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FOUR NEW SPECIES OF *VAZQUEZITOCORIS* BRAILOVSKY FROM SOUTH AMERICA (HETEROPTERA: COREIDAE: COREINAE: COREINI), WITH REVISED KEY TO THE SPECIES OF THE GENUS

HARRY BRAILOVSKY<sup>1</sup> AND ERNESTO BARRERA<sup>2</sup>

<sup>1</sup>Departamento de Zoología, Instituto de Biología, UNAM, Apdo Postal No. 70153, México, 04510 D. F. México, e-mail: coreidae@ibiologia.unam.mx

<sup>2</sup>Departamento de Zoología, Instituto de Biología, UNAM, Apdo Postal No. 70153, México, 04510 D. F. México, e-mail: ebarr@ibiologia.unam.mx

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## FOUR NEW SPECIES OF VAZQUEZITOCORIS BRAILOVSKY FROM SOUTH AMERICA (HETEROPTERA: COREIDAE: COREINE: COREINI), WITH REVISED KEY TO THE SPECIES OF THE GENUS

HARRY BRAILOVSKY AND ERNESTO BARRERA2

<sup>1</sup>Departamento de Zoología, Instituto de Biología, UNAM, Apdo Postal No. 70153, México, 04510 D. F. México, e-mail: coreidae@ibiología.unam.nx

<sup>2</sup>Departamento de Zoología, Instituto de Biología, UNAM, Apdo Postal No. 70153, México,

Departamento de Zoologia, Instituto de Biologia, UNAM, Apdo Postal No. 70153, México. 04510 D. F. México, e-mail: ebarr@ibiologia.unam.mx

Abstract—Four new species of Vazquezitocoris Brailovsky from Chile, Ecuador, and Peru are described. Dorsal and lateral view habitus, head, antennae, pronotum, female genital plate, parameres, and male genitalia capsule are illustrated; and a key to the known species is included.

Key words: Insecta, Hemiptera, Heteroptera, Coreidae, Coreini, Vazquezitocoris, new species, Chile, Ecuador, Peru, key.

#### INTRODUCTION

Brailovsky (1990) revised the "Althos" complex, described two new genera and 19 new species, and included a key to related genera and an additional key to accommodate the species for each genus discussed. This contribution summarizes the knowledge of the genus Varaquezitocoris Brailovsky (Heteroptera: Coreidae: Coreinae: Coreini), bringing together information from the literature and from previously unstudied collections. Packauskas (2010) listed the ten previously known species and their distributions in his catalogue of the Coreidae.

The genus Vazquezitocoris is widely distributed in the Western Hemisphere from the southern United States to Argentina and Chile. It is recognized by having the hind femora unarmed; antennal segments II and III cylindrical and usually robust; antennal segment IV fusiform and slender; the antenniferous tubercle armed: the mesopleura and metapleura without vellowish-white granules; the female genital plates short to medium sized, never laminate or elongate; and the distal lobe of each paramere short. The 10 species of the genus can be separated into two groups. The micropterum-group is characterized by having the head longer than wide and longer than the maximum pronotal length and includes two species: V. micropterum Brailovsky and V. peruvianus Brailovsky; the repletus-group has the head wider than long and shorter than the maximum length of pronotum and includes eight

species: V. abancayanus Brailovsky, V. andinus Brailovsky, V. aricanicus Brailovsky, V. catamarcanaus Brailovsky, V. decoratulus Brailovsky, V. inflexicollis (Blöte), V. oroquensis Brailovsky, and V. repletus (Van Duzee).

The present paper adds the four new species *V. aequilus, V. certus*, and *V. putrenus* to the *repletus*-group, and *V. schuhi* to the *micropterum*-group.

#### MATERIALS AND METHODS

The following abbreviations are used for the institutions cited in this paper: CMNH (Carnegie Museum of Natural History, Pittsburgh, Pennsylvania, USA; FSCA (Florida State Collection of Arthropods, Gainesville, Florida, USA); PUC-(Pontificia Universidad Católica del Ecuador, Quito, Ecuador); UMRM (University of Missouri, Columbia, Missouri, USA); UNAM (Coleccional Entomológica, Instituto de Biología, Universidad Nacional Autónoma de México); and USNM (Department of Entomology, National Museum of Natural History, Washington DC, USA).

All measurements are given in millimeters.

#### RESULTS

Vazquezitocoris Brailovsky

Vazquezitocoris Brailovsky, 1990; 106-108

Type species: Margus repletus Van Duzee, 1925: 393.

Description: Head: Clypeus (tylus) unarmed, apically globose, weakly raised, extending anteriorly

to and laterally weakly higher than juga; juga unarmed; antennal segment I stout, thickest, slightly curved outward, attenuated at base, and shorter than maximum length of head; segments II and III slender, cylindrical, and IV fusiform and barely thickened; each antennal segment clothed with scattered, short, semidecument, silver, bristle-like setae; antennal segments I to III densely tuberculate; ocellar tubercle barely raised; postocular tubercle protuberant; labial segment I short, reaching posterior half of head. Pronotum: Wider than long; bilobate, anterior lobe shorter than posterior lobe; humeral angles rounded, higher than posterior pronotal disk; posterolateral borders sinuate, smooth; posterior border nearly straight; triangular process absent; callar region weakly and uniformly convex, barely separated along midline. Legs: Unarmed, clothed with short, semidecument, silvery, bristlelike setae; tibiae sulcate. Hemelytra: Macropterous; hemelytral membrane almost reaching apex of last abdominal segment. Abdomen: Connexivum higher than abdominal terga; posterior angle of each connexival segment unarmed, not spinous; sterna clothed with short, semidecumbent, silvery setae. Integument: Body surface rather dull, almost glabrous; head, pronotum, scutellum, clavus, corium, connexivum, pro-, meso-, and metapleura, metasternum, abdominal sterna, male genital capsule and female genital plates densely punctate.

## Vazquezitocoris aequilus, new species Figures 1J, 2A, B, I

HOLOTYPE: ECUADOR, 20 km S Quito, 30 IV 1978, C. W. and L. O'Brien and G. Marshall, ♥ (UMRM).

Diagnosis: Recognized by having the gonocoxae dark orange with the inner margin widely black, and the posteroventral margin of male genital capsule with a large median plate that is broadly convex.

DESCRIPTION: Male (holotype): DORSAL COL-ORATION: Head mostly black with space between eye and ocelli, antenniferous tubercle, and incomplete longitudinal stripe running between each ocelli dark yellowish orange; antennal segments I to III dark yellowish-orange with brown spots and tubercles, IV dark reddish brown with basal joint paler; pronotum dark yellow, mottled with pink spots, callar area, anterolateral margins, and punctures black to reddish-brown; scutellum,

clavus and corium dark yellow mottled with pink spots, with punctures black to reddish-brown; claval and corial veins pale yellow with pink spots; hemelytral membrane translucent, with veins and basal angle brown; apex of scutellum yellowish white; connexivum black with anterior border or anterior margin dark yellow with pink spots; dorsal abdominal segments black. VENTRAL COLORATION: Head and thorax dark yellow, mottled with pink spots, with punctures black to reddish brown; rostral segments I to III dark yellow, and IV brown; pro- and mesosternum black; anterior and posterior lobe of metathoracic peritreme pale yellow; coxae and trochanter dark brown with irregular yellow marks; fore and middle femur dark yellow and densely mottled with black marks; hind femora dark reddishorange, scattered with black marks; abdominal sterna dark orange, mottled with pink spots, with yellow irregular spots at posterior margin of sterna III to VII; genital capsule dark orange. STRUCTURE: Body: medium-sized, and relatively narrowed. Head: wider than long, shorter than maximum length of pronotum; labium reaching middle third of metasternum; interocellar distance shorter than 0.40; antenniferous tubercle exposed, elongate, diverging anteriorly, armed with anteriorly directed long spine, slightly convoluted, reaching basal third of antennal segment I. Thorax: Pronotum with anterolateral margins widely emarginate, obliquely straight; frontal angles projecting forward as mediumsized and broadly elongate conical lobe, reaching, but not touching middle third of postocular tubercle. Legs: Fore tibiae equal to maximum length of fore femur. Abdomen: Upper border of connexivum almost smooth. Genitalia: Genital capsule broad; posteroventral border with large median plate, widely convex; lateral lobes broadly rounded and exposed (Fig. 1J); paramere (Fig. 2A, B). Integument: Body surface dull, roughly punctate, and not conspicuously tuberculate; antennal segments I to III densely tuberculate; antennal segments I to IV, legs, and abdominal sterna clothed with short semidecumbent to decumbent silvery bristlelike setae; femora not tuberculate.

Female: Color and habitus similar to male holotype. Dorsal abdominal segment VIII black with posterior border dark yellow, and segment IX black with dark yellow longitudinal stripe running at midline; connexival segments VIII and

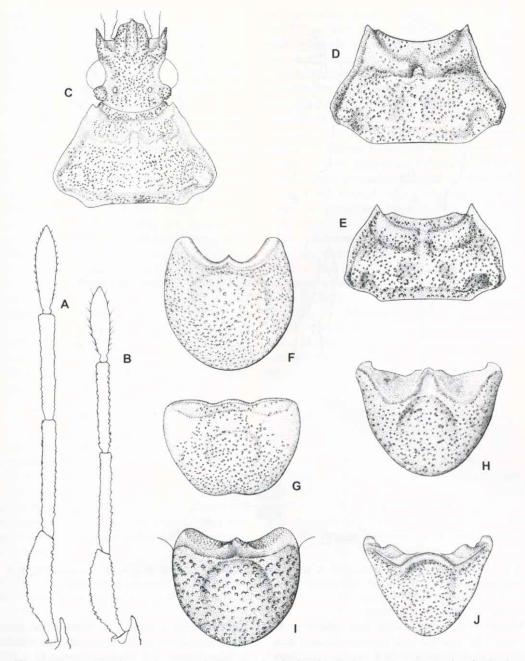


Fig. 1. Vazquezitocoris spp. Antennae: A. V. aricanicus Brailovsky. B. V. putrenus, new species. C. Head and pronotum of V. certus, new species. Pronotum: D. V. peruvianus Brailovsky. E. V. schuhi, new species. Male genital capsule in caudal view: F. V. certus, new species. G. V. oroquensis Brailovsky. H. V. schuhi, new species. I. V. peruvianus Brailovsky. J. V. aequilus, new species.

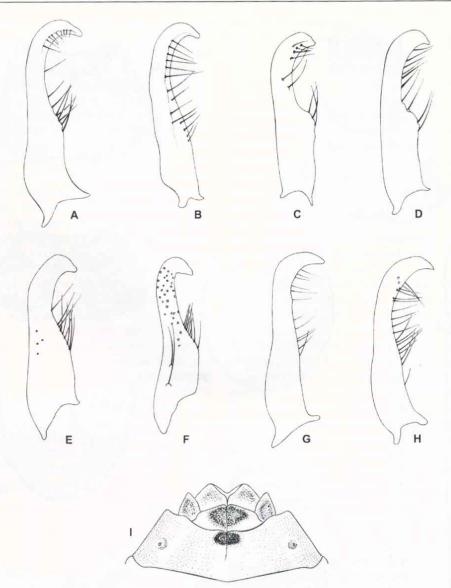


Fig. 2. Vazquezitocoris spp.. Parameres: A, B. V. aequilus, new species. C, D. V. putrenus, new species. E, F. V. certus, new species. G, H. V. schuhi, new species. I. Female genital plates of V. aequilus, new species.

IX black with upper margin dark yellow; paratergite VIII and IX dark orange, mottled with pink spots; gonocoxae I dark orange with inner margin widely black (Fig. 2I).

MEASUREMENTS: *Male* (holotype) **Head**: Length 1.09; width across eyes 1.28; interocular space 0.69; interocellar space 0.36; preocular distance 0.68. **Antenna**: Segment I, 0.93; II, 0.88; III, 0.80; IV, 0.97. **Pronotum**: Length 1.28; width across humeral angles 2.48. **Scutellum**: Length 0.75; width 0.88. Body length 7.02.

Female: Head: Length 1.37; width across eyes 1.44; interocular space 0.84; interocular space 0.33; preocular distance 0.85. Antenna: Segment I, 1.12; II, 1.16; III, 1.00; IV, 1.08. Pronotum: Length 1.64; width across humeral angles 3.20. Scutellum: Length 1.00; width 1.28. Body length 9.24.

ETYMOLOGY: From Latin *aquilus*, meaning blackish, dark colored, referring to the generally fuscous coloration.

DISCUSSION: Vazquezitocoris aequilus new species, like V. oroquensis Brailovsky, shares the

following characters: head wider than long, shorter than maximum length of pronotum; antennal segments II and III slender, not densely clothed with rigid setae; anterolateral margins of pronotum emarginate; interocellar space shorter than 0.50; and antenniferous tubercle armed with short and stout spine.

In *V. oroquensis*, known from Colombia, gonocoxae I is yellowish orange and mottled with pink to reddish spots and the posteroventral margin of male genital capsule is strongly produced with a weak depression mesally (Fig. 1G). In *V. aequilus*, herein described from Ecuador, gonocoxae I is dark orange with the inner margin widely black (Fig. 19), the posteroventral margin of male genital capsule has a large, widely convex median plate, and the lateral lobes are broadly rounded and exposed (Fig. 1J).

PARATYPES: ECUADOR: Bolivar: Cashca Motoras: II 1987, L. Colona, 1 ♥ (PUCE); Canar: Biblian: Bavarcote Alto, 3200 m, 5 VIII 1993, C. W. Young, G. Onore, and E. Tapia, 1 ♥ (CMNH); Napo: Cuyuja, 2900 m, 3 V 1991, D. Tirira 1 ♥ (PUCE); Pichincha: Pululallva, 29 IX 1995, L. Torres, 1 ♥ (UNAM); Loja, XII 1988, G. Onore, 1 ♥ (PUCE).

## Vazquezitocoris certus, new species Figures 1C, F, 2E, F

HOLOTYPE: **PERU**: **Departamento La Libertad**: **Sand Hills E**: Laredo, 14 VII 1982, B. Miller and L. A. Stange, of (FSCA).

DIAGNOSIS: Recognized by having the anterolateral margin of pronotum obliquely straight and uniformly emarginate, and the posteroventral margin of male genital capsule with a small, laterally concave, triangular.

Description: Male (holotype): COLORA-TION: General coloration yellow with dark brown and pale pink spots on antennal segments I to III, anterolateral margins of pronotal disk, corial veins, posterior half and upper margin of connexivum, thorax, legs, abdominal sterna, and genital capsule; head dorsally yellow with short dark brown spot anterior to each ocelli; antennal segment IV pale castaneous orange; labial segments I to III pale yellowish orange and IV dark orange; apex of scutellum pale yellow; hemelytral membrane translucent with veins and basal angle brown; labial segments I to III yellow and IV dark orange; anterior and posterior lobe of metathoracic peritreme pale yellow; abdominal segments

pale castaneous orange, scattered with brown and pink spots; mesopleura black. STRUCTURE: Body: small and relatively narrowed. Head: wider than long, shorter than maximum length of pronotum; labium reaching posterior border of mesosternum; interocellar distance shorter than 0.50; antenniferous tubercle exposed, elongate, armed with long spine, directed forward, not convoluted, reaching basal third of antennal segment I. Thorax: Pronotum with anterolateral margins widely emarginate, obliquely straight; frontal angles projecting forward as short relatively broad conical lobes, reaching posterior border of postocular tubercle (Fig. 1C). Legs: Fore tibiae equal to maximum length of fore femur. Abdomen: Upper border of connexivum with tiny tubercles. Genitalia: Genital capsule broad; posteroventral border with small, triangular, median plate, laterally concave, with lateral lobes broadly rounded (Fig. 1F); paramere (Fig. 2E, F). Integument: Body surface dull, roughly punctate, and in great part tuberculate; antennal segments I to III densely tuberculate; antennal segments I to IV, legs, and abdominal sterna clothed with short semidecumbent to decumbent silvery bristle-like setae; femora densely tuberculate.

Female: Color and habitus similar to male holotype. Dorsal abdominal segments VIII and IX, connexival segments VIII and IX, and genital plates yellow with brown and pink spots.

MEASUREMENTS: *Male* (holotype): **Head**: Length 1.32; width across eyes 1.41; interocular space 0.84; interocellar space 0.48; preocular distance 0.73. **Antenna**: Segment I, 1.04; II, 1.00; III, 0.92; IV, 0.85. **Pronotum**: Length 1.36; width across humeral angles 2.48. **Scutellum**: Length 0.96; width 1.20. **Body**: length 7.40.

Female: Head: Length 1.33; width across eyes 1.48; interocular space 0.88; interocellar space 0.48; preocular distance 0.81. Antenna: Segment I, 1.05; II, 1.04; III, 0.92; IV, 0.88. Pronotum: Length 1.48; width across humeral angles 2.76. Scutellum: Length 1.04; width 1.28. Body: length 8.18.

ETYMOLOGY: From the Latin certa, meaning certain.

Discussion: Vazquezitocoris certus new species, is closely related to V. decoratulus Brailovsky, in having the head wider than long and shorter than the maximum length of the pronotum; antennal segments II and III slender, not densely clothed

with rigid setae; the anterolateral margin of pronotum emarginate; the interocellar space shorter than 0.50; antenniferous tubercle exposed, elongate, and armed with long spine, directed forward and not convoluted.

In *V. decoratulus*, known from Peru, the anterolateral margin of pronotum has the anterior third almost straight and the posterior third convex and emarginate; the labium reaches the apex of metasternum; and the posteroventral margin of male genital capsule is almost straight. In *V. certus*, also described from Peru, the anterolateral margin of pronotum is obliquely straight and uniformly emarginate; the labium reaches the posterior border of mesosternum; and the posteroventral margin of male genital capsule bears a small, triangular, median plate that is laterally concave (Fig. 1F).

PARATYPES: same data as for holotype 1 Q (FSCA); PERU: Altamisa: Angostura, 4 II 1978, Laiñez, 1 \( \times \) (UNAM).

Vazquezitocoris schuhi, new species Figures 1E, H, 2G, H, 3A, B

Holotype: **ECUADOR**, Loja, 2500 m, 23 X 1977, L. E. Peña, ♂ (USNM).

DIAGNOSIS: Recognized among micropterumgroup species by the rectangular pronotum, the claval and corial veins with dark to pink spots, the posteroventral margin of male genital capsule with lateral stout lobes, strongly produced, and mesial lobe broadly concave with the apex rounded (Fig. 1H).

DESCRIPTION: Male (holotype): DORSAL COL-ORATION: Head, including ocellar tubercle and postocular tubercle black; following areas yellowish orange: longitudinal stripe running between ocelli and eye, antenniferous tubercle, and short longitudinal stripe between each ocellus; antennal segments I to III yellowish orange with brown spots, and IV black with apical third dark reddish; pronotum dark yellow with punctures, intercallar space, outer margin of humeral angles, and space close to anterior half of anterolateral margins black; pronotal disk scattered with pink spots; scutellar disk yellow, punctures black, apex pale yellowish white; disk scattered with pink spots; clavus and corium dark yellow, punctures black to pale brown, their veins with dark to pale pink spots; hemelytral membrane ambarine, translucent, veins and basal angle brown; connexiva with anterior border or anterior third dark yellow to

dark castaneous orange, remainder dark castaneous orange and densely mottled with black marks; upper border black to dark reddish brown with anterior and posterior angles yellow; dorsal abdominal segments black, with posterior margin of segment VII yellow and laterally dark castaneous orange with black irregular spots; abdominal scent glands scars IV-V and V-VI dark castaneous orange. VENTRAL COLORATION: Ground color yellow to pale yellowish orange with punctures reddish brown to dark orange; labial segment I dark yellow and segments II to IV dark reddish brown, apex of II and III dark orange; prosternum and mesosternum black; anterior and posterior lobe of metathoracic peritreme pale yellow; evaporative area black; pro-, meso-, and metacoxae dark yellow with black irregular spots; trochanter dark brown with yellow marks; fore and middle femora black with apical third and few scattered spots dark yellow; hind femur dark yellow, with black spots; tibiae dark brown to black with two yellow rings, one near basal third and the other near middle third; basal segment of each tarsus dark yellow; middle and apical tarsal segments dark orange; abdominal sterna III to V with two black irregular spots laterally, and VI-VII with one spot; abdominal sterna III-IV with black irregular spots lateral to midline. STRUCTURE: Body small and relatively narrowed. Head: Longer than wide, longer than maximum length of pronotum; labium reaching anterior border of metasternum; interocellar distance shorter than 0.30; antenniferous tubercle exposed, elongate, armed with medium-sized spine, slightly convoluted, reaching basal joint of antennal segment I. Thorax: Pronotum with anterolateral margins narrowly emarginate, with anterior half straight and posteriorly half rounded; frontal angles projecting forward as mediumsized, slender conical lobe, reaching middle third of postocular tubercle (Fig. 1E). Legs: Fore tibiae shorter than maximum length of fore femur. Abdomen: Upper border of connexiva smooth or with few tiny tubercles. Genitalia: Genital capsule broad; posteroventral border with lateral stout lobes, strongly produced, and mesial lobe broadly conical, with apex rounded (Fig. 1H); paramere (Fig. 2G, H). Integument: Body surface dull, roughly punctate; antennal segments I to III densely tuberculate; antennal segments I to IV, legs, and abdominal sterna clothed with short, semidecumbent to decumbent, silvery, bristlelike

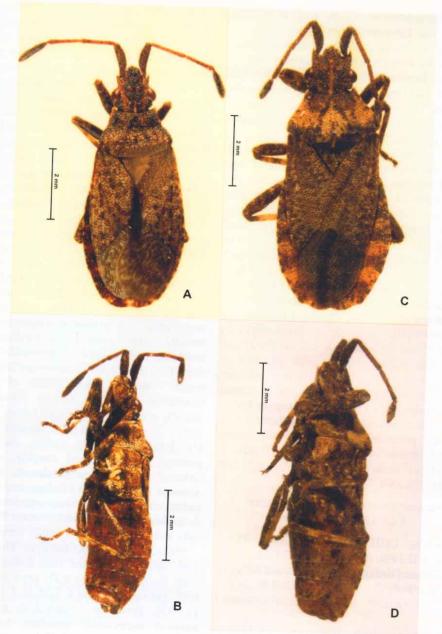


Fig. 3. Vazquezitocoris spp. V. schuhi, new species: A. Dorsal view. B. Lateral view. V. putrenus, new species: C. Dorsal view. D. Lateral view.

setae. Variation: 1, Mesopleura and metapleura each with a black longitudinal irregular stripe. 2, Abdominal sterna III to VII scattered with irregular black spots.

Measurements: *Male* holotype: **Head**: Length 1.36; width across eyes 1.29; interocular space 0.73; interocellar space 0.24; preocular distance

0.80. Antenna: Segment I, 1.08; II, 1.04; III, 0.92; IV, 1.16. Pronotum: Length 1.24; width across humeral angles 2.12. Scutellum: Length 0.76; width 0.88. Body length 6.70.

Female: Unknown.

ETYMOLOGY: This species is named in honor of Dr. Randall Tobias Schuh in recognition of his

outstanding contributions to the study of Miridae, Saldidae, and Leptopodidae of the world.

Discussion: Vazquezitocoris schuhi, new species is similar to V. micropterum Brailovsky and V. peruvianus Brailovsky in having the head longer than wide and longer than the total length of the pronotum. The remaining species included in the genus have the head wider than long and shorter than the pronotal length.

In *V. micropterum*, the hemelytral membrane reaches the posterior margin of abdominal segment VI and the labium is longer, reaching the middle third of metasternum. The other two species are submacropterous or macropterous, with the hemelytral membrane almost reaching the apex of abdominal segment VII, and the labium is slightly shorter, reaching the basal third of metasternum.

In *V. peruvianus*, known from Peru, the pronotum is rectangular, males having a maximum length of 0.95 and females 1.12, with the maximum width across the humeral angles in males 2.02 and females 2.30, and the claval and corial veins lacking dark to pink discoidal or irregular spots. In *V. schuhi*, herein reported from Ecuador, known only from males, the pronotum is rectangular, 1.24 long, 2.12 maximum width, and the claval and corial veins have dark to pink spots. The posteroventral margin of male genital capsule is distinct in both species (Fig. 1H, I).

PARATYPES: same data as for holotype, 3 or (USNM, UNAM).

#### Vazquezitocoris putrenus, new species Figs. 1B, 2C, D, 3C, D

HOLOTYPE: CHILE: Parinacota Prov.: Putre, 3500 m, 8 II 1998, A. Ugarte, or (USNM).

DIAGNOSIS: Distinguished from *V. aricanicus* by the shorter body size, not longer than 8.40, and by the shorter, relatively slender antennal segments I to IV.

DESCRIPTION: Male (holotype): COLORA-TION. Antennal segments I to III, legs, and genital capsule dark yellow, with punctures and tubercles dark brown; antennal segment IV dark yellowish orange and dorsal surface with a dark brown longitudinal stripe; labial segments I to IV dark brown (apex of IV dark orange); apex of scutellum pale yellow; hemelytral membrane ambarine, translucent, with basal angle and veins brown; connexival segments III to VII dark yellow, with punctures and tubercles dark brown,

except anterior third entirely pale yellow; dorsal abdominal segments III to VI black suffused with dark orange, and VII black, suffused with dark orange, posterior third with pale yellow and dark brown to black tubercles; mesosternum black; anterior and posterior lobe of metathoracic peritreme pale yellow; tibiae with two pale yellow rings, one near base, the other near middle third. STRUCTURE: Body: medium-sized and relatively narrow. Head: Wider than long, shorter than maximum length of pronotum; weakly convex dorsally; labium reaching anterior border of metasternum; interocellar distance longer than 0.50; antenniferous tubercle exposed, elongate, armed with a long spine, slightly convoluted around base of antennal segment I, and almost reaching basal third of antennal segment I; antennal segments relatively short (Fig. 1B). Thorax: Pronotum with anterolateral margins widely emarginate, anterior half obliquely straight and posterior half rounded; pronotal frontal angles projecting forward as a medium-sized and broadly elongate conical lobe, reaching, but not touching, middle third of postocular tubercle. Legs: Fore tibiae equal to maximum length of fore femur. Abdomen: Upper border of connexiva tuberculate. Genitalia: Genital capsule broad, laterally sinuate; posteroventral border with wide, slightly convex, median plate; paramere (Fig. 2C, D). Integument: Body surface dull, roughly punctate, in great part roughly tuberculate; antennal segments I to III densely tuberculate; antennal segments I to IV, legs, and abdominal sterna clothed with short, semidecumbent to decumbent, silvery, bristlelike setae; femora dorsally and ventrally conspicuously serrate

MEASUREMENTS: *Male* holotype: **Head**: Length 1.36; width across eyes 1.60; interocular space 1.00; interocular space 0.53; preocular distance 0.92. **Antenna**: Segment I, 1.24; II, 1.16; III, 1.00; IV, 0.88. **Pronotum**: Length 1.40; width across humeral angles 2.88. **Scutellum**: Length 1.04; width 1.20. **Body**: length 8.32.

Female: Unknown.

ETYMOLOGY: Named for its distribution in Putre, Chile.

DISCUSSION: Vazquezitocoris putrenus new species, similar to the closely related species V. aricanicus Brailovsky, recorded from Chile, has the head wider than long and shorter than the maximum length of the pronotum; antennal segments II and III are relatively slender and

not densely clothed with rigid setae; the anterolateral margin of pronotum is emarginate; the interocellar space is longer than 0.50; the length is longer than 8.00; the head is dorsally weakly convex; and posteroventral margin of male genital capsule is broad, with a sinuate median plate.

In *V. aricanicus*, the total length of the body in males is 9.50, and in females 10.50; the maximum length of antennal segment II in males is 1.40 and in females 1.42; maximum length of antennal segment III in males is 1.25, females 1.27; and antennal segments I–IV longer and relatively stout (Fig. 1A). In *V. putrenus*, only males are known, with a maximum length of body 8.32; maximum length of antennal segment II, 1.16; and maximum length of antennal segment III, 1.00; and antennal segments I to IV are shorter and relatively slender (Fig. 1B).

Paratypes: same data as for holotype, 2 or (USNM, UNAM).

## KEY TO THE SPECIES OF VAZQUEZITOCORIS

- Pronotum rectangular; claval and corial veins lacking dark to pink discoidal or irregular spots (Peru) . . . . . . V. peruvianus Brailovsky

  Pronotum viilk and additional data.
- Pronotum with anterolateral margin narrowly emarginate, anterior half straight and posterior half rounded (Ecuador) . . . . V. schuhi new species

- 5. Anterolateral margins of pronotum convex, conspicuously emarginate throughout total length (Argentina) . . V. catamarcanus Brailovsky

- Gonocoxae I dark orange with inner margin widely black; posteroventral margin of male genital capsule with large median plate, widely convex, lateral lobes broadly rounded (Fig. 1J) (Ecuador) . . . . V. aequilus new species
- Labium reaching posterior border of mesosternum; anterolateral margin of pronotum widely and uniformly emarginate, obliquely straight; posteroventral margin of male genital capsule with a small, triangular, laterally concave median plate (Peru) . . . . V. certus new species

- Head in lateral view almost flat; posteroventral margin of male genital capsule with lateral angles slightly exposed, and mesial plate scarcely exposed (United States and Mexico) . . . . . . . V. repletus (Van Duzee)
- 13. Maximum length of antennal segment II 1.16 mm, and III 1.00 mm; maximum length

of body 8.32 mm; antennal segments I to IV short and relatively slender (Fig. 1B), male only (Chile) . . . . . . . . V. putrenus new species

Maximum length of antennal segment II 1.40–1.42 mm, and III 1.25–1.27 mm; maximum length of body 9.50–10.50 mm; antennal segment I to IV longer and relatively stout; male first, female second (Fig. 1A) . . . V. aricanicus Brailovsky

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