

## REVIEW OF THE GENUS *AGROECUS* DALLAS, WITH THE DESCRIPTION OF A NEW SPECIES (HEMIPTERA: PENTATOMIDAE)

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*Abstract.*—A diagnosis and description for the genus *Agroecus* Dallas and diagnoses for all previously known species of the genus are given. *Agroecus reticulatus*, from Argentina, is described as new. A key to the species is provided. *Agroecus tenebricosus* Buckup, 1957, is placed in the synonymy of *A. griseus* Dallas, 1851, and lectotypes are designated for *A. griseus*, *A. ecuadoriensis* Jensen-Haarup, and *Euschistus lizerianus* Pennington.

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Dallas (1851) proposed the genus *Agroecus* to contain two species, *A. griseus* and *A. luridus*, which he also described at that time. Subsequently, *Pentatoma scabricorne* Herrich-Schäffer, 1844, was added to the genus by Lethierry and Severin (1893); Jensen-Haarup (1937) described *A. ecuadoriensis*; and Buckup (1957) described *A. tenebricosus* and *A. brevicornis*. Both Jensen-Haarup (1937) and Buckup (1957) provided a key to the species known to them. Rolston (1982) transferred *A. luridus* Dallas, 1851 (p. 200), to *Euschistus* Dallas, 1851, thereby creating a secondary homonym with *E. tristigmus luridus* Dallas, 1851, originally described as *E. luridus* (p. 207). Thomas (1983) eliminated the homonymy by selecting *E. aceratos* Berg, 1894, an available junior synonym of *A. luridus*, as the valid name. More recently, Rolston (1985) transferred *Euschistus lizerianus* Pennington, 1922, to *Agroecus*.

A diagnosis and description of the genus, a description of a new species from Argentina, diagnoses for the other species, and a key to species are given here. *Agroecus tenebricosus* Buckup, 1957, is placed in the synonymy of *A. griseus* Dallas, 1851. Lectotypes are designated for *A. griseus* Dallas, *A. ecuadoriensis* Jensen-Haarup, and *Euschistus lizerianus* Pennington. When label data are cited in the text, the letters in parentheses represent separate labels with (a) being closest to the specimen on the pin.

### *Agroecus* Dallas, 1851

*Agroecus* Dallas, 1851:193, 199; Stål, 1867:528; Walker, 1867:243; Stål, 1872:23; Distant, 1890:329; Lethierry and Severin, 1893:126; Kirkaldy, 1909:63; Jensen-Haarup, 1937:170–171; Buckup, 1957:7–8; Rolston, 1974:4; Froeschner, 1981:68; Rolston and McDonald, 1984:71.

*Type species.* *Agroecus griseus* Dallas, 1851 (by subsequent designation, Kirkaldy, 1909:XXIX).

*Diagnosis.* Third (second visible) abdominal sternite lacking mesial tubercle or spine. Ostiolar rugae short, auriculate. Inferior surface of each femur with two parallel

rows of low tubercles, each tubercle bearing a seta. Width of scutellum at distal end of frena about  $\frac{3}{5}$  of basal width. Each corium with several longitudinal, impunctate bands; basal  $\frac{1}{4}$  of costal margin slightly tuberculate. Anterolateral margin of pronotum denticulate. Basal plates strongly convex in profile (Figs. 26–31).

**Description.** Ovate to broadly ovate; dorsal surface slightly convex; ventral surface strongly convex. Dorsal surface of head flat to slightly convex; juga and tylus usually subequal in length (juga much longer than tylus in *A. ecuadorensis*). Each antenna 5-segmented; first segment nearly reaching or slightly surpassing apex of tylus. Anterolateral margin of pronotum concave or straight, denticulate. Scutellum broadly rounded apically; width at distal end of frena about  $\frac{3}{5}$  basal width. Each corium with several longitudinal impunctate lines; basal  $\frac{1}{4}$  of costal margin slightly tuberculate; veins on hemelytral membrane usually parallel (reticulate in *A. reticulatus*, n. sp.). First rostral segment extending to or slightly beyond posterior margin of bucculae; apex of second segment reaching beyond middle of mesosternum; apex of fourth segment reaching between metacoxae. Metasternum weakly sulcate; mesosternum weakly carinate; prosternum flat. Each ostiolar ruga short, auriculate. Each femur armed on inferior surface with two rows of low tubercles, each tubercle bearing a seta. Tarsi 3-segmented. Third (second visible) abdominal sternite without mesial spine or tubercle. Posterior margin of pygophore from ventral view straight or rounded with a mesial V-shaped emargination. Parameres with apical one-third bent anterolaterally and with a concave cup basally. Thecal appendages present. Basal plates strongly convex from lateral view; mesial margins straight or slightly concave from caudoventral view; apices slightly to moderately produced; posterior margin entire, not tuberculate. Surface of each ninth paratergite concave.

**Comments.** Species of *Agroecus* occur throughout South America with one species, *A. griseus*, reported from Panama by Distant (1890). As the synonymy of some species of *Agroecus* suggests, the genus is similar to *Euschistus* in many respects. The armed femora, broadly rounded apex of the scutellum, and the impunctate longitudinal lines on the corium are diagnostic.

#### KEY TO SPECIES OF AGROECUS

1. Veins on hemelytral membrane reticulate; anteocular process strongly produced, spinose (Fig. 1) (Argentina) ..... *reticulatus* n. sp.
- Veins on hemelytral membrane parallel; anteocular process weakly produced or absent (Figs. 2–4) ..... 2
- 2(1). Juga distinctly longer than tylus (Fig. 2) (Bolivia, Ecuador, Peru) ..... *ecuadorensis* Jensen-Haarup
- Juga and tylus subequal in length (Figs. 3–4), or if juga appreciably exceeding tylus in length, then a sparsely punctate transhumeral fascia present ..... 3
- 3(2). Denticles along anterolateral margin of pronotum widely spaced, space between most denticles more than twice basal diameter of largest denticle (Fig. 7); anterolateral margin of pronotum always concave ..... 4
- Denticles along anterolateral margin of pronotum narrowly spaced, space between most denticles less than twice basal diameter of largest denticle (Fig. 8); anterolateral margin of pronotum straight or concave ..... 5
- 4(3). Transhumeral fascia clearly defined, impunctate or nearly so (Fig. 7); space between pronotal denticles usually 4–5 times basal diameter of largest denticle (Brazil) ..... *scabriculum* (Herrich-Schäffer)

- Transhumeral fascia obscure, punctate; space between pronotal denticles usually 2–3 times basal diameter of largest denticle (Brazil) ..... *lizerianus* (Pennington)
- 5(3). Anterolateral pronotal margin distinctly concave (Brazil) ..... *brevicornis* Buckup
- Anterolateral pronotal margin straight or substraight (Fig. 8) (Panama southward throughout South America to northern Argentina) ..... *griseus* Dallas

**Agroecus reticulatus, new species**

Figs. 1, 5, 20, 26; Map, Fig. 32

*Description.* Overall color dark brown; punctures shallow, fuscous. Length 9.0, width across humeri 5.5 mm.

Head generally flat dorsally, tylus and vertex slightly elevated, jugal margins slightly and broadly reflexed. Color brown; punctures fuscous, slightly coarser and darker on vertex. Apex of head broadly rounded; jugal margins subparallel for middle  $\frac{1}{3}$  of distance from eyes to apex; juga and tylus subequal in length. Anteocular process distinctly produced, spinose (Fig. 1). Length of head from apex to posterior margin of ocelli 1.6, width across eyes 2.3 mm. Each antenna pale brown, segments 1 and 5 slightly darker; length of segments 1–5 about 0.6, 0.9, 0.9, 0.9, 1.3 mm.

Pronotum brown, except a mesial longitudinal impunctate line anteriorly and some interstitial rugae, pale. Punctures fuscous, coarser and darker posteriorly than anteriorly. Anterolateral margin nearly straight, denticulate, with denticle on anterolateral corner distinctly bifid; space between most denticles subequal to basal width of largest denticle (Fig. 5). Anterior angle of each humerus broadly rounded, not produced beyond corial base; several small denticles between anterior angle and base of corium. Pronotal length 2.1, width 5.5 mm.

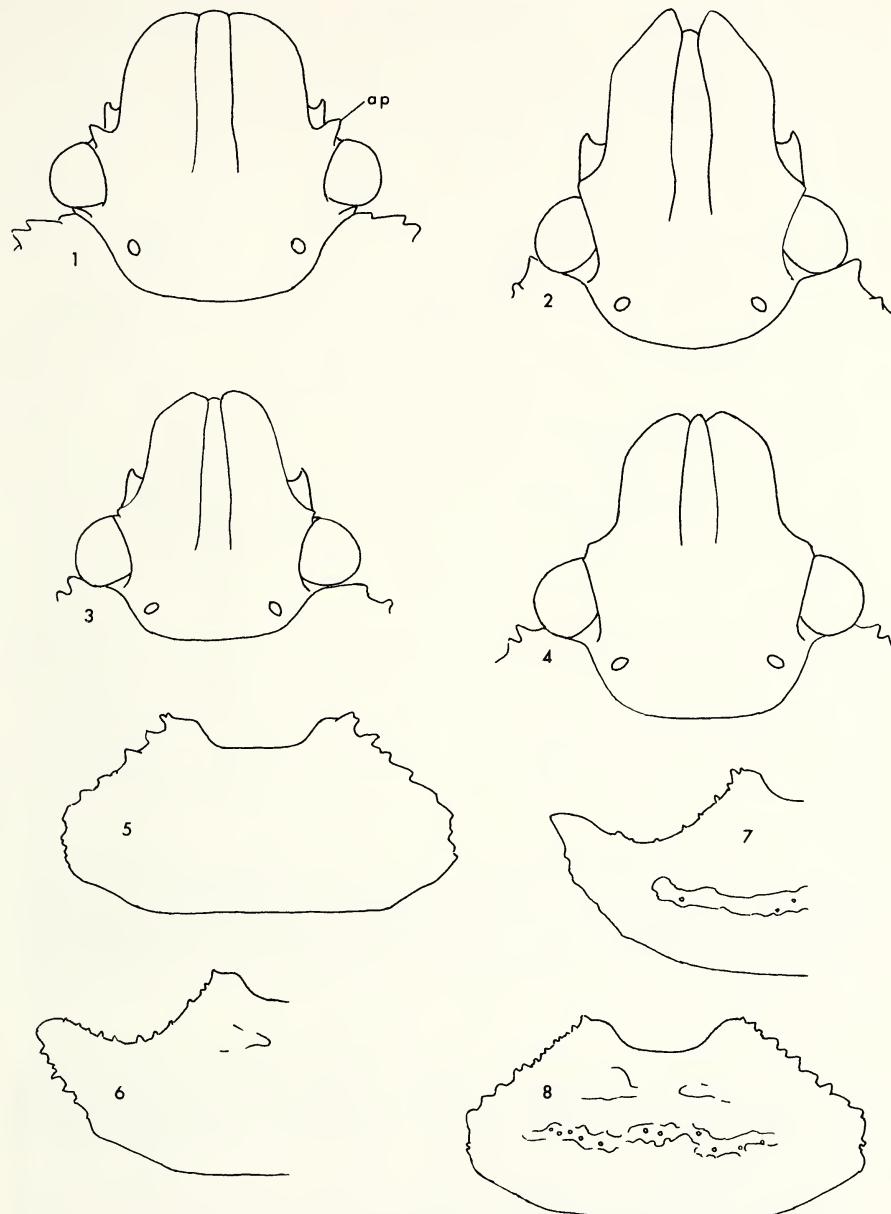
Scutellum brown; 5 small, equally spaced, pale, impunctate or sparsely punctate areas along basal margin; basal angles foveate, black; punctures fuscous. Anterior margin of scutellum evenly convex. Scutellum slightly longer than broad, length 3.9, width 3.6 mm; scutellar tongue wider than long, length 2.1, width 2.5 mm.

Corium brown; an irregular, narrow, impunctate area along outer margin of endocorium furcating distally, and a straight, impunctate line on endocorium along claval suture, both subcalloused. Apex of corium barely surpassing apex of scutellum, reaching posteromedial angle of fifth connexival segment. Posterior margin of corium nearly straight. Veins of hemelytral membrane reticulate. Connexivum widely exposed; punctures brown, fuscous along posterior margin and near each anterolateral angle of each segment.

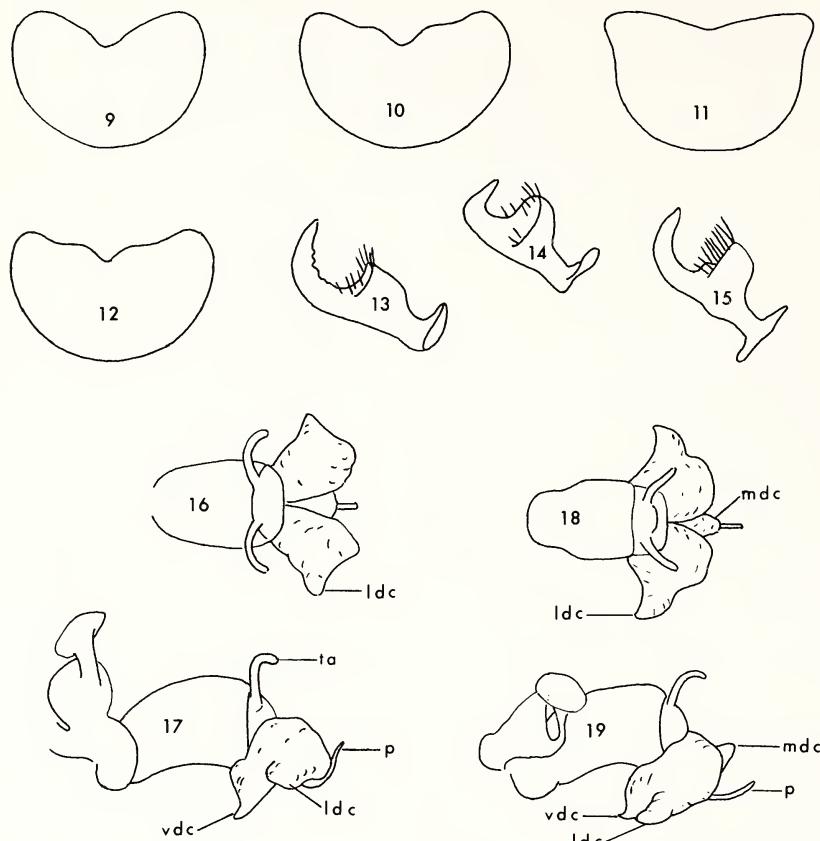
Venter brown, prosternum and mesosternum black; punctures fuscous to black, paler near lateral margins of abdomen; spiracles black; abdominal venter mottled brown and fuscous, anterolateral angles fuscous. Abdominal segments, legs, and ventral surface of rostrum covered with numerous hairs, particularly long on legs. Legs brown, tarsal segments and apical half of each tibia pale brown. Rostrum brown, reaching posterior margin of metacoxae, length of segments 2–4 about 1.6, 0.6, 0.6 mm.

Mesial margin of each basal plate straight from caudoventral view, posterior margin of each basal plate concave (Figs. 20, 26). Male unknown.

*Type.* Holotype ♀, labeled “R. A. Tucumán, Siambón XII.944, Olea Col.” The holotype specimen is missing the following body parts: entire left metathoracic leg, all tarsal segments on both prothoracic legs, and segments 2–5 of one antenna.



Figs. 1-8. Figs. 1-4. Head. 1. *A. reticulatus*. 2. *A. ecuadorensis*. 3. *A. brevicornis*. 4. *A. griseus*. Figs. 5-8. Pronotum. 5. *A. reticulatus*. 6. *A. ecuadorensis*. 7. *A. scabricornis*. 8. *A. griseus*. Symbol: ap, anteocular process.



Figs. 9–19. Figs. 9–12. Pygophore, caudal view. 9. *A. ecuadoriensis*. 10. *A. scabricornis*. 11. *A. brevicornis*. 12. *A. griseus*. Figs. 13–15. Right paramere. 13. *A. ecuadoriensis*. 14. *A. griseus*. 15. *A. scabricornis*. Figs. 16–19. Theca and related structures. 16. *A. ecuadoriensis*, dorsal view. 17. *A. ecuadoriensis*, lateral view. 18. *A. griseus*, dorsal view. 19. *A. griseus*, lateral view. Symbols: ldc, lateral diverticulum; mdc, median diverticulum; p, penisfilum; ta, thecal appendage; vdc, ventral diverticulum.

Segments 2–5 of the other antenna are glued to a card below the specimen. The holotype is deposited in the Fundacion Miguel Lillo, Instituto de Zoología, Tucumán, Argentina. No paratypes.

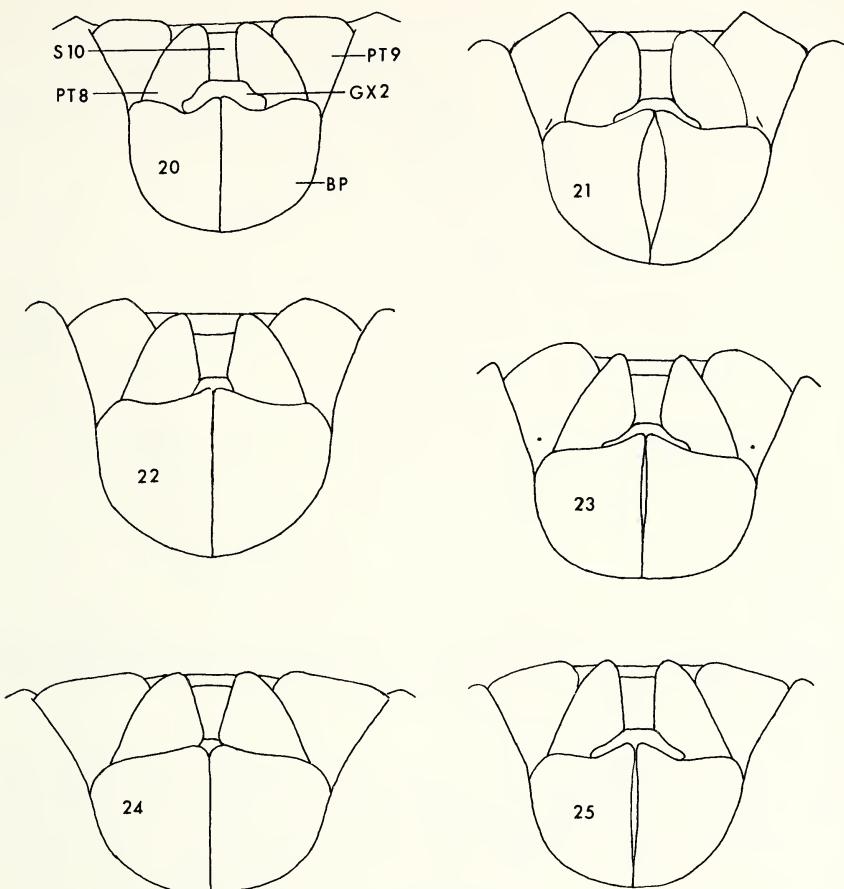
*Distribution.* Argentina (Tucumán) (Fig. 32).

*Comments.* This is a very distinctive species. It can be separated from all other congeners by the prominent antecular processes and the reticulate veins on the hemelytral membranes.

*Agroecus ecuadoriensis* Jensen-Haarup, 1937

Figs. 2, 6, 9, 13, 16, 17, 21, 27; Map, Fig. 32

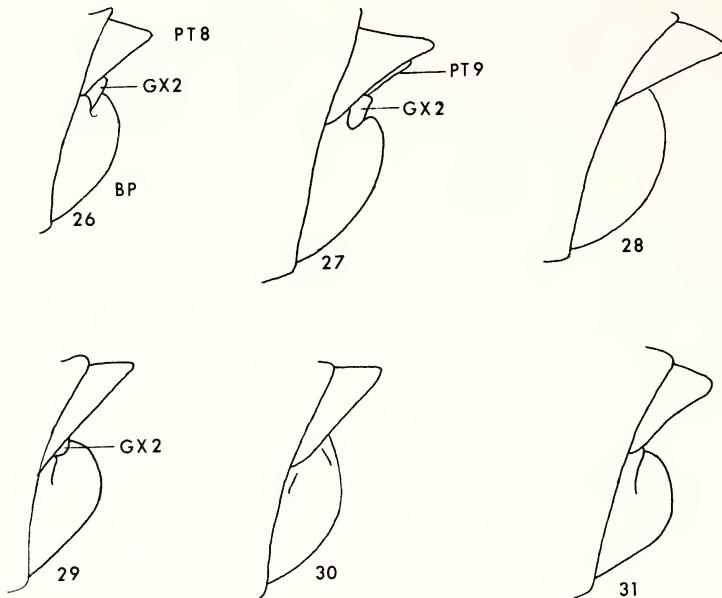
*Agroecus ecuadoriensis* Jensen-Haarup, 1937:171; Pirán, 1956:33; Buckup, 1957:16–17; Froeschner, 1981:68.



Figs. 20–25. Genital plates, caudoventral view. 20. *A. reticulatus*. 21. *A. ecuadoriensis*. 22. *A. scabricornis*. 23. *A. lizerianus*. 24. *A. brevicornis*. 25. *A. griseus*. Symbols: BP, basal plate; GX2, second gonocoxae; PT8, eighth paratergite; PT9, ninth paratergite; S10, tenth sternite.

**Diagnosis.** Juga apically acute, longer than tylus by more than the width of tylus, not convergent before tylus; jugal margins subparallel for middle third of distance from eyes to apex of head (Fig. 2). Anteocular process weakly produced or absent. Anterolateral margin of pronotum distinctly concave; most denticles small, spaced less than twice the basal diameter of largest denticle. Humeral angles strongly produced anterolaterad (Fig. 6). No clearly defined impunctate transhumeral fascia. Veins of hemelytral membrane parallel. Posterior margin of pygophore evenly V-shaped from caudal view (Fig. 9). Paramere with internal surface of bend denticulate (Fig. 13). Theca as in Figures 16 and 17. Mesial margins of each basal plate distinctly concave from caudoventral view (Fig. 21). Genital plates from lateral view as in Figure 27.

**Types.** Jensen-Haarup (1937) described *A. ecuadoriensis* from one male and two female specimens, but he did not designate a holotype or paratypes. Only two of the original three specimens were located. The female specimen labeled (a) "Type" (b)



Figs. 26–31. Genital plates, lateral view. 26. *A. reticulatus*. 27. *A. ecuadoriensis*. 28. *A. scabricornis*. 29. *A. lizerianus*. 30. *A. brevicornis*. 31. *A. griseus*. Symbols: BP, basal plate; GX2, second gonocoxae; PT8, eighth paratergite; PT9, ninth paratergite.

“Santa Inez, (Ecuador), R. Haensch S.” (c) “Ecuador, Rich Haensch, vend. 30.IV.1903” (d) “Type, Coll. J = Hrp.” (e) “A. C. Jensen-Haarup determ. 1931–1932” (f) “*Agroecus ecuadoriensis* J-Hrp, Jensen Haarup det.” (g) “*Agroecus ecuador.*” (h) “Holotype” is designated as the lectotype. The male specimen labeled (a) “Type” (b) “Type, Coll J = Hrp.” (c) “Santa Inez, (Ecuador), R. Haensch S.” (d) “Ecuador, Rich. Haensch, vend. 30.IV.1903” (e) “A. C. Jensen-Haarup determ. 1931–32” (f) “*Agroecus ecuadoriensis* J-Hrp, Jensen-Haarup det.” is designated as the paralectotype. The lectotype and paralectotype were examined. The types are housed in the Zoologisches Institut und Zoologisches Museum, Hamburg, Germany.

*Distribution.* Bolivia (Cochabamba, La Paz), Ecuador (Santa Inez), Peru (Cuzco) (Fig. 32).

*Specimens examined.* 9 specimens. **BOLIVIA:** Songo (♂); Cochabamba, Chapare, Palmar (2♀); La Paz, Yungas de la Paz (2♀). **ECUADOR:** Santa Inez (♀ ♂). **PERU:** Cuzco, Machupicchu Pueblo (♀), Santa Isabel, Valley of River Ccosnipata (♂).

*Comments.* This species is easily recognized by the long juga, which are longer than the tylus by at least the width of the tylus. The male and female genitalia are also distinctive.

*Agroecus scabricornis* (Herrich-Schäffer, 1844)

Figs. 7, 10, 15, 22, 28; Map, Fig. 32

*Pentatoma scabricorne* Herrich-Schäffer, 1844:98–99, fig. 762; Stål, 1872:65.

*Euschistus scabricornis*: Stål, 1860:19; Walker, 1867:248.



Fig. 32. Known distribution of *A. brevicornis* (○), *A. ecuadorensis* (◎), *A. griseus* (●), *A. lizerianus* (◉), *A. reticulatus* (◇), *A. scabricornis* (■) (Panama record from literature).

*Lycipta scabricornis*: Stål, 1862:58.

*Agroecus scabricornis*: Lethierry and Severin, 1893:126; Kirkaldy, 1909:63; Jensen-Haarup, 1937:171; Buckup, 1957:9, 15–16, pl. 1 fig. 4, pl. 2 fig. 4; Buckup, 1961:9; Rolston, 1982:281.

*Diagnosis*. Juga slightly longer than tylus; jugal margins subparallel for middle one-third of distance from eyes to apex of head. Anteocular process weakly produced or absent. Anterolateral margin of pronotum distinctly concave; denticles small, space between denticles usually 4–5 times basal diameter of largest denticle (Fig. 7). Humeral angle acute, nearly spinose, strongly produced anterolaterad. A clearly defined, raised, transhumeral, impunctate fascia present. Veins of hemelytral membrane parallel. Posterior margin of pygophore sinuously V-shaped from caudal view (Fig. 10). Paramere as in Figure 15. Mesial margin of each basal plate straight from caudoventral view (Fig. 22). Genital plates from lateral view as in Figure 28.

*Type*. Herrich-Schäffer (1844) described *A. scabricornis* from one female specimen. The specimen is apparently no longer in existence, but his description and figure are adequate to fix this distinctive species, thus no neotype is designated.

*Distribution*. Brazil (Santa Catarina, Rio de Janeiro, São Paulo, Paraná) (Fig. 32).

*Specimens examined*. 11 specimens. **BRAZIL**: Paraná, Guartara (♀); Rio de Janeiro, Guanabera (♀), Repressa Rio Grande (2♂♂), Silva Jardim (♀); Santa Catarina, Corupá (♀), Nova Teutônia (2♀♀ ♂), Rio Natal (♀); São Paulo, Caraguatatuba (♀).

*Comments*. This species can be separated from all other congeners by the clearly defined, impunctate, transhumeral fascia and by the widely spaced pronotal denticles.

*Agroecus lizerianus* (Pennington, 1922)

Figs. 23, 29; Map, Fig. 32

*Euschistus lizerianus* Pennington, 1922:316–317.

*Agroecus lizerianus*: Rolston, 1985:353.

*Diagnosis*. Juga and tylus subequal in length; jugal margins subparallel for middle one-third of distance from eyes to apex of head. Anteocular process weakly produced or absent. Anterolateral pronotal margin distinctly concave; space between most denticles 2–3 times basal diameter of largest denticle. Humeral angle acute, moderately produced anterolaterad. No clearly defined impunctate transhumeral fascia. Veins of hemelytral membrane parallel. Mesial margin of each basal plate nearly straight from caudoventral view (Fig. 23). Genital plates from lateral view as in Figure 29. Male unknown.

*Type*. Pennington (1922) probably described *A. lizerianus* from a single female specimen, but it cannot be determined for certain that he had only one specimen. The female specimen labeled (a) “I. Santiago I 1918” (b) “Typus” (c) “C. J. Drake Coll.” (d) “M. S. Pennington, Euschistus lizerianus n. sp. 1922” is designated as the lectotype. The lectotype, which is housed in the National Museum of Natural History, Washington, D.C., was examined.

*Distribution*. Brazil (Santa Catarina), Argentina (Buenos Aires) (Fig. 32).

*Specimens examined*. 4 specimens. **ARGENTINA**: Buenos Aires, Isla Santiago (♀). **BRAZIL**: Santa Catarina, Nova Teutônia (3♀♀).

*Comments*. *Agroecus lizerianus* most closely resembles *A. brevicornis*, but the two

can be separated by the more widely spaced pronotal denticles in *A. lizerianus*, and by the jugal margins, which are not parallel in *A. brevicornis* as they usually are in *A. lizerianus*.

*Agroecus brevicornis* Buckup, 1957

Figs. 3, 11, 24, 30; Map, Fig. 32

*Agroecus brevicornis* Buckup, 1957:8, 13–15, pl. 1 fig. 3, pl. 2 fig. 3; Buckup, 1961: 9; Pirán, 1966:86.

**Diagnosis.** Juga and tylus subequal in length or juga slightly longer than tylus; jugal margins not parallel (Fig. 3). Anteocular process weakly produced or absent. Anterolateral margin of pronotum concave; space between most denticles less than twice the basal diameter of largest denticle. Humeral angle acute, produced anterolaterad. No clearly defined, impunctate, transhumeral fascia. Veins of hemelytral membrane parallel. Posterior margin of pygophore weakly V-shaped from caudal view (Fig. 11). Mesial margin of each basal plate straight from caudoventral view (Fig. 24). Genital plates from lateral view as in Figure 30.

**Type.** Buckup (1957) described *A. brevicornis* from three female and two male specimens. The female holotype and male allotype were examined. The types are housed in the Museu de Ciências Naturais, Pôrto Alegre, Brazil.

**Distribution.** Brazil (Paraná, Santa Catarina) (Fig. 32).

**Specimens examined.** 4 specimens. BRAZIL: Paraná, Curitiba (♀), Rio Negro (♂); Santa Catarina, Nova Teutônia (2♀).

**Comments.** The non-parallel jugal margins occur only in this species and, rarely, in *A. griseus*. *Agroecus brevicornis* can be separated from *A. griseus* by the concave anterolateral pronotal margins, which are straight in *A. griseus*.

*Agroecus griseus* Dallas, 1851

Figs. 4, 8, 12, 14, 18, 19, 25, 31; Map, Fig. 32

*Agroecus griseus* Dallas, 1851:199, pl. VII fig. 4; Walker, 1867:243; Stål, 1872:23; Distant, 1890:329, pl. 31 fig. 8; Lethierry and Severin, 1893:126; Kirkaldy, 1909: 63; Jensen-Haarup, 1937:171; Buckup, 1957:8, 9–11, pl. 1 fig. 1, pl. 2 fig. 1; Buckup, 1961:9.

*Agroecus tenebricosus* Buckup, 1957:8, 11–13, pl. 1 fig. 2, pl. 2 fig. 2. NEW SYNONYMY.

**Diagnosis.** Juga and tylus subequal in length; jugal margins subparallel for middle one-third of distance from eyes to apex of head. Anteocular process weakly produced or absent (Fig. 4). Anterolateral margin of pronotum straight or substraight; space between most denticles usually less than twice basal diameter of largest denticle (Fig. 8). Humeral angle usually rounded, rarely somewhat angular, at most only slightly produced laterad. Transhumeral fascia somewhat irregular, with scattered punctures. Veins of hemelytral membrane parallel. Posterior margin of pygophore sinuously V-shaped from caudal view (Fig. 12). Paramere as in Figure 14. Theca as in Figures 18 and 19. Mesial margin of each basal plate straight or weakly concave from caudoventral view (Fig. 25). Genital plates from lateral view as in Figure 31.

**Types.** Dallas (1851) described *A. griseus* from 1 male and 2 female specimens

from Brazil and 1 female specimen from British Guiana, but he did not designate a holotype or paratypes. The male specimen labeled (a) "Brazil" (upper surface), "45 67" (lower surface) (b) "b" (lower surface) (c) "griseus identified by Dallas" is designated as the lectotype. The remaining 3 female specimens are designated as paralectotypes. They have the following label data: (a) "Type" (b) "Agroecus griseus, Dallas (*Type*).)" (c) "B. Guiana" (upper surface), "44 85" (lower surface) (d) "a" (lower surface) (e) BRIT. MUS. TYPE No. HEM. 1024"; (a) "Brazil" (upper surface), "45 67" (lower surface) (b) "b" (lower surface) (c) "Agroecus griseus Walker's catal."; and (a) "Brazil" (upper surface), "45 67" (lower surface) (b) "b" (lower surface) (c) "1. Agraecus griseus." All five specimens, which are housed in the British Museum (Natural History), London, were examined. The holotype specimen of *A. tenebricosus* Buckup was also examined, and is housed in the Museu de Ciências Naturais, Pôrto Alegre, Brazil.

*Distribution.* Panama southward throughout South America to northern Argentina (Fig. 32).

*Specimens examined.* 76 specimens. **ARGENTINA:** *Misiones*, Delicia (♀), Eldorado (♀), Let (♂). **BOLIVIA:** *La Paz*, Yungas de la Paz (♀). **BRAZIL:** Brazil (2♀♂); Chapada (♀); *Amazonas*, Rio Caiary-Uaupés (♂); *Bahia*, Brasília (♀), Nova Conquista (♂); *Mato Grosso*, Barra de Tapirape (♀), 10°25'S, 59°28'W (♀ 2♂), Xavantina (♀); *Minas Gerais*, Vicos (♀); *Pará* (5♀♂), Jacaréancanga (♀), Santarém (♀ 3♂); *Pernambuco*, Bonito (♂); *Rio de Janeiro* (♂), Mendes (♂); *Santa Catarina*, Nova Teutônia (15♀ 11♂); *São Paulo*, Piracicaba (♀ ♂). **BRITISH GUIANA:** British Guiana (♀); **COLOMBIA:** César, El Roncon about 10–12 km E Becerril Rio San Juan (♂). **FRENCH GUIANA:** Cayenne (♀). **PARAGUAY:** *Concepción*, Horqueta, 45 miles E Paraguay Riv. (3♀♂); *Cordillera*, Inst. Agro. Nac., Caacupé (♀ ♂), San Bernardino (♂). **PERU:** *Huánuco*, Tingo María (3♀); *Junín*, Estancia Naranjal San Ramón (♀), Satipo (2♂). **VENEZUELA:** Aragua, Rancho Grande (♂).

*Comments.* *Agroecus griseus* can be separated from all congeners except *A. reticulatus* by the straight anterolateral margin of the pronotum. It can be separated from *A. reticulatus* by the parallel veins on the hemelytral membrane, and by the weakly produced or absent anteocular process. The holotype of *A. tenebricosus* has the straight anterolateral pronotal margin and the weakly produced anteocular process characteristic of *A. griseus*. It does not differ from *A. griseus* in any significant manner.

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## LITERATURE CITED

- Buckup, L. 1957. Pentatomideos Neotropicais—I. Sôbre o gênero *Agroecus* Dallas, 1851 com a descrição de duas espécies novas (Hem.-Pentatomidae). *Iheringia, Zoologia* 6:1–20, 2 pls.
- Buckup, L. 1961. Os Pentatomideos do Estado do Rio Grande do Sul (Brasil) (Hemiptera-Heteroptera-Pentatomidae). *Iheringia, Zoologia* 16:1–24.
- Dallas, W. S. 1851. List of the Specimens of Hemipterous Insects in the Collection of the British Museum. 2 pts. London, 592 pp., 15 pls.
- Distant, W. L. 1880–1893. Insecta. Rhynchota. Hemiptera-Heteroptera. In: F. D. Godman and O. Salvin (eds.), *Biologia Centrali-Americanana*. London, Vol. 1, XX + 462 pp., 39 pls.
- Froeschner, R. C. 1981. Heteroptera or true bugs of Ecuador: A partial catalog. *Smithsonian Contributions to Zoology* 322:IV + 147 pp.
- Herrich-Schäffer, G. A. W. 1844. Die Wanzenartigen Insecten. Nürnberg 7:41–134.
- Jensen-Haarup, A. C. 1937. Einige neue Pentatomidenarten aus der Sammlung des Zoolo-gischen Museums in Hamburg (Hem. Het.). *Entomol. Rundschau* 54:169–171, 321–324.
- Kirkaldy, G. W. 1909. Catalogue of the Hemiptera (Heteroptera) with Biological and Anato-mical References, Lists of Foodplants and Parasites, etc. Vol. I: Cimicidae. Berlin, 392 pp.
- Lethierry, L. and G. Severin. 1893–1896. Catalogue General des Hemipteres. 848 pp.
- Pennington, M. S. 1922. Hemípteros nuevos para la República Argentina (primera parte). *Physis* (Buenos Aires) 6:315–319.
- Pirán, A. A. 1956. Hemípteros raros o poco conocidos y no mencionados para las faunas de Brasil, Uruguay, Argentina, Paraguay y Bolivia. *Rev. Soc. Uruguaya Entomol.* 1(1):29–35, 2 Figs.
- Pirán, A. A. 1966. Hemiptera Neotropica. X. *Rev. Soc. Entomol. Argent.* 28(1–4):85–89.
- Rolston, L. H. 1974. Revision of the genus *Euschistus* in Middle America (Hemiptera, Pen-tatomidae, Pentatomini). *Entomologia Americana* 48(1):1–102.
- Rolston, L. H. 1982. A revision of *Euschistus* Dallas subgenus *Lycipta* Stål (Hemiptera: Pentatomidae). *Proc. Entomol. Soc. Washington* 84(2):281–296.
- Rolston, L. H. 1985. Key to the males of the nominate subgenus of *Euschistus* in South America, with descriptions of three new species (Hemiptera: Pentatomidae). *J. New York Entomol. Soc.* 92(4):352–364 (1984).
- Rolston, L. H. and F. J. D. McDonald. 1984. A conspectus of Pentatomini of the western hemisphere. Part 3 (Hemiptera: Pentatomidae). *J. New York Entomol. Soc.* 92(1):69–86.
- Stål, C. 1860–1862. Bidrag till Rio Janeiro-traktns Hemipter-fauna. Kongliga Svenska Ve-tenkaps-Akad. Handlingar 2(7):1–84 (1860); 3(6):1–75 (1862).
- Stål, C. 1867. Bidrag till Hemiptererans systematik. Conspectus generum Pentatomidum Americae. Ofv. Kongliga Svenska Vetenskaps-Akad. Forh. 24(7):522–534.
- Stål, C. 1872. Enumeratio Hemipterorum. Bidrag till en forteckning over alla hittills kända Hemiptera, jemte sistematiska meddelanden. 2. Kongliga Svenska Vetenskaps-Akad. Handlingar 10(4):1–159.
- Thomas, D. B., Jr. 1983. On the homonymy of *Euschistus luridus* Dallas, 1851 (Hemiptera: Pentatomidae). *Proc. Entomol. Soc. Washington* 85(1):182.
- Walker, F. 1867. Catalogue of the specimens of Hemiptera Heteroptera in the collection of the British Museum. 2:241–417.

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