

Rideriana amazonica gen. nov. and sp. nov. of Pentatomini (Heteroptera, Pentatomidae) ¹

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ABSTRACT. A new Neotropical genus *Rideriana* **gen. nov.** is proposed to include *R. amazonica* **sp. nov.**, from Cuzco (Peru), Acre (Brazil) and La Paz (Bolivia).

KEY WORDS. Hemiptera, Neotropical, taxonomy.

During the study of the genera *Similiserdia* Fortes & Grazia, 1998 and *Serdia* Stål, 1860 a male specimen from the Amazonian region with similar facies to the species of these genera, but not belonging to no one of them was studied. Recently, Dr. David Rider sent two more specimens from the Amazonian region of Peru and Bolivia which allowed the authors to describe this new genus and new species.

The new genus belongs to section 3 of ROLSTON *et al.* (1980), which is characterized by the presence of a median tubercle on third urosternite apposed by the posterior margin of metasternum.

MATERIAL AND METHODS

The specimens studied belong to the following collections: Entomological Collection, Department of Entomology, National Museum of Natural History, Washington, District of Columbia, USA (USNM); Instituto Nacional de Pesquisas da Amazônia, Manaus, Amazonas, Brazil (INPA).

Measurements are given in millimetres. The terminology of DUPUIS (1970) and GRAZIA *et al.* (1999) was adopted for the structure of the genitalia.

Rideriana **gen. nov.**

Type species: *Rideriana amazonica* Grazia & Frey-da-Silva, here described.

Dorsal surface of body intense and uniformly punctured; ventral surface of the thorax with more sparse and bigger punctures. Head wider than long. Jugal longer than and confluent before tylus; lateral margins of jugs slightly emarginate; dorsal surface with transverse furrows. Antennal tubercles with rhomboid lateral spine. Antennal segment I surpassing apex of head, densely punctured; segment II

extremely reduced. Relative length of antennal segments: V > III ≈ IV > I > II. Bucculae subrectilinear, evanescent at base of head with well developed anterior tooth. Rostrum short, attaining mesosternum. Rostral segment I shorter than bucculae; segments II and III subequal in length, longer than I and IV.

Pronotum subtrapezoidal, anterior 2/3 strongly declivent. Anterolateral margins subrectilinear, scarcely deflected and with angles distinctly toothed; posterolateral margins sinuous. Humeral angles not developed, rounded. Posterior margin subrectilinear. Dorsal surface with scattered yellowish maculae; 1+1 maculae at lateral angles of cicatrices. Prosternum flat between crests limiting this area; mesosternum carinate, anteriorly acute and projected between procoxae; metasternum elevate, anteriorly acute and projected between mesocoxae, posteriorly bifurcate. Ostiolar rugae short, clavate, length 1/4 of evaporatory areas width. Evaporatory areas infusate, slightly rugose near ostiolum, covering 3/4 of metapleura and almost apical half of mesopleura.

Scutellum longer than wide at base; basal angles foveate, apex slightly acute reaching connexival segment VI at middle. Posterior angle of corium subacute, reaching posterior margin of connexival segment VI; posterior margin of corium subrectilinear. Apex of vein Radius with small pale yellow callus followed by dark-castaneous macula. Hemelytra surface with scattered yellowish maculae; membrane infusate. Femur toothed at limits of apical fourth; tibia dorsally sulcate. Femur and tibia with dark castaneous punctures; tarsi immaculate.

Connexivum scarcely exposed. Postero-lateral angles in black tine spines. Abdominal spine extending between metacoxae, apposed to posterior margin of metasternum. Spiracles sided entad by yellowish callus. Trichobothria placed laterad to the imaginary longitudinal line tangential to the spiracles. Abdominal median third, sutures and pseudo-sutures with black maculae; disc with scattered punctures.

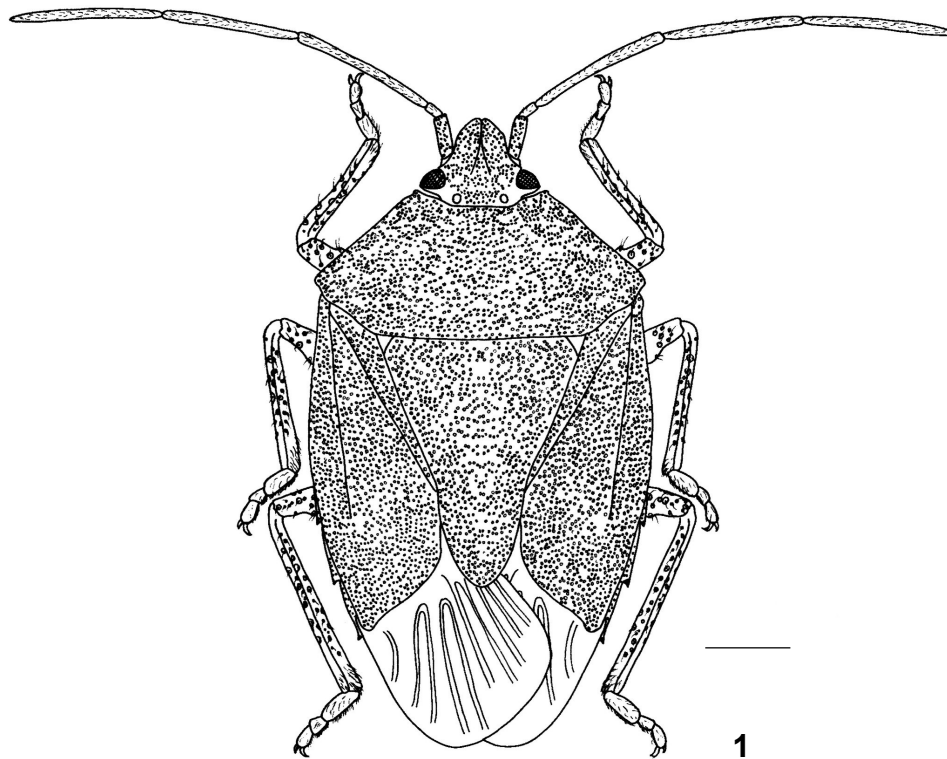


Figure 1. Habitus. *Rideriana amazonica* sp. nov., holotype. Scale: 1 mm.

Male. Pygophore quadrangular, posterolateral angles produced posteriorly; dorsal rim (dr) shallowly excavate; ventral rim (vr) excavate with strongly developed hypandrium. Segment X (proctiger) pyriform in dorsal view, apex ventrally directed. Parameres (pa) well developed.

Phallus. Basal plate (bp) well developed longer than phallotheca (ph). Phallotheca opened postero-ventrally; postero-lateral angles produced. *Processus capitati* (pc) wide, almost twice the length of dorsal connective (dc). Vesica (v) well developed, almost twice the length of phallotheca, with processes ventrally projected. Conjunctiva absent. *Ductus seminis distalis* (dsd) long, twice the length of phallotheca, slightly wider at basal half.

Comments. *Rideriana* gen. nov. has the "facies" of three known genera belonging to Section 3 of ROLSTON *et al.* (1980): *Serdia*, *Elsiella* Froeschner, 1981, and *Similiserdia*. It can be separated from these genera by the extremely reduced second antennal segment, and, at least from *Similiserdia* and *Serdia*, by the presence of well-developed *hypandrium* on ventral rim of pygophore (*Elsiella* is known only from females). In *Serdia* and one of the species of *Similiserdia* (*S. aciculata*) the antennal segment II is almost equal in length with segment I, and never surpassing 1/3 of III; in *Rideriana* gen. nov. the antennal segment II corresponds to 1/3 of antennal segment I and almost 1/9 of segment III. Also *Rideriana* gen. nov. can be distinguished from *Similiserdia* by the presence of mesosternal carina, and jugae with lateral margins slightly deflected. In *Similiserdia* the mesosternum is sulcate and the lateral margins of jugae are

not deflected. From *Serdia* and *Elsiella*, the new genus can be separated by the antennal segment I surpassing apex of head; both genera have antennal segment I not, or at least, reaching apex of head. Finally, *Rideriana* gen. nov. has short rostrum, attaining mesosternum, a character shared with *Similiserdia* and *Serdia*; in *Elsiella* the rostrum just surpasses the anterior margin of third abdominal sternite.

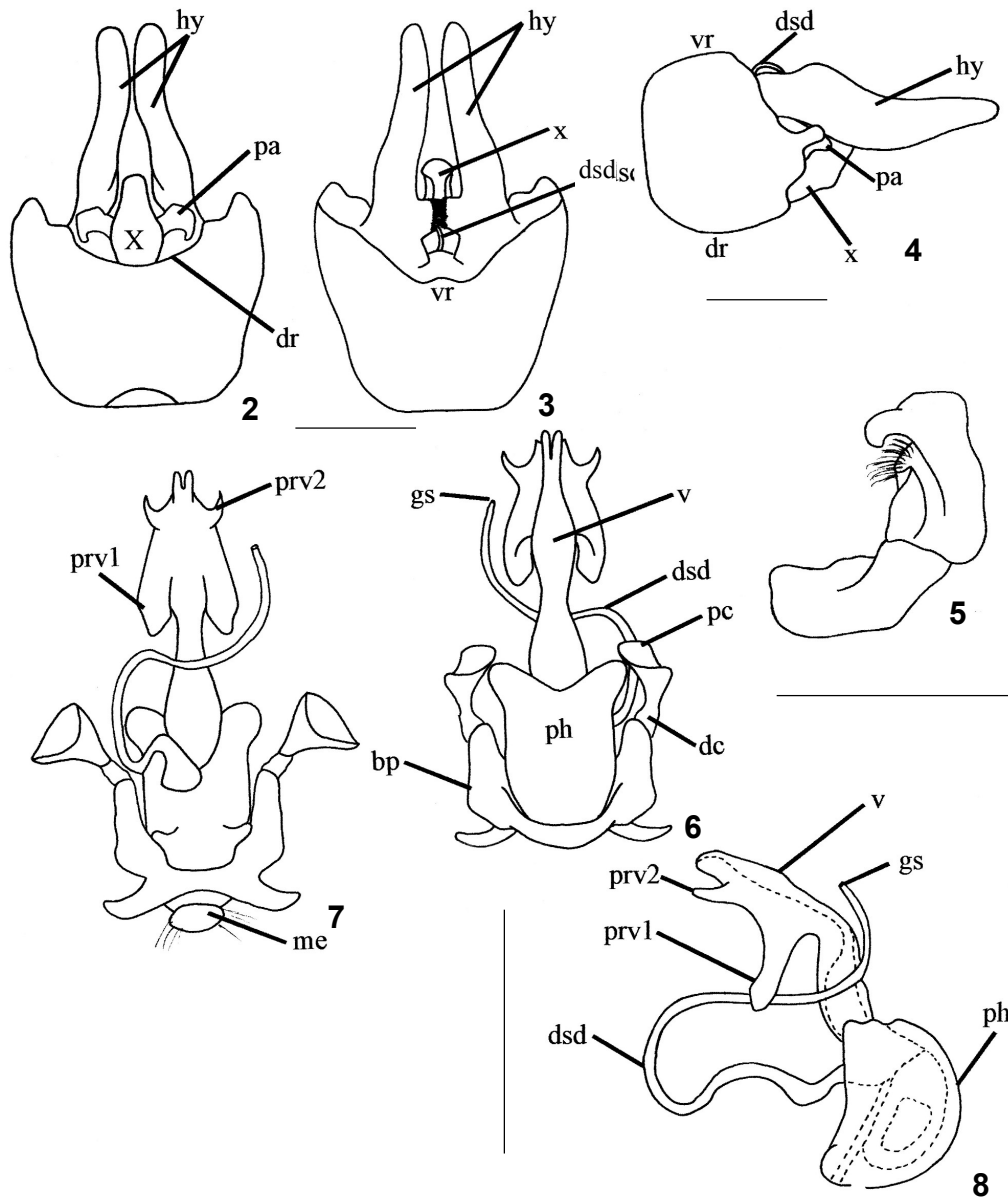
Etymology. The genus is named in honour to Dr. David Rider for his continued effort in cataloguing the pentatomids.

Rideriana amazonica sp. nov.

Figs 1-8

Male (Fig. 1). Body length 15.42 (15.20-15.70); head length 2.37 (2.32-2.48), head width 3.09 (3.04-3.12); length before eyes 1.46 (1.44-1.52); width between eyes 1.81 (1.76-1.84); pronotal length 3.57 (3.44-3.68), pronotal width 8.56 (8.40-8.80); scutellar length 6.68 (6.64-6.72), scutellar width 5.44; corium length 8.93 (8.48-9.20); length of antennal segments: I 1.20 (1.12-1.28); II 0.42 (0.40-0.48); III 3.76 (3.68-3.84); IV 3.84; V 4.04 (3.92-4.16).

Dorsal surface of body castaneous to yellowish-castaneous, densely punctured; punctures dark-castaneous. Ventral surface yellowish with scattered ferruginous to black punctures, bigger than dorsal punctures of thorax. Lateral margins of jugae finely black bordered. Antennal segments II, III and IV reddish-castaneous; segment I mate, densely punctured; segment V yellowish, punctures faded.



Figures 2-8. *Rideriana amazonica* sp. nov. (2-5) Pygophore: (2) dorsal, (3) ventral and (4) lateral view respectively, (5) right paramere: lateral view; (6-8) Phallus: (6) dorsal, (7) ventral and (8) lateral view respectively. (bp) basal plate, (dc) dorsal connectives, (dr) dorsal rim, (dsd) ductus seminis distalis, (gs) secondary gonopore, (hy) hypandrium, (me) membrablase, (pa) paramere, (pc) processus capitati, (ph) phallosome, (prv1) processus vesicae 1, (prv2) processus vesicae 2, (vr) ventral rim, (v) vesica, (x) tenth segment. Scale: 1 mm.

Pronotum cicatrices inconspicuous. Mesosternal carina yellowish; metasternal carina reddish, black punctured. Evaporatory areas yellowish. Legs mate, with castaneous maculae; tarsi reddish, immaculate. Spiracles black sided entad by yellowish callus.

Genitalia. Hypandrium (hy) strongly developed, longer than the pygophore, along mid line bifurcated, each ramus laterally flat, apex digitiform (Figs 2-4). Parameres geniculate,

apex turned to the bottom of genital cup (Fig. 5). Phallus. Vesica well-developed; apical half turned ventrad, with a pair of processes, one basal – processus vesicae 1 (prv1) more sclerotized, longer, ventrally directed, and one apical – processus vesicae 2 (prv2) membranous, shorter, posteroventrally directed. Ductus seminis distalis very long, almost twice the length of vesica, emerging from its base, projecting ventrad and folding dorsad, the apical fifth directed posteriorly (Figs 6-8).

Female unknown.

Type material. Holotype male: PERU, *Cuzco*: Prov. Paucartambo, Hacienda María, Shores of River Cosnipata, 15.III.1952, F. Woytkowski *leg.*, J.C. Lutz Collection 1961 (USNM). Paratypes: BRAZIL, *Acre*: 11 Km Ne do Rio Branco, 06.V.1981, Jorge Arias *leg.*, 1 male (INPA). BOLIVIA, *La Paz*: Mapiri (N. La Paz), 10-16.VIII.1989, L.E. Peña *leg.*, Coll. Drake, 1 male (USNM).

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REFERENCES

- DUPUIS, C. 1970. Heteroptera, p. 190-208. *In*: S.L. TUXEN (Ed.) **Taxonomist's glossary of insects**. Copenhagen, Munksgaard, 359p.
- GRAZIA, J.; J.A.M. FERNANDES & C.F. SCHWERTNER. 1999. *Stysiana*, a new genus and four new species of Pentatomini (Heteroptera, Pentatomidae) of the Neotropical region. **Acta Societatis Zoologicae Bohemicae**, Praga, **63** (1-2): 71-83.
- ROLSTON, L.H.; F.J.D. McDONALD & D.B. THOMAS JR. 1980. A conspectus of Pentatomini genera of the Western Hemisphere. Part I (Hemiptera: Pentatomidae). **Journal of the New York Entomological Society**, New York, **88** (2): 120-132.

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