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A NEW SPECIES OF *MOLCHINA* AMYOT AND SERVILLE, 1843, FROM ECUADOR (HETEROPTERA: COREIDAE: SPARTOCERINI)

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ABSTRACT

A new species, *Molchina xantha*, is described from Ecuador. Comments and new distribution data are provided for *M. compressicornis* (Fabricius), *M. hopei* (Perty), and *M. linnei* Stål. *Molchina molitor* Breddin is synonymized with *Molchina granulata* Stål. A key to the known species of *Molchina* is provided, along with illustrations of the habitus of *M. xantha* and the pronotum of all known species.

Key Words: Insecta, Heteroptera, Coreidae, Spartocerini, *Molchina*, new species, Ecuador

RESUMEN

Una nueva especie, *Molchina xantha*, recolectada en Ecuador es descrita. Comentarios y nuevos datos distribucionales son incluidos para *M. compressicornis* (Fabricius), *M. hopei* (Perty) y *M. linnei* Stål; *Molchina molitor* Breddin es sinonimizado con *Molchina granulata* Stål. Una clave para reconocer las especies de *Molchina* es incluida, así como ilustraciones del pronoto de cada una de las especies conocidas y de *M. xantha* en vista dorsal.

Translation provided by the author.

Amyot & Serville (1843) proposed the generic name *Molchina* to include *Lygaeus compressicornis* Fabricius, and they originally placed this genus in the Mictides. They were followed by Stål (1870) (Mictina), but three years later, he placed *Molchina* in the Spartoceraria. Both Bergroth (1913) and Blöte (1936) included *Molchina* in Spartoceridae. O'Shea (1979) redescribed the genus and discussed its relationship with Nematopodini and Acanthocerini, but ultimately left *Molchina* as unplaced until more American coreid genera could be studied.

In this contribution, *Molchina* is once again included in Spartocerini based on the subquadrate head, the prominent antenniferous tubercles, situated close together and projecting distinctly anteriorly of tylus, the postocular tubercle forming a smooth curve with the eye, the pronotum steeply declivent, with anterolateral margins, especially the posterior third, nodulose, and the mesosternum without a median carina. The pronotum is illustrated in all known species in Figs. 1-5.

Previously, six species of *Molchina* were known: *M. compressicornis*, *M. granulata* Stål, *M. hopei* (Perty), *M. linnei* Stål, *M. molitor* Breddin, and *M. obtusidens* Blöte. In this contribution, one new species, *M. xantha*, collected in Ecuador is described; *M. molitor* is synonymized with *M. granulata*; new distributional records are given; and a key to the known species is included (except for *M. obtusidens*).

All measurements are given in millimeters. Acronyms used are: AMNH (American Museum of Natural History, New York); CAS (California

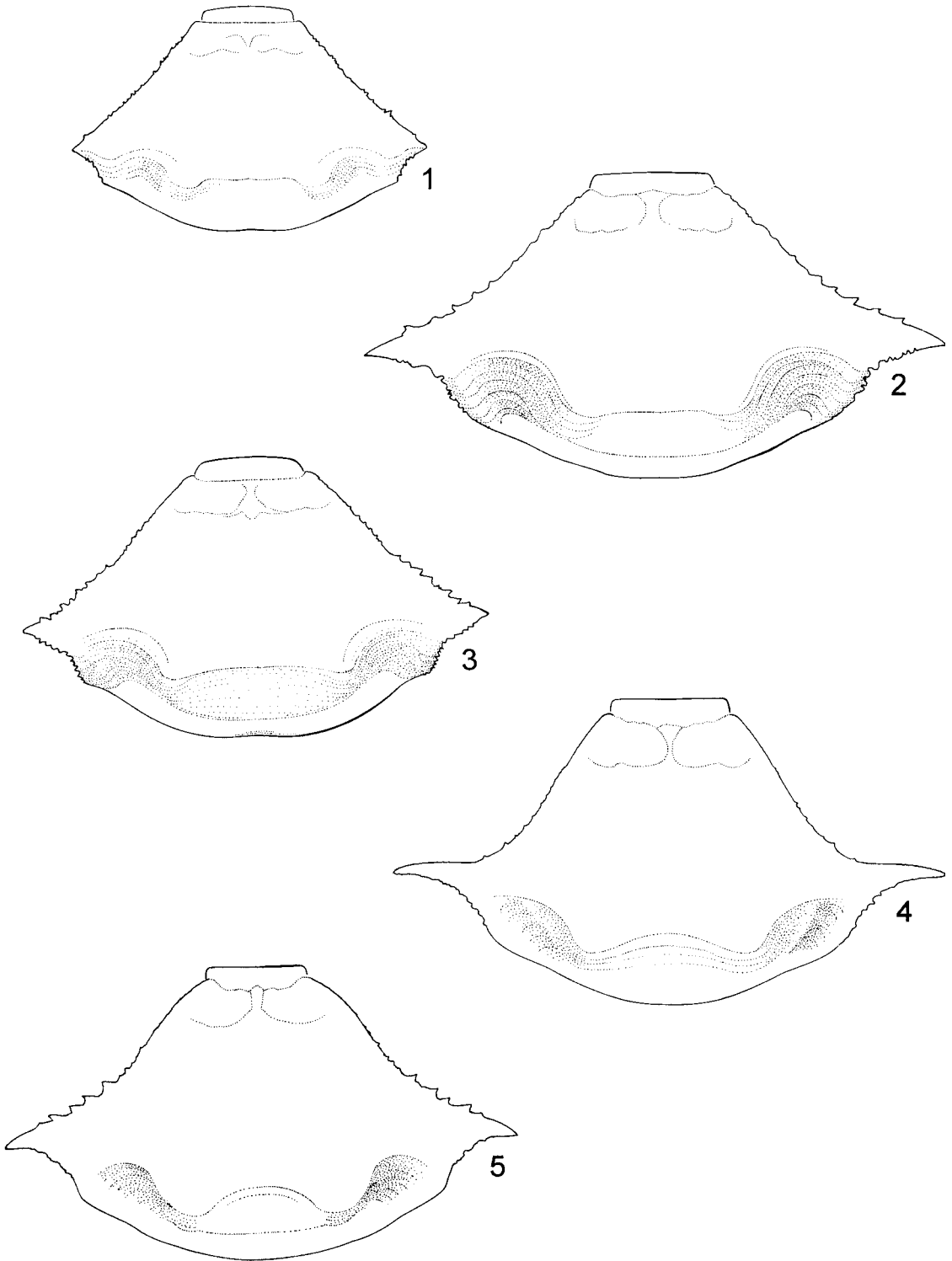
Academy of Sciences, Golden Gate Park, San Francisco, California); CMNH (Carnegie Museum of Natural History, Pittsburgh, Pa.); CUIC (Cornell University Insect Collection, Ithaca, New York); DEI (Deutsches Entomologisches Institut, Eberswalde, Germany); INPA (Instituto de Pesquisas da Amazonia, Manaus, Brazil); MNKM (Museo de Historia Natural, Noel Kempff Mercado, Santa Cruz, Bolivia); NRE (Naturhistoriska Riksmuseet, Stockholm, Sweden); PUCE (Pontificia Universidad Católica del Ecuador); UMSM (Universidad Nacional Mayor de San Marcos, Museo de Historia Natural, Lima, Peru); UNAM (Instituto de Biología, Universidad Nacional Autónoma de México); UNCB (Universidad Nacional de Colombia, Instituto de Investigaciones en Recursos Biológicos, Alexander von Humboldt, Santa Fé de Bogotá); NMNH (National Museum of Natural History, Smithsonian Institution, Washington, D.C.); and USUL (Utah State University, Logan, Utah).

Molchina compressicornis (Fabricius)

Lygaeus compressicornis Fabricius 1794: 138

Diagnosis. Endocorium with black discoidal spot located near middle third; posterior lobe of pronotal disk with black discoidal spots, as well as greenish or bluish tints; humeral angles with short, stout projection (Fig. 3).

Distribution. This species was originally described from French Guiana (Cayenne). Dallas (1852) reported this species from Brazil (Para),



Figs. 1-5. Pronotum of *Molchina* spp. 1. *M. linnei* Stål. 2. *M. granulata* Stål. 3. *M. compressicornis* (Fabricius). 4. *M. hopei* (Perty). 5. *M. xantha* Brailovsky.

Stål (1870) from Suriname and northern Brazil, and Blöte (1936) from Brazil (Corumba, Matto Grosso) and Peru (Marcapata).

Material examined. 1 male, BRAZIL, Santarem, VII-1919, S. M. Hages (CMNH); 1 male, 1 female, BRAZIL, Para, Serra Norte, Campo Cururu, 5-VI-1983, Pimentel (UNAM); 1 male, 1 female, BRAZIL, Para, Rio Xingu, 60 km S Altamira, 8-12-X-1986, P. Spangler and O. Flint (NMNH); 1 male, BRAZIL, Mato Grosso, X-1974, M. Alvarenga (AMNH); 3 males, 2 females, BRAZIL, Rondonia, 62 km S of Ariquemes, vic Fazenda Rancho Grande, 15-22-III-1991 and 6-16-XI-1996, W. J. Hanson (USUL); 1 male, COLOMBIA, Meta, Guatiquia, 430 m, VII-1948, L. Richter (UNCB); 1 female, COLOMBIA, Amazonas, 21-III-1977, R. Restrepo (UNCB). 1 female, ECUADOR, Provincia Napo, 58 km E, Mishualli, 450 m, 28-XII-1987, M. Huybenz (UNAM). 1 female, PERU, Middle Rio Ucayali, II-1926 (AMNH). 1 female, VENEZUELA, Bolivar, Rio Guaniano, 25-28-V-1979 (UNAM); 1 male, VENEZUELA, La Caja, km 105 S de El Dorado, 3-VIII-1961 (UNAM).

Molchina granulata Stål

Molchina granulata Stål 1870: 131

Molchina molitor Breddin 1898: 151-153. **Nov. Syn.**

Diagnosis. Endocorium lacking black to dark reddish brown discoidal spot; corium and clavus violaceous to purple without greenish or bluish tints; humeral angles acute (Fig. 2); antennal segment I black, II and III black with basal third yellow, and IV black with basal joint yellow.

Distribution. This species was originally described from northern Brazil. Breddin (1898) cited this species from Bolivia (without data).

Material examined. *Molchina molitor* Breddin (1898). Holotype female: Bolivia (without data) (DEI). 1 female, BOLIVIA, Departamento Cochabamba, Provincia Chapare, Palmar, 1000 m, I-1951, Steinbach (CMNH); 1 male, 1 female, BOLIVIA, Departamento Santa Cruz, Provincia Velasco, Parque Noel Kempff Mercado, 4-IV-1992, J. Justiniera (MNKM); 1 female, BOLIVIA, Departamento Santa Cruz, Provincia Andres Báñez, Urubo, 7-IX-1991, L. Baco (MNKM). 1 male, PERU, El Campanario, Colonia Berene, 11-VI-1920 (CUIC).

Molchina hopei (Perty)

Pachylis hopei Perty 1830: 171

Diagnosis. Endocorium with black discoidal spot near middle third; posterior lobe of pronotal disk with greenish or bluish tints, and with or without black discoidal spots; humeral angles pro-

duced into elongate, slender spines, directed laterally and with apex directed backward (Fig. 4).

Distribution. This species was originally described from the "Amazons" (without data). Signoret (1861) reported this species from Peru (Jumaguas), Stål (1870) from northern Brazil, and Blöte (1936) from French Guiana (Cayenne), Colombia (Umbria, and Guinea River), and Peru (Marcapata).

Material examined. 1 male, BRAZIL, Amazonas, Manaus, X-1945 (CMNH); 1 male, 1 female, BRAZIL, Amazonas, Manaus, Reserva Ducke, 4-XI-1959, V-1968, E. V. Silva and A. Faustino (INPA). 1 male, BRITISH GUIANA, Arakaka (whitout date) (CMNH). 1 male, COLOMBIA, Meta, VIII-1935, Restrepo (UNCB). 1 male, PERU, Madre de Dios, Boca Rio La Torre, 300 m, 19-II-1982, G. Lamas (UMSM); 2 males, 1 female, PERU, Loreto, Iquitos, I-1977, 8-12-VIII-1985, W. Kinzey, and G. Burrows (AMNH, UNAM); 1 female, PERU, Distrito Putamayo, road La Chorrera-La Sombra, 31-VIII-1930 (AMNH); 1 male, PERU, Rio Santiago, 17-VI-1924 (AMNH); 1 female, PERU, Loreto, Rio Nanay Mishna, Estación de Biología Callicebus, 150 m, 12-I-1980, G. Lamas (UMSM).

Molchina linnei Stål

Molchina linnei Stål 1859: 451

Diagnosis. Endocorium with black to reddish brown discoidal spot; posterior lobe of pronotal disk dark to pale reddish brown, lacking black discoidal spots, and green or blue tints; humeral angles with small lateral spine (Fig. 1).

Distribution. This species was described by Stål from northern Brazil.

Material examined. 2 males, 2 females, BRAZIL, Chapada, V-1919, XII, 1919 (CMNH); 1 female, BRAZIL, Mato Grosso, Corumba (without date) (AMNH); 1 female, BRAZIL, Mato Grosso, Cerrado, II-1968, B. E. Freeman (UNAM); 1 female, BRAZIL, Mato Grosso, 11-20-XI-1961, B. Malkin (CAS); 4 males, 2 females, BRAZIL, Mato Grosso, Barra do Tapirape, 26-XII-1962, 9-I-1963, B. Malkin (CAS, UNAM).

Molchina obtusidens Blöte

Molchina obtusidens Blöte 1936: 24-25

Blöte (1936) based the original description on one male. He indicated that *M. obtusidens* was similar to *M. compressicornis* and *M. hopei*. I was unable to obtain any material of this species for study and cannot provide a diagnosis beyond Blöte's original description.

Distribution. This species was described from Panama (Chiriqui). No other records are known.

Molchina xantha, **NEW SPECIES**

Figs. 5-6

Description. Holotype male. Dorsal coloration: head dark reddish brown with tylus and antenniferous tubercles shiny orange; antennal segment I shiny orange with apical joint dark reddish brown, segment II with basal half shiny yellowish orange, and apical half dark reddish brown, III shiny yellowish orange with apical third dark

reddish brown, and IV dark reddish brown with basal joint dark orange. Anterior lobe of pronotal disk dark reddish brown; posterior lobe orange castaneus; humeral angles, including spine, posterolateral and posterior borders black to dark reddish brown. Scutellum dark reddish with lateral borders black and apex yellow; clavus, corium, and connexivum shiny yellowish orange; hemelytral membrane dark amber with basal angle almost black; dorsal abdominal segments

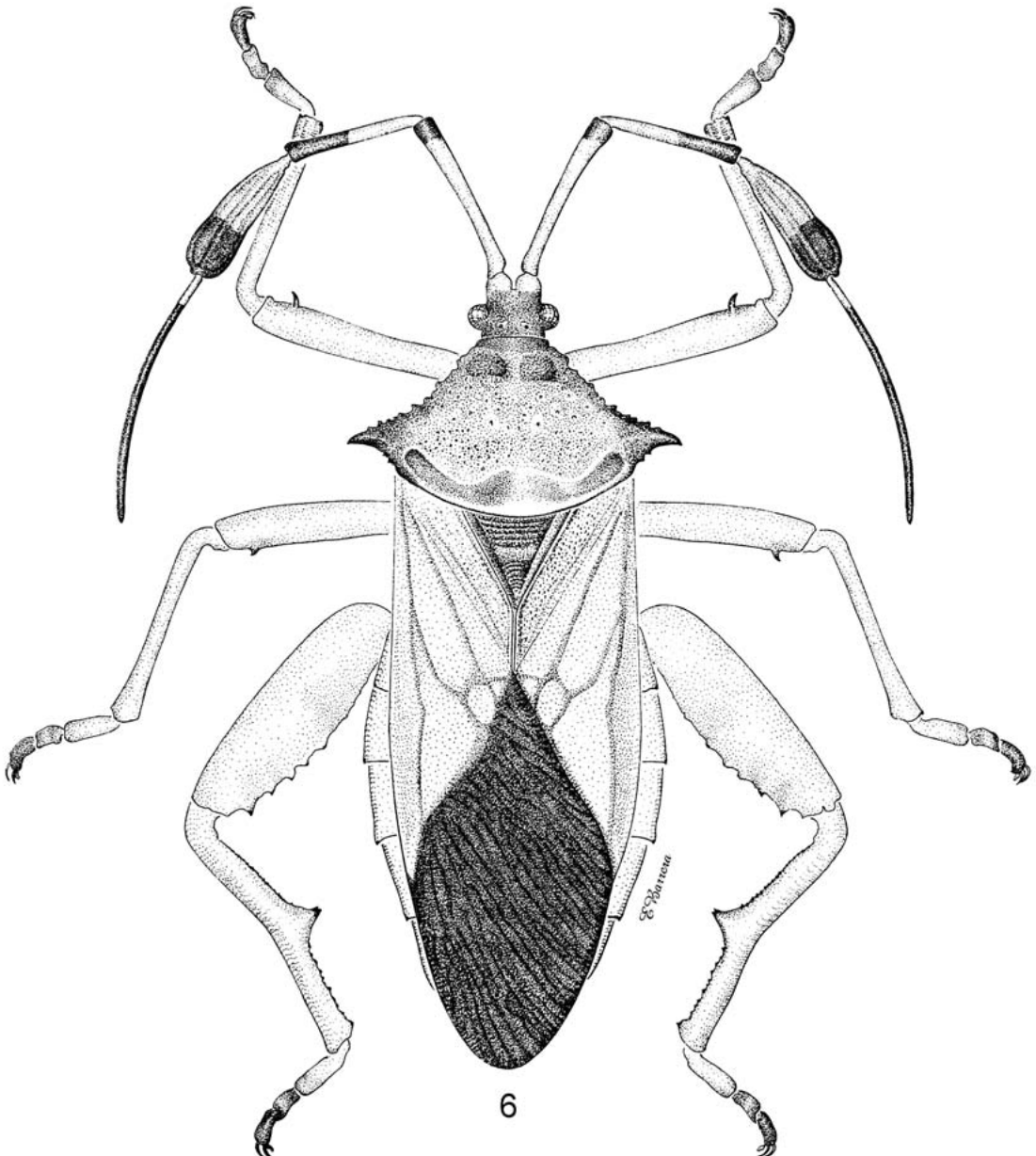


Fig. 6. Dorsal view of *Molchina xantha* Brailovsky

dark reddish except segment VII black. Ventral coloration: head black; rostral segments I to III shiny orange, and IV black; prothorax dark reddish brown, with posterior margin dark orange castaneus; mesothorax dark reddish brown with anterior surface shiny orange castaneus and with single black discoidal spot located on outer third of anterior border; mesothorax dark reddish brown with acetabulae dark orange castaneus; anterior and posterior lobe of metathoracic peritreme black, adjacent areas dark reddish brown with black margin; coxae, trochanters, femora, tibiae, and basal segment of each tarsus shiny orange; middle and distal segments of each tarsus dark reddish brown; abdominal sterna and genital capsule dark reddish brown tinged with dark orange castaneus. Head ventrally, thorax, and abdominal sterna covered with thick whitish tomentum. Structure: head subquadrate; antenniferous tubercles prominent, nearly contiguous at the apex, and projecting distinctly anteriorly to the tylus; antennal segment I cylindrical, relatively stouter and curved; segment II cylindrical and slender; segment III dilated on both sides for the whole length; antennal segment IV curved, fusiform, and very long; rostrum reaching the middle third of mesosternum; pronotum steeply declivent; collar distinct; anterolateral margins spinose to nodulose especially at posterior third; frontal angles obtuse; humeral angles produced into short, broad spine, directed laterally and slightly backwardly (Fig. 5); posterior pronotal disk with scattered small tubercles; calli slightly convex; hind trochanter armed with small spine; femora armed with distal spines on ventral surface; hind femur conspicuously incrassate; fore and middle tibiae cylindrical and sulcate; inner margin of hind tibiae spinose and expanded into large and broad spine, located near middle third; abdominal sterna III and IV armed medio-ventrally with large tubercles. Genital capsule: posteroventral edge simple, slightly concave.

Measurements. Male. Head length 1.74; width across eyes 3.19; interocular width 1.76; interocular width 0.62. Length of antennal segments: I, 6.84; II, 5.09; III, 5.32; IV, 8.96. Pronotum: Total length 6.68; maximum width across anterior lobe 4.80; maximum width across posterior lobe 11.40.

Scutellar length 3.11; width 3.34. Total body length 29.16.

Female. Coloration: similar to male holotype. Dorsal coloration: pronotum entirely black; posterior pronotal lobe with black discoidal spots; scutellum black with apex dark orange; connexival segments VIII and IX shiny orange. Ventral coloration: head (buccula dark orange castaneus), thorax, and abdomen black; anterior and posterior lobe of metathoracic peritreme, and adjacent areas black; coxae shiny orange with reddish brown marks; trochanter, femora, tibiae and tarsi shiny orange; metatarsi with basal segment shiny orange and middle and apical segments shiny reddish brown; gonocoxae I dark reddish brown; paratergite VIII with basal half reddish brown, and apical half shiny orange; paratergite IX shiny orange. Head, pronotum, scutellum, thorax, and abdominal sterna covered with thick whitish tomentum. Structure: hind trochanters without spine; femora armed with distal spines on ventral surface; hind femora incrassate (less than males); fore and middle tibiae cylindrical and sulcate; hind tibiae cylindrical, sulcate and unarmed; abdominal sterna III and IV without tubercles.

Measurements. Female. Head length 1.97; width across eyes 3.34; interocular width 1.90; interocular width 0.70. Length of antennal segments: I, 6.08; II, 4.25; III, 4.71; IV, 8.05. Pronotum: Total length 7.06; maximum width across anterior lobe 5.77; maximum width across posterior lobe 12.54. Scutellar length 3.64; width 3.82. Total body length 30.10.

Holotype: Male, ECUADOR, Provincia Napo, Rio Hollin, 1100 m, 5-XII-1996, N. Vieira (PUCE).

Paratype: 1 Female, ECUADOR, Zamora, Chinchipe-Zamora, 78°45'22"W-03°49'42"S, 18-II-2000, A. Iglesias (UNAM).

Discussion. This species can be recognized by having antennal segment I (except apical joint which is dark reddish brown), clavus, corium, connexivum, legs, and rostral segments I to III yellowish orange to shiny orange. In all other species each of these structures is black and with or without reddish brown marks.

Etymology. From the Greek *xanthos*, meaning yellow, referring to the yellowish clavus and corium.

KEY TO SPECIES OF THE GENUS *MOLCHINA**

1. Antennal segment I shiny yellowish orange with apical joint black; clavus, corium, connexivum and legs shiny orange; rostral segments I to III shiny orange. *xantha*, **new species**
- 1'. Antennal segment I black; clavus, corium, connexivum, and legs black, tinged or not with reddish brown; rostral segments I to III black 2
2. Endocorium with black to dark reddish brown discoidal spot located near middle third. 3
- 2'. Endocorium lacking black to dark reddish brown discoidal spot *granulata* Stål
3. Connexival segments III to VII pale shiny orange with basal margin reddish brown; posterior lobe of pronotal disk dark to pale reddish without black discoidal spots, and

- green or blue iridescence; antennal segment IV relatively stout and shorter than 5.5 mm; humeral angles with small lateral spine (Fig. 1) *linnei* Stål
- 3'. Connexival segments III to VII entirely black to dark reddish brown; posterior lobe of pronotal disk black to dark reddish brown, with several black discoidal spots, as well as green to blue iridescence; antennal segment IV elongate, slender, and longer than 8.8 mm; humeral angles with robust or elongate spine (Figs. 3-4) 4
4. Each humeral angle of pronotum with elongate, slender projection, this directed laterally and with the apex directed posteriorly (Fig. 4) *hopei* (Perty)
- 4'. Each humeral angle of pronotum with short and stout projection directed laterally (Fig. 3) *compressicornis* (Fabricius)
- **Molchina obtusidens* Blöte is excluded.

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REFERENCES CITED

- AMYOT, C. J., AND A. SERVILLE. 1843. Histoire Naturelle des Insectes. Hémiptères. Paris. Fain et Thunot: lxxvi + 675 pp.
- BERGROTH, E. 1913. Supplementum catalogi heteropterorum bruxellensis. II. Coreidae, Pyrrhocoridae, Colobathristidae and Neididae. Mem. Soc. Entomol. Belg. 22: 125-183.
- BLÖTE, H. C. 1936. Catalogue of the Coreidae in the Rijksmuseum van Natuurlijke Histoire. Part III. Coreinae, Second Part. Zool. Meded 19: 1-66.
- BREDDIN, G. 1898. Studia hemipterologica. IV. Jahrb. Nat. Vereins Magdeb, 1898: 151-163.
- DALLAS, W. S. 1852. List of the specimens of Hemipterous insects in the collection of the British Museum. Part II. London. Taylor and Francis Inc: 369-592.
- FABRICIUS, J. C. 1794. Entomologia sistematica emendata et aucta, secundum classes, ordines, genera, species, adjectis synonymis, locis, observationibus. C. G. Proft, Hafniae. 4: 1-472. (Classis X. Ryngota. 4: 1-229).
- O'SHEA, R. 1979. Redescriptions of three neotropical coreid genera of uncertain tribal placement (Heteroptera). Entomol. News 90(1): 45-50.
- PERTY, J. A. M. 1830-1834. Delectus animalium articulorum, quae in itinere per Braziliam annis MDC-CXVII-MDCCCXX (1817-1820), jussu et auspiciis Maximiliani Josephi Bavariae Regis augustissimi peracto, collegerunt Dr. J. B. de Spix et Dr. C. F. Ph. De Martius: 222.
- SIGNORET, M. 1861. Description de quelques Hemipteras nouveaux. Ann. Soc. Ent. France. Ser. 4(1): 55-58.
- STÅL, C. 1859. Till kannedomen om Coreida. Ofv. Vet. Ak. Förh. 16: 449-475.
- STÅL, C. 1870. Enumeratio Hemipterorum I. K. Svenska Vetensk-Akad. Handl. 9(1): 1-232.
- STÅL, C. 1873. Enumeratio Hemipterorum. 3. Kongl. Svenska. Vetensk-Akad. Handl. 11(2): 1-163.