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## First record of the genus *Ctenipocoris* (Heteroptera: Naucoridae) in Central America, with a preliminary key to the American species and description of a new species

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### Abstract

A new naucorid species, *Ctenipocoris oscar* Herrera NEW SPECIES, is herein described for Costa Rica. It is the first species to be described in Central America and the sixth American species. Comparative notes are provided to differentiate this species from the others. Type material is deposited at the Zoological Museum of the University of Costa Rica (MZUCR), San José, Costa Rica. A preliminary key to the American species of the genus is provided.

**Key words:** Laccocorinae, Nepomorpha, Central America, Costa Rica, Creeping Water Bug

Se describe una nueva especie de naucórido para Costa Rica, *Ctenipocoris oscar* Herrera NUEVA ESPECIE. Es la primera especie del género descrita para Centroamérica y la sexta en el continente americano. Se proveen notas comparativas para diferenciar esta especie de las otras. El material tipo se encuentra depositado en el Museo de Zoología de la Universidad de Costa Rica (MZUCR), San José, Costa Rica. Se provee una clave preliminar para las especies americanas del género.

**Palabras clave:** Laccocorinae, Nepomorpha, Centroamérica, Costa Rica, chinches acuáticos

### Introduction

The genus *Ctenipocoris* Montandon, 1897 currently has eight described species: one in the Democratic Republic of the Congo and Tanzania (Mbogho & Sites 2013); another in Thailand (Sites *et al.* 1997), Malaysia, Indonesia (Java), and Vietnam; one in China (Zettel 2012); and five in South America. Of the South American species, *Ctenipocoris brasiliensis* (De Carlo), 1968a and *C. plaumanni* (De Carlo), 1968b are found in Brazil; *C. spinipes* (Montandon), 1897 in Brazil, Colombia, and Venezuela; *C. schadei* (De Carlo), 1940 in Brazil, Paraguay, and Argentina; and *C. peruvianus* (La Rivers), 1974 in Peru (Polhemus & Polhemus 2008; Andrade 2010). All these species were originally described in the genus *Heleocoris* Stål, 1876. Polhemus (1987) was the first to include an American species in *Ctenipocoris*; other species were later included by López-Ruf (2004) and Polhemus & Polhemus (2008). With the description of this new species the number of American species becomes six, and the range of the genus is extended into the Central American isthmus.

### Material and methods

The specimens examined were kept in 70% ethanol after being collected and deposited in the Zoological Museum of the University of Costa Rica (MZUCR). The new species was found during a revision of the material in the Aquatic Entomology Collection at the MZUCR; only one female and one male specimen were found, and the female specimen was in the best condition.

pronotum and hemelytra brownish and a rounded female subgenital plate (the female specimen has not been described yet, but the California Academy of Sciences (CAS), San Francisco, CA possess a female specimen from Santa Teresa, Dept. Huanuco, Peru, that was revised by the author). Finally, *C. plaumanni* is smaller in size and has small rounded scales on its membrane.

### Provisional key to the American species of the genus *Ctenipocoris*.

This provisional key is based on the information provided by Montandon (1897), De Carlo (1940, 1968a, 1968b), La Rivers (1974), Andrade (2010), Polhemus (1987), López-Ruf (1987, 2004), Melo & Nieser (2004), Pereira & Melo (2007), Polhemus & Polhemus (2008), and Terneus *et al.* (2012). Illustrations of the HOLOTYPE of *C. schadei* were requested and used. In addition, material deposited at the CAS and MZUCR was examined by the author.

MATERIAL EXAMINED: *C. brasiliensis* ♂, Paraguay, Colonia independ. 1955, J. Foerster (CAS). *C. oscar* ♀, Costa Rica, Heredia, Sarapiquí. 1992. A. Schlagbauer (MZUCR, HOLOTYPE). *C. oscar* ♂, Costa Rica, Limón, Guápiles. 1999. A. Luna (MZUCR, ALLOTYPE). *C. peruvianus* ♀, Peru, Huanuco, Santa Teresa (CAS).

1. Rigid metasternal spine; posterior angles of connexiva acute and slightly produced. . . . . 2  
- "Soft" metasternal spine; connexiva smooth not produced. Brazil, Amazonas . . . . . *C. brasiliensis* De Carlo, 1968a
2. Anterior portion of mesosternum with a small tubercle . . . . . 3  
- Anterior portion of mesosternum without a small tubercle. . . . . 5
3. Body length  $\geq$  9.0 mm; hemelytra, scutellum and pronotum with small to medium size punctures on their surface; proportion of maximum width of pronotum on its posterior margin to length of pronotum on its midline,  $> 2$  . . . . . 4  
- Body length / width: 8.2 x 4.8 mm; hemelytra, scutellum and pronotum without punctures on their surface; proportion of maximum width of pronotum on its posterior margin to length of pronotum on its midline, 2.0. Brazil, Rio Janeiro, Mato Grosso, Minas Gerais, Amazonas; Ecuador, Pastaza; Venezuela . . . . . *C. spinipes* Montandon, 1897
4. Proportion of maximum width of pronotum on its posterior margin to length of pronotum on its midline, 2.12; body length / width: 9.0 x 5.5 mm; subgenital plate of female rounded at apex; dorsal coloration of body yellowish brown with scutellum, and eyes black. Peru, Huanuco . . . . . *C. peruvianus* La Rivers, 1974  
- Proportion of maximum width of pronotum on its posterior margin to length of pronotum on its midline, 2.34 (female); 2.54 (male); body length / width of female: 10.59 x 5.94 mm; of male: 9.18 x 5.72 mm; subgenital plate of female with a notch at apex; dorsal coloration black; head, pronotum, embolium and some spots in the connexiva yellowish brown. Costa Rica. . . . . *C. oscar* n. sp. Herrera
5. Membrane with small rounded scales; hemelytra, scutellum and pronotum with small sized punctures; body length / width: 8.5 x 5.0 mm. Brazil, Santa Catarina . . . . . *C. plaumanni* De Carlo, 1968b  
- Membrane without small rounded scales; hemelytra, scutellum and pronotum with medium sized punctures; body length / width of female: 9.45 / 5.38 mm; of male: 8.81 / 5.08 mm; Paraguay, Villa Rica; Argentina, Misiones, Corrientes; Brazil, Paraná . . . . . *C. schadei* De Carlo, 1940

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### References

- Andrade, G.S. (2010) The first record of *Ctenipocoris schadei* (De Carlo) (Hemiptera: Naucoridae), from Brazil, with notes on morphology. *Entomological News*, 121 (2), 129–131.  
<http://dx.doi.org/10.3157/021.121.0203>

- De Carlo, J.A. (1940) I) Descripción de tres especies nuevas del género *Cryphocricus* Signoret. II) Una nueva especie del género *Heleocoris* Stål (Hemiptera – Naucoridae). *Revista de la Sociedad Entomológica Argentina*, 10, 426–433.
- De Carlo, J.A. (1968a). Descripción de especies nuevas de los géneros *Ambrysus*, *Cryphocricos* y *Heleocoris*, allotypus de *Cryphocricos daguerrei* (Hemiptera – Naucoridae). *Revista de la Sociedad Entomológica Argentina*, 30 (1–4), 99–104.
- De Carlo, J.A. (1968b). Tres especies nuevas del género *Coleopterocoris* y una especie nueva del género *Heleocoris* (Hemiptera, Naucoridae). *Physis*, 28 (76), 193–197.
- La Rivers, I. (1974) Catalogue of taxa described in the family Naucoridae (Hemiptera). Supplement No. 1: corrections, emendations and additions, with descriptions of new species. *Occasional Papers of the Biological Society of Nevada*, 38, 1–17.
- López-Ruf, M. (1987) Nuevas citas para la Argentina de especies de Limnocoeridae y Naucoridae (Heteroptera). *Physis (Buenos Aires)*, Secc. B, 45 (109), 76.
- López-Ruf, M. (2004) Redescripción de *Ctenipocoris schadei* y descripción de las larvas III y V (Hemiptera: Naucoridae). *Revista de la Sociedad Entomológica Argentina*, 63 (3–4), 19–24.
- Melo, A.L. & Nieser, N. (2004) Faunistical notes on aquatic Heteroptera of Minas Gerais (Brazil): an annotated list of Gerromorpha and Nepomorpha collected near Januária, MG. *Lundiana*, 5 (1), 43–49.
- Montandon, A.L. (1897) Hemiptera Cryptocerata. Fam. Naucoridae. – Sous-fam. Laccocorinae. *Verhandlungen der Zoologisch–Botanischen Gesellschaft in Wien*, 47, 435–454.
- Mbogho, A.Y. & Sites, R.W. (2013) Naucoridae (Hemiptera: Heteroptera: Nepomorpha) of Tanzania. *African Invertebrates*. [submitted]
- Pereira, D.L.V. & Melo, A.L. (2007) Aquatic and semiaquatic Heteroptera (Insecta) from Pitinga, Amazonas, Brazil. *Acta Amazonica*, 37 (4), 643–648.  
<http://dx.doi.org/10.1590/s0044-59672007000400021>
- Polhemus, D.A. (1987) *Heleocoris brasiliensis* De Carlo is a *Ctenipocoris* (Hemiptera: Naucoridae). *The Pan-Pacific Entomologist*, 63 (4), 370.
- Polhemus, J.T. & Polhemus, D.A. (2008) Intraspecific morphological polymorphism in Naucoridae (Hemiptera: Heteroptera) with notes on nomenclature and synonymy. *Acta Entomologica Musei Nationalis Pragae*, 48 (2), 289–298.
- Sites, R.W., Nichols, B.J. & Permkam, S. (1997) The Naucoridae (Heteroptera) of southern Thailand. *The Pan-Pacific Entomologist*, 73, 127–134.
- Terneus, E., Hernández, K. & Racines, M.J. (2012) Evaluación ecológica del Río Lliquino a través de macroinvertebrados acuáticos, Pastaza – Ecuador. *Revista de Ciencias*, 16, 31–45.
- Zettel, H. (2012) New creeping water bugs (Insecta: Heteroptera: Naucoridae) from China and the Philippines. *Annalen des Naturhistorischen Museums in Wien, B*, 113, 27–36.