

**TWO NEW GENERA OF NEOTROPICAL DELTOCEPHALINAE (INSECTA:
HOMOPTERA: CICADELLIDAE) RELATED TO *Alaca* OMAN
DOS GENEROS NUEVOS DE DELTOCEPHALINAE (INSECTA: HOMOPTERA:
CICADELLIDAE) RELACIONADOS A *Alaca* OMAN**

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ABSTRACT

Two new genera of Neotropical Deltocephalinae (Insecta: Homoptera: Cicadellidae) related to *Alaca* Oman: *Paralaca* gen. n. and *Adlaca* gen. n., and two new species, *P. sordida* and *A. dubiosa*, from Manu Reserved Zone, Southeastern Peru, are described and illustrated herein. A key to these three closely related genera is presented.

Key words: Insecta, Homoptera, Cicadellidae, New Genera, Peru.

RESUMEN

Se describen e ilustran dos nuevos géneros neotropicales de "cigarritas" de la subfamilia Deltocephalinae (Insecta: Homoptera: Cicadellidae) relacionados a *Alaca* Oman: *Paralaca* gen. n. y *Adlaca* gen. n., y dos nuevas especies, *P. sordida* y *A. dubiosa*, provenientes de la Zona Reservada del Manu, sureste del Perú. Se presenta una clave para estos tres géneros íntimamente relacionados.

Palabras claves: Insecta, Homoptera, Cicadellidae, Géneros Nuevos, Perú.

INTRODUCTION

While visiting the American Museum of Natural History, New York, U.S.A., the author examined the Linnavuori collection of leafhoppers and tentatively identified a group of specimens collected in the Manu Reserved Zone, Southeastern Peru, as belonging to the genus *Alaca* Oman. Further examination of the genitalic structures revealed the existence of two new genera, which are identical in external appearance to the genus described by Oman (1936). Linnavuori (1959) placed *Alaca* into the group of genera with "crown strongly sloping anteriorly to face", and this character is shared by these undescribed genera and others such as *Andanus* Linnavuori and *Napo* Linnavuori & DeLong.

In this paper, these two new genera, *Paralaca* gen. n. and *Adlaca* gen. n., are described and

illustrated. The depositories of the type material are the Museo Nacional de Historia Natural (MUSM), Lima, Peru, and the National Museum of Natural History (USNM), Washington D.C., U.S.A.

The terminology used in the descriptions follows in part Linnavuori (1959).

MATERIAL AND METHODS

The specimens of *Paralaca* gen. n. were collected at the lights of the field laboratory in Pakitza, biological station of the BIOLAT Program of the Smithsonian Institution, and the specimens of *Adlaca* gen. n. were collected with a Malaise trap in the clearing at the same station. The procedure for the preparation of the genitalia of the specimens studied was described by Oman (1949) and will not be repeated here.

PARALACA GEN. N.

Type species: *Paralaca sordida* sp. n.

Body relatively elongate, somewhat wedge-shaped. Head broader than pronotum; crown of uniform length, anterior and posterior margins

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obtusely rounded, strongly sloping anteriorly to face; frontal region triangular, narrow, obscurely separated from discal one; coronal suture short; eyes not bulbous, continuing the curvature of anterior margin of crown. Face not strongly tumid in lateral view; anteclypeus apically broader than basally; genal margin sinuously marked below each eye; frontoclypeus flat, broad; lorae large; ocelli below anterior margin of crown, their distance to adjacent eye approximately 2x their own diameter. Crown, frontoclypeus, anteclypeus, lorae and genae densely and minutely scaly. Pronotum broad, lateral margins rather long, posterior margin shallowly concave; some transversal, weak striae on disk. Forewing long, translucent; appendix well developed; two long, parallel-sided, subapical cells, inner one more proximal. Spinulation of fore tibia 1 + 3; spinulation of hind knee 2 + 2 + 1.

Male Genitalia: Pygopher long, gradually tapering to a narrowly rounded posterior margin (Fig. 6); strong setae on the posterior third; ventral margin quitinized, with strong, robust denticles on posterior half (Fig. 2); no appendages. Subgenital plates very long, spatulate, diverging apically, nearly reaching apex of pygopher, without setae (Fig. 4). Valve broad, hemispherical (Fig. 8). Styles with apophysis narrowly digitate, preapical angle developed, obtuse (Fig. 7); laterally as in Fig. 5. Connective of same length than style, arms basally fused (Fig. 7). Aedeagus relatively long, symmetrical, apex obliquely truncate; socle developed; stem cylindrical, two blunt lateral processes subapically and an acute spine in middle of ventral margin; gonopore conspicuous, apical; gonoduct sclerified basad of aedeagus (Fig. 3).

Female genitalia: Seventh sternite truncate, laterally cleft (Fig. 9).

***Paralaca sordida* sp. n. (Figs. 1-9)**

Total length of male: 5.40-5.60 mm; of female: 4.90 mm.

Structure: As in the generic description.

Coloration: Crown, pronotum, scutellum, face, forewings and legs stramineous, with a rounded black spot on anterior margin of crown, just

above each ocellus. Pleurae and abdomen stramineous.

Type material: Holotype male: PERU, MD, P.V. Pakitza, Zona Reservada del Manu, 27.vi.1988, P. Lozada coll. (MUSM). Paratypes: One female, same data as holotype except 24.vi.1988 (MUSM); two males, same data except 18.vi and 24.vi.1988 (MUSM and USNM); one male, same data as holotype (MUSM).

Remarks: This new species is readily distinguished by the shape of the styles and of the aedeagus as well as the denticulation of the ventral margin of the pygopher.

ADLACA GEN. N.

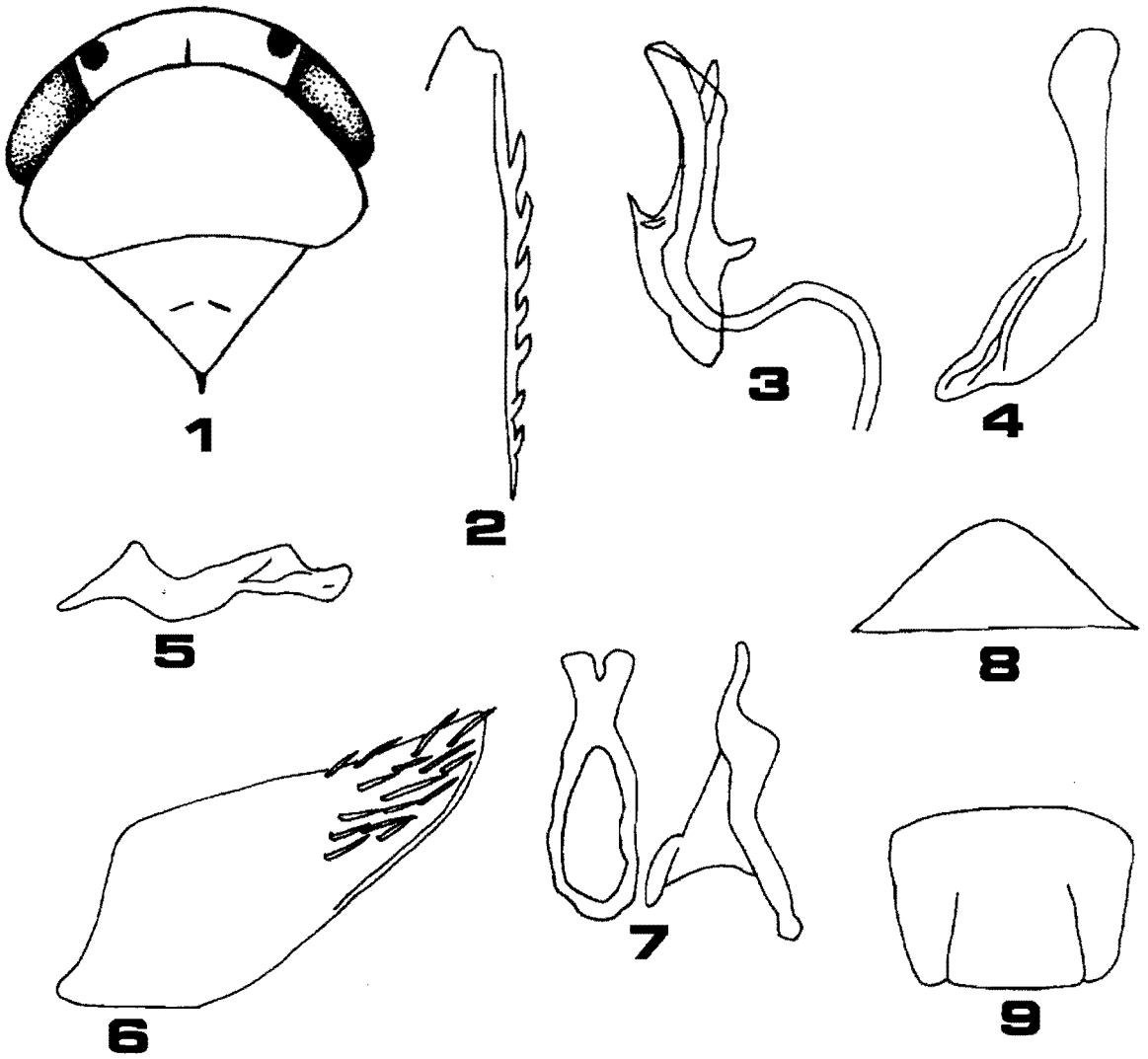
Type species: *Adlaca dubiosa* sp. n.

Body, head, pronotum, forewings, and legs as in the description of *Paralaca* gen. n. with the following differences: crown more produced anteriorly; eyes bulbous, not continuing curvature of anterior margin of crown; coronal suture longer than in *Paralaca* gen. n.; posterior margin of pronotum almost rectilinear; pronotal lateral margins shorter than in *Paralaca* gen. n.

Male genitalia: Pygopher long, gradually narrowed to a rounded posterior margin, with a conspicuous lobe on posterior half of dorsal margin; a group of closely set, strong setae on posterior half; fine, long, brush-like setae on ventral margin; without appendages (Fig. 10). Subgenital plates uniformly tapering to apex, not reaching apex of pygopher, apex narrowly rounded; without setae (Fig. 11). Valve broad, hemispherical (Fig. 17). Styles with apophysis long, slender, subapically crested on external margin; preapical angle acutely projected (Fig. 13). Connective moderately long, broad, arms basally diverging (Fig. 15). Aedeagus with stem long, tubular; socle small (Fig. 12); two apical processes, separated in frontal view by a deep notch (Fig. 14); two long, subapical processes laterad to apical ones.

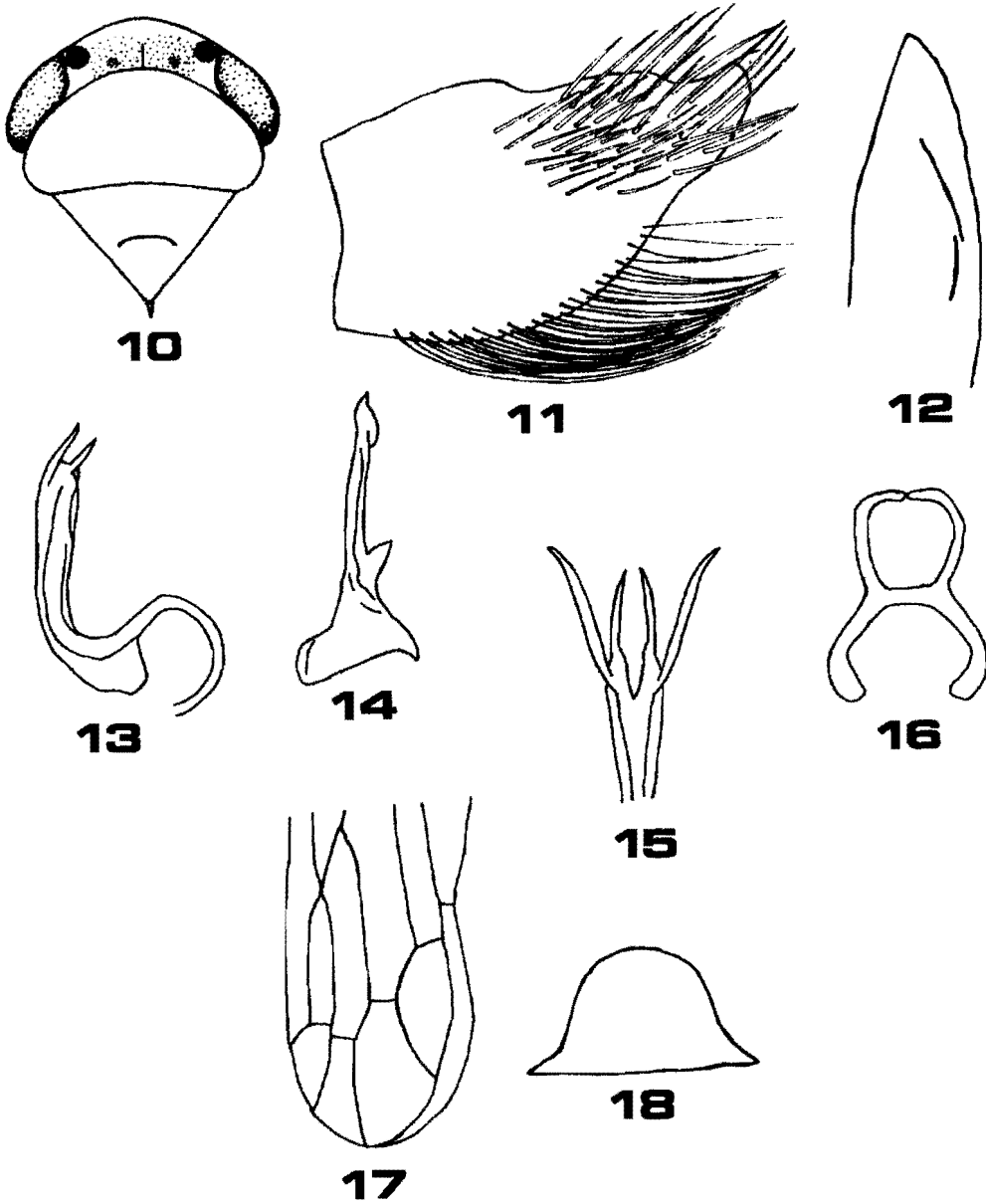
***Adlaca dubiosa* sp. n. (Figs. 10-18)**

Total length of male: 5.40-5.60 mm. Female unknown.



Figs. 1-9: *Paralaca sordida* sp. n.

1. Head, pronotum and scutellum, dorsal view.
2. Ventral margin of pygopher.
3. Aedeagus, lateral view.
4. Left subgenital plate, ventral view.
5. Right style, lateral view.
6. Pygopher, lateral view.
7. Connective and left style, dorsal view.
8. Valve, ventral view.
9. Seventh sternite of female, ventral view.



Figs. 10-18: *Adlaca dubiosa* sp. n.

10. Head, pronotum and scutellum, dorsal view.

11. Pygopher, lateral view.

12. Right subgenital plate, ventral view.

13. Aedeagus, lateral view.

14. Right style, ventral view.

15. Apex of aedeagus, frontal view.

16. Connective, dorsal view.

17. Apex of left forewing, dorsal view.

18. Valve, ventral view.

Structure: As in the generic description of *Paralaca* gen. n. with modifications

Coloration: Crown, pronotum, scutellum, face, forewings and legs stramineous. One black spot on anterior margin of the crown, just above each ocellus. Pleura and abdomen stramineous.

Type material: Holotype male: PERU, MD, P.V. Pakitza, Zona Reservada del Manu, 10.ix.1988, H. Blancas coll. (MUSM). Paratypes: Four males, same data as holotype (MUSM and USNM).

Remarks: This new species is differentiated by the coloration of the crown and the male genitalia.

DISCUSSION

These two new genera can be separated from each other and from the related genus *Alaca* by the characters of the male genitalia as exemplified in the key below. The presence in *Paralaca* gen. n. of a denticulated ventral margin of the pygopher, the connective with basally fused arms and the subgenital plates spatulate will separate it from *Adlaca* gen. n., in which the pygopher has a finely setose ventral margin and more numerous and longer setae on the disk, the connective possesses basally divergent arms and the subgenital plates are tapered to the apex. Externally, the crown is more produced medially and the coronal suture is longer in *Adlaca* gen. n.; lateral margins of pronotum are longer in *Paralaca* gen. n.

In *Alaca*, the subgenital plates are very short and divergent distally, the valve is reduced, the connective is very long and the pygopher has very

few setae. These three related genera share the characters: aedeagus with apical or subapical processes and apical gonopore.

KEY TO THE GENERA:

1. Ground color stramineous with black spots on anterior margin of crown and pronotum..... *Alaca* Oman
Ground color stramineous with black spots only on anterior margin of crown.....2
2. Pygopher with ventral margin enticulate; subgenital plates spatulate; connective arms basally used..... *Paralaca* gen. n.
Pygopher with long fine setae on ventral margin; Subgenital plates gradually tapering to apex; connective arms basally divergent
.....*Adlaca* gen. n.

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