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The genus *Lygaeopharus* STÅL and description of two new species (Insecta: Heteroptera: Coreidae: Colpurini)

With 6 Figures

HARRY BRAILOVSKY & ERNESTO BARRERA

Abstract. The genus *Lygaeopharus* STÅL is redescribed, and two new species collected in West Sumatra are described; a key to the known species is included as well as drawing of dorsal habitus, and external genitalia of both sexes.

Introduction

On the original description of *Lygaeopharus*, STÅL (1870) mentioned four characters to establish the genus: 1 – buccula rounded; 2 – hemelytra reduced, with clavus apically truncated; 3 – scutellum flat; and 4 – ocelli absent. Later BREDDIN (1900a) produced a key to include the known genera of Colpurini, and splitted *Lygaeopharus* on the basis of buccula rounded and entire, and hemelytra reduced. On the same year, BREDDIN (1900b) described the second species of that genus and mentioned the presence of ocelli on his new taxa.

BRAILOVSKY (1993a, b and 1995), in the course of description of three new genera: *Heisshygia*, *Acarihygia*, and *Carvalhygia*, mentioned that *Lygaeopharus* is closely related, shared several characters of which one of them was the ocelli reduced or absent.

Recently I revised the type series of *L. maurus* (STÅL, 1870) deposited in Naturhistoriska Riksmuseet, Stockholm, and after carefully scrape behind the praecellar pit I found the hidden small size ocelli, and because *L. ocellatus* (BREDDIN, 1900b) has a clear exposed ocelli, I propose to put aside that structure as diagnostic character.

In this paper the genus *Lygaeopharus* is redescribed on the face of new information, and two new species from West Sumatra are introduced.

The following abbreviations identify the institutions where types are deposited and specimens were loaned: Naturhistoriska Riksmuseet, Stockholm (NRE); Rijksmuseum van Natuurlijke Histoire, Leiden (RNHL).

Lygaeopharus STÅL

Lygaeopharus STÅL, 1870; Öfv. Kongl. Vetensk-Akad. 27: 653.

Redescription. – Head longer than wide, pentagonal and dorsally slightly convex; tylus unarmed, apically globose, extending anteriorly to the jugae and more raised in lateral view; jugae unarmed; antenniferous tubercle unarmed; side of head in front of eye unarmed, subparallel; antennal segment I robust, thickest, slightly curved outward and shorter than head; segment II and III cylindrical; seg-

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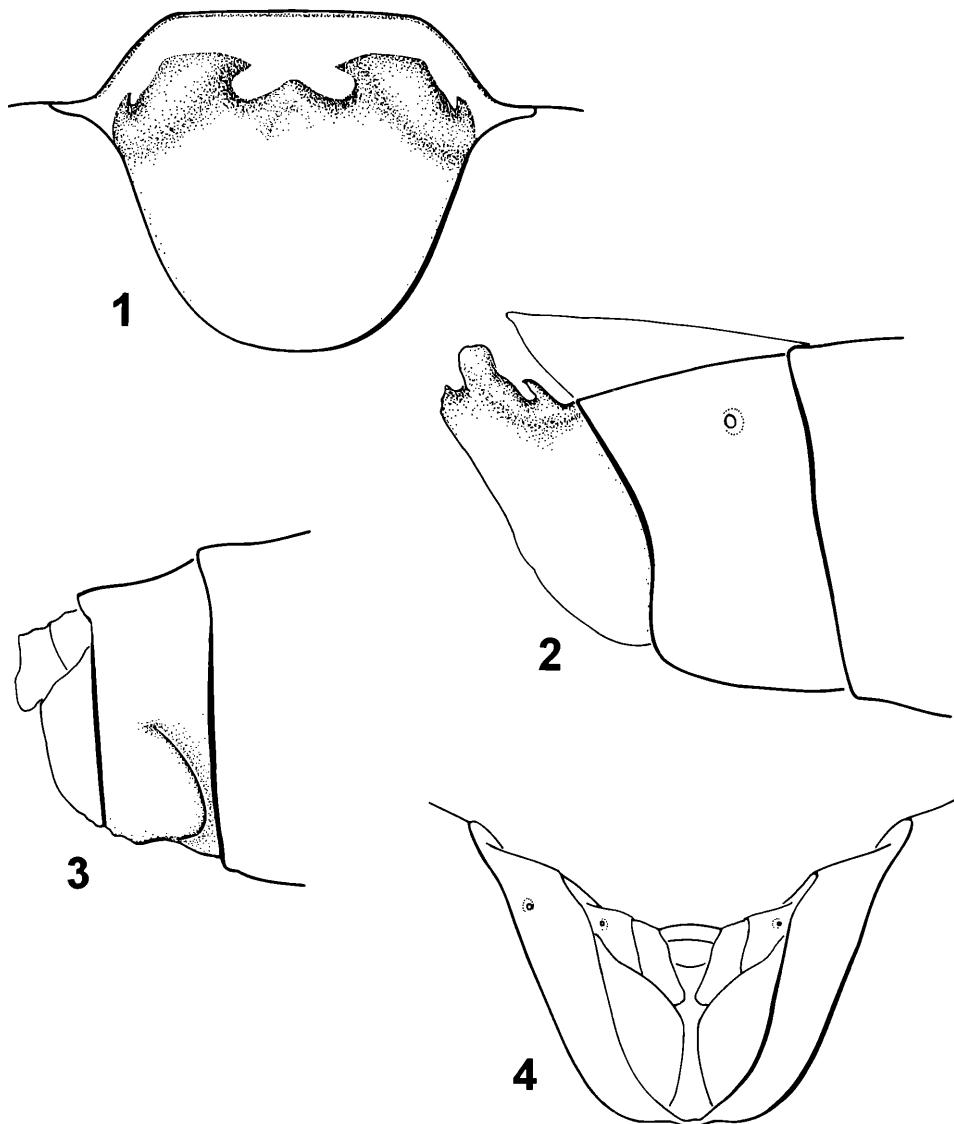
Dr. H. Brailovsky A. & Biol. E. Barrera, Instituto de Biología, U.N.A.M., Departamento de Zoología, Apartado Postal No. 70-153, México, D.F. 04510 (México)

ment IV fusiform; segment II the longest, IV the shortest, and III equal to I; ocelli present, sometimes hardly to see; preocellar pit deep; eyes large, spherical, sessile; postocular tubercle protuberant; buccula rounded, short, entire, without sharp anterior spiny projection, and not projecting beyond antenniferous tubercle; rostrum reaching posterior third of abdominal sternite V Thorax. Pronotum. Wider than long, trapeziform, non declivous, and slightly bilobed; collar wide; frontal angles produced forward as conical lobes; humeral angles rounded, not exposed; anterolateral borders obliquely straight or sinuate, reflexed and not raised above pronotal disc; posterolateral borders straight; posterior border straight; pronotal disc nearly flat; collar region transversely flat or moderately protruding; posterior lobe with median longitudinal depression, sometimes hardly to see. Anterior lobe of metathoracic peritreme reniform, posterior lobe sharp, small. Legs. Femora unarmed; tibiae without sulcus. Scutellum. Triangular, almost flat; longer than wide; apex acute. Hemelytra. Coleopteroid condition: clavus and corium fused; membrane do not overlap, reduced to a small flap, reaching onto the anterior or middle third of abdominal tergum IV; apical endocorium punctate. Brachypterous condition: clavus and corium moderately separated; membrane do not overlap, or only the inner portion of each membrane overlapping, reaching the posterior edge of abdominal tergum IV or V or anterior third of VI; apical endocorium punctate. Abdomen. Connexival segments flat, and not higher than abdominal terga, or strongly elevated and higher than abdominal terga, in each condition with posterior angles not produced into spines; abdominal sterna with medial furrow, extending to posterior margin of sternite V. Integument. Body surface rather dull, seldom shiny, strongly punctate with short decumbent silvery bristle-like hairs, intermixed with a few long erect hairs located on the abdominal sterna; connexival segments and pleural margins of abdominal sterna impunctate. Pubescence of antennae and femora short, mainly suberect, on tibiae and tarsi longer and rather dense. Genitalia. Male genital capsule. Posteroventral edge simple, transversely sinuate or laterally produced into short blunt curved lobes, and between them a deep elongate "U"-shaped concavity, with medium size raised plate (Figs. 1-2). Parameres. Body robust, with a broad mesial projection; anterior lobe convex and posterior lobe long and slender. Female. Abdominal sternite VII with plica and fissura; plica triangular, broad, reaching middle third of sternite VII; gonocoxae I broadly triangular, and enlarged antero-posteriorly or squarish and enlarged dorso-ventrally (Figs. 3-4) and on each condition with the external face entire, nearly straight and ventrally open; paratergite VIII quadrate, with spiracle visible; paratergite IX longer than VIII, with inner lobes curved to middle line, with tips touching but not overlapping.

Remarks. *Lygaeopharus* STÅL (1870) like *Acarihygia* BRAILOVSKY (1993 a) has the buccula rounded without teeth or spine, tylus apically globose, and hemelytral membrane reduced. In *Lygaeopharus* the scutellum is triangular, with apex acute, abdominal sternite VII of the female with plica and fissura, and collar region almost transversely flat. In *Acarihygia* the scutellum is triangular with rounded apex, female abdominal sternite VII entire, without plica or fissura, and collar region globose, and separated along middle line by slight triangular depression. *Heisshygia* BRAILOVSKY (1993 b), and *Carvalhygia* BRAILOVSKY (1995) like *Lygaeopharus* have the abdominal sternite VII of the female with plica and fissura, but only the buccula of *Lygaeopharus* is entire, the other two genera have a sharp spiny anterior projection. In *Heisshygia* the apex of tylus is projected on a sharp long horn, in the other genera it is globose and truncated; in *Carvalhygia* the postocular tubercle is extremely reduced to absent, and in the other taxa it is conspicuously developed and protuberant.

Lygaeopharus elongatus spec. nov. (Figs. 1-5)

Male. **Coloration.** Reddish brown with following areas orange yellow: apex of scutellum, posterior third or posterior angle of connexival segments IV to VI, antennal segment IV (basal joint reddish brown), rostral segments I to IV, anterior lobe of metathoracic peritreme, trochanters, basal joint of femora, and tarsi; hemelytral membrane dark brown; connexival segments, abdominal segment VII, and abdominal sterna light reddish brown. **Structural characters.** Pronotum. Collar region almost flat. Abdomen. Connexival segments strongly elevated and higher than abdominal terga. Genitalia. Genital capsule. Posteroventral edge laterally produced into short blunt curved lobes and between them a deep elongate "U"-shaped concavity, with medium size raised plate (Figs. 1-2).



Figs. 1–4: *Lygaeopharus elongatus* spec. nov.: 1–2 – male genital capsule, 1 – caudal view, 2 – lateral view; 3–4 – female genital plates, 3 – lateral view, 4 – caudal view.

Female. Coloration. Similar to male. Connexival segments VIII and IX, dorsal segments VIII and IX, and genital plates reddish brown. Genital plates: Figs. 3–4.

Measurements (mm). (Male first, then female). Head length: 1.46, 1.60; width across eyes: 1.40, 1.52; interocular space: 0.76, 0.88; interocellar space: 0.44, 0.50; praocular distance: 0.96, 1.00; length of antennal segments: I, 1.36, 1.40; II, 2.00, 2.20; III, 1.36, 1.40; IV, 1.24, 1.24. Pronotal length: 1.60, 1.76; width across frontal angles: 1.48, 1.56; width across humeral angles: 2.20, 2.44. Scutellar length: 0.84, 1.04; width: 0.80, 1.00. Body length: 8.90, 9.50.

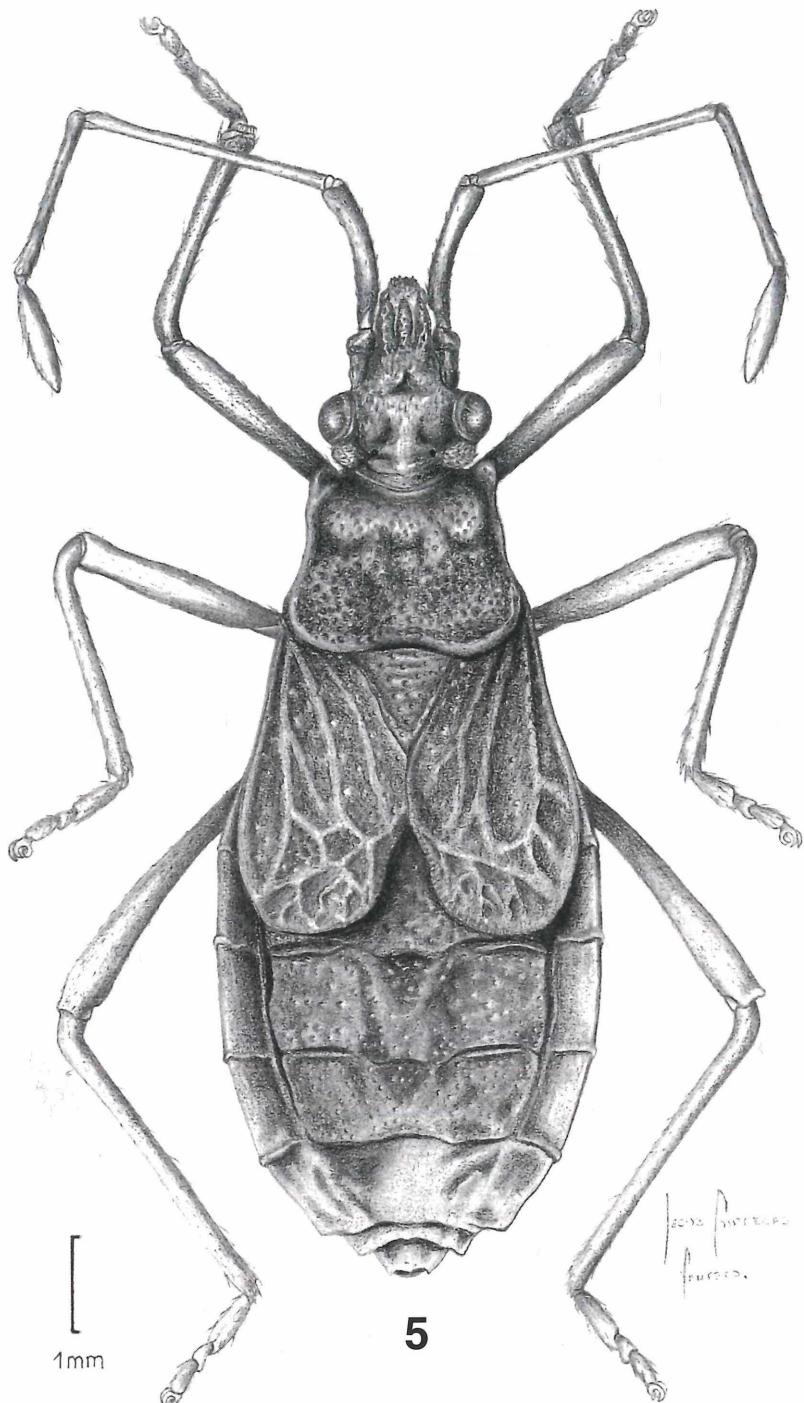


Fig. 5: Dorsal view of *Lygaeopharus elongatus* spec. nov.

Material. Holotype ♂, paratype 1 ♀: West Sumatra: Gunung Singgalang, 1000–1800 m, 1925.VIII, E. JACOBSON. Deposited in RNHL.

Remarks. *L. elongatus* spec. nov. is easily distinguished for the antennal segments II and III and tibiae entirely reddish brown, and the hemelytral membrane reaching posterior third of abdominal tergum IV. In the related species *L. ocellatus* BREDDIN the membrane reaching posterior third of abdominal tergum V or anterior third of VI, the antennal segments II and III are reddish brown with basal third yellow, and the tibiae are reddish brown with two yellow rings.

Etymology. Named for its elongate body form.

***Lygaeopharus notatus* spec. nov. (Fig. 6)**

Female. Dorsal coloration. Head and anterior lobe of the pronotum dark reddish brown; antennal segments I to III, posterior lobe of pronotum, scutellum, clavus, corium, connexival segments, and dorsal abdominal segments light reddish brown with following areas yellow: antennal segment IV (basal joint reddish brown), apex of scutellum, and posterior edge of connexival segments III to VI; hemelytral membrane black. Ventral coloration. Head dark reddish brown; thorax and abdomen bright light reddish brown, with posterior third of pleural margin of abdominal sterna III to VI yellow; rostral segments orange yellow; anterior lobe of metathoracic peritreme orange red; coxae and trochanters orange hazel; femora bright reddish brown with two to five irregular yellow rings; tibiae reddish brown with two yellow rings; tarsi with basal segment reddish brown and middle and hind segments orange hazel. Structural characters. Pronotum. Callar region moderately protruding. Hemelytra. Brachypterous; membrane reaching posterior third of abdominal tergum V. Abdomen. Connexival segments strongly elevated and higher than abdominal terga.

Measurements (mm). Head length: 1.60; width across eyes: 1.56; interocular space: 0.84; intercellular space: 0.36; praocular distance: 1.02; length of antennal segments: I, 1.28; II, 1.80; III, 1.28; IV, 1.08. Pronotal length: 1.68; width across frontal angles: 1.60; width across humeral angles: 2.68. Scutellar length: 1.12; width: 1.08. Body length: 9.30.

Material. Holotype ♀: West Sumatra, Gunung Singgalang, 1800 m, 1925 (without data), E. JACOBSON. Deposited in RNHL.

Remarks. Like *L. ocellatus* BREDDIN it has the tibiae reddish brown with two yellow rings, the connexival segments strongly elevated and higher than abdominal terga, and the hemelytral membrane reaching the posterior third of abdominal tergum V. *L. notatus* spec. nov. can be recognized by its antennal segments II and III entirely reddish brown, and femora reddish brown with two to five irregular yellow rings. In *L. ocellatus* the antennal segments II and III are reddish brown with basal third yellow, and femora entirely reddish brown.

Etymology. Named for the yellow markings present on the femora.

Key to the known species of *Lygaeopharus* STÅL

- 1 Dorsal head conspicuously convex; coleopteroid, with hemelytral membrane reduced to small flap reaching middle third of abdominal tergum IV; trochanters dark reddish brown; connexival segments not higher than abdominal terga. ***L. maurus* STÅL (Moluccas Isl.)**
- 1' Dorsal head slightly convex; brachypterous, with hemelytral membrane not reduced to a small flap, and reaching posterior third of abdominal sternite IV or anterior third of VI; connexival segments strongly elevated and higher than abdominal terga; trochanters light orange hazel or light orange yellow.

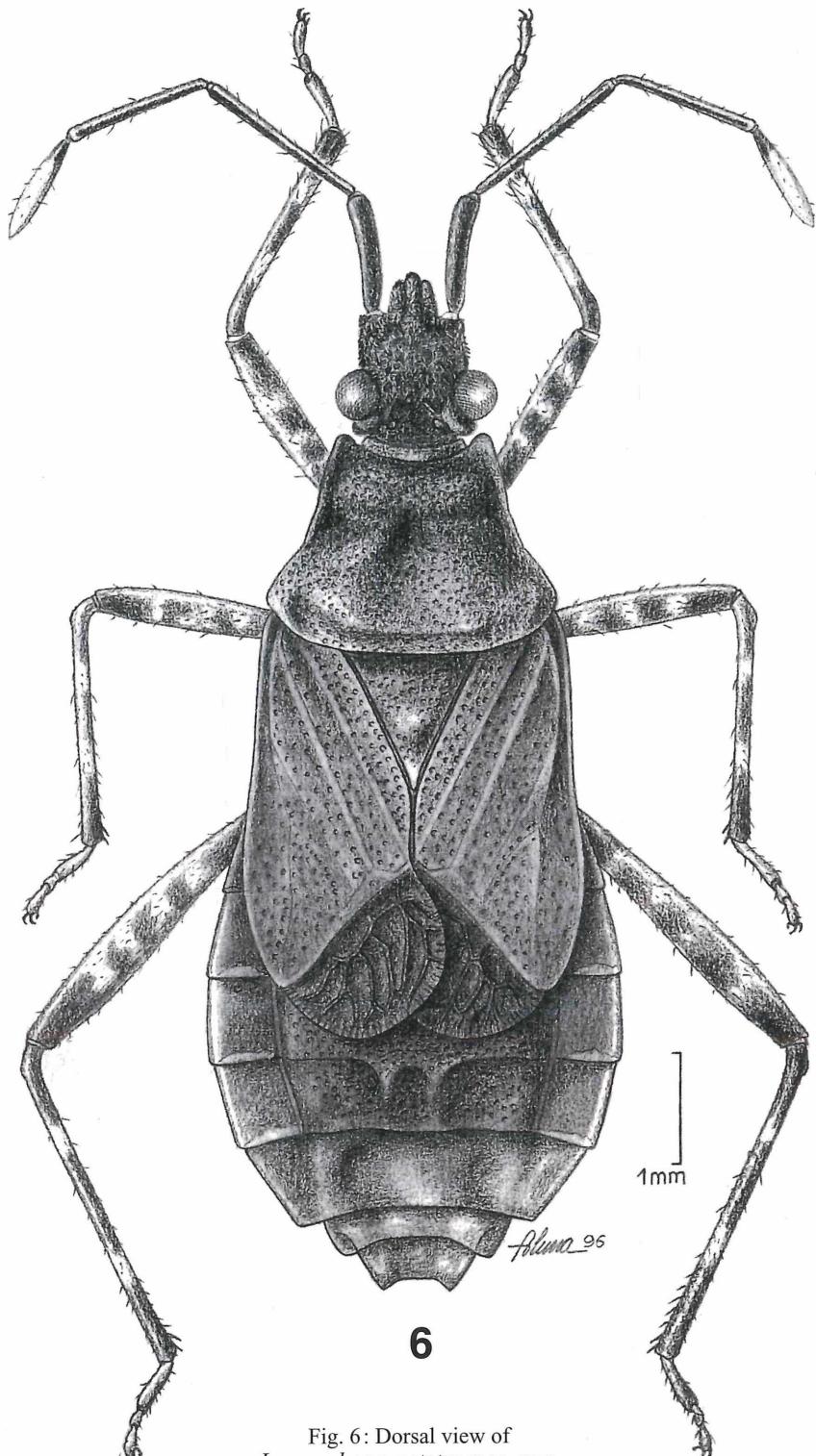


Fig. 6: Dorsal view of
Lygaeopharus notatus spec. nov.

2 Tibiae reddish brown; hemelytral membrane reaching posterior third of abdominal tergum IV
L. elongatus spec. nov. (West Sumatra) 3

2' Tibiae reddish brown with two yellow rings; hemelytral membrane reaching posterior third of abdominal tergum V 3

3 Antennal segments II and III reddish brown. *L. notatus* spec. nov. (West Sumatra)

3' Antennal segments II and III reddish brown with basal third yellow.
L. ocellatus BREDDIN (Halmahera Isl.)

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Autor(en)/Author(s): Brailovsky Harry, Barrera Ernesto

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