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A new species of *Ileopeltus* Cwikla from Costa Rica (Cicadellidae: Deltocephalinae)

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Abstract

The genus *Ileopeltus* was described by Cwikla (1988), who included twelve species. The genus is Neotropical, with a range from Mexico to Brazil. In this paper a new species, *I. similarus*, is described from Costa Rica. The Mesoamerican species are keyed.

Key words: Hemiptera, Homoptera, leafhopper, taxonomy

Introduction

The genus *Ileopeltus* was described by Cwikla (1988), who included twelve species: *aberrans* (Osborn), *blockeri* Cwikla, *clavatus* Cwikla, *cuneus* (DeLong & Martinson), *cyclops* (Linnavuori), *dorsalus* Cwikla, *haplus* Cwikla, *hastulus* (DeLong & Linnavuori), *nanocanthus* Cwikla, *spinosus* (DeLong), *tethys* (Van Duzee), and *ventriculus* Cwikla. The Neotropical species, under the name *Doleranus*, were treated by Linnavouri (1959). *Ileopeltus tethys* is the only species reported from Costa Rica and is very common in Guanacaste Province, from 100 to 600 meters altitude. Nothing is known about the biology of these leafhoppers. In this paper I describe one new species, *I. similarus.*

Material and methods

Oman's (1949) method of preparing leafhopper genitalia was followed. The abdomen was placed separately in 10% potassium hydroxide overnight at room temperature instead of being heated. The following day the genitalia were washed for five minutes in water. Holotypes of *I. thethys* and *I. blockeri* were examined.

Depositories: CAS—California Academy of Sciences, San Francisco, USA. INBio—Instituto Nacional de Biodiversidad, Santo Domingo, Heredia, Costa Rica. NHM—The Natural History Museum, London, UK. UCR—University of Costa Rica, San Pedro, San José, Costa Rica.

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Genus *Ileopeltus* Cwikla 1988

Type Species. *Chlorotettix tethys* Van Duzee, 1907:71.

Diagnosis. Small-sized leafhoppers. Male 3.8–6.0 mm. Color yellowish green or ochraceous. Brownish markings occasionally present on crown and forewing. Crown roundly produced, median length slightly longer than length next to eye. Forewing with cross-vein in claval area. Male genitalia: Pygofer roundly produced or truncated, processes present or absent. Anal tube weakly sclerotized dorsally. Valve acutely triangular, usually fused to plate posteriorly. Subgenital plate short or slightly longer than pygofer, rounded apically, macrosetae uniseriate, second short row of microsetaelike structures occasionally present, lateral margin sinuate, straight, or convex. Style apex linear, preapical angle usually absent. Aedeagus without processes, asymmetrical, apex acute in posterior aspect. Gonopore on right side at base of shaft. Female abdominal sternum VII with posterior margin shallowly excavated, middle of excavation with short projection bearing two short teeth.

Ileopeltus similarus, Godoy, sp. nov. (Figs. 1–8)

Type material: Holotype, male, **Costa Rica: Puntarenas:** Finca Cafrosa, Embalse 2.5 Km. sur Progreso, 1280 m.,17-V-1998, Col. C. Godoy & P. Hanson, L-S 317800-N516200 (INBio). Paratypes 5 male and 2 female same data as holotype (CAS, INBio, NHM, UCR).

Description. Length of male 5.2–5.7 mm, female 5.5–5.8 mm. General color ochraceous, with three light to dark markings on the crown surrounding the coronal suture. Pronotum usually with four light brown longitudinal bands, occasionally continuing onto the scutellum. Forewing subhyaline with dark spots on claval area, proximal and distal ends of inner anteapical cell, and proximal end of central anteapical cell. Crown roundly produced, median length slightly longer than length next to eye (Fig. 1). Spinulation of apex of hind femora 2+2+1.

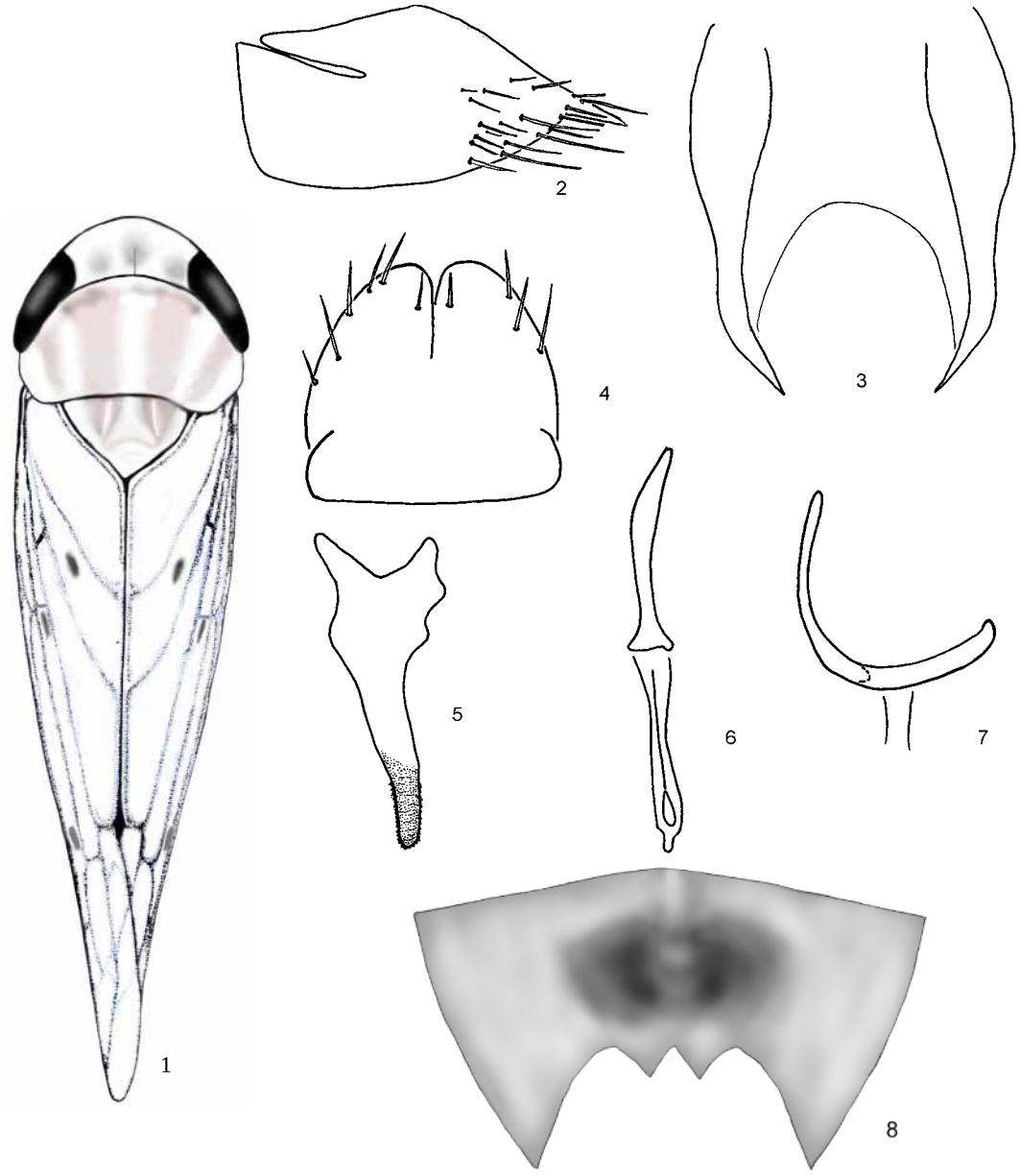
Male genitalia: Pygofer in lateral aspect with posterior margin produced into long, distinctive, acute, posteriorly directed process (Figs. 2, 3). Subgenital plate short, rounded apically, macrosetae uniseriate, lateral margin convex, fused to valve along anterior margin (Fig. 4). Style apex linear, stout, and rugose, preapical angle absent (Fig. 5). Connective as long as aedeagus (Fig. 6). Aedeagus without processes, asymmetrical, shaft narrow (Fig. 7), apex acute in caudoventral aspect, curved in lateral aspect; gonopore on right side at base of shaft.

Female abdominal sternum VII with posterior margin shallowly excavated, with two short teeth at middle of concavity (Fig. 8).

Distribution. Known only from Costa Rica.

Diagnosis. *Ileopeltus similarus* is close to *I. nanocanthus* but the former lacks an orange band on the body and has a posterior process on the pygofer.

Natural History. The specimens were collected with black light in an open area.



FIGURES 1–8. *Ileopeltus similarus*, Godoy sp nov. (holotype). 1. dorsal habitus; 2. Pygofer; lateral view; 3. Pygofer; dorsal view without spines; 4. Subgenital plate and valve, ventral view; 5. Right style, dorsal view; 6. Connective and aedeagus, ventral view; 7. Aedeagus, lateral view; 8 female sternum VII, ventral aspect.

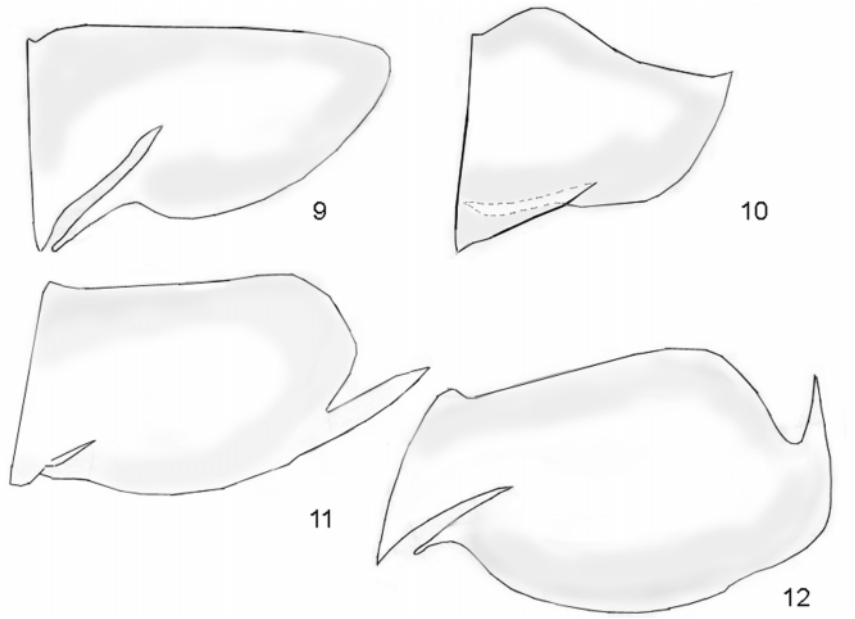
Key to the male *Ileopeltus* Species of Mesoamerica

1 Pygofer without a process, or if present then extremely small 2
- Pygofer with a long, distinct process 3

2(1) Pygofer without a process (Fig. 9).....*tethys* (Van Duzee)
- Pygofer with a short process on posterodorsal margin in lateral aspect (Fig. 10) ....*nanocanthus* Cwikla

3(1) Posterior margin of pygofer broadly rounded apically with a process inserted on posteroventral margin (Fig. 11)..... *spinosus* (DeLong)
Posterior margin of pygofer not broadly rounded and without a process on posteroventral margin 4

4(3) Posterior margin of pygofer produced into a dorsally directed spine (Fig. 12) .... *dorsalu*s (DeLong)
- Posterior margin of pygofer produced into an acute posteriorly directed process (Fig. 2)..... .....*similarus* n. sp.



FIGURES 9–12. *Ileopeltus*: Pygofer lateral aspect: 9, *I. tethys*; 10, *I. nanocanthus*, 11, I. *spinosus*; 12, *I. dorsalus*.

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