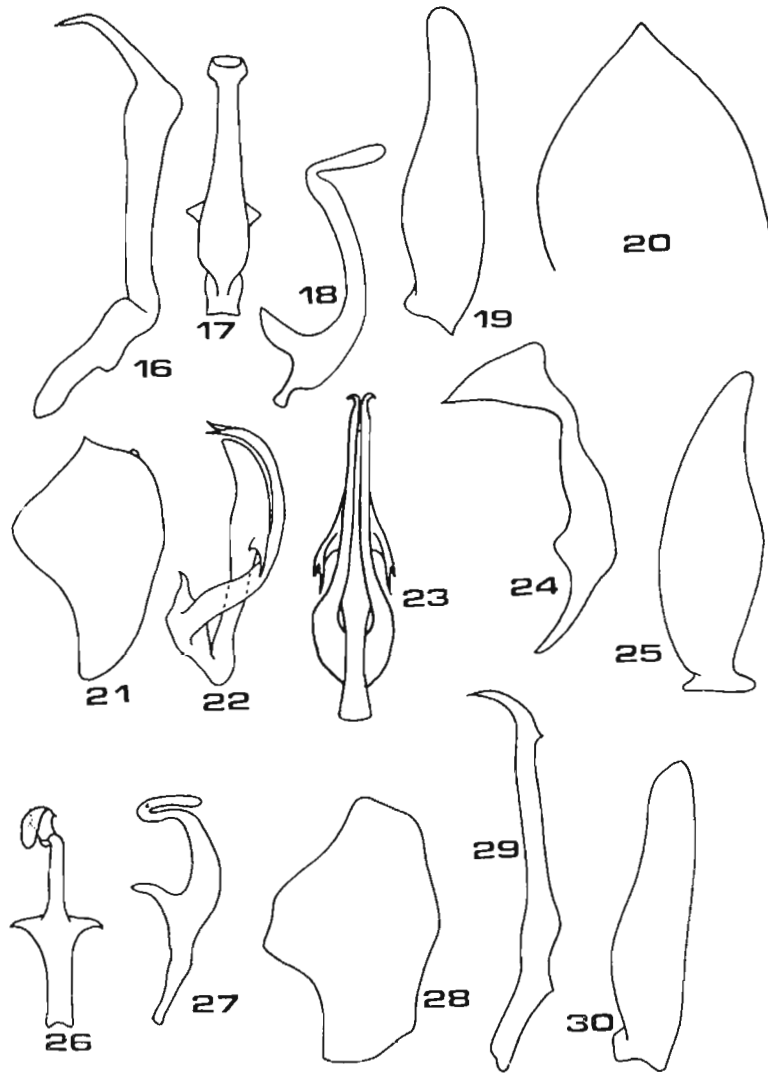


Fig. 16-20. *Nullana alera* n. sp. 16. style laterally, 17. aedeagus ventrally, 18. aedeagus laterally, 19. plate ventrally, 20. pygofer laterally, apical portion. Fig. 21-25 *Nullana sinchona* n. sp. 21. pygofer laterally, 22. aedeagus laterally, 23. aedeagus ventrally, 24. style laterally, 25. plate ventrally. Fig. 26-30 *Nullana gelbana* n. sp. 26. aedeagus ventrally, 27. aedeagus laterally, 28. pygofer laterally, 29. style laterally, 30. plate ventrally.

HOLOTYPE MALE: Peru, Mouson Valley, Tingo Maria, 11-XII-1954, E. I. Schlinger and E. S. Ross colls., in the California Academy of Science collection.

*Nullana alera* is related to *N. huallaga* DeL. and can be separated by the

more preapically enlarged and dorsally bent, apically pointed styles, and the abruptly, ventrally bent apical portion of the aedeagus.

*Nullana sinchona* DeLong & Martinson, NEW SPECIES

(Fig. 21-25)

Length of ♂ 8 mm, ♀ unknown. Crown broadly rounded, more than twice as wide at base between eyes as long at middle. Ocelli equidistant between anterior and posterior margins. Crown, pronotum, and scutellum brownish yellow. A black spot close to margin, behind each eye, at half length of pronotum. Basal angles of scutellum dark brown. Forewings brownish yellow, with 4 prominent dark brown spots on each wing, 2 on cross veins of corium and 1 at commissure of 1st and 2nd claval veins. Cross veins of apical cells dark brown.

Male genital plates 3X as long as wide at middle. Style blade constricted and bent dorsally at two-thirds its length, apical 4th enlarged, forming a somewhat triangular apex, curved ventrally, pointed dorsally, and slightly convexly rounded apically. Aedeagal shaft slender, slit at apex, forming a pair of closely appressed apices. A pair of processes arise subapically and extend laterobasally. A pair of parameres arise on dorsobasal portion of shaft and extend almost to apex of shaft. They bear a pair of short lateral processes arising on lateroventral margin at two-thirds length of parameres. Pygofer narrowed and rounded apically.

HOLOTYPE MALE: Sinchona, Peru, XI-1943, J. G. Sanders coll. PARATYPES: 2 ♂♂ Santa Isabella, Dept. Cusco, Peru, 14-XI-1951, Felix L. Waytkowski coll.; 1 ♂ same except 30-XI-1951; 1 ♂ same except 6-XII-1951; 2 ♂♂ same except 26-XI-1951; 3 ♂♂ same except 9-XII-1951; 5 ♂♂ same except 11-XII-1951; 1 ♂ Rio Huagra, Yuca Oriente, Ecuador, 3-IV-1941. Clarke, MacIntyre, colls.

Holotype and paratypes in DeLong collection, paratypes in the North Carolina State University collection.

*Nullana sinchona* is not closely related to any described species. It can be separated from all other species by the enlarged, triangular, dorsally pointed apical portion of the style, and the unique aedeagus, with slender paraphyses and lateral spined processes extending basally from middle of shaft.

*Nullana gelbana* DeLong & Martinson, NEW SPECIES

(Fig. 26-30)

Length of ♂ 8 mm, ♀ 9 mm. Crown broadly rounded, more than twice as wide at base between eyes as long at middle. Crown yellow with a round black spot behind each ocellus halfway to base of crown. Pronotum and scutellum golden yellow, lines between veins appearing as cross veins.

Female 7th sternum with posterior margin produced, forming a long toothlike portion, one-third length of segment, each side of a broad median V-shaped excavation, two-thirds distance to base of segment and half width of segment.

Male genital plates 3X as long as wide at middle, apices narrowed, rounded. Style narrow, elongate, bearing a short spine on ventral margin at two-thirds its length. Apical 3rd curved dorsally and pointed. Aedeagal shaft

bent dorsally at half its length, then narrowed to a dorsally, bluntly pointed apex. Pygofer narrowed and truncate apically.

HOLOTYPE MALE: Nova Teutonia, Santa Catarina, Brazil 27-II-1954, F. Plaumann coll. Paratypes: 1 ♂ same except 6-X-1950; Remett & Plaumann coll.; 1 ♂ 20-X-1950; 1 ♀ 26-IX-1950; 1 ♀ 27-IV-1950, Fritz Plaumann, coll.; 2 ♀♀ Santa Catarina, Brazil without specific data; 1 ♀ Corupa (Hansa Humbolt) S. Cath., Brazil X-1928. Holotype and paratypes in the North Carolina State University collection, paratypes in the DeLong collection.

*Nullana gelbana* can be separated from *N. alera* DeL. & Mart. by the more slender style which is only slightly enlarged preapically and bears a ventral, pointed tooth at the point of enlargement.

*Nullana verdana* DeLong & Martinson, NEW SPECIES  
(Fig. 31-35)

Length of ♂ 8.2 mm, ♀ 9 mm. Crown broadly rounded, one-half as long at middle as wide at base between eyes. Crown dark green, broad margin white. Pronotum dark green with light green lines and areas with white spots along posterior margin. Scutellum dark green with white lines at inner margin of basal angles and a white apical spot. Forewings dark green with white costal area, apical area with numerous irregular white spots.

Female 7th sternum with posterior margin roundly convex, produced to broad, median V-shaped notch extending almost to base of segment.

Male genital plates more than 4X as long as wide at middle, apex sharp pointed. Style with blade curving dorsally at half its length, apical portion tapered and pointed. Aedeagal shaft quite broad at base, with a slender, dorsally curved portion near base. Dorsal margin deeply, concavely rounded with the apical half of shaft quite narrow. Apical portion extending dorsally and broadly expanded. Aedeagal shaft with short lateral processes. Pygofer broadly rounded apically.

HOLOTYPE MALE: Hacienda Maria, Cusco, Peru 18-III-1952, F. L. Woytkowski coll., along R. Cosnipata, tropical jungle, 900 m.a.s.l. Allotype ♀, Peru, Tingo Maria 12-VIII-1960, M. Rojas coll. Holotype in DeLong collection, paratype in the North Carolina State University collection.

*Nullana verdana* can be separated from *N. scutella* DeL. by the roundly enlarged apical portion of the aedeagus, the gradually tapered, pointed styles, and the apically, sharply pointed plates.

*Nullana ulena* DeLong & Martinson, NEW SPECIES  
(Fig. 36-40)

Length of ♂ 8 mm, ♀ unknown. Crown more than half as long at middle as wide at base between eyes. Ocelli distant from median line and closer to anterior than to posterior margin. Crown dull yellow, a large round black spot at base, behind each ocellus. Pronotum yellow, tinted with brown on anterior portion, with 2 black spots behind each eye. Scutellum yellow with dark brown basal angles. Forewings sordid white with pale brown veins, a few brown spots and cross lines between veins.

Male genital plates 3.5X as long as wide at middle. Style long and slender, broadly concave on ventral margin near base, apical portion curved dorsally,

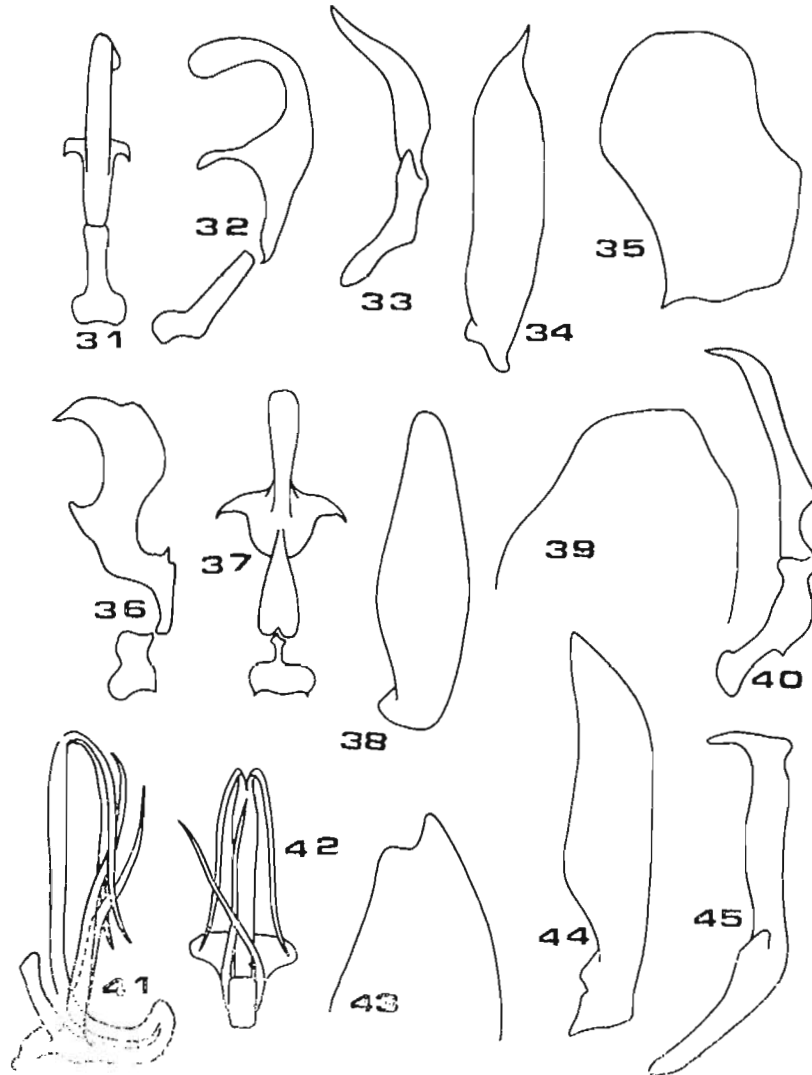


Fig. 31-35. *Nallana verdana* n. sp. 31. aedeagus ventrally, 32. aedeagus laterally, 33. style laterally, 34. plate ventrally, 35. pygofer laterally. Fig. 36-40 *Nallana alena* n. sp. 36. aedeagus ventrally, 37. aedeagus laterally, 38. plate ventrally, 39. pygofer laterally, apical portion, 40. Style laterally, Fig. 41-45 *Nallana woldai* n. sp. 41. aedeagus laterally, 42. aedeagus ventrally, 43. pygofer laterally, apical portion, 44. plate ventrally, 45. style laterally.

apex pointed. Aedeagal shaft broadened and curved dorsally near base, then forming a very broad curved apical half, the base of which is projected as a dorsal spur. The shaft of this portion is broad, curved dorsally, and forms a narrow, truncate apical edge. The dorsal margin curves dorsally and is pointed. Pygofer with broadly rounded apex.



HOLOTYPE MALE: labeled LeMoult, Guyane, Maroni, without specific data, in the North Carolina State University collection.

*Nullana alena* can be separated from *N. huallaga* DeL. by the dorsally concave, apically enlarged apical two-thirds of aedeagus and a style with the blade not divided apically.

*Nullana woldai* DeLong & Martinson, NEW SPECIES  
(Fig. 41-45)

Length of ♂ 7 mm, ♀ 8 mm. Crown two-thirds as long as wide at base between eyes. Crown yellowish. Pronotum yellowish with 4 black spots along anterior margin, 1 behind each ocellus and 1 behind each eye. Disc with tiny brown spots. Scutellum pale brownish. Forewings pale gray with irregular brown spots; several brown spots on clavus, several on costal portion of wing and 2, a little larger, on corium.

Female 7th sternum with posterior margin broadly, concavely excavated, one-third distance to base, each side of 2 slightly produced, broadly rounded, median lobes.

Male genital plates almost 4X as long as wide at middle, apices narrowed to slightly rounded tips. Style with apex foot-shaped, the rounded heel ventrad and the toe extending dorsally. Aedeagal shaft bearing 2 terminal processes which extend to base and 2 basal processes which extend to apex of shaft, base of shaft recurved. Pygofer narrowed apically, tip with angular indentation.

HOLOTYPE MALE: Las Cumbres, Panama, 28-V-1973, H. Wolda coll. Allotype ♀ same except 27-V-1974. Holotype and allotype in DeLong collection.

We take pleasure in naming this species for Dr. Henk Wolda, the collector.

*Nullana woldai* is not closely related to any described species. It can be distinguished from all known species by the slender aedeagus which is bifid at two-thirds its length, forming a pair of long, slender apical processes one-third length of aedeagus, and a pair of long slender tapered, pointed parapses.

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