

A NEW SPECIES OF *STETHORUS* WEISE FROM PERU (COLEOPTERA: COCCINELLIDAE)

Guillermo González F.¹, Robert D. Gordon² & Lori Beth Robinson³

¹ Nocedal 6455, La Reina, Santiago, Chile – willogonzalez@yahoo.com

² North Plains Entomology, P. O. Box 65, Willow City, North Dakota 58384 USA – rdgordon@utma.com

³ Department of Environmental and Biological Sciences, Georgia College & State University, Milledgeville, Georgia 31061 USA, – lori.robinson@gcsu.edu

Abstract: A new species of the mite feeding genus *Stethorus* is described from Peru. The species is placed within the Western Hemisphere *Stethorus* classification of Gordon & Chapin (1983).

Key words: Coleoptera, Coccinellidae, *Stethorus*, taxonomy, new species, Peru.

Una nueva especie de *Stethorus* Weise de Perú (Coleoptera: Coccinellidae)

Resumen: Se describe una nueva especie de Perú del género *Stethorus*, predador de arañas rojas. La especie se incluye en la clave de *Stethorus* del continente americano de Gordon y Chapin (1983).

Palabras clave: Coleoptera, Coccinellidae, *Stethorus*, taxonomía, nueva especie, Perú.

Taxonomy/Taxonomía: *Stethorus peruvianus* sp. n.

Introduction

The genus *Stethorus* Weise has gained increased interest over the past twenty years because of its potential use as a biological control agent against plant mites of the family Tetranychidae. *Stethorus* is a predatory feeder of mites known to cause damage to citrus and food crops. Recently Slipinski (2007) recognized *Parastethorus* Pang and Mao (1975) as a valid genus, thus removing some Old World species from *Stethorus*. The genus is cosmopolitan in distribution. Gordon and Chapin (1983) recognized nine species of South American *Stethorus* and one species of introduced *Parastethorus*. Our purpose here is to describe the second known species of *Stethorus* from Peru, *S. tridens* Gordon and Chapin (1983) being the other species. South America in general is considered by authors to have one of the most diverse insect faunas in the world, and it is probable that other undescribed species of *Stethorus* will be found in Peru and elsewhere on the continent.

One of the authors has reviewed an abundance of *Stethorus* specimens from Peru and has found that *Parastethorus histrio* (Chazeau) is common to the Lima and Piura Regions. This species, originally described from Reunion Island in the Indian Ocean, is also found in Chile (Gordon and Chapin (1983)). We recognize two species of *Stethorus* and one species of *Parastethorus* as occurring in Peru.

Material and Methods

COLLECTION: Specimens were collected with an aspiration vacuum vial and brush.

DISSECTION: Specimens were softened in hot water, abdomen removed, then placed in a dilute KOH solution for about 24 hours, then rinsed and genital structures separated in clear water, then put in glycerin for examination and placed in glycerin in microvials.

TYPE MATERIAL AND COLLECTIONS: Type material was deposited in the following collections: Museo de Entomología Klaus Raven Büller, Lima, Peru (UNALM); National Museum of Natural History, Smithsonian Institution, Washington D.C. (USNM).

Systematics

***Stethorus peruvianus* González, Gordon & Robinson n. sp. Fig. a-h**

DESCRIPTION: Holotype male, length 1.3 mm, width 0.90 mm. Form oval (Fig. 1a). Color black; antenna, mouthparts, and legs entirely yellow. Dorsal pubescence short, as long as scutellum, decumbent, yellowish white. Head shiny punctured, pubescent. Pronotal punctuation dense, punctures are contiguous or nearly so, separate by one or two times the diameter, contiguous in lateral 1/4. Elytral punctures coarse, dense, larger than on pronotum, pubescent. Metasternum coarsely, densely punctured; punctures contiguous or nearly so. Abdominal sternum with first sternite coarsely punctured and sixth sternite coarsely punctured and pubescent, remaining sternites finely punctured. Complete arc of postcoxal line slightly more than 1/2 length of first abdominal sternite, rounded. Apex of sixth abdominal sternum emarginated (Fig. 1b). Male genitalia: Basal lobe gradually tapered from base to rounded apex; parameres long, about 3/4 as long as basal lobe, straight, single seta near apex, parameral apex with two setae (Figs. 1e-g). Siphon long, gradually tapering from bulbous capsule (Fig. 1d).

FEMALE: Allotype female, length 1.2 mm, width 0.80 mm. Form oval. Color black; antenna, mouthparts dull yellow to brown, legs entirely yellow. Dorsal pubescence longer than in male, decumbent, yellowish white. Head shiny, finely

punctured, pubescent. Pronotal punctuation dense, punctures contiguous or nearly so, separated by less than to a diameter. Elytral punctures coarse, dense, larger than on pronotum, pubescent. Metasternum coarsely, densely punctured; punctures contiguous or nearly so. Abdomen with first sternite coarsely punctured, sixth sternite coarsely punctured, sparsely pubescent, remaining sternites finely punctured. Complete arc of postcoxal line slightly more than 1/2 length of first abdominal sternite, rounded. Apex of sixth abdominal sternum entire (Fig. 1c). Female genitalia: Genital plates rhomboidal, sparsely punctured medially, apex with three setae (Fig. 1h). Genitalia lacking spermathecal capsule.

VARIATION: Length 1.20-1.40 width 0.80-1.00. The pilosity could vary from white to yellowish brown, the mouthparts from yellow to light brown.

DISTRIBUTION: Peru, La Libertad Region. Collected from agricultural area hosting avocado trees.

TYPE MATERIAL: Holotype male: PERU, La Libertad, Virú, Fdo. [Fundo] Frusol, 01-XII-2005, D. Carbonell (UNALM). Allotype female and 6 paratypes, same data as holotype (UNALM, USNM).

Two more specimens from same locality presumed to be this species were collected 21/VI/2005, but were lost in transport. However, they extend the known temporal distribution of the species.

REMARKS: This species is distinguished from most other South American species in having legs entirely yellow including the femur, but genitalia examination is necessary for accurate identification. The genitalic structure is similar to that of *S. fractus* Gordon & Chapin (1983), but this Brazilian species was described from a unique broken specimen,

which was indicated as having parameres less than 1/2 as long as the basal lobe, and basal 7/8 of the femur brown.

Stethorus peruvianus is keyed to couplet 14 in the species key by Gordon and Chapin (1983), which is modified as follows:

- 14 (13) Apex of clypeus reddish yellow; Brazil.....
 *brasiliensis* Gordon & Chapin
 – Apex of clypeus brown or black 14a
- 14a (14) Parameres extremely short, less than half length of basal lobe. Trinidad Island
 *mayaroi* Gordon & Chapin
 – Parameres long, more than 2/3 length of basal lobe. Peru *peruvianus* n. sp.

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Fig. 1. *Stethorus peruvianus* González, Gordon & Robinson. **a:** habitus dorsal; **b:** male abdomen; **c:** female abdomen, **d-g:** male genitalia: **d:** siphon, **e:** tegmen lateral, **f:** paramere detail, **g:** tegmen ventral; **h:** female genital plate.

