



**New Species of Merocoris (Merocoris) Perty from Brazil,
with Keys to Known Subgenera and Species of the Tribe
Merocorini (Hemiptera: Heteroptera: Coreidae:
Meropachyinae)**

Authors: Brailovsky, Harry, and Barrera, Ernesto

Source: Florida Entomologist, 92(1) : 134-138

Published By: Florida Entomological Society

URL: <https://doi.org/10.1653/024.092.0120>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

NEW SPECIES OF *MEROCORIS* (*MEROCORIS*) PERTY FROM BRAZIL, WITH KEYS TO KNOWN SUBGENERA AND SPECIES OF THE TRIBE MEROCORINI (HEMIPTERA: HETEROPTERA: COREIDAE: MEROPACHYINAE)

HARRY BRAILOVSKY AND ERNESTO BARRERA

Departamento de Zoología, Instituto de Biología, Universidad Nacional Autónoma de México, Apdo Postal 70153, México D. F., 04510

ABSTRACT

A new species of the genus *Merocoris* subgenus *Merocoris* belonging to the coreid monobasic tribe Merocorini is described from Brazil under the name *M. (M.) tumulus*. Keys to the known subgenera and species of Merocorini are provided, along with dorsal view illustration of adult and drawings of parameres.

RESUMEN

Una nueva especie de coreido del género *Merocoris* subgénero *Merocoris* perteneciente a la tribu monobásica Merocorini se describe del Brasil con el nombre de *M. (M.) tumulus*. Se incluye una clave para separar los subgéneros y especies conocidas de Merocorini, así como una ilustración en vista dorsal del adulto y dibujos de los parámetros.

Translation provided by the authors.

The subfamily Meropachyinae Stål, restricted to the western hemisphere, is a relatively small group of Heteroptera characterized by having the distal end of hind tibiae ending beneath in a short projecting spine, the hind femur curved and usually strongly incrassate, and the hind coxae widely separated.

The subfamily include 26 genera divided into 3 tribes: Merocorini (1), Meropachyini (16), and Spathophorini (9), and the knowledge of them has been summarized recently by Brailovsky (1999), and Brailovsky & Barrera (1998, 2001).

The tribe Merocorini Stål 1870 is recognized by having the scutellum triangular, short, reaching onto base of claval commissure, with the commissure visible for virtually full length, the apex of scutellum elevated as a small knob, and the abdominal spiracles circular, tiny, and positioned between the anterior and middle third of each sternite (Kormilev 1954; Froeschner 1981).

The tribe is represented by a single genus *Merocoris* Perty with 2 subgenera and 6 species. The subgenus *Merocoris* (Perty 1830) is characterized by having the antenniferous tubercles unarmed, the anterolateral borders of pronotum smooth or with single tubercle, and the scutellar disk conically raised. The subgenus includes 3 South American species: *M. (M.) bergi* Mayr, 1879 (in Berg 1879), *M. (M.) elevatus* (Spinola 1837), and *M. (M.) tristis* Perty 1830. The subgenus *Corynocoris* Mayr, 1866, has the antenniferous tubercles externally armed with a stout spine, the anterolateral borders of pronotum with 2 or more tubercles, and the scutellar disk almost flat. This subgenus includes 3 species distributed in North

and Central America and the Greater Antilles: *M. (C.) curtatus* McAtee 1919, *M. (C.) distinctus* Dallas 1852, and *M. (C.) typhaeus* (Fabricius 1798).

In the present contribution 1 new species from Brazil, belonging to the subgenus *Merocoris* is described, and a revised key to the known subgenera and species assigned to the monobasic tribe Merocorini is included.

All measurements are given in millimeters. Repositories for specimens and abbreviations given in the text are as follows: The American Museum of Natural History, New York, USA (AMNH), The Natural History Museum, London (BMNH), University of Missouri, Columbia, Missouri, USA (UMRM), and Colección Entomológica del Instituto de Biología, Universidad Nacional Autónoma de México, D. F. (UNAM).

Merocoris (Merocoris) tumulus, new species,
Fig. 1.

Holotype Male: Brazil: Mato Grosso, 12°49'S-51°45'W, 19 Nov 1968, W. J. Knight (Royal Soc. / Royal Geog. Soc.) (Xavantina Cachimbo Expedition 1967-1968) (on Grassland) (BMNH). Paratypes: 1 female: Brazil, Para, Santa Isabel, 29 Oct 1968, J. and B. Bechyne (UNAM). 1 female: Brazil, Porto Santana (AP), 3 Jul 1961, J. and B. Bechyne (UMRM). 1 male: Brazil, Goias, Dianópolis, 25 Jan 1962, J. and B. Bechyne (UMRM). 1 male: Brazil, Mato Grosso, Faz. Rec. Franco, 6 Mar 1961, J. and B. Bechyne (UNAM).

Description: Male. Dorsal coloration: Head orange, with apex of juga, and outer face of ocelli

black; antennal segments I and IV dark orange, and II and III dark orange with apical joint brown; pronotum orange hazel with humeral spines black; scutellum orange hazel, basally with 2 black spots lateral to midline; clavus orange hazel; corium orange hazel with 3 black spots near middle third of endocorium; hemelytral membrane dark brown; connexival segments III to VI glossy orange, VII glossy orange with posterior margin brown; abdominal segments III to VI glossy orange, VII glossy orange with wide brown spot at middle third. Ventral coloration: Orange hazel; rostral segment I reddish brown with apex yellow, II to IV reddish brown; pro-, meso-, and metasternum black; metathoracic peritreme dark yellow; evaporative area black; fore and middle legs with coxae, trochanter, and femora orange hazel, and tibiae orange hazel with 1 or 2 diffuse yellow rings; hind leg with coxa, trochanter, and femur dark brownish orange, and femoral spines brownish black; hind tibia dark orange with 3 diffuse yellow rings; tarsi of each leg with basal half of each tarsus dark yellow and apical half brownish black.

Structure: Body oblong-ovoid, small size, less than 7.00 mm. Head. Wider than long, triangular, porrect, much shorter than pronotal length, non declivent, and clearly projected anteriorly, between bases of antennae; interocular space near the middle third of each eye smooth, without spine or tubercle; tylus unarmed, apically globose, raised, extending anteriorly to and laterally higher than juga and antenniferous tubercles; juga unarmed; antenniferous tubercles unarmed, never contiguous, and the space between them wider than 1 tubercle; antennal segment I uniformly stout, subcylindrical, basally constricted, slightly curved outward, shorter than head; segments II and III robust, cylindrical, and IV thickest, fusiform; antennal segment IV the longest, I the shortest, and II slightly shorter than III, or II subequal to III; eyes prominent, hemispheric; ocelli set on tubercles; buccula rectangular, short, raised, entire, not projected beyond antenniferous tubercles, open posteriorly; rostrum reaching anterior or middle third of metasternum; rostral segment I not extending beyond posterior third of eye. Thorax.-Pronotum. Wider than long, trapeziform, strongly declivent; collar wide; frontal angles obtuse, not exposed; humeral angles projected on large, slender and acute spine, directed outward, and slightly backward; anterior border smooth, weakly curved; anterolateral borders obliquely straight, smooth, not emarginated; posterolateral borders straight, with upper third stout, tuberculate; triangular process broad, laminar; posterior border straight, smooth; calli flat, entire, separated at midline by two deep pits, each lateral to midpoint (Fig. 1.1). Prosternum sunken, with posterior third in front of the area between fore legs

produced into narrowed acute, tubercle; mesosternum and metasternum at midline with wide longitudinal furrow; metathoracic peritreme auriculiform; evaporating area poorly developed. Legs. Fore and middle femora slender, unarmed or with tiny tubercles; hind femur extending beyond apex of abdomen, curved, strongly clavate, the basal half very slender, the apical half abruptly incrassate, thickened, dorsally smooth, and ventrally armed with 2 rows of spines and tubercles; fore and middle tibiae unarmed; hind tibia shorter than femur, curved, compressed, with outer margin sulcate, inner margin not expanded, and apically armed with broad medium size spine. Scutellum. Longer than wide, triangular, shorter than clavus, acutely angulate; scutellar disk with high conical tubercle, directed upward, and weakly backward. Hemelytra. Macropterous, extending beyond apex of last abdominal segment; costal margin emarginated, shallowly concave near midpoint; apical margin long, oblique, almost straight; apical angle subacute to truncate. Abdomen. Connexivum scarcely raised above tergum, with posterior angle of each segment entire, not expanded into spine; abdominal spiracle circular, tiny, closer to anterior third of each sterna; abdominal sterna without median furrow. Genital capsule. Posteroventral edge weakly concave at midpoint, with lateral angles rounded. Paramere. Bilobate; outer and inner lobe rounded, and almost same size (Fig. 1.2-3). Integument. Finely and thickly pubescent; clothed with a mat of woolly pubescent hairs; scutellar disk basally with large black glabrous spots; central area of corium with large black glabrous spots, forming an irregular black patch; antennal segments I to IV and legs finely pubescent; pronotal disk smooth, without transversal ridges.

Female: Color and habitus similar to male holotype. Base of clavus and corium black; upper margin of propleura and metapleura with black marks; connexival segments VIII and IX yellow; dorsal abdominal segments III to IX black with odoriferous scars III-IV and IV-V dark orange; genital plates yellowish orange.

Structure: Scutellar disk with high subconical tubercle directed upward. Genitalia. Abdominal sternite VII with plica and fissure; plica rectangular, narrowed; fissure with inner margin overlapping; gonocoxae I subtriangular, enlarged anteroposteriorly; paratergite VIII triangular, small, with spiracle visible; paratergite IX squarish, conspicuously larger than paratergite VIII.

Variation: (1) Ocellar tubercle, apex of tylus, and calli black. (2) Fore and middle tibiae orange hazel with 2 to 4 yellow rings. (3) Corium tinged with yellow. (4) Connexival segments III to V reddish orange, and VI-VII glossy orange with posterior margin brown. (5) Dorsal abdominal segment VII black with posterior margin yellow.

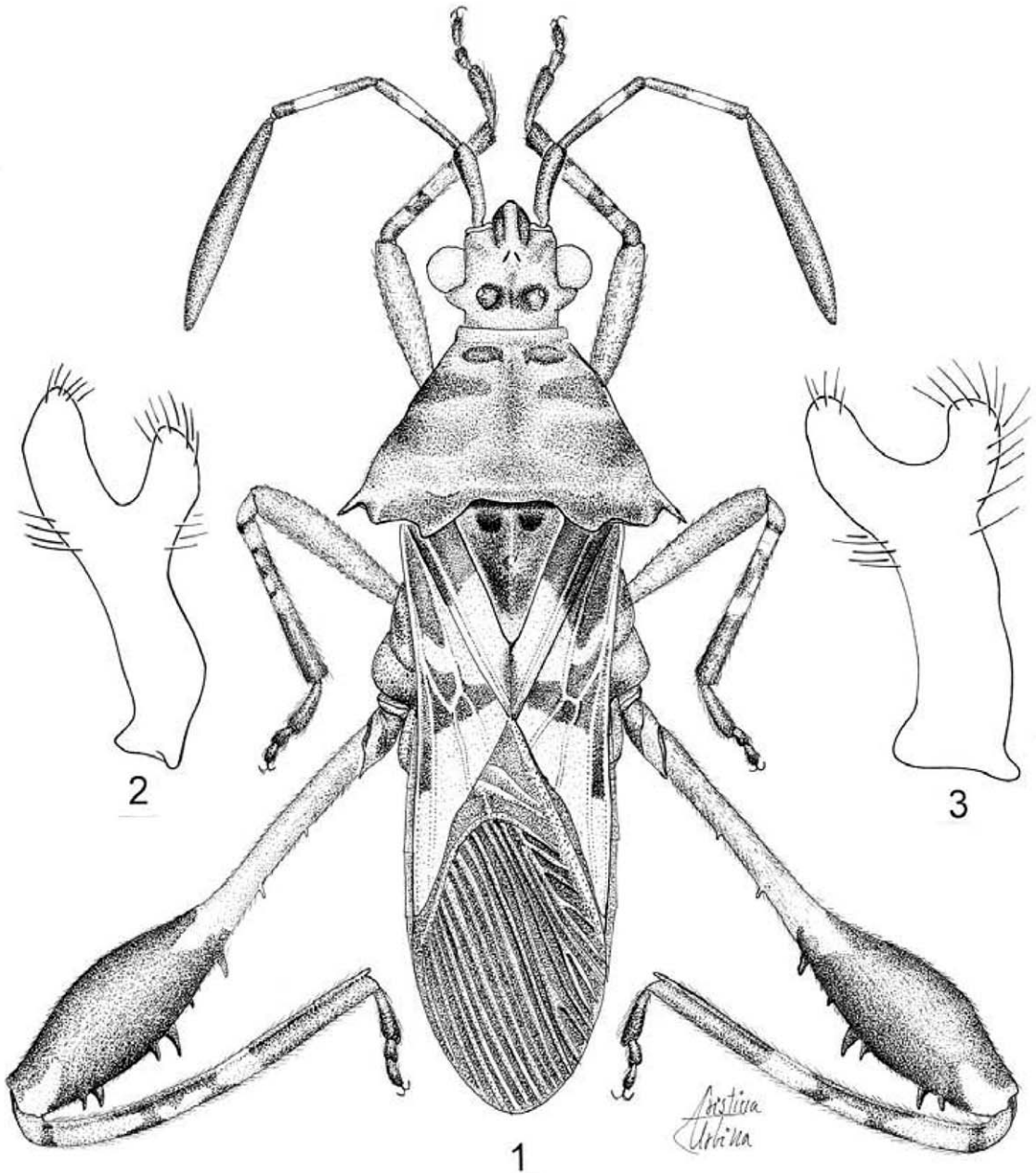


Fig. 1. *Merocoris tumulus* Brailovsky and Barrera. 1. Dorsal view. 2-3. Paramere.

Measurements in mm ($n = 1$): Male (female). Head length 0.99 (0.80); width across eyes 1.17 (1.10); interocular space 0.60 (0.55); interocellar space 0.31 (0.30); preocular distance 0.55 (0.40). Length of antennal segments: I, 0.62 (0.71); II, 0.63 (0.72); III, 0.65 (0.74); IV, 1.48 (1.58). Pronotum: Total length 1.36 (1.24); width across humeral angles 2.54 (2.23). Scutellar length 0.99

(0.86); width 0.77 (0.68). Total body length 6.83 (5.70).

Etymology: The specific name refers to the conspicuous conical tubercle at scutellar disk.

Discussion: This new species is related to *M. (M.) tristis* Perty in having the hind femur strongly clavate, swollen distally, with proximal half slender, the interocular space unarmed, the

pronotal disk smooth, and the anterolateral borders of pronotum entire. In *M. (M.) tumulus* the humeral angles are expanded into large and acute spines, directed outward and slightly backward, the upper margin of metapleura without large tubercular expansion and the body size shorter than

7.00 mm, and conspicuously slender. In *M. (M.) tristis* the humeral angles are almost obtuse with short spines, the upper margin of metapleura with large tubercular expansion, and the body length longer than 8.50 and robust.

KEY TO KNOWN SUBGENERA AND SPECIES OF *MEROCORIS*

- 1. Antenniferous tubercles unarmed; anterolateral borders of pronotum smooth or with only one tubercle; scutellar disk with high conical tubercle directed upward and eventually backward *Merocoris* Perty 2
- 1'. Antenniferous tubercles armed; anterolateral borders of pronotum with two or more tubercles; scutellar disk almost flat *Corynocoris* Mayr 5
- 2. Hind femur gradually incrassate from base toward apex; interocular space with short tubercle near the inner border of each eye *M. (M.) bergi* Mayr
- 2'. Hind femur strongly clavate, swollen distally, with proximal half slender; interocular space unarmed 3
- 3. Pronotal disk with 2 to 6 transversal ridges; anterolateral borders of pronotum with large tubercle near middle third *M. (M.) elevatus* (Spinola)
- 3'. Pronotal disk smooth; anterolateral borders of pronotum entire 4
- 4. Humeral angles expanded into large and acute spine directed outward and slightly backward; upper margin of metapleura without large tubercular expansion; body length less than 7.00 mm, and slender *M. (M.) tumulus*, **new species**
- 4'. Humeral angles with short and obtuse spine; upper margin of metapleura with large tubercular expansion; body length more than 8.50 mm, and robust *M. (M.) tristis* Perty
- 5. Head subtriangular prolonged anteriorly between the bases of the antenniferous tubercles; interocular space with short tubercle near the inner border of each eye; antennal segment I subclavate, tapering toward the base from the middle and finely pubescent *M. (C.) typhaeus* (Fabricius)
- 5'. Head nearly quadrate, not conspicuously prolonged in front the bases of the antenniferous tubercles; interocular space unarmed; antennal segment I stout, constricted basally only, and densely pubescent with hairs thick and bristle-like. 6
- 6. Antennal segment IV elongate, subequal to or longer than II and III taken together; humeral angles obtuse *M. (C.) distinctus* Dallas
- 6'. Antennal segment IV robust, shorter than II and III taken together; humeral angles subacute, more or less bifid *M. (C.) curtatus* McAtee

ACKNOWLEDGMENTS

We are grateful to the following individuals and institutions for loan and donations of specimens used in this study: Randall T. Schuh (AMNH); Mick Webb (BMNH); and Robert Sites (UMRM). Special thanks to Cristina Urbina for the fine dorsal view illustration.

REFERENCES CITED

BERG, C. 1879. Hemiptera Argentina: ensayo de una monografía de los Hemípteros Heterópteros y Homópteros de la Republica Argentina. Anales Sociedad Científica Argentina 5: 231-260.

BRAILOVSKY, H. 1999. The tribe Meropachydini with descriptions of five new genera, synonymical notes, and a key to the genera (Heteroptera: Coreidae: Meropachydinae). Proc. Entomol. Soc. Washington 101(3): 573-594.

BRAILOVSKY, H., AND BARRERA, E. 1998. A new genus, two new species, and synonymical notes on the tribe

Spathophorini (Heteroptera: Coreidae: Meropachydinae), with a key to genera of the tribe. Proc. Entomol. Soc. Washington 100(4): 746-754.

BRAILOVSKY, H., AND BARRERA, E. 2001. A further contribution to the systematics of the tribe Meropachydini (Heteroptera: Coreidae: Meropachydinae). Florida Entomol. 84(4): 613-627.

DALLAS, W. L. 1852. List of the Specimens of Hemipterous Insects in the Collection of the British Museum, Part II. London: Taylor & Francis Inc. pp. 369-592.

FABRICIUS, J. C. 1798. Supplementum Entomologiae Systematicae. Apud Proft et Storch, Haafniae pp. 1-572.

FROESCHNER, R. C. 1981. Heteroptera or true bugs of Ecuador: A partial catalog. Smithsonian Contributions to Zoology 322: 1-147.

KORMILEV, N. A. 1954. Notas sobre Coreidae neotropicales II; (Hemiptera Merocorinae de la Argentina y países limítrofes. Rev. Ecuat. Ent. Par. 2(1-2): 153-187.

MAYR, G. L. 1866. Hemiptera, in Reise des Österreichischen Freggate Novara um die Erde in den Jahren

- 1857, 1858, 1859. Zoologischer Teil, II, Abt. 1. Wien: Karl Gerold's Sohn 1-204.
- MCATEE, W. L. 1919. Notes on nearctic Heteroptera. Coreidae. Bull. Brooklyn Entomol. Soc. 14(1): 8-15.
- PERTY, M. 1830-1834. Delectus animalium articulatum, quae in itinere per Brasiliam annis MDC-CCXVII-MDCCCXX, jussu et auspiciis Maximiliani Josephi I. Bavariae Regis augustissimi peracta, collegerunt Dr. J. B. de Spix et Dr. C. F. Ph. De Martius: Monachii pp. 1-61 (1830).
- STÅL, C. 1870. Enumeratio Hemipterorum. Bidrag till en förteckning öfver alla hittills kända Hemiptera, jemte systematiska meddelanden. Pt. 1. Svenska Vetenskaps-Akademiens Handlingar. 9(1): 1-232.