



A new species of *Harpasus* Mulsant (Coleoptera, Coccinellidae, Chilocorinae) from Peru

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Abstract

A new species from Peru, *Harpasus quadrifolium* González, Corrêa & Almeida **sp.nov.** is described and illustrated (type locality: Chanchamayo, Peru).

Key words: Chilocorini, description, Neotropical, taxonomy

Resumo

Uma nova espécie do Peru, *Harpasus quadrifolium* González, Corrêa & Almeida **sp.nov.**, é descrita e ilustrada (localidade tipo: Chanchamayo, Peru).

Palavras-chave: Chilocorini, descrição, Neotropical, taxonomia

Introduction

Mulsant (1850) indicated the genus *Harpasus* as subgenus of *Orcus*, including the species *O. pallidilabris*, *O. evermanni* and *O. zonatus*. Later Crotch (1874) synonymized *Harpasus* with *Curinus*, and designated *O. (Harpasus) pallidilabris* as type species. Chapin (1965) reviewed the genera of Chilocorini and reestablished the genus *Harpasus*. Gordon (1987) in his catalogue of the Crotch collection of Coccinellidae, agreed with Chapin (1965) and included the three first species of *Curinus* in *Harpasus*. Fürsch (1996) recognized *Harpasus* as a valid genus in the subfamily Chilocorinae, tribe Chilocorini. The genus contains four species, including a recently described species *Harpasus aureus* Almeida & Carvalho, 2006. We describe herein an additional new species collected in Chanchamayo (11°3'0" S, 75°19'0" W), Department of Junín, Peru. Types were deposited in the following collections: Museo de Entomología Klaus Raven Büller, Universidad Nacional Agraria La Molina, Lima, Perú (UNALM) and Coleção Entomológica Pe. J. S. Moure, Universidade Federal do Paraná, Curitiba, Paraná, Brazil (DZUP).

According to Chapin (1965) *Harpasus* may be recognized by the following combination of characters: 1) body rounded, convex, surface glabrous; 2) antenna short, composed of nine antennomeres (Fig. 8); 3) prosternal process broad, with lateral margins strongly grooved between the coxal cavities, 4) legs slender, tibial spurs present on second and third legs, tarsal claws appendiculate, with basal tooth large, quadrate, 5) elytral margin narrowly reflexed, epipleura foveolate to receive the femoral apices of the hind legs; 6) abdomen with

six visible sternites in male and five in female; 7) postcoxal line incomplete, recurved toward lateral margin of the first abdominal sternum; 8) male genitalia, with median lobe symmetrical, shorter than parameres; 9) siphon strongly sclerotized; 10) female genitalia with slender and long coxites, with small stylus and long hairs and spermatheca C-shaped, with infundibulum.

There is scarce data about biological aspects of *Harpasus* in the literature. *Curinus (Orcus) zonatus* (= *H. zonatus*) was associated with Rutaceae and Poaceae hosts plants, preying on ‘Coccidae’. On *Citrus* sp. (Rutaceae), Willie (1926) lists 10 species of Coccidae belonging to three subfamilies; Dactylopiinae, Lecaniinae and Diaspinae; whereas, on bamboo (Poaceae) two species of Coccidae representing two subfamilies are known to occur, i.e. Asterolecaniinae and Diaspinae. In Brazil, Almeida & Carvalho (2006) collected *H. aureus* on *Largerstroemia indica* L. (Lythraceae) where it was preying on *Tinocallis kahawaluokalani* (Kirkaldi) (Aphididae).



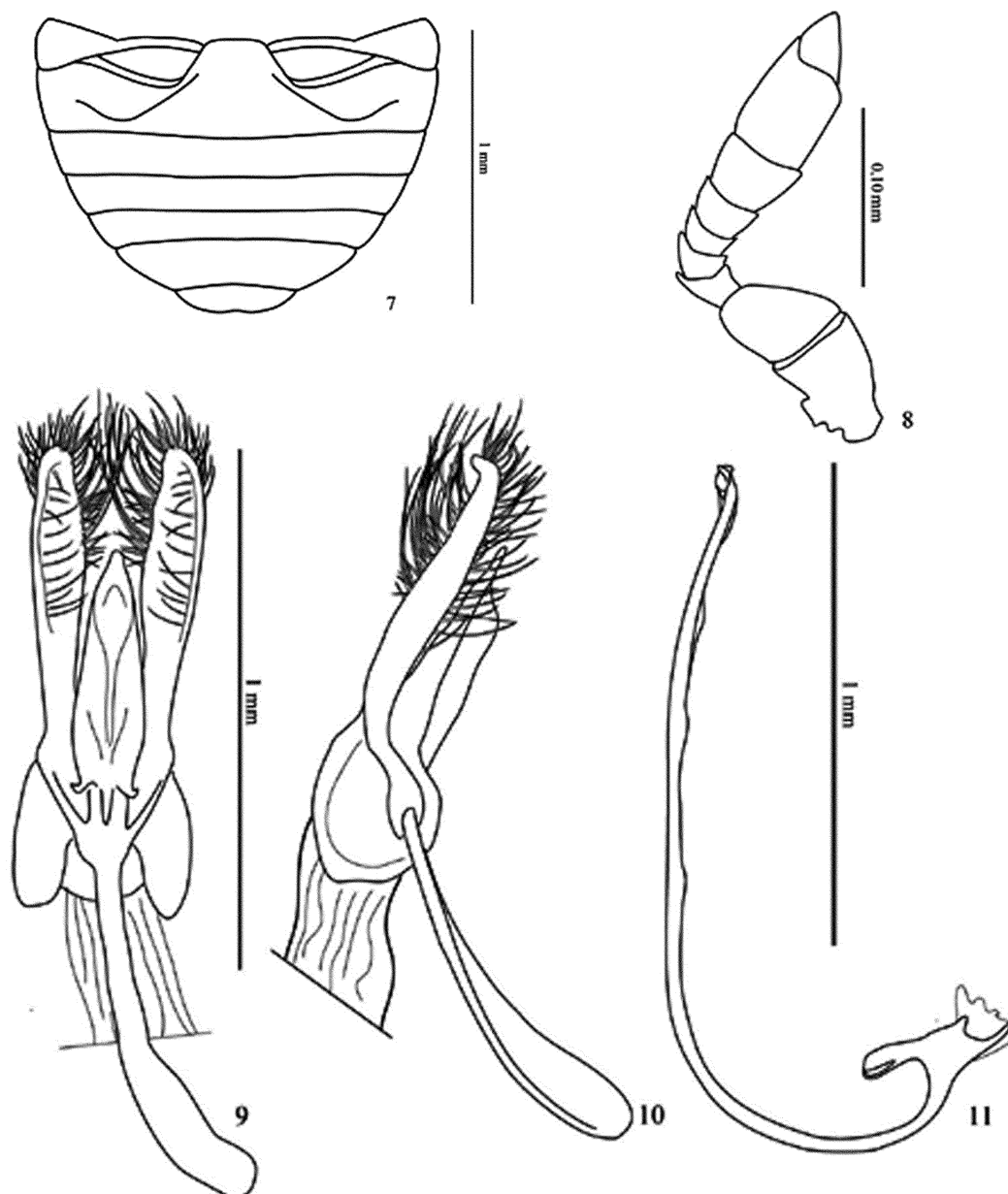
FIGURES 1–6. Habitus of *Harpasus quadrifolium* González, Corrêa & Almeida **sp. nov.**; 1, dorsal view; 2, ventral view; 3, lateral view; 4, posterior view; 5, frontal view; 6, specimen labels.

Species description

Harpasus quadrifolium González, Corrêa & Almeida sp. nov.

Figs. 1–15

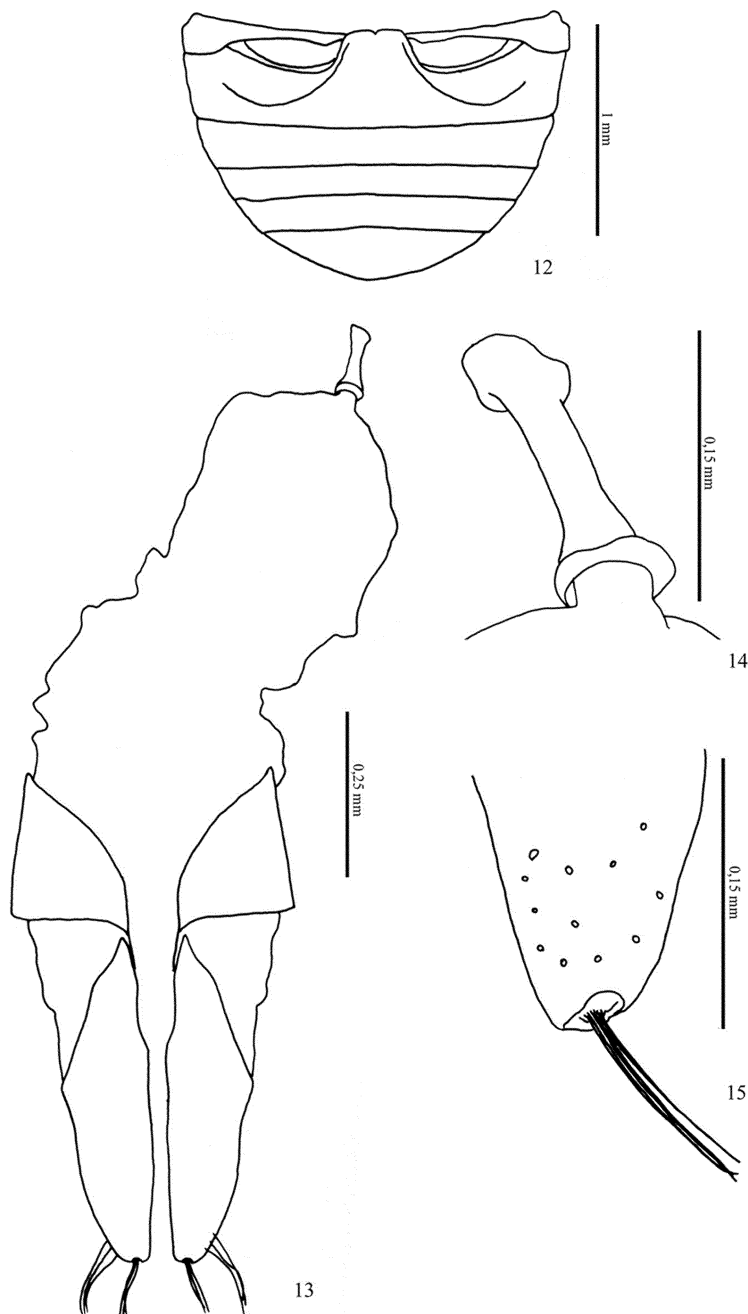
Diagnosis. Oblong semicircular, black with the lateral and frontal border of pronotum orange brown. Elytra with lateral border and four orange brown maculae pattern, appearing as a four leaf clover.



FIGURES 7–11. *Harpasus quadrifolium* González, Corrêa & Almeida sp. nov.; 7, male abdomen; 8, antenna; male genitalia: 9, tegmen ventral view; 10, tegmen lateral view; 11, siphon.

Holotype. Male. Length: 2.80–3.00 mm. Width: 2.50–2.70 mm. Body rounded, convex, punctuation uniformly distributed on pronotum and elytra (Fig. 1). Head dark brown (Fig. 5), antenna (fig. 8) and mouthparts light or dark brown (Fig. 2). Pronotum black, with antero-lateral margins light brown (Fig. 1, 3, 5). Scutellum black (Fig. 1, 5). Elytra black with raised humeral callosity, lateral margin slightly reflexed, light brown (Fig. 1, 3, 5). Each elytron with two light brown maculae: the first, subtriangular close to suture and base of elytron with an emargination above the humeral callus; the second, slightly smaller than first and subtriangular, near

the suture and external margin of elytron (Fig. 1, 3, 4, 5). Epipleura and abdominal sterna light brown, epipleura glabrous and abdominal sternites with small setae and small punctures. The center of pro, meso and metathorax dark brown (Fig. 2). Legs dark brown, robust. Abdomen with six visible sternites in male, the fifth a little larger than the second, third or fourth with posterior margin emarginate, the sixth sternite small (Fig. 7); five sternites in female, fifth is larger than the second, third or fourth, with posterior margin rounded (Fig. 12).



FIGURES 12–15. *Harpasus quadrifolium* González, Corrêa & Almeida **sp.nov.**; 12, female abdomen; female genitalia: 13, ovipositor; 14, infundibulum; 15, styli.

Male genitalia. Median lobe symmetrical, lanceolate, broad at basal third abruptly narrowing at apex, 1/3 shorter than paramere; trabes rather stout, a little longer than median lobe and a little shorter than paramere; paramere constricted at base and wider in apical 1/3, with dense and long pubescence at lateral sides and apex (Fig. 9). In lateral view paramere with apex strongly bent (Fig. 10). Siphon long, uniform diameter throughout

most of length, strongly sclerotized, bent, with apex membranous, twisted (Fig. 11).

Female genitalia. Coxites long, about 3.8 times longer than wide, subtriangular, slender, apex rounded; bursa copulatrix large (Fig. 13); infundibulum long, cup-shaped (Fig. 14); styli small with three long setae (Fig. 15). Spermatheca missing.

Type Material. Holotype: PERU. [Chanchamayo, 07/I/1986, Arellano Coll./ UA 2005-86], (Fig. 6), male, deposited at the Museo de Entomología Klaus Raven Büller, Universidad Nacional Agraria La Molina, Lima, Perú (UNALM). Paratypes: PERU. [Chanchamayo, 07/I/1986, Arellano Coll./ UA 2005-86], 2 female, deposited at the Museo de Entomología Klaus Raven Büller, Universidad Nacional Agraria La Molina, Lima, Perú (UNALM); same data and locality, 1 female, deposited at the Coleção de Entomológica Pe. J. S. Moure, Universidade Federal do Paraná, Curitiba, Paraná, Brazil (DZUP).

Remarks. *Harpasus quadrifolium* González, Corrêa & Almeida **sp. nov.** has a pattern of maculae which is distinct from the other species. *H. aureus* Almeida & Carvalho, 2006 is unicolorous, bright golden brown, and yellowish at the lateral margin of the elytra. In *Harpasus zonatus* (Mulsant, 1850) the integument is bright golden brown, with a dark brown stripe on sutural and lateral margin of each elytron; in *H. evermanni* (Mulsant, 1850) the integument is reddish at lateral margin with a blue-metallic area at the disc of each elytron; in *H. pallidilabris*, the type species of the genus, the integument is bluish-green, without any maculae or stripes. The male genitalia of the new species are similar to *H. aureus* and *H. zonatus* except that the apex of the siphon is twisted in *H. quadrifolium* and truncate in *H. aureus*. In *H. zonatus* the paramere is wider than in the other species. The female genitalia are similar to *H. aureus* and *H. evermanni*, but differ in the shape of the bursa copulatrix, and in possessing longer and wider coxites.

Etymology. This species is named after the pattern of maculae like a four leaf clover.

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