

## NEW SPECIES OF DELTOCEPHALINAE AND GYPONINAE (HOMOPTERA: CICADELLIDAE) FROM THE NEOTROPICS

Dwight M. DeLong\* and Paul S. Cwikla  
Department of Entomology 1735 Neil Ave.  
The Ohio State University Columbus, Ohio, U.S.A. 43210

### ABSTRACT

The following three new species are described: *Amplicephalus* (*Amplicephalus*) *lorenzus* (Bolivia), *Polyamia* *tabasca* (México) and *Ponana* (*Neoponana*) *divisa* (Perú). In addition, the literature for these genera is updated.

### Introduction

The neotropics contain a rich diversity of leafhoppers. In this paper we describe three new species, one each in *Ponana* Ball, *Polyamia* DeLong and *Amplicephalus* DeLong representing the subfamilies Deltocephalinae and Gyponinae. Unless otherwise noted, types are deposited in the DeLong Collection, The Ohio State University, Columbus, Ohio.

This manuscript, the last work of Dwight M. DeLong, was compiled by the junior author from a number of different manuscripts that he was working on at the time of his death.

### Genus *Ponana* Ball

*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 distinct genus. DeLong and Freytag (1967) revised the genus and included 70 species placed in three subgenera. The following species and combinations have been added since that time:

*Ponana* (*Lataponana*) *ampa* DeLong 1977:110. (Peru)  
*Ponana* (*Lataponana*) *cephalata* DeLong 1977:110. (Peru)  
*Ponana* (*Lataponana*) *serrans* DeLong 1977:111. (Peru)  
*Ponana* (*Neoponana*) *hilara* DeLong & Martinson 1973b:180. (Peru)  
*Ponana* (*Neoponana*) *serella* DeLong & Martinson 1973b:178. (Peru)  
*Ponana* (*Peranoa*) *perusana* DeLong 1980:219. (Peru)

\* Deceased.

*Ponana (Ponana) amana* DeLong, Wolda & Estribi 1983:471. (Panama)  
*Ponana (Ponana) boquetea* DeLong, Wolda & Estribi 1983:465. (Panama)  
*Ponana (Ponana) clavella* DeLong, Wolda & Estribi 1983:457. (Panama)  
*Ponana (Ponana) irheae* DeLong, Wolda & Estribi 1983:463. (Panama)  
*Ponana (Ponana) ortha* DeLong, Wolda & Estribi 1983:472. (Panama)  
*Ponana (Ponana) panera* DeLong & Martinson 1973b:178. (México)  
*Ponana (Ponana) quadriproba* DeLong, Wolda & Estribi 1983:471. (Panama)  
*Ponana (Ponana) sena* DeLong & Martinson 1973b:178. (Guatemala)  
*Ponana (Ponana) seresa* DeLong & Martinson 1973b:176. (Guatemala)  
*Ponana (Ponana) tubula* DeLong & Martinson 1973b:176. (Guatemala)  
*Ponana (Ponana) virga* DeLong, Wolda & Estribi 1983:470. (Panama)  
*Ponana (Proxaponana) pertenua* DeLong 1977:111. (Peru)  
*Ponana (Proxaponana) sandersi* DeLong 1977:112. (Peru)  
*Ponana areya* DeLong 1981:20. (Mexico)  
*Ponana balloui* DeLong 1981:18. (Venezuela)  
*Ponana fuscara* DeLong & Martinson 1980:494. (Mexico)  
*Ponana meadi* DeLong & Martinson 1980:494. (Florida)  
*Ponana modesta* (Spangberg); DeLong 1979:164.  
*Ponana ornatata* DeLong & Kolbe 1974:378. (Mexico)  
*Ponana ornatella* DeLong 1981:20. (Brazil)  
*Ponana woodruffi* DeLong & Martinson 1980:496. (Mexico)

*Ponana (Neoponana) divisa* n. sp.

(Figs. 1 - 4)

Length of male 10.0 — 10.6 mm., female unknown.

Crown broadly rounded, 1/2 as long at middle as wide between eyes at base. Ocelli equidistant between eyes and median line. Face with transverse carina ventrad to antennal pits. Color, crown straw yellow. Face straw yellow, lora and lateral margins of clypeus reddish brown. Pronotum straw yellow with irregular dark brown markings behind eyes and with posterior margin irregularly brown. Scutellum yellow, basal angles dark brown, pair of dark brown triangular patches medially to basal angles. Forewing light brown, subhyaline, marked with dark brown spots, mostly in claval and apical areas.

Male genitalia: Plate 4X as long as wide at middle, apically rounded. Pygofer in lateral aspect apically rounded, thumb-like process extending caudally and inwardly from middle of pygofer apex (Fig. 3). Aedeagal shaft slender, pair of short asymmetrical subapical processes directed dorsally in lateral aspect (Fig. 1), paraphyses crossing over each other apically (Fig. 2), thick in posterior aspect. Style apically bifurcate (Fig. 4).

Type-series: Holotype male - Peru, Huanuco, Santo Domingo, Andes 3000 M, 11-23-XI-1937, F. Woytkowski coll.; in the Snow Collection, University of Kansas. Paratypes — 3 males, same date as holotype. Two paratypes Snow Collection, one paratype in the DeLong Collection, The Ohio State University.

*Ponana divisa* is related to *P. demela* DeLong and Freytag (1967:47) by the similarities of the styles. It can be separated from *demela* by the asymmetrical aedeagal processes that are directed dorsally in lateral aspect.

#### *Polyamia* DeLong

The genus *Polyamia* was first described by DeLong (1926) as a subgenus of *Delotcephalus* and elevated to generic status by DeLong and Slesman (1929). Oman (1949) listed 30 species occurring in North America north of México. Kramer (1963 and 1965) described species from México and Arizona. DeLong and Thambimuttu (1973) reviewed 17 Mexican species. Since this last review, the following species have been described:

*Polyamia acuticeps* Linnavuori & DeLong 1978a:200 (Panama)  
*Polyamia chiquitana* Linnavuori & DeLong 1978a:199 (Honduras)  
*Polyamia freytagi* DeLong & Martinson 1973a:150. (Honduras)  
*Polyamia gridina* DeLong & Linnavuori 1979:169. (México)  
*Polyamia majuscula* Linnavuori & DeLong 1978a:199. (Panama)

#### *Polyamia tabasca* n. sp.

(Figs. 5 - 8)

Length of male 3.2 mm., female unknown.

Crown produced and angled, slightly longer at middle than wide at base between eyes. Color, crown sordid yellow, apex with triangular, rust-brown patch, connecting posteriorly with longitudinal, pale-brown band (Fig. 5), two dark brown spots on margin between apex and each eye, dark brown line anterior to spots. Face brown, light yellow areas on clypellus and lora. Pronotum yellowish with five longitudinal whitish bands. Scutellum yellow, lateral angles light-brown. Forewing yellowish subhyaline, veins white, brownish areas on corium, clavus and outer apical cell, extra crossveins in clavus.

Male genitalia: Plate triangular, length slightly greater than basal width. Pygofer bluntly produced. Style apophysis short, curved apically and bluntly pointed (Fig. 6). Aedeagus in lateral aspect curved dorsally (Fig. 7), apex triangular in posterior aspect, bifid apically on posterior margin, U-shaped notch on subapical anterior margin of shaft (Fig. 8). Gonopore large.

Holotype male - México, Tabasco, Poovicuc, 31-XII-1938, A. Dampf coll.

*Polyamia tabasca* is near *P. satur* (Ball). It can be separated from other *Polyamia* species by the triangular aedeagal apex with the subapical U-shaped notch (Fig. 8) and the genital plates nearly as long as they are wide.

### *Amplicephalus* DeLong

The genus *Amplicephalus* was first described by DeLong (1926) as a subgenus of *Deltocephalus* and *Deltocephalus osborni* Van Duzee was designated as the type species. The neotropical species were last revised by Linnavuori (1959) and the North American species were revised by Kramer (1971). The following list includes the species not covered in these two revisions:

- Amplicephalus (Amplicephalus) abundans* Linnavuori & DeLong 1977:188. (Chile)  
*Amplicephalus (Amplicephalus) angolus* Linnavuori & DeLong 1977:195. (Chile)  
*Amplicephalus (Amplicephalus) araucuanus* Linnavuori & DeLong 1977:191. (Chile)  
*Amplicephalus (Amplicephalus) brachypterus* Linnavuori & DeLong 1977:190. (Chile)  
*Amplicephalus (Amplicephalus) campanus* Linnavuori & DeLong 1979a:43. (Argentina)  
*Amplicephalus (Amplicephalus) cekalovici* (DeLong & Martinson); Linnavuori & DeLong 1977:191. (Chile)  
*Amplicephalus (Amplicephalus) curtulus* Linnavuori & DeLong 1977:190. (Chile)  
*Amplicephalus (Amplicephalus) fallaciosus* Linnavuori & DeLong 1977:189. (Chile)  
*Amplicephalus (Amplicephalus) intermedius* Linnavuori & DeLong 1977:192. (Chile)  
*Amplicephalus (Amplicephalus) luridus* Linnavuori & DeLong 1979a:45. (Brazil)  
*Amplicephalus (Amplicephalus) papillosus* Linnavuori 1959; Linnavuori & DeLong 1977:190. (male described)  
*Amplicephalus (Amplicephalus) productus* Linnavuori & DeLong 1977:188. (Chile)  
*Amplicephalus (Amplicephalus) ultimasperatus* Dlabola 1967:347. (Chile)  
*Amplicephalus (Amplicephalus) valdivianus* Linnavuori & DeLong 1977:194. (Chile)  
*Amplicephalus (Amplicephalus) villarricus* Dlabola 1967:348. (Paraguay)  
*Amplicephalus (Cruciatanus) discalis* (Van Duzee) 1933; Linnavuori & DeLong 1978B:227. (Redescribed).  
*Amplicephalus (Nanctasus) aurantiacus* Linnavuori & DeLong 1979a:43. (Peru)  
*Amplicephalus (Nanctasus) insularis* Linnavuori & DeLong 1977:185. (Chile)  
*Amplicephalus apertus* DeLong 1984:168. (Bolivia)  
*Amplicephalus boliviellus* DeLong 1984:170. (Bolivia)  
*Amplicephalus buenus* DeLong 1984:173. (Bolivia)  
*Amplicephalus chacus* Cheng 1980:74. (Paraguay)  
*Amplicephalus cruzus* DeLong 1984:173. (Bolivia)  
*Amplicephalus eusebius* Cheng 1980:76. (Paraguay)  
*Amplicephalus latus* DeLong 1984:169. (Bolivia)  
*Amplicephalus laxus* DeLong 1984:172. (Bolivia)  
*Amplicephalus paradoxus* Linnavuori & DeLong 1976:32. (Peru)  
*Amplicephalus parquis* Cheng 1980:77. (Paraguay).  
*Amplicephalus pedriatus* Cheng 1980:77. (Paraguay)  
*Amplicephalus saltensis* Linnavuori & DeLong 1979b:190 (Chile)  
*Amplicephalus santanus* DeLong 1984:170. (Bolivia)

*Amplicephalus similis* DeLong 1984:1972. (Bolivia)  
*Amplicephalus transversalis* Linnavuori & DeLong 1976:30. (Bolivia)  
*Amplicephalus tubupennis* Cheng 1980:76. (Paraguay)

*Amplicephalus (Amplicephalus) lorenzus* n. sp.

(Figs. 9 - 12)

Length of male 4.5 mm., female unknown.

Head as wide as pronotum. Crown bluntly angled apically, slightly longer at middle than wide at base between eyes, crown between eyes flattened in lateral aspect. Color, dull brownish yellow, six dark brown patches near anterior margin (Fig. 10). Face pale brownish yellow, clypeus with narrow dark brown band on anterior margin. Pronotum and scutellum brownish yellow. Forewing with inner anteapical cell closed basally, central anteapical cell divided, without extra crossveins in clavus, color pale brownish subhyaline, veins white. Lateral aspects of thorax, legs and abdomen pale brownish yellow.

Male genitalia: Plates triangular almost twice as long as width at middle. Style with apophysis short, bent dorsally, apex rounded, preapical angle bluntly rounded (Fig. 9). Aedeagal shaft in lateral aspect sinuate (Fig. 11), ventral surface with blunt longitudinal lamellae, aedeagal apex with U-shaped notch in posterior aspect, pair of small triangular processes surrounds gonopore in ventral aspect.

Holotype male: Bolivia, [Beni], San Lorenzo, 9-VII-1980, D. Foster coll.

*Amplicephalus lorenzus* and *A. pradoxus* Linnavuori & DeLong are unique in possessing longitudinal lamellae on the ventral surface of the aedeagus. *Amplicephalus lorenzus* can be separated from all other species of *Amplicephalus* in having the aedeagal longitudinal lamellae rounded in lateral aspect (Fig. 11).

#### Acknowledgements

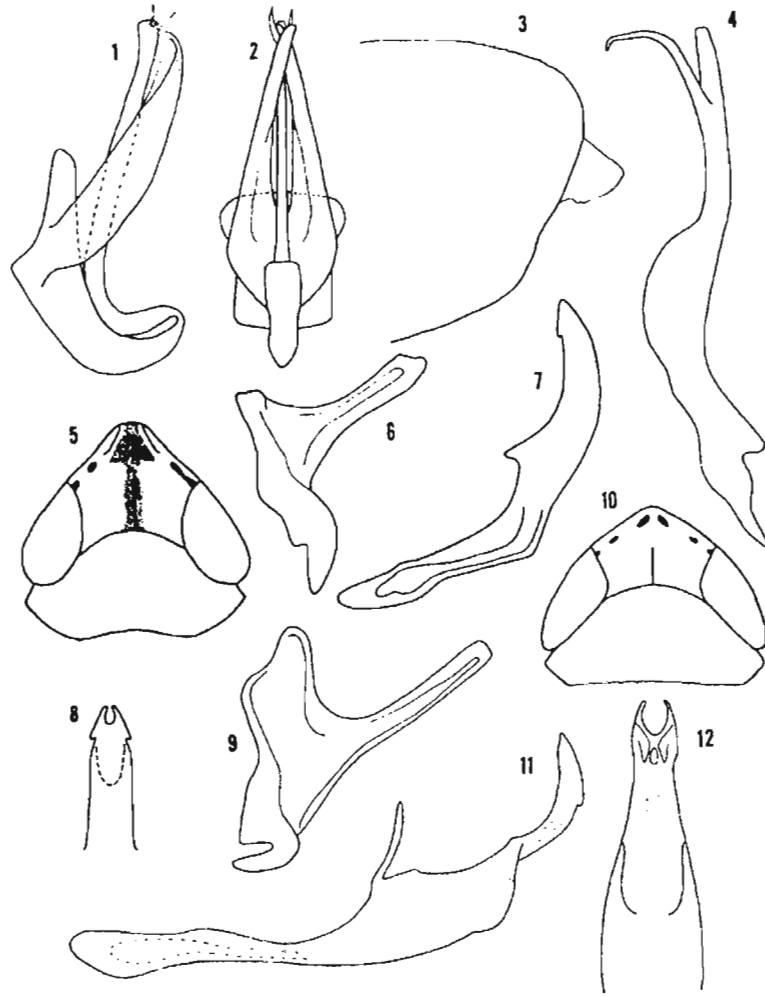
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Figs. 1-4. *Ponana divisa* n. sp.: 1, aedeagus, left lateral aspect; 2, aedeagus, ventral aspect; 3, apex of pygofer, left lateroposterior aspect; 4, left syle, lateroventral aspect. Figs. 5-8. *Polyamia tabasca* n. sp.: 5, head and pronotum, dorsal aspect; 6, left style, dorsal aspect; 7, aedeagus and connective, left lateral aspect; 8, aedeagal apex, posterior aspect. Figs. 9-12. *Amplicephalus lorenzus* n. sp.: 9 left style, dorsal aspect; 10, head and pronotum, dorsal aspect; 11, aedeagus and connective, left lateral aspect; 12, aedeagal apex, ventral aspect.