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NOTES ON GEOGRAPHIC DISTRIBUTION

First report of *Limnocoris brauni* De Carlo, 1966 (Hemiptera, Heteroptera, Naucoridae) from Colombia and new departmental records for three other *Limnocoris* species

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Abstract. The saucer bug *Limnocoris brauni* De Carlo, 1966 is recorded from the department of Caquetá, the first time from Colombia. This species had been previously reported from Bolivia, Ecuador, and Peru. Additionally, *L. distanti* Montandon, 1911, *L. malkini* La Rivers, 1974, and *L. stali* Montandon, 1897 are newly recorded from various departments throughout the country, extending their known geographical ranges. Distribution maps for each species are presented, along with photographs of habitus and diagnostic features of adults. The fauna of *Limnocoris* is now represented by 24 species in Colombia.

Keywords. Aquatic insects, geographic distribution, Neotropics, saucer bugs

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Introduction

Aquatic insects of the family Naucoridae (Hemiptera, Heteroptera) inhabit lentic (e.g. lagoons and ponds) and lotic (e.g. rivers and streams) ecosystems and are characterized by predatory and benthic habits. The current classification of the family includes eight subfamilies, 46 genera, and approximately 420 described species (Sites 2022). Among these is the genus *Limnocoris* Stål, 1860, which is the sole member of the subfamily Limnocorinae and endemic to the Americas; its species are distributed from southern United States to Argentina. This genus is the most species-rich in Naucoridae, currently comprising 76 species (Rodrigues and Sites 2019, 2021, 2023; Reynoso-Velasco 2020; Rodrigues et al. 2026). Species of this genus typically inhabit rivers and streams with gravel and sand substrates, where they cling to logs, branches, and stones, and some species even burrow into the sandy substrate. Their size ranges from about 5.0 to 10.0 mm and their coloration varies from yellowish brown to dark brown. The main diagnostic features of the genus include divergent inner margins of the eyes at the anterior end and the presence of a prominent longitudinal carina on each the meso- and metasternum (Roldán 1988; Nieser and López-Ruf 2001; Rodrigues and Sites 2019; Reynoso-Velasco 2020).

There are numerous studies on the genus in Colombia. For example, Roback and Nieser (1974) reported *Limnocoris* species from the eastern Orinoquia, and Nieser et al. (1993) described five new species from the eastern Valle del Cauca. Additionally, Manzano et al. (1995) provided reports from the eastern Pacific region, and in the central Andean region, Morales-Castaño and Molano-Rendón (2008) studied the distribution of aquatic Heteroptera, including *Limnocoris*, in the Quindío department. Also, Padilla-Gil (2010) reported *Limnocoris* species from various departments. Important contributions on the genus elsewhere in South America include the revision by Nieser and López-Ruf (2001) of the *Limnocoris* species east of the Andes, in the area encompassing southeastern Bolivia, southeastern Brazil, Paraguay, Uruguay, and northern Argentina.

Overall, these have become more relevant in recent years. For instance, two revisions were recently published; one on the *Limnocoris* fauna of the tropical Andes (Rodrigues and Sites 2021) and another on the fauna of the Guiana Shield and Amazon region (Rodrigues and Sites 2023). Based on these comprehensive works, the *Limnocoris* fauna in Colombia is represented by 23 species.

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Despite recent taxonomic advances, the geographic distribution of *Limnocoris* in Colombia remains incompletely documented. Although 23 species have been reported from the country, 14 are known from only one or two departments, and published records are concentrated in relatively few departments, particularly in the Andean region (Rodrigues and Sites 2019, 2021, 2023). This pattern likely reflects an uneven collecting effort and the limited examination of specimens deposited in biological collections rather than the actual geographic ranges of the species. Biological collections represent an important source of information for improving our understanding of the distribution of *Limnocoris* in Colombia by documenting overlooked occurrence records and refining species' geographic distribution. For that reason, we provide new distributional data for *Limnocoris* species based on specimens deposited in biological collections; included are updated distribution maps, new departmental records, and a new country record.

Methods

Examined specimens of *Limnocoris* are deposited in Colombian collections identified with the following acronyms: Museo de Historia Natural C. J. Marinkelle-Universidad de Los Andes Bogotá (ANDES-E); Colección Entomológica de la Universidad Tecnológica del Chocó, Quibdó (CEUTCH); Colección del Museo de Historia Natural-Universidad Nacional, Bogotá (ICN), and Colección de Insectos Museo de Historia Natural "Luis Gonzalo Andrade", Universidad Pedagógica y Tecnológica de Colombia, Tunja (UPTC).

Specimens were identified using the key presented by Rodrigues and Sites (2021) and compared to the original descriptions. Abdominal segment numbers are expressed as Roman numerals. Previous distributional data were compiled from the literature (Montandon 1897, 1911; De Carlo 1966; La Rivers 1974; Roback and Nieser 1974; Rodrigues and Sites 2019, 2021). For specimens with locality data but lacking geographic coordinates, approximate coordinates were obtained using Google Earth Pro and are indicated in square brackets [ ]. Photographs were obtained by use of a Leica S9I stereomicroscope camera. Distribution maps were produced using QGIS v. 3.28.11 (QGIS 2026).

Results

The 201 specimens examined were identified as belonging to four species of *Limnocoris*. The examined material provides new departmental records for *L. distanti*, *L. malkini*, and *L. stali*, and documents the first record of *L. brauni* De Carlo, 1966 for Colombia, based on material from Caquetá Department. Consequently, the number of *Limnocoris* species known from Colombia increases to 24 (Table 1).

***Limnocoris brauni* De Carlo, 1966**

Figures 1, 2

Material examined. COLOMBIA — Caquetá • El Paujil, vereda El Borugo; 01°32′05.8″N, 075°19′51.9″W; 289 m a.s.l.; 25.XI.2017; 6 ♂, 3 ♀, UPTC-In-06364 • El Paujil, vereda El Borugo; 01°32′25.2″N, 075°20′23.4″W; 315 m a.s.l.; 25.XI.2017; 4 ♂, 1 ♀, UPTC-In-06365 • El Paujil, vereda El Borugo; 01°32′25.2″N, 075°20′23.4″W; 315 m a.s.l.; 21.IX.2017; 6 ♂, 11 ♀, UPTC-In-06366 • El Paujil, vereda El Borugo; 01°32′05.8″N, 075°19′52.0″W; 289 m a.s.l.; 21.IX.2017; 3 ♂, 11 ♀, UPTC-In-06367 • Florencia, barrio Puente López; 01°36′20″N, 075°36′35″W; 257 m a.s.l.; 21.X.2010; 1 ♀, UPTC-In-21714 • Florencia, quebrada Las Lajas; 01°24′37″N, 075°53′12″W; 295 m a.s.l.; 09.XII.1997; 1 ♀, UPTC-In-21784 • Florencia, quebrada La Yuca; 01°36′08.84″N, 075°37′23.76″W; 262 m a.s.l.; 28.XI.2005; 1 ♂, UPTC-In-21781 • Florencia, quebrada Mochilerita; 01°21′03″N, 075°13′20″W; 237 m a.s.l.; 24.I.2004; 1 ♂, 1 ♀, UPTC-In-21790 • Montañita, cascada Aguas Claras; 01°32′01″N, 075°28′25″W; 249 m a.s.l.; 14.XI.2007; 1 ♂, UPTC-In-21720 • Morelia, quebrada Bodoquero; [01°29′53″N, 075°43′58″W]; 17.X.2017; 1 ♂, UPTC-In-06423.

Identification. The species can be distinguished by a combination of features that include a body length of 8.64–9.10 mm and width of 6.30–6.60 mm (Figure 1A, B). The shagreened area of the propleuron extends halfway along the lateral margin (Figure 1B), and the posterolateral corners of abdominal segments III–V are spinose and posteriorly produced (Figure 1A, B). Also, the mesosternal carina exhibits a fossa partially open anteriorly (Figure 1C) and a median ridge with an acute posterior projection between the anterior projection and the fossa (Figure 1D) (Rodrigues and Sites 2021).

Distribution. BOLIVIA: Beni (Rodrigues and Sites 2021). ECUADOR: Morona-Santiago, Napo (Rodrigues and Sites 2021). PERÚ: Cusco, Huánuco, Junín, Ucayali (De Carlo 1966; Rodrigues and Sites 2021; Peralta-Argomeda et al. 2024).

Newly reported from Colombia and the department of Caquetá (Figure 2).

Table 1. Distribution of the 24 species of *Limnocoris* known to occur in Colombian.

Species	Distribution in Colombia	Distribution	Selected references
Limnocoris abrasum Nieser, González & Eichelkraut, 1993	Valle del Cauca	Colombia	Nieser et al. 1993
L. angulatus Nieser, González & Eichelkraut, 1993	Quindío, Valle del Cauca	Colombia	Nieser et al. 1993; Morales-Castaño and Molano-Rendón 2008
L. bouvieri Montandon, 1898	Casanare, Cundinamarca	Colombia	Montandon 1898; Rodrigues and Sites 2021
L. brauni De Carlo, 1966	Caquetá	Bolivia, Colombia†, Ecuador, Perú	De Carlo 1966; Rodrigues and Sites, 2021
L. chaetocarinatus Rodrigues & Sites, 2019	Sucre	Colombia, Costa Rica, Panamá	Rodrigues and Sites 2019
L. distanti Montandon, 1911	Boyacá*, Cesar, Cundinamarca*, Magdalena, Santander*	Colombia	Montandon 1911; Rodrigues and Sites 2021
L. dubiosus Montandon, 1898	Valle del Cauca	Colombia, Chile, Ecuador, Perú	Montandon 1898; Poisson 1954; Rodrigues and Sites 2021
L. elongatus Rodrigues & Sites, 2021	Antioquia, Caldas, Risaralda, Tolima, Valle del Cauca	Colombia	Rodrigues and Sites 2021
L. emboliatus Rodrigues & Sites, 2021	Antioquia, Caldas, Tolima	Colombia	Rodrigues and Sites 2021
L. exogkoma Manzano, Nieser & Caicedo, 1995	Antioquia, Risaralda, Valle del Cauca	Colombia, Ecuador	Manzano et al. 1995; Rodrigues and Sites 2021
L. fittkaui De Carlo, 1967	Meta	Brazil, Colombia, Venezuela	De Carlo 1967; Roback and Nieser 1974; Moreira et al. 2016; Rodrigues and Sites 2021
L. gracilis Nieser, González & Eichelkraut, 1993	Valle del Cauca	Colombia	Nieser et al. 1993; Rodrigues and Sites 2021
L. illiesi De Carlo, 1967	Casanare	Brazil, Colombia, French Guiana, Peru	De Carlo 1967; Nieser and López-Ruf 2001; Pereira and Melo 2007; Rodrigues and Sites 2021; Sites et al. 2024
L. luisae Rodrigues & Sites, 2021	Tolima	Colombia, Venezuela	Rodrigues and Sites 2021
L. malkini La Rivers, 1974	Boyacá*, Cesar, Chocó*, Cundinamarca*, Magdalena, Santander*, Tolima*	Colombia, Venezuela	La Rivers 1974; Rodrigues and Sites 2021
L. molanoi Rodrigues & Sites, 2021	Antioquia, Caldas	Colombia, Ecuador	Rodrigues and Sites 2021
L. nieseri Rodrigues & Sites, 2021	Antioquia, Risaralda	Colombia, Ecuador, Panamá	Rodrigues and Sites 2021
L. obscurus Montandon, 1898	Antioquia, Quindío, Santander, Valle del Cauca	Colombia, Ecuador, Venezuela	Montandon 1898; Nieser et al. 1993; Morales-Castaño and Molano-Rendón 2008; Rodrigues and Sites 2021
L. ochraceus Montandon, 1898	Antioquia, Boyacá, Caldas, Magdalena, Santander, Tolima	Colombia	Montandon 1898; De Carlo 1951; Rodrigues and Sites 2021
L. pallescens (Stål, 1861)	—	Colombia, Venezuela	Stål 1861; Montandon 1898
L. peruvianus Melin, 1929	Antioquia, Quindío, Tolima, Valle del Cauca	Colombia, Perú	Melin 1929; Nieser et al. 1993; Morales-Castaño and Molano-Rendón 2008; Rodrigues and Sites 2021
L. pusillus Montandon, 1897	Antioquia, Casanare, Cundinamarca, Meta, Tolima	Argentina, Bolivia, Brazil, Colombia, Paraguay, Perú, Venezuela	Montandon 1897; De Carlo 1951, 1967; Roback and Nieser 1974; Nieser and Melo 1997; Nieser and López-Ruf 2001; Melo and Nieser 2004; Souza et al. 2006; Rodrigues and Sites 2021
L. reynosoi Rodrigues & Sites, 2021	Casanare	Venezuela, Brazil, Colombia	Rodrigues and Sites 2021
L. stali Montandon, 1897	Antioquia, Boyacá, Caldas, Caquetá*, Casanare, Cundinamarca, Huila*, La Guajira*, Meta, Nariño*, Norte de Santander, Santander*, Tolima	Colombia, Venezuela	Montandon 1897; Roback and Nieser 1974; La Rivers 1976; Rodrigues and Sites 2021

* Newly recorded from department.

† Newly recorded from Colombia.

***Limnocoris distanti* Montandon, 1911**

Figures 3, 4

Material examined. COLOMBIA — Boyacá • Santana, vereda San Pedro, quebrada La Chapa; [06°02′18″N, 073°29′25″W]; 1640 m a.s.l.; 13.I.2011; 1 ♂, UPTC-In-06448 — Cesar • Jagua de Ibirico, vereda Alto de Las Flores; 09°34′17.92″N, 073°19′21.38″W; IX.2016; 1 ♂, 1 ♀, UPTC-In-06370 — Cundinamarca • Municipio de San Antonio del Tequendama, quebrada Grande; 04°32′58.16″N, 074°16′01.48″W; 2692 m a.s.l.; 26.VI.2022; 2 ♀, ANDES-E 16873 — Magdalena • Santa Marta, Minca; [11°08′24″N, 074°07′32″W]; 11.IV.2016; 4 ♂, UPTC-In-06395 — Santander • Curití, Bocatoma; [06°36′23″N, 073°03′53″W]; 2015 m a.s.l.; 1 ♂, 2 ♀, UPTC-In-06398 • Piedecuesta, Salto del Mico, Mesa de Los Santos; [06°53′43″N, 073°02′25″W]; 24.I.2015; 1 ♀, UPTC-In-21391 • Piedecuesta; 06°53′43.2″N, 073°02′24.8″W; 930 m a.s.l.; 21.IX.2017; 1 ♂, UPTC-In-06430.

Identification. *Limnocoris distanti* can be identified by the following features: body length of 9.00–10.50 mm and width of 6.00–6.80 mm (Figure 3A, B). The shagreened area of the propleuron does not extend posteriorly along the lateral margin (Figure 3B), and the posterolateral corners of abdominal segments III–IV are rounded (not produced or spinose). The fossa of the mesosternal carina is shallow, elongated, and elliptical, whereas that on the metasternum is oval, slightly medially depressed, and with lateral margins anteriorly emarginated (Figure 3C). Also, the posterolateral corner of the female tergum VI is posteriorly produced, and the posterior margin of the subgenital plate is broadly

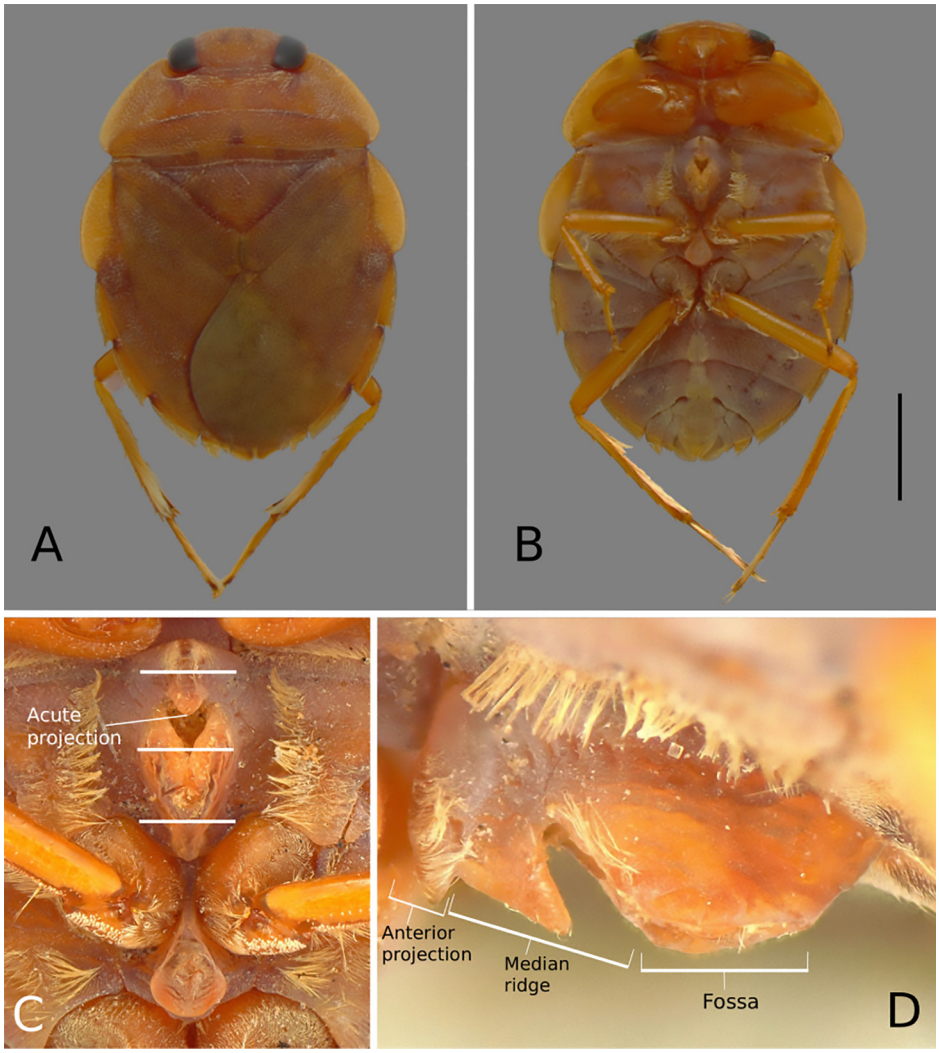

Figure 1. Male *Limnocoris brauni* De Carlo, 1966. **A.** Dorsal habitus. **B.** Ventral habitus. **C.** Mesosternal carina (ventral view). **D.** Mesoesternal carina (lateral view). Scale bar: A, B = 2 mm.

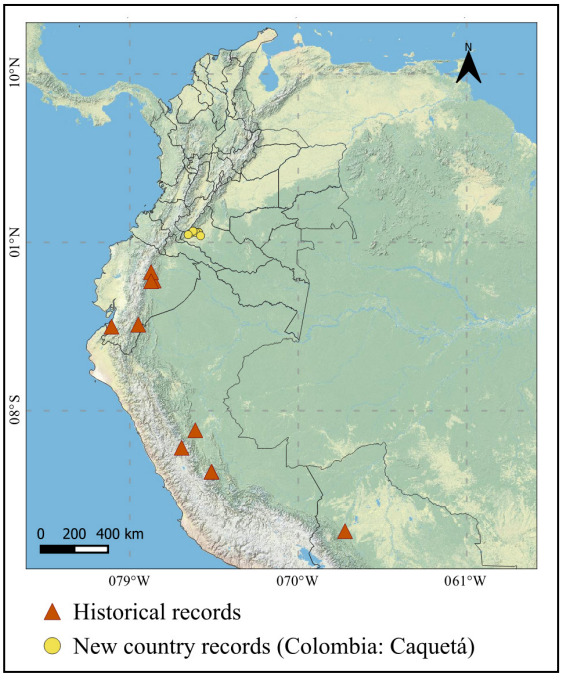

Figure 2. Distribution of *Limnocoris brauni* De Carlo, 1966.

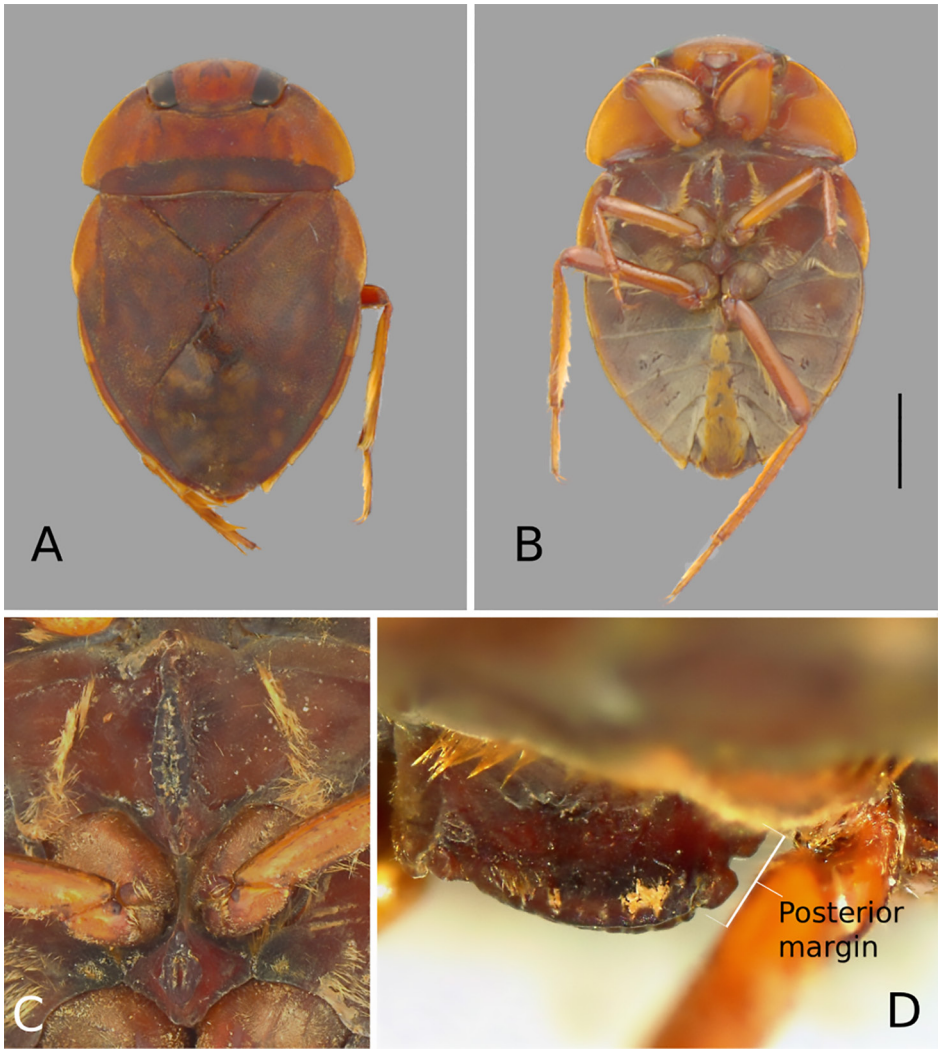

Figure 3. Female *Limnocoris distanti* Montandon, 1911. **A.** Dorsal habitus. **B.** Ventral habitus. **C.** Mesosternal carina (ventral view). **D.** Mesoesternal carina (lateral view). Scale bar: A, B = 2 mm.

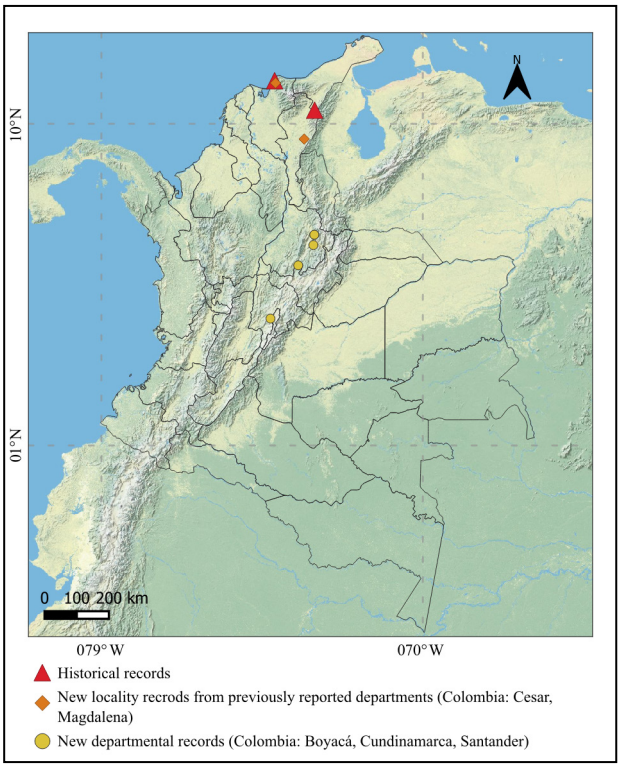

Figure 4. Distribution of *Limnocoris distanti* Montandon, 1911 in Colombia.

rounded (Figure 3B) (Rodrigues and Sites 2021).

Distribution. COLOMBIA: Cesar, Magdalena (Montandon 1911; Rodrigues and Sites 2021).
Newly reported from the departments of Boyacá, Cundinamarca, and Santander (Figure 4).

***Limnocoris malkini* La Rivers, 1974**
Figures 5, 6

Material examined. COLOMBIA — Boyacá • Santana, quebrada La Chapa; [06°02′26″N, 073°29′31″ W]; 13.I.2011; 1 ♂, UPTC-In-06450 • Santana, Quebrada El Mohan; [06°03′36″N, 073°29′00″W]; 1685 m a.s.l.; 28.IX.2002; 2 ♂, UPTC-In-06399 • San José de Pare, quebrada El Salitre; [06°00′59″N, 073°33′03″W]; 01.IV.2003; 1 ♀, UPTC-In-06447 — Chocó • Quibdó; 05°42′56.9″N, 076°26′18.3″W; 2025; 2 ♂, CEUTCH Insec—1134 • Quibdó; 05°44′23.6″N, 076°31′33.3″W; 85 m a.s.l.; 2025; 1 ♂, 1 ♀, CEUTCH Insec-1493 — Cundinamarca • La Mesa, vereda La Doima; [04°38′11″N, 074°27′33″W]; 1100 m a.s.l.; 23.IX.2006; 1 ♀, ANDES-E 9897 — Magdalena • Minca, Hacienda El Recuerdo; [11°08′45″N, 074°08′15″W]; 747 m a.s.l.; 08.IV.1977; 1 ♀, ICN 080249 • Minca, Hacienda El Recuerdo, Río Gaira; [11°08′45″N, 074°08′15″W]; 749 m a.s.l.; 08.IV.1977; 1 ♀, ICN 080256 • Minca, Río Gaira; [11°09′02″N, 074°08′49″W]; 748 m a.s.l.; 08.IV.1977; 1 ♂, ICN 080250 • Minca, Río Gaira; [11°09′02″N, 074°08′49″W]; 750 m a.s.l.; 08.IV.1977; 1 ♂, ICN 080259 • Santa Marta, Minca; [11°10′48″N, 074°09′06″W]; 06.IV.1977; 1 ♂, ICN 080253 — Santander • Barbosa; [05°55′34″N, 073°36′59″W]; 1650 m a.s.l.; 14.X.2007; 2 ♀, UPTC-In-06434 • Charala, Río Luisito; [06°17′18″N, 073°08′59″W]; 1720 m a.s.l.; 01.XII.1978; 2 ♂, ICN 114471 • Curití, Quebrada Ondevo Hoja; [06°36′46″N, 073°04′19″W]; 01.IV.1999; 1 ♂, ICN 114441 — Tolima • Icononzo, Quebrada La Laja; [04°09′52″N, 074°31′14″W]; 1070 m a.s.l.; 18.III.1978; 9 ♂, 9 ♀, ICN 114474 • Icononzo, vereda Cafreria; [04°07′00″N, 074°34′46″W]; 07.II.2016; 1 ♀, ANDES-E 32398 • Icononzo, vereda Cafreria; [04°07′00″N, 074°34′46″W]; 24.IV.2016; 1 ♂, ANDES-E 32396 • Icononzo;

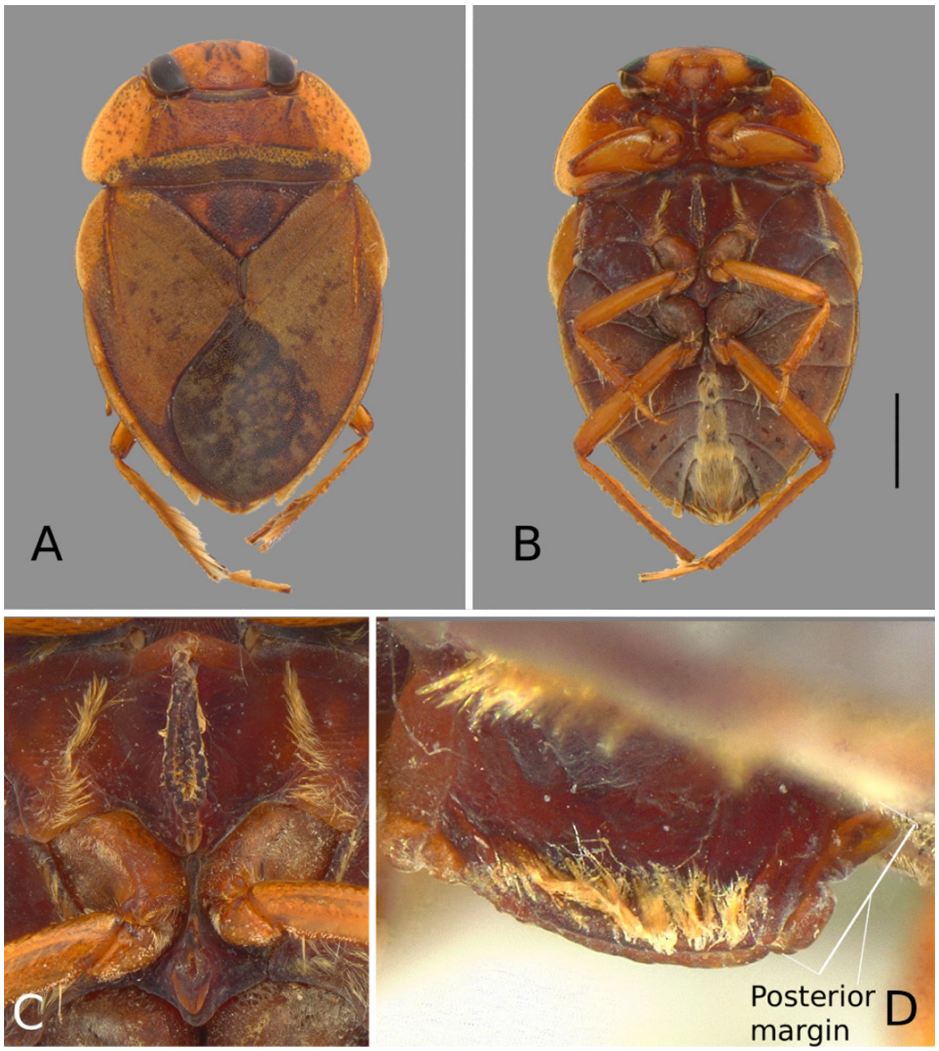

Figure 5. Female *Limnocoris malkini* La Rivers, 1974. **A.** Dorsal habitus. **B.** Ventral habitus. **C.** Mesosternal carina (ventral view). **D.** Mesoesternal carina (lateral view). Scale bars: A, B = 2 mm.

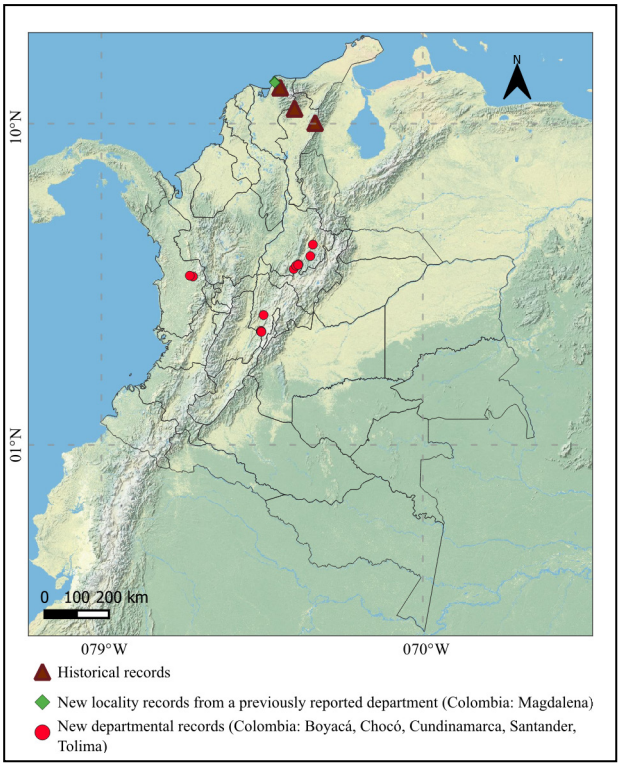

Figure 6. Distribution of *Limnocoris malkini* La Rivers, 1974 in Colombia.

[04°10′21″N, 074°32′31″W]; 22.IV.2016; 1 ♂, ANDES-E 32397.

Identification. This species can be identified by a body length of 8.85–9.60 mm and width of 5.83–6.40 mm (Figure 5A, B). The propleuron with shagreened area not extending posteriorly along lateral margin (Figure 5B) and the posterolateral corners of abdominal segments III–IV slightly rounded (not produced or spinose). Mesosternal fossa is narrow, shallow, elongate (Figure 5B, C), and not deflexed ventrad posteriorly in lateral view (Figure 5D). In contrast to *L. distanti*, the female abdominal tergite VI of this species is not produced at the posterolateral corner (Rodrigues and Sites 2021).

Distribution. COLOMBIA: Cesar, Magdalena (La Rivers 1974; Rodrigues and Sites 2021).

Newly reported from the departments of Boyacá, Chocó, Cundinamarca, Santander, and Tolima (Figure 6).

Limnocoris stali **Montandon, 1897**

Figures 7, 8

Material examined. COLOMBIA — Boyacá • Puerto Romero, vereda Las Mercedes; [05°50′03″N, 074°20′21″W]; 325 m a.s.l.; 23.IV.2007; 2 ♀, ICN He 00620 • San Luis de Gaceno, vereda La Granja; 04°49′46″N, 073°10′20″W; 414 m a.s.l.; 01.VI.2009; 1 ♂, 2 ♀, UPTC-In-06432 — Caquetá • El Paujil, Quebrada El Borujo; 01°34′41.4″N, 075°22′18.0″W; 665 m a.s.l.; NA; 3 ♂, 1 ♀, UPTC-In-21831 • El Paujil, Vereda La Cristalina; 01°34′41.4″N, 075°22′18.0″W; 665 m a.s.l.; 25.XI.2017; 3 ♀, UPTC-In-06362 — Cundinamarca • Anapoima, El Puentón, quebrada Campos; 04°29′55.30″N, 074°33′01.95″W; 1496 m a.s.l.; 29.IV.2011; 1 ♀, UPTC-In-12260 • Apulo; 04°31′18″N, 074°35′58″W; 421 m a.s.l.; 20.IV.1997; 1 ♂, UPTC-In-12248 • Bituima; 04°52′31″N, 074°32′33″W; 1412 m a.s.l.; 04.V.1990; 1 sex indet., UPTC-In-12261 • Fusagasuga; 04°20′49″N, 074°21′53″W; 1731 m a.s.l.; 19.IV.1984; 1 ♀, UPTC-In-12257 • Girardot; 04°18′18″N, 074°48′03″W; 281 m a.s.l.; 28.V.1992; 1 ♂, UPTC-In-12252 • Guaduas; 05°04′10″N, 074°35′53″W; 1000 m a.s.l.; 11.V.1997; 1 ♀, UPTC-In-12245, 1 ♂, UPTC-In-12246 • La Mesa, vereda Calucata, finca Kalukata; 04°39′35″N, 074°23′12″W; 1020 m a.s.l.; 03.IV.2011; 1 ♂, UPTC-In-12255 • La Mesa, vereda Calucata, finca Kalukata; 04°36′N, 074°28′W; 1020 m a.s.l.; 03.IX.2011; 1 ♂, UPTC-In-12258 • La Mesa; 04°38′N, 074°28′W; 1200 m a.s.l.; IX.2011; 1 ♀, UPTC-In-12251 • Mosquera, finca Marengo; 04°41′01″N, 074°13′09″W; 2544 m a.s.l.; 21.X.2011; 1 ♂, UPTC-In-12250 • Viotá, El Triunfo; 04°26′26″N, 074°31′30″W; 2093 m a.s.l.; 23.III.1997; 1 ♂, UPTC-In-12256 — Huila • El Venado; [03°16′56″N, 074°54′29″W]; 24.X.1991; 1 ♀, ICN114457 • Embalse Betania, puente Venecia; [02°39′06″N, 075°27′21″W]; 2 ♀, ICN114443 • Puente Venecia; [02°42′54″N, 075°26′12″W]; 1 ♂, ICN114414 • Tesalia, vereda El Espinal, Finca Los Cauchos; 02°27′49.89″N, 075°39′50.54″W; 830 m a.s.l.; 01.XII.2011; 1 ♀, UPTC-In-12244

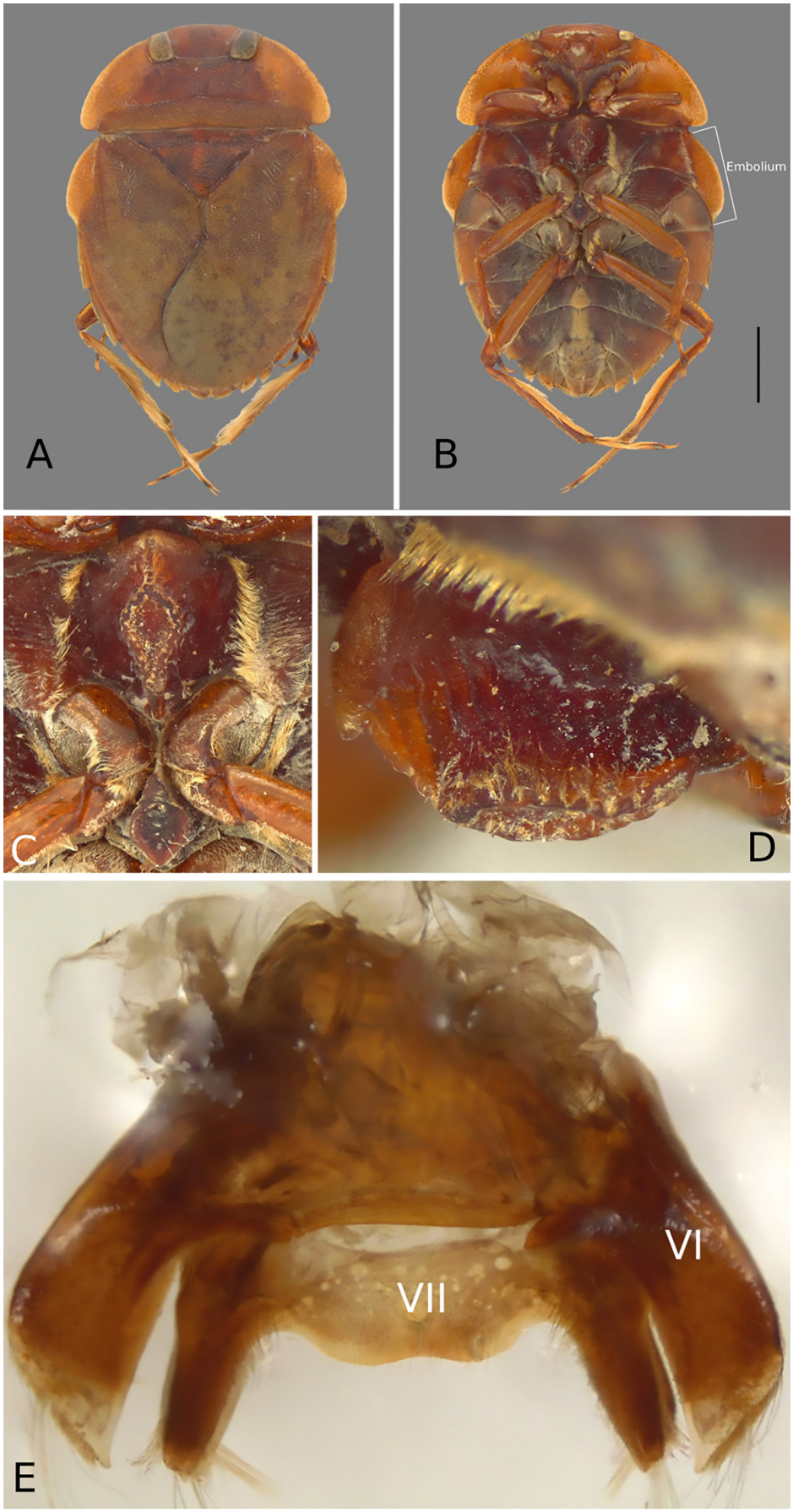

Figure 7. Male *Limnocoris stali* Montandon, 1897. **A.** Dorsal habitus. **B.** Ventral habitus. **C.** Mesosternal carina (ventral view). **D.** Mesosternal carina (lateral view). **E.** Male abdominal terga VI and VII (dorsal view). Scale bars: A, B = 2 mm.

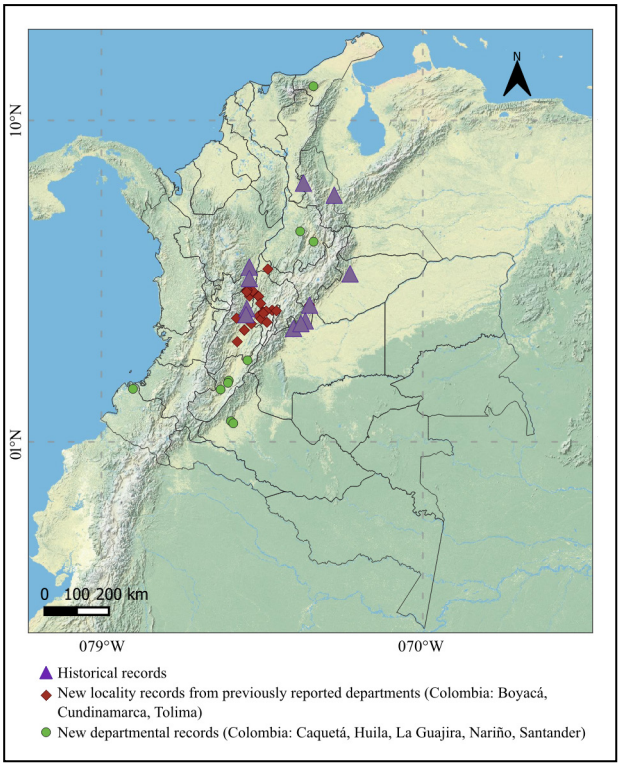

Figure 8. Distribution of *Limnocoris stali* Montandon, 1897 in Colombia.

— La Guajira • Río Ranchería, San Juan del Cesar; 10°57′26.30″N, 073°03′53.22″W; 450 m a.s.l.; 03.XII.2003; 9 ♂, 2 ♀, ICN114422 — Nariño • El Charco; 02°29′N, 78°07′W; 2 m a.s.l.; 22.XII.2011; 1 ♂, UPTC-In-12259 — Santander • Curití; [06°36′14″N, 073°03′35″W]; 1470 m a.s.l.; 1 ♀, UPTC-In-12263 • San Vicente de Chucurí, Quebrada la Viscaina; [06°53′37″N, 073°26′05″W]; 25.III.1995; 1 ♀, ICN114450 — Tolima • Coyaima, vereda Buena Vista; 03°48′09″N, 075°11′50″W; 350 m a.s.l.; 07.IV.1996; 1 ♀, UPTC-In-12262 • Ibagué, Reserva Natural Gaia, quebrada Los Loros; [04°27′42″N, 075°12′56″W]; 17 ♂, 10 ♀, UPTC-In-06396 • Mariquita, vereda Malabar, vía Cerro De La Cruz; 05°15′03.01″N, 074°54′59.40″W; 495 m a.s.l.; 03.I.2012; 1 ♂, UPTC-In-12247 • Mariquita, vereda Malabar, vía Cerro De La Cruz; 05°15′03.01″N, 074°54′59.40″W; 495 m a.s.l.; 03.I.2012; 1 ♂, UPTC-In-12249 • Mariquita, Río Guamo; [05°04′51″N, 074°51′23″W]; 490 m a.s.l.; 09.IX.2003; 1 ♀, ICN114453 • Mariquita; 05°12′10″N, 074°55′49″W; 328 m a.s.l.; 11.V.1967; 1 ♂, UPTC-In-12243 • Mariquita; 05°12′10″N, 074°55′49″W; 328 m a.s.l.; 11.V.1967; 1 ♂, UPTC-In-12253 • Mariquita; 05°12′10″N, 074°55′49″W; 328 m a.s.l.; 11.V.1967; 1 ♂, UPTC-In-12254 • Quebrada Bernal; [05°13′20″N, 074°45′51W]; 24.IX.1999; 1 ♂, ICN114442 • Quebrada Cañada; [04°07′39″N, 074°59′51″W]; 21.XII.1991; 6 ♂, 2 ♀, ICN114426 • Quebrada Cañada; [04°07′39″N, 074°59′51″W]; 5 ♂, 3 ♀, ICN114432 • Quebrada Seca ; [05°11′21″N, 074°44′48″W]; 1 ♀, ICN114412.

Identification. This species can be identified by a body length of 8.16–10.56 mm and width of 6.20–7.56 mm (Figure 7A, B). The propleuron with shagreened extending along the lateral margin for almost two-thirds of the distance to the posterolateral corner (Figure 7B), and the posterolateral corners of abdominal segments III–IV are spinose and posteriorly produced. The mesosternal carina fossa is shallow, oval, posteriorly acuminate, and the lateral margins are weakly crenulate (Figure 7C, D). In contrast to *L. emboliatus* Rodrigues & Sites, 2021, the lateral margin of the embolium in this species is at most narrowly rounded at its inflection near the posterior end (Figure 7A), and the male mediotergite VII has the posterior margin concave medially (Figure 7E) (Rodrigues and Sites 2021).

Known distribution. Colombia: Antioquia, Boyacá, Caldas, Casanare, Cundinamarca, Meta, Norte de Santander, Tolima (Montandon 1897; Roback and Nieser 1974; Rodrigues and Sites 2021).

Newly reported from the departments of Caquetá, Huila, La Guajira, Nariño, and Santander (Figure 8).

Discussion

Although the genus *Limnocoris* has been previously reported from Colombia (Roback and Nieser 1974; Roldán 1988; Nieser et al. 1993; Manzano et al. 1995; Nieser and López-Ruf 2001; Morales-Castaño and Molano-Rendón 2008; Padilla-Gil 2010; Rodrigues and Sites 2021, 2023), significant gaps remained in

the knowledge of the geographic distribution of Colombian species. Prior to this study, 23 species had been reported from the country, of which 14 were known from only one or two departments, and published records were concentrated in relatively few departments, particularly in the Andean region. This pattern likely reflects an uneven collecting effort and the limited examination of specimens deposited in biological collections rather than the actual geographic ranges of the species. The new distributional data presented here help reduce these knowledge gaps by refining the known distribution of several species and documenting previously unreported occurrences.

The new records expand the known distributions of four species. *Limnocoris distanti* had been previously reported from just two departments (Cesar, Magdalena), and here we add four additional departments. The record from Santander is the closest to the previously reported sites, whereas those from Boyacá and Cundinamarca represent distant records that extend the range into the Andean region.

In the case of *L. malkini*, new records are from departments geographically close to those previously reported in Cesar and Magdalena. The department of Santander borders departments where this species has been previously known to occur, suggesting a distribution continuity in the Caribbean and Northeast Andean regions. In contrast, records from Boyacá, Tolima, and mainly Chocó significantly extend the distribution of the species to the central and western parts of Colombia.

Limnocoris stali was previously known from eight departments (Antioquia, Boyacá, Caldas, Casanare, Cundinamarca, Meta, Norte de Santander, Tolima), and with our new data its distribution is expanded to 13 departments, including Caquetá, Huila, La Guajira, Nariño, and Santander. The latter department is closest to one of the previously recorded sites in the department of Norte de Santander, 150 km away, while departments such as Caquetá, Huila and La Guajira are farther from the center of the country, where there are records of this species.

The presence of *L. brauni* is herein reported for the first in the country, in the department of Caquetá. This represents a significant expansion of the species range, as it was previously reported from Ecuador, Peru and Bolivia. The distance from the nearest previously reported site is almost 650 km.

With the inclusion of *L. brauni*, Colombia now harbors 24 recorded species of *Limnocoris*, representing the second highest species richness of the genus, surpassed only by Brazil. Despite this remarkable diversity, the geographic distribution of many species remains poorly documented, with most species known from only one or a few departments. This incomplete knowledge is particularly important given that Colombia is one of the world's megadiverse countries, characterized by exceptional environmental heterogeneity, including three Andean Mountain ranges, the Amazon and Orinoco basins, the Caribbean region, and the Chocó biogeographic region, all of which encompass a wide diversity of freshwater ecosystems that may harbor undocumented populations of *Limnocoris*. Similar patterns have been reported for other aquatic and semi-aquatic Heteroptera in Mexico (Reynoso-Velasco and Sites 2019), emphasizing that the apparent distribution of many species is strongly influenced by uneven collecting effort and taxonomic knowledge. Continued taxonomic research, systematic field surveys, and the examination of specimens deposited in biological collections will be essential to improve our understanding of the diversity and distribution of *Limnocoris* and other aquatic insects in Colombia.

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Conflict of interest

The authors declare that no competing interests exist.

Ethical statement

No ethical statement is reported.

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Data availability
All data that support the findings of this study are available in the main text.

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