

New distribution and host plant records for *Oragua hualla* Young, 1977 (Hemiptera: Cicadellidae: Cicadellinae)

Nuevos registros de distribución y de planta hospedera para *Oragua hualla* Young, 1977 (Hemiptera: Cicadellidae: Cicadellinae)

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Abstract

The sharpshooter leafhopper *Oragua hualla* Young, 1977 (Hemiptera: Cicadellidae: Cicadellinae) is recorded for the first time for Chile from Socoroma and Murmuntani (Arica and Parinacota Region) and Thermal baths of Chusmiza (Tarapacá Region). Additionally it is recorded for first time on Cactaceae representatives. Illustrations of the specimen are provided.

Key words: Hemiptera, Auchenorrhyncha, Cicadellidae, Faunistics, Arica and Parinacota, New record, Chile.

Resumen

La chicharrita *Oragua hualla* Young, 1977 (Hemiptera: Cicadellidae: Cicadellinae) es registrada por primera vez para Chile a partir de ejemplares colectados en Socoroma y Murmuntani (Región de Arica y Parinacota) y Termas de Chusmiza (Región de Tarapacá). Adicionalmente es registrada por primera vez sobre representantes de Cactaceae. Se presentan ilustraciones de los ejemplares.

Palabras clave: Hemiptera, Auchenorrhyncha, Cicadellidae, Fauna, Arica y Parinacota, Nuevo Registro, Chile.

The family Cicadellidae Latreille, 1825 (Cicadomorpha: Membracoidea) commonly called Leafhoppers, is the largest family of plant feeding hemimetabolous insects comprising nearly 25,000 described species and over 3,200 genera (Dietrich, 2008). This family is characterized by the presence of four rows of enlarged, spine-like setae on the hind tibiae, a peg-and-socket joint between the hind coxae, and by the production of brochosomes (Dietrich, 2008, 2009). The xylem-feeding leafhoppers of the subfamily Cicadellinae, commonly called Sharpshooters are among the largest and most brightly colored within the family (Wilson *et al.*, 2009). The revision of this subfamily was undertaken by David Allan Young, resulting in the publication three remarkable volumes (Young, 1968, 1977, 1986). These works have enabled the evaluation and description of additional genera and species by other researchers (Wilson *et al.*, 2009).

The genus *Oragua* Melichar, 1926 was studied by Young (1977) who (besides describing new species and transferring other species to this genus) proposed a key for the males of 26 of the 29 species known at that date. Later, with the works of Cavichioli (2000) and Camisão *et al.* (2014) the number of *Oragua* species ascended to 38.

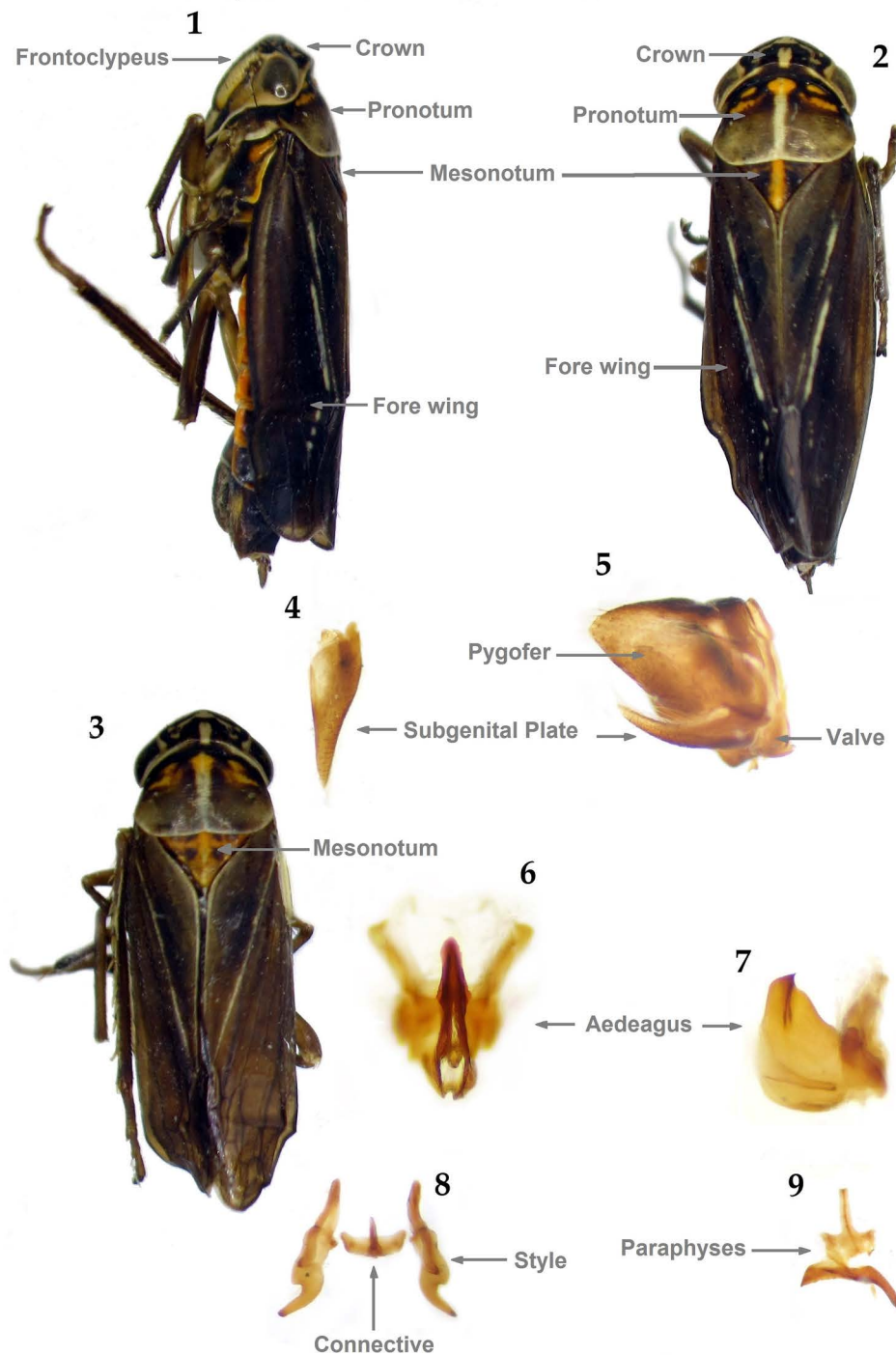
Oragua hualla Young, 1977 (Fig. 1-9) is characterized by a short, broad aedagal shaft (Fig. 6-7); an elevated posterior

portion of the crown and its coloration pattern (Fig. 1-3). The known distribution of this species is based on records from Arequipa, Cajamarca and Huánuco, departments, in Perú (Young, 1977; Wilson *et al.*, 2009). The purpose of this note is to report for first time the presence of this species in the north of Chile.

For identification I follow Young (1977) and Wilson *et al.* (2009). For the observation of male genitalia, the abdomen was removed and placed a saturated KOH solution at room temperature one day to another. When cleared it was neutralized. Posteriorly the pieces were placed in glycerin (in a micro vial) pinned below the respective specimen. Photographs of specimens (Fig. 1-9) were taken with a conventional digital camera adapted to a stereoscopic microscope. The map (Fig. 10) was developed with Panmap Pangea®.

The genitalia of the specimens examined (Fig. 4-9) matches with that described and illustrated by Young (1977). In the same way, the habitus (Fig. 1-3) does not show evident differences. The variation of the median line of the mesonotum with orange coloration has been already notified by Young (1977). This characteristic appears to be frequent in the Chilean specimens (Fig. 2). Furthermore, in one specimen the orange coloration almost filled the mesonotum (Fig. 3).

Received: August 15, 2015
Accepted: December 31, 2015
Published online: March 3, 2016



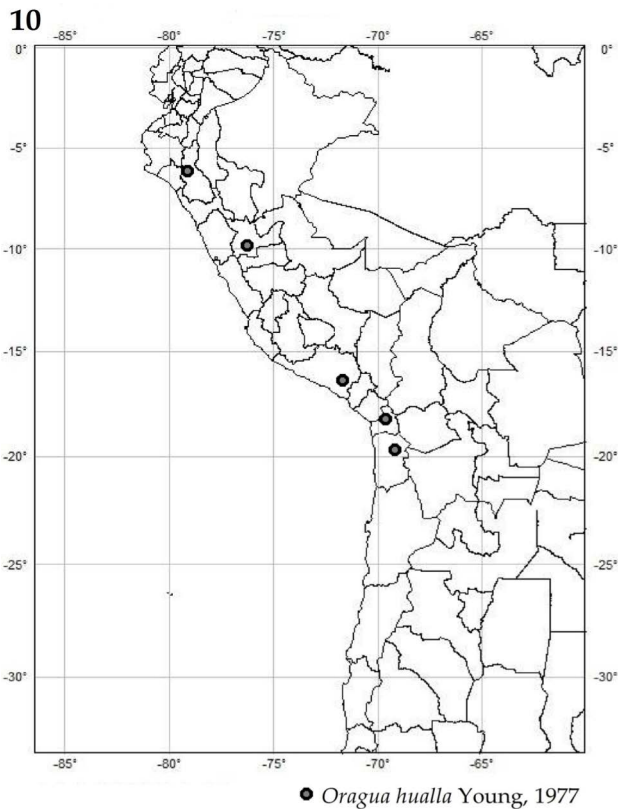
Figs. 1-9: *Oragua hualla* (specimen from Socoroma, Arica and Parinacota Region). 1,3, Habitus, dorsal view 2, Habitus, lateral view 4, subgenital plate, ventral view 5, pygofer, subgenital plate and valve, lateral view 6, aedeagus, caudal view 7, aedeagus, lateral view 8, styles and connective, dorsal view 9, paraphyses, ventral view.

Figs. 1-9: *Oragua hualla* (especimen de Socoroma, Región de Arica y Parinacota). 1,3, Hábito, vista dorsal 2, Hábito, vista lateral 4, placa subgenital, vista ventral 5, pigóforo, placa subgenital y valva, vista lateral 6, edeago, vista caudal 7, edeago, vista lateral 8, estilos y conectivo, vista dorsal 9, paráfisis, vista ventral.

Material examined: Chile, Región de Arica y Parinacota, Provincia de Parinacota, Socoroma [18° 15' S. 69° 36' W.], 26-27. IV. 2014, Leg. J. Sepúlveda, 4 ♂ (deposited in author's collection); Chile, Región de Arica y Parinacota, Provincia de Parinacota, Murmuntani [18° 21' S. 69° 33' W.], 1. XI. 1993, Leg. J. E. Barriga, on Cactaceae, 4 ♂, 4 ♀ (deposited in Museo Nacional de Historia Natural, Santiago, Chile); Chile,

Región de Tarapacá, Provincia del Tamarugal, Termas de Chusmiza [19° 41' S. 60° 10' W.], 11. III. 2015, Leg. M. Cid A., on *Corryocactus brevistylus* (K. Schum. ex Vaupel) Britton & Rose, 1 ♀ (deposited in author's collection).

Distribution (Fig. 10): Perú, Cajamarca Department, Jaen Province, Pucará: Huanacamba River [06° 02' S. 79° 07' W.]; Perú, Huánuco Department, Huánuco Province,



Figs. 10: *Distribution of Oragua hualla.*

Figs. 10: *Distribución de Oragua hualla.*

Huanuco [09° 55' S. 76° 14' W.]; Perú, Arequipa Department, Arequipa Province, Arequipa [16° 23' S. 71° 32' W.]; Chile, Arica and Parinacota Region, Parinacota Province, Socoroma [18° 15' S. 69° 36' W.]; Chile, Arica and Parinacota Region,

Parinacota Province, Murmuntani [18° 21' S. 69° 33' W.]; Chile, Tarapacá Region, Tamarugal Province, Thermal baths of Chusmiza [19° 41' S. 60° 10' W.].

This is the first record of the genus *Oragua* in Chile, being Thermal baths of Chusmiza (Fig. 11) the southernmost distributional record known for *O. hualla*. I believe these records are part of its natural distribution, probably remaining unknown to this date due to the lack of collecting, like occurred with several species of Pentatomidae in the area (Faúndez & Rider, 2013; Faúndez *et al.*, 2014). The specimens found on Cactaceae are the first host records known for this species. In Thermal baths of Chusmiza *Oragua hualla* was found on *Corryocactus brevistylus* (K. Schum. ex Vaupel) Britton & Rose (Fig. 11), which is present in Perú and Chile, in Chile it is distributed from the northern limit to Guatacondo Gorge [20° 55' S. 69° 02' W.] in Tarapacá Region, between 2,500 and 3,800 meters over the sea level (L. Faúndez, personal communication), it's unknown if the cactus species on which *O. hualla* was found in Murmuntani is the same or a different species as *C. brevistylus*.

Acknowledgement

I thank Jehonadab Sepúlveda for providing specimens, Mauricio Cid A. for providing specimens and for the photograph of figure 11, Mario Elgueta for allowing me to consult the material deposited in the collection of Museo Nacional de Historia Natural, Luis Faúndez for the identification and information of *Corryocactus brevistylus*, Marco Gaiani and Daniela M. Takiya for providing bibliographic information. Finally, I also want to thank to two



Figs. 11: Habitat of *Oragua hualla*: Thermal baths of Chusmiza, Tarapacá Region; with representatives of *Corryocactus brevistylus* (2015, By Mauricio Cid A.).

Figs. 11: Hábitat de *Oragua hualla*: Termas de Chusmiza, Región de Tarapacá; con representantes de *Corryocactus brevistylus* (2015, Por Mauricio Cid A.).

anonymous reviewers who helped to improve the manuscript.

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