

# New records of the genus *Rhyncholepta* BERGROTH, 1911 (Hemiptera: Heteroptera: Pentatomidae) from northern South America

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## Abstract

*Rhyncholepta grandicallosa centroamericana* KMENT, EGER & RIDER, 2018 is recorded from Colombia (Bogota) for the first time, extending its range eastwards to the western slopes of Colombian Andes. I provide additional male-based records of *Rhyncholepta grandicallosa grandicallosa* BERGROTH, 1911 from French Guiana, Peru and Suriname, confirming its occurrence in the latter country, and further records of *Rhyncholepta grandicallosa centroamericana* from Panama and *Rhyncholepta henryi* KMENT, EGER & RIDER, 2018 from French Guiana.

**Key words.** Heteroptera, Pentatomidae, Chlorocorini, new records, Colombia, Suriname, Neotropical Region.

## Zusammenfassung

Neue Nachweise der Gattung *Rhyncholepta* BERGROTH, 1911 (Hemiptera: Heteroptera: Pentatomidae) aus dem nördlichen Südamerika. *Rhyncholepta grandicallosa centroamericana* KMENT, EGER & RIDER, 2018 wird zum ersten Mal aus Kolumbien (Bogota) nachgewiesen, wodurch sich ihre bekannte Verbreitung bis zu den Westhängen der kolumbianischen Anden ausdehnt. Auf Männchen basierende Nachweise von *Rhyncholepta grandicallosa grandicallosa* BERGROTH, 1911 aus Französisch-Guayana, Peru und Surinam werden veröffentlicht, wodurch ein Vorkommen in letzterem Land bestätigt wird. Weitere Funde von *Rhyncholepta grandicallosa centroamericana* aus Panama und *R. henryi* KMENT, EGER & RIDER, 2018 aus Französisch-Guayana ergänzen die Arbeit.

## Introduction

*Rhyncholepta* BERGROTH, 1911 is one of the ten genera included in the recently erected tribe Chlorocorini RIDER, GREVE, SCHWERTNER & GRAZIA, 2018 in RIDER et al. (2018), its position also confirmed in a phylogenetic analysis by GENEVCIOUS et al. (2021). The genus has a distinctive appearance, elongate body with spinose humeral angles, yellowish colouration, five prominent callosities (one pair on anterolateral margins of pronotum, one pair in anterolateral angles of scutellum, and a single one at apex of scutellum), and a more or less intensive red pattern. The particular species of *Rhyncholepta* are distinguished only by the structure of the male genital capsule, which lacks parameres but has the ventral rim of the genital capsule hypertrophied in a projecting lobate structure called hypandrium (see RIDER et al. 2018, KMENT et al. 2018, GENEVCIOUS et al. 2021). According to the recent revision by KMENT et al. (2018), there are five species group taxa distinguished mainly

based on structure of the genital capsule and its hypandrium: *Rhyncholepta grandicallosa grandicallosa* BERGROTH, 1911 (Brazil: Amazonas; ?Colombia; Ecuador; French Guiana; Guyana; Peru; Suriname; Venezuela), *R. g. centroamericana* KMENT, EGER & RIDER, 2018 (from Mexico: Chiapas to Panama), *R. henryi* KMENT, EGER & RIDER, 2018 (French Guiana), *R. meinanderi* BECKER & GRAZIA-VIEIRA, 1971 (Bolivia; Brazil: Amazonas, Rondônia; Ecuador; Peru; Venezuela), and *R. wheeleri* KMENT, EGER & RIDER, 2018 (Guyana). However, some of the country records were only based on females, requiring further confirmation based on male characters. In this short note, I present some additional new records of the genus *Rhyncholepta* from northern South America, which helps us to elucidate the distribution pattern of three of its species-group taxa.

### Material and methods

The uncoated genital capsule of the historical specimen of *R. grandicallosa centroamericana* from Bogota was examined with a Hitachi S-3700N environmental scanning electron microscope at the Department of Palaeontology, National Museum of the Czech Republic, Prague. Habitus photographs were taken using a Canon MP-E 65 mm macro lens attached to a Canon EOS 550D camera and stacked from multiple layers using the Helicon Focus 5.1 Pro software. The distribution map was created using SimpleMappR (SHORTHOUSE 2010).

All specimens were identified or revised by the author. The material examined or cited is deposited in the following collections:

MNHN Muséum national d'Histoire naturelle, Paris, France

NHMW Naturhistorisches Museum Wien, Vienna, Austria

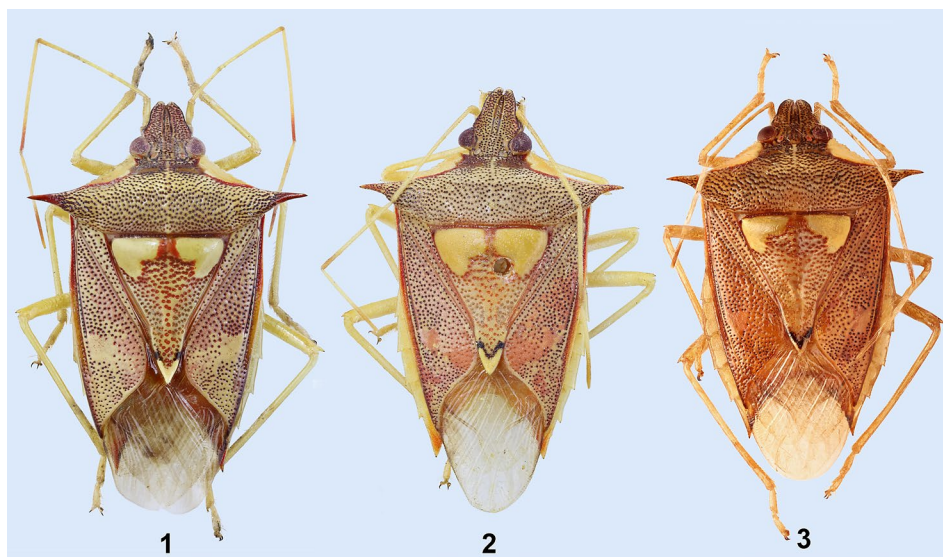
RMNH Naturalis Biodiversity Center, Leiden, the Netherlands

ZSMC Zoologische Staatssammlung, Munich, Germany

### Results

#### *Rhyncholepta grandicallosa grandicallosa* BERGROTH, 1911 (Fig. 1)

Material examined. French Guiana: N, Régina env. [4°18'45"N, 52°07'56"W], 25–31.I.2006, 2 ♂♂, Šárovec & Houska lgt. (NHMW); R.N. 2, pk [= point kilométrique] 62, Auberge des Orpailleurs [4°30'43"N, 52°21'4"W], 22.XI.1994, 1 ♂, 2 ♀♀, H. de Toulgoët & J. Navatte lgt. (MNHN); Montsinery FRG [4°53'31"N, 52°29'34"W], pk 12, 22.II.1985, 1 ♂, S. Boucher lgt. (MNHN); Piste de Kaw, pk 45, light trap, 15–16.I.1988, 1 ♂, 1 ♀, Ph. Machel lgt. (MNHN); Environs de Cayenne, Route de Regina, pk 29, 5.V.1989, 1 ♂, H. de Toulgoët, J. Navatte & J. Lalanne-Cas-sou lgt. (MNHN); Massikiri-Oyapock [= Rio Oyapoque river, Ilet Massikiri Island; 3°00'00.2"N, 52°21'51.9"W], light trap, 17.XI.1969, 12 ♂♂, 2 ♀♀, Balachowsky & Gruner lgt., det. Becker & Grazia-Vieira 1975 as *R. grandicallosa* (MNHN); R.N. 2, pk 61, Piste Coralie, pk 2, 2 [= at pK 2 a smaller road was followed for 2 km to reach the collection point], 18.X.1995, 1 ♂, H. de Toulgoët & J. Navatte lgt. (MNHN); Saut-Maripa [waterfall; 2°31'34.6"N, 52°33'9.7"W], Oyapock [= Rio Oyapoque], light trap, 27.XI.1969, 1 ♂, Balachowsky & Gruner lgt., det. Becker & Grazia-Vieira 1975 as *R. grandicallosa* (MNHN). – P e r u : Huanaco Prov.: b. Yuyapichis, SIM Panguana, 9°37'S 74°36'W, Wald Station, 22.IX.–10.X.2017, 1 ♂, Burmeister lgt. (ZSMC). – S u r i n a m e : Lucie [?, illegible; Lucie river, 3°21'40.7"N, 56°46'32.8"W], 25.VII.1963, 1 ♂, Pijper lgt. (RMNH); Lucie, camp, at light, 17.VII.1963, 1 ♂, Pijper lgt. (RMNH); Saramacca Exp., Janbangado, 1903, 1 ♂, no collector (RMNH).



Figs 1–3. Habitus of *Rhyncholepta* species. (1) *R. grandicallosa grandicallosa*, candidate neotype, ♂, French Guiana, Camp Caimans (body length 12.07 mm); (2) *R. grandicallosa centroamericana*, paratype, ♂, Panama, Pipeline Road 6; (3) *R. henryi*, holotype, ♂, French Guiana, Camp Caimans. Photos by P. Kment (after KMENT et al. 2018: figs 1, 5 and 6).

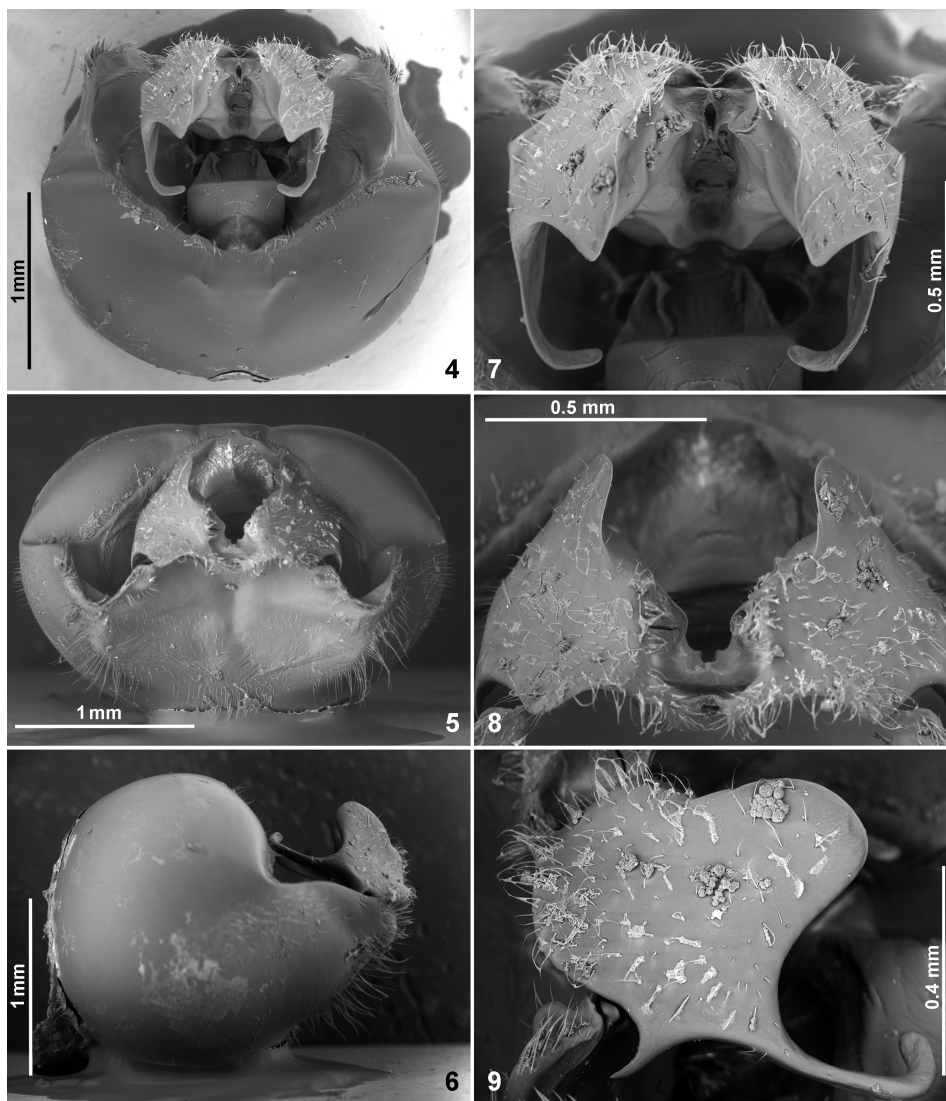
**Distribution** (see Fig. 10). Brazil: Amazonas (BECKER & GRAZIA-VIEIRA 1971, ARNOLD 2011, SILVA et al. 2018, KMENT et al. 2018); Ecuador (KMENT et al. 2018); French Guiana (BERGROTH 1911, BECKER & GRAZIA-VIEIRA 1971, KMENT et al. 2018, this paper); Guyana (KMENT et al. 2018, females only); Peru (KMENT et al. 2018, this paper); Suriname (KMENT et al. 2018, females only; this paper); Venezuela (BECKER & GRAZIA-VIEIRA 1971, GRAZIA 1984).

I hereby confirm the occurrence of *R. grandicallosa grandicallosa* in Guyana and Suriname based on male specimens. Concerning the occurrence of the subspecies in Colombia, the record from Chocó (TORRES GUTIÉRREZ 2004, as *Rhyncholepta* sp.; CASTRO-HUERTAS et al. 2015, 2022, both as *R. grandicallosa*) most probably belongs to *R. g. centroamericana*. However, we may expect to find the nominotypical subspecies in the part of Colombia east of the Andes.

***Rhyncholepta grandicallosa centroamericana* KMENT, EGER & RIDER, 2018**  
(Figs 2, 4–9)

**Material examined.** Colombia: Bogota [4°39'49.7"N, 74°6'43.5"W], 1878, 1 ♂, Ribbe lgt. (NHMW). – Panama: Panama, 1876, 1 ♀, no collector (NHMW).

**Variation.** KMENT et al. (2018) observed some variability in the structure of the genital capsule and hypandrium of *R. g. centroamericana*. They illustrated a male from Panama: Pipeline Road (KMENT et al. 2018: figs 32–33, 44–45, 56–57, 67, 73): The genital capsule was slightly constricted posterolaterally, anterior hypandrial projection longer, with apex more prominent, and median margin slightly less concave medially than in the compared male from Costa Rica: Rancho Quemado (KMENT et al. 2018: figs 34–35, 46–47, 58–59, 68, 74). The genital capsule of the male from Colombia: Bogota (Figs 4–9) is most similar



Figs 4–9. Genital capsule and hypandrium of *R. grandicallosa centroamericana*, male from Colombia: Bogota. (4–6) genital capsule: (4) dorsal view (magnitude 37×), (5) caudal view (45×), (6) lateral view (37×); (7–9) hypandrium: (7) dorsal view (85×), (8) caudal view (100×), (9) dorso-posterolateral (most exposed) view (130×). Micrographs by P. Kment.

to the Panamanian specimen, differing only very slightly, e.g., the anterior hypandrial projection being less distinctly parabolic (Fig. 9).

**Distribution** (see Fig. 10). Mexico: Chiapas (KMENT et al. 2018); Belize (KMENT et al. 2018); Guatemala (KMENT et al. 2018); Honduras (ARISMENDI 2002, ARISMENDI & THOMAS 2003, both as *R. grandicallosa*); Costa Rica (ARISMENDI 2002, as *R. grandicallosa*; KMENT



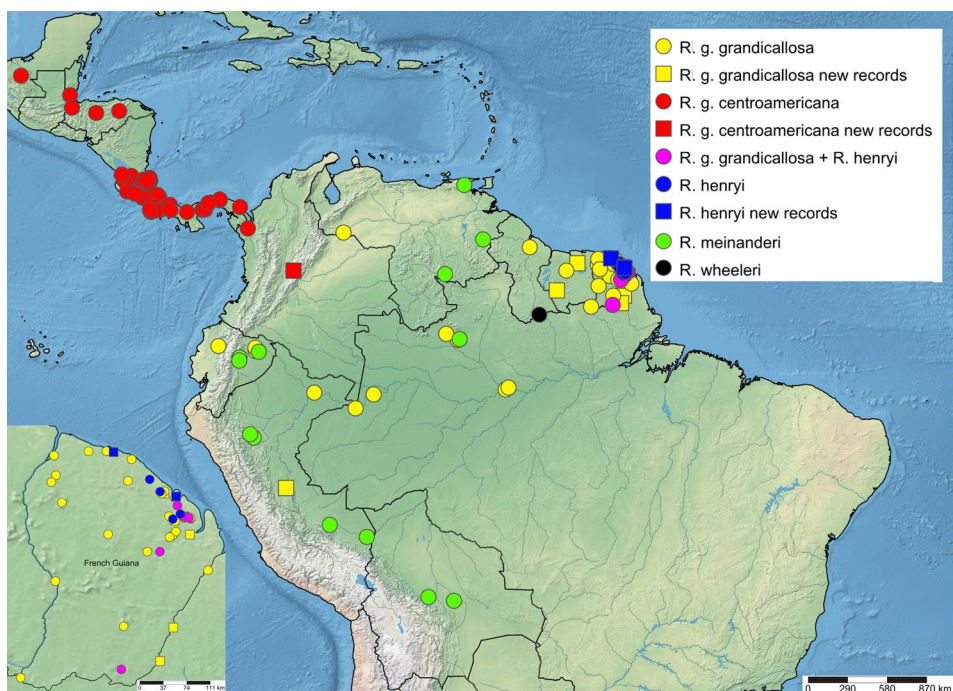


Fig. 10. Distribution map of *Rhyncholepta* species in South America with inset detail of the situation in French Guiana. Records published by KMENT et al. (2018) are denoted by circles, new records by squares.

et al. 2018); Panama (BECKER & GRAZIA-VIEIRA 1971, FROESCHNER 1999, ARISMENDI 2002, CAMBRA et al. 2018, all as *R. grandicallosa*; KMENT et al. 2018, this paper); Colombia: ?Chocó (TORRES GUTIÉRREZ 2004, as *Rhyncholepta* sp.; CASTRO-HUERTAS et al. 2015, 2022, both as *R. grandicallosa*); Bogota (this paper).

The subspecific identity of the single female of *R. grandicallosa* from Chocó (locality Riosucio: Sautatá) in Colombia (TORRES GUTIÉRREZ 2004, CASTRO-HUERTAS et al. 2015, 2022) still requires revision based on male, but considering its position west of the Andes, not far from the borders of Panama, that record probably also belongs to this subspecies. The first confirmed record from Colombia is provided here.

### *Rhyncholepta henryi* KMENT, EGER & RIDER, 2018 (Fig. 3)

Material examined. French Guiana: Iracoube [=Iracoubo, 5°28'38.6"N, 53°12'31.2"W], 21.I.2006, 1 ♂, Šarovec & Houska lgt. (NHMW); environs de Cayenne, Piste Coralie PK 2, 9–30. III.1990, 1 ♂, H. de Toulougôët, J. Navatte & J. Lalanne-Cassou lgt. (MNHN); Cayenne, Piste de Kaw, PK 31, 11.II.1986, 1 ♂, H. de Toulougôët, J. Lalanne-Cassou & Ch. Gibeaux lgt. (MNHN); Matoury [4°50'59.4"N, 52°19'32.9"W], UV trap, 4.II.1980, 1 ♀, Silvain lgt., ORSTOM, det. J. Grazia 1981 as *R. grandicallosa* (MNHN).

Distribution (see Fig. 10). French Guiana (KMENT et al. 2018, this paper).

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