Review of the Neotropical Genus *Euagona* Dallas (Hemiptera: Heteroptera: Coreidae: Spartocerini) with Description of One New Species

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REVIEW OF THE NEOTROPICAL GENUS *EUAGONA* DALLAS (HEMIPTERA: HETEROPTERA: COREIDAE: SPARTOCERINI) WITH DESCRIPTION OF ONE NEW SPECIES

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Abstract.—A new species of the genus *Euagona* belonging to the coreid tribe Spartocerini is described from Bolivia and Peru under the name ***E. hamata***, **new species**. Redescription of the genus and known species as well as illustrations, new distributional records, and a key to *Euagona* taxa are provided.

Key Words: Insecta, South America

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The spartocerine coreid genus *Euagona* was proposed by Dallas (1852) to accommodate the species *Euagona diana* 1852, from Bolivia. Subsequently, Stål (1870) and Walker (1871) listed *E. diana* from Bolivia. Distant (1881) described *Euagona juno* collected in Peru. Lethierry and Severin (1894) included *Euagona* in their catalogue. The only other reference to *Euagona* is to Blöte (1936), which lists additional records of *E. diana*. The genus is peculiar in having the humeral angles expanded into wing like projections, the antennal segments II and III cylindrical, not compressed, and the body length longer than 20 mm.

Packauskas (1994) produced a general key to subfamilies and tribes of the New World Coreidae including the characters to split the tribe Spartocerini.

In this contribution, *Euagona* is redescribed, a new species collected from Bolivia and Peru is described, all previously known species are redescribed with supplemental distributional records, and a key to known species is given.

* Accepted by Michael W. Gates

MATERIALS AND METHODS

The following acronyms are used for the institutions cited in this paper: BMNH (The Natural History Museum, London, U.K.); CASC (California Academy of Sciences, San Francisco, California, USA); EGER (Joe Eger Collection, USA); FSCA (Florida State Collections of Arthropods, Gainesville, Florida, USA); LACM (Los Angeles County Museum, California, USA); PUCE (Pontificia Universidad Católica del Ecuador, Quito, Ecuador); ROMO (Royal Ontario Museum, Toronto, Ontario, Canada); TAMU (Texas A&M University, Insect Collection, College Station, Texas, USA); UCDA (University of California, Davis, USA); UNAM (Colección Entomológica, Instituto de Biología, Universidad Nacional Autónoma de México); USNM (United States National Museum, Smithsonian Institution, Washington, D. C., USA); USUL

(Utah State University, Logan, Utah, USA).

All measurements are given in millimeters.

Results and Discussion

Euagona Dallas

Euagona Dallas, 1852: 370.

Diagnosis.—This genus is distinguished from other genera of Spartocerini by the following combination of characters: humeral angles expanded into wing-like projections; antennal segments II and III cylindrical; abdomen not dilated; and body length longer than 20 mm.

Redescription.—Body elongate, nearly parallel-side. Head wider than long, quadrate, non-declivent, dorsally flat; tylus unarmed; juga produced forward as a medium-sized conical tubercle; antenniferous tubercles unarmed, large, prominent, situated close together, projecting anteriorly to tylus; antennal segment I robust, cylindrical, thickest, slightly curved outward, longer than head, and basally curved and broad; antennal segments II and III cylindrical, slender, IV fusiform; antennal segment IV shortest, I longest, and II longer than III; ocelli near to eye; preocellar pit obliquely deep; eyes hemispheric, protuberant; postocular tubercle indistinct; mandibular plate unarmed; bucculae hemispheric, elongate, raised, entire, reaching middle third of eyes; rostrum robust, reaching middle third of mesosternum; rostral segment III shortest, I longest, and II longer than IV; ventrally and area behind bucculae without tubercles. *Thorax:* Pronotum wider than long, slightly declivent; collar wide; anterior margin smooth, nearly straight; frontal angles obtuse; anterolateral margins obliquely straight, uniformly nodulose; each humeral angle expanded into long, tapering, acute, curved spine, directed upward and forward, reaching laterally and anteriorly to the head or just the middle third of pronotal disk; outer and inner margins of each humeral angles uniformly nodulose; posterolateral margins and posterior margin smooth or with scarce scattered, wide tubercles; callar region smoother than posterior lobe, not tuberculate; posterior lobe of pronotal disk, including wide surface of each humeral expansion, abruptly or finely tuberculate; triangular process absent. Prosternum deeply concave, posterior third in front of the area between fore legs produced into narrow, acute projection; mesosternum wide, trapeziform, gently convex; metasternum wide, rectangular; middle third of posterior margin of metasternum conspicuously produced into large and broad hemispheric expansion; posterior border of metapleura straight, truncated; anterior lobe of metathoracic peritreme raised, large, earlike, and posterior lobe short, elongate to subacute, and flat; evaporative area well developed. *Legs:* Unarmed; distance between hind coxae equal to distance from coxa to lateral margin; fore and middle femora relatively slender; hind femur slender to nearly swollen; tibiae sulcate. Scutellum triangular, as longer as wide, or slightly wider than long, flat, apically subacute; lateral margins emarginated; scutellar disk transversely striated. Hemelytra macropterous, reaching or extending beyond apex of last abdominal segment; costal margin emarginated; apical margin weakly sinuate to straight; clavus and corium finely punctate. *Abdomen:* Slender to weakly broad, not dilated; connexivum raised above tergum; posterior angles of connexival segments unarmed or with a tiny tubercle; abdominal spiracle circular, closer to anterior edge, and far from lateral edge of each sternite; posterior margin of abdominal sternite II at middle third

convex, raised. Integument. Antennal segment I to III clothed with short, erect to semidecumbent silvery setae; antennal segment IV with mixed erect and decumbent silvery setae; head, pronotum, scutellum, connexivum, thorax, and abdominal sterna densely clothed with decumbent golden to silvery pubescence; clavus and corium almost glabrous; legs and male genital capsule clothed with short, erect, golden pubescence; abdominal sterna III to VI lateral to middle line densely clothed with a longitudinal stripe of appressed, decumbent, silvery pubescence, sometimes irregularly and not well defined. Male genital capsule: Simple; posteroventral edge straight, slightly exposed. Paramere: Simple, elongate, slightly curved (Figs. 2–3). Female genital plates: Abdominal sternite VII with plica and fissure; plica rectangular, covering 1/3 of the sternite; gonocoxae I enlarged anteroposteriorly, subtriangular, in caudal view closed, upper margin rounded; paratergite VIII triangular, spiracle visible; paratergite IX squarish, shorter than paratergite VIII. Head, pronotum, and ventrally clothed with dull yellow setae; legs with short erect to decumbent golden setae.

Discussion.—*Euagona* resembles *Menenotus* de Castelnau, 1832, in general aspect; these genera have the humeral angles expanded into winglike projections (crescent-shaped), antennal segments II and III cylindrical and not compressed and dilated, and body length longer than 20 mm. *Euagona*, recorded from Bolivia, Ecuador, and Peru, is distinguished by having the scutellum as long as wide or slightly wider than long, and the abdomen not dilated. In *Menenotus*, recorded from Brazil and Paraguay, the scutellum is conspicuously wider than long, and the abdomen is clearly dilated.

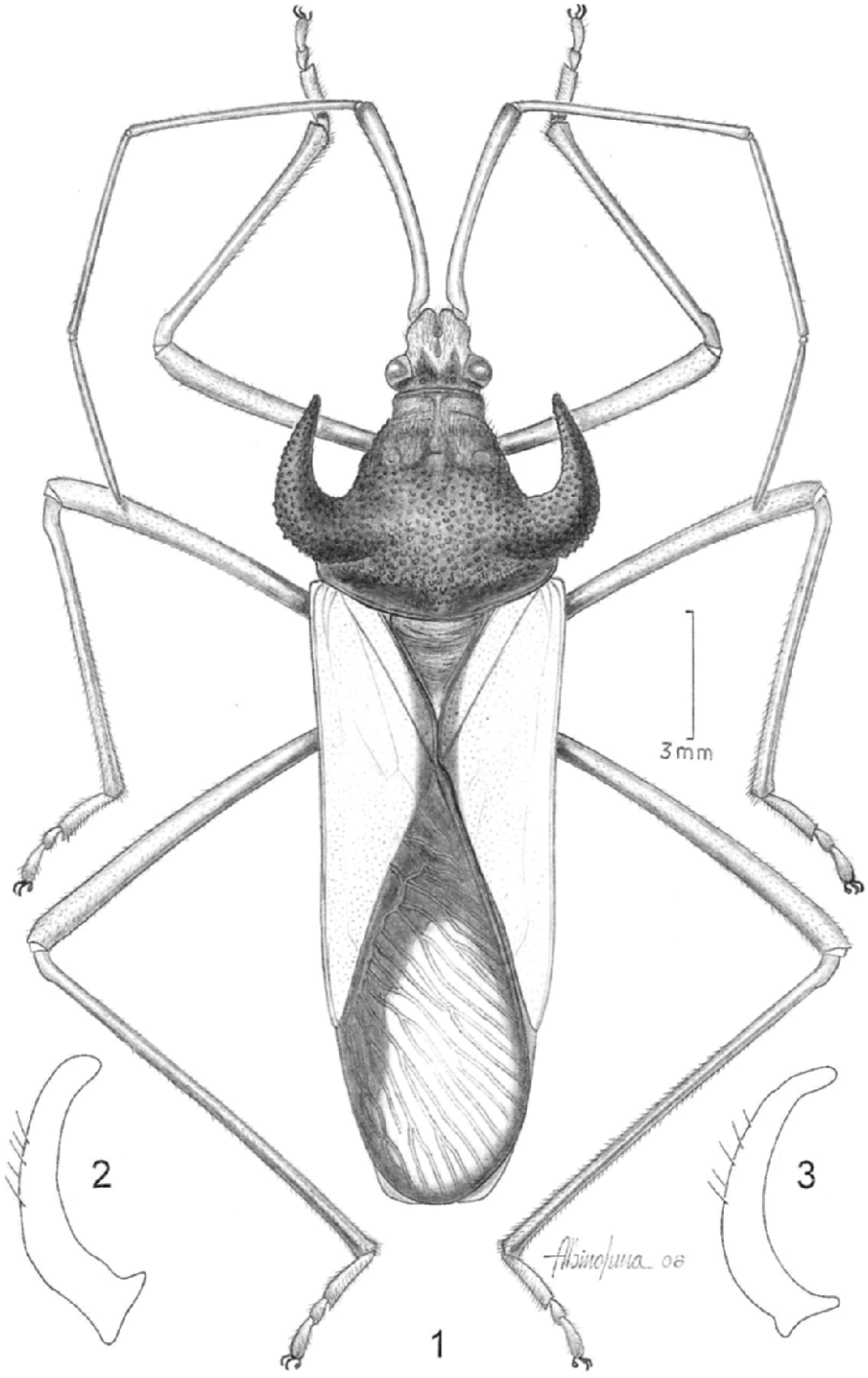
Euagona hamata Brailovsky, new species

(Figs. 7–9)

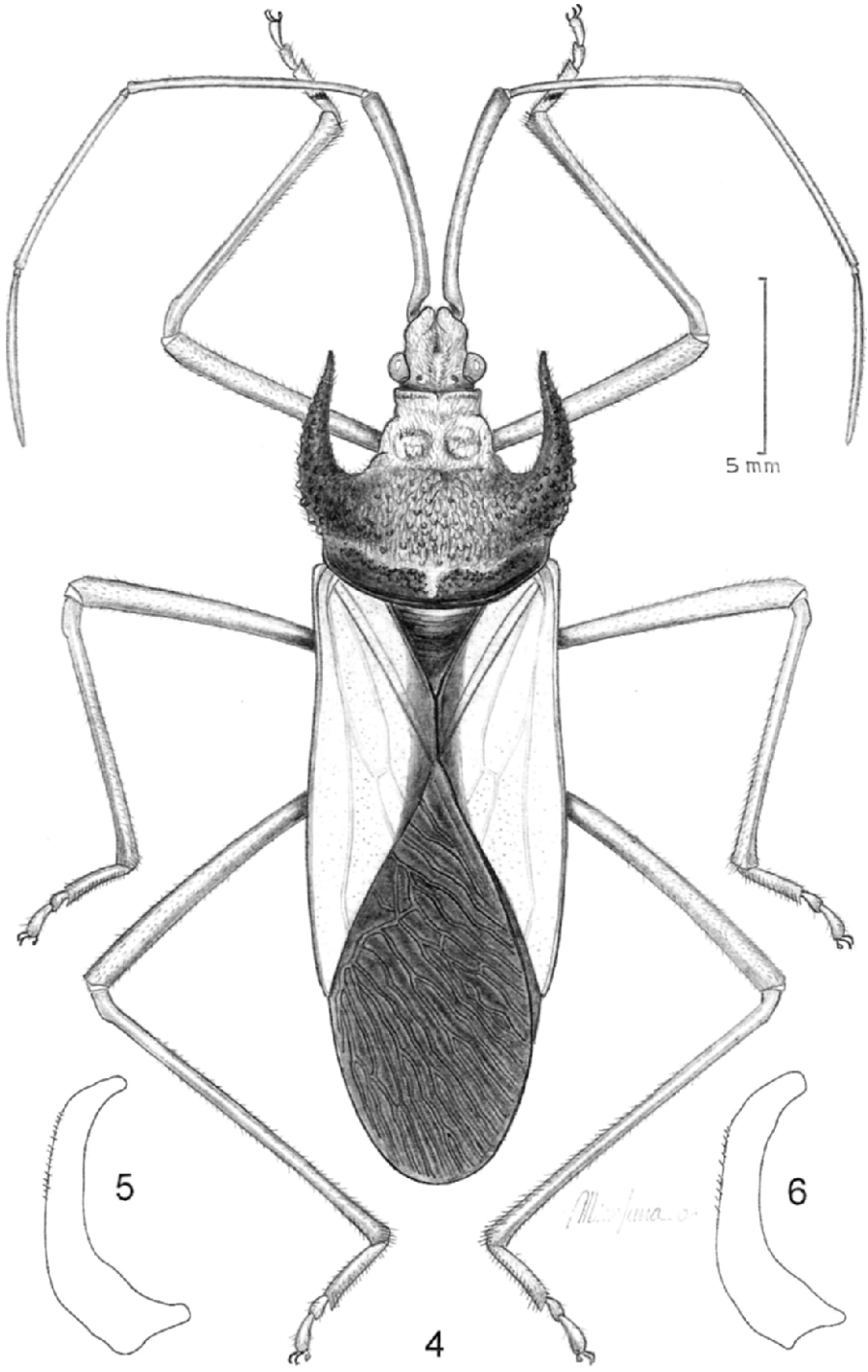
Diagnosis.—Hemelytral membrane pale yellow with basal angle and apical border dark brown; clavus yellow with only the claval suture dark brown; humeral angles expanded into long and stout winglike projections, with outer and inner margins strongly nodulose.

Description.—Holotype male: *Measurements:* Male: Head length 2.12; width across eyes 2.35; interocular space 1.36; interocellar space 0.70; length antennal segments: I, 5.16; II, 4.71; III, 3.95; IV, 3.80. Pronotum: Length 6.53; width across apex of humeral angles 8.85. Scutellar length 2.58; width 2.58. Body length 23.67.

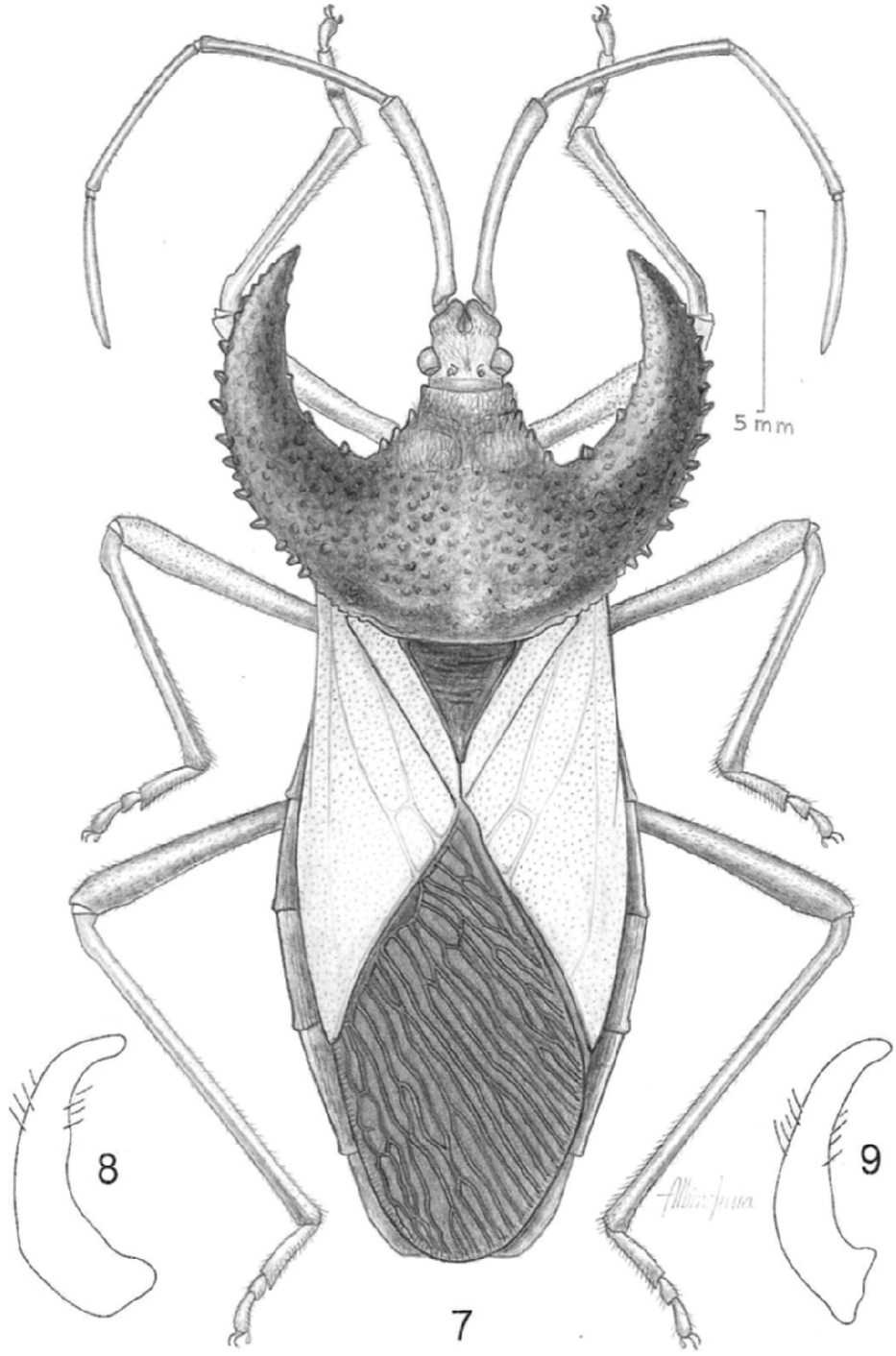
Dorsal coloration: Head and scutellum dark reddish brown; antennal segments I to IV shiny chestnut orange; pronotum dark reddish brown with a yellowish orange stripe along the posterolateral margins, most distinct near the posterior margin, gradually becoming fainter towards lateral corners; clavus yellow with claval commissure dark brown; corium yellow; hemelytral membrane pale yellow with basal angle and apical border close to apical margin of corium pale to dark brown; connexivum dark reddish brown; dorsal abdominal segments III to VI dark orange, VII dark orange with posterior margin dark reddish brown. *Ventral coloration:* Head reddish brown with posterior margin of bucculae dark yellow; rostral segments dark castaneus (apex of rostral segment IV black); thorax reddish brown with posterior margin of metapleura dark yellow; anterior and posterior lobe of metathoracic peritreme yellow; coxae, trochanter, and femora dark reddish brown; tibiae and tarsi shiny reddish orange; abdominal sterna II to VII and genital capsule dark reddish brown.



Figs. 1–3. *Euagona diana* Dallas. 1, Dorsal view. 2–3, Paramere.



Figs. 4–6. *Euagona juno* Distant. 4, Dorsal view. 5–6, Paramere.



Figs. 7–9. ***Euagona hamata*, n. sp.** 7, Dorsal view. 8–9, Paramere.

Structure: Humeral angles expanded into long and stout winglike projections, with outer and inner margins densely nodulose. Paramere slender, weakly curved (Figs. 8–9).

Female: Head length 2.20; width across eyes 2.35; interocular space 1.36; interocellar space 0.68; length antennal segments: I, 5.01; II, 4.71; III, 3.95; IV, 3.65. Pronotum: Length 6.15; width across apex of humeral angles 6.60. Scutellar length 2.96; width 2.96. Body length 25.77.

Coloration similar to male holotype. Connexival segments VIII and IX dark reddish brown; dorsal abdominal segments dark orange with black to dark brown marks; genital plates dark reddish brown with gonocoxae I usually dark orange.

Variation: Dorsal abdominal segments shiny orange or dark orange with dense or scattered black marks.

Type material.—Holotype ♂, Bolivia: La Paz, Guanay, X-XI-1992, L. Peña (USNM). Paratypes: 1 ♀, Bolivia: La Paz, Guanay, X-XI-1992, L. Peña (USNM). 1 ♂, Bolivia: Buena Vista, Province Tohito, Departmento Santa Cruz, 400 m, 1956 (without date), F. Steinbach (UNAM). 2 ♀♀, Peru: Satipo, 30-X-1941, and VII-VIII-1940, P. Paprzycki (USNM). 1 ♀, Peru: Madre de Dios, Manu National Park, Cocha Cashu Biol. Station, 380 m, 11°55′S–77°18′W, 22-31-VIII-1986, D. C. Darling (ROMO).

Etymology.—The specific epithet is derived from the Latin, *hamatus*, meaning curved like a hook, referring to the shape of the humeral angles of pronotal disk.

Euagona diana Dallas
(Figs. 1–3)

Euagona diana Dallas, 1852: 371.

Diagnosis.—Hemelytral membrane pale yellowish white with a complete dark to pale brown margin; clavus yellow with distal third black; humeral angles produced into a long, tapering, curved horn, apically slender and acute.

Redescription.—Male: *Measurements:* Head length 2.05; width across eyes 2.35; interocular space 1.21; interocellar space 0.69; length antennal segments: I, 6.00; II, 5.85; III, 4.86; IV, 4.78. Pronotum: Length 5.39; width across apex of humeral angles 7.06. Scutellar length 1.90; width 1.97. Body length 22.96.

Dorsal coloration: Head, pronotum, and scutellum black; antennal segments I to IV pale yellowish orange; clavus yellow with distal third black; corium yellow; hemelytral membrane pale yellowish white with dark to pale brown margins; connexivum yellow; dorsal abdominal segments yellow with shiny orange reflections. *Ventral coloration:* Head and thorax black; rostral segments I and II black, III and IV dark yellow with apex of IV black; legs and anterior and posterior lobe of metathoracic peritreme yellow; abdomen with middle third of sterna II to VI black and laterally yellow with pink and orange reflections; abdominal sternite VII yellow with pink orange reflections, and an irregular black transversal stripe close to posterior margin; genital capsule yellow with pink and orange reflections.

Structure: Humeral angles produced on each side into long, tapering, acute curved spine, directed upwards and forwards, with apex slender and acute (Fig. 1). Paramere. Simple and slightly curved (Figs. 2–3).

Female: Head length 2.05; width across eyes 2.58; interocular space 1.36; interocellar space 0.78; length antennal segments: I, 6.46; II, 6.00; III, 4.94; IV, 4.78. Pronotum: Length 5.92; width across apex of humeral angles 6.84. Scutellar length 2.35; width 2.20. Body length 26.47.

Coloration similar to male. Connexival segments VIII and IX, and abdominal segments VIII and IX dark yellow; genital plates dark yellow with reddish to black reflections.

Variation: Corium yellow with pale green reflections.

Distribution.—This species was described from Bolivia (without data) and subsequently has been reported from Peru (Puerto Inca, Rio Pachitea) (Blöte 1936). Ecuador is a new country record.

Type material examined.—*Euagona diana*: HOLOTYPE: male, Bolivia (without data) (BMNH).

Additional material examined.—New records. 2 ♂♂, Bolivia, Chapare Department, Prov. Palmar, Cochabamba, 1000 m, 1956 (without total date), F. Steinbach (USNM). 1 ♂, Ecuador: Napo, Lago Agrio (3 km NE), at Pozo #23, 17-V-1975, A. B. Gurney (USNM). 1 ♀, Ecuador, Sucumbios, Sacha Lodge, 290 m, 00°05′S–76°05′W, III-1994, P. Hibbs (LACM). 4 ♂♂, 2 ♀♀, Ecuador: Misahuali, nr. Tena, 3-19-X-2001, C. Brammer and S. R. Keller (UNAM, USUL). 1 ♀, Ecuador, Napo, XI-1984, G. Onore (PUCE). 1 ♂, 1 ♀, Ecuador, Napo, Archidona, IV-1986, 7-III-1990, S. Sandoval and C. Rosano (PUCE). 1 ♂, Ecuador, Napo, vic Puerto Misahuali, 1,650′–1,900′, 01°02′49.2″S–77°39′49.2″W, 6-19-IX-1988, J. E. Eger (EGER). 2 ♀♀, Ecuador, Sucumbios, Comunidad Cofanes, Rio Zabalo, 280 m, 7-17-II-1997, N. Castro and P. Salvador (PUCE). 1 ♀, Ecuador, Napo, Limoncocha, 250 m, 9-16-III-1976, J. M. Campbell (UNAM). 1 ♂, Ecuador, Yasuni Scientific Reserve, 10-13-VIII-1998, N. J. Smith (UCDA). 1 ♂, Ecuador, Napo, Misahuali, 450 m, 28-V-1994, C. Boada (UCDA). 2 ♂♂, Peru, Huanuco Department, Cueva de las Lechuzas, S of Tingo Maria, 30-IX-1988, J. Ch. de Vela (TAMU, UNAM). 1 ♂, Peru, Tingo Maria, Valle del Monzon, 18-VII-1948, C. Bolivar (UNAM), 1 ♂, Peru, Jujuy, 1-26-VIII-1948, C. Bolivar (UNAM). 1 ♂, Peru, Huanuco, 24 mi W of Yurac, 28-IX-1954, E. I. Schlinger and E. S. Ross (CASC). 3 ♂♂, 2 ♀♀, Peru, Tingo Maria, Valley Monzon, 1-X-1954, 23-29-XI-1954, 23-XII-1954 (CASC). 1 ♂, Peru, Cajamarca Department, Prov. Jean, Rio Huancabamba, km 81 Olmos-Marañon, 1,100 m, 1-X-1954, P. C. Hutchinson and J. K. Wright (UNAM). 1 ♀, Peru, Huanuco, 5 mi SW Las Palmas, 1,000 m, 5-XII-1954, E. I. Schlinger and E. S. Ross (CASC).

Euagona juno Distant
(Figs. 4–6)

Euagona juno Distant, 1881: 394–395.

Diagnosis.—Hemelytral membrane entirely black; humeral angles produced into a long lunate spine, apically slender and acute.

Redescription.—Male: *Measurements:* Head length 2.15; width across eyes 2.52; interocular space 1.37; interocellar space 0.63; length antennal segments: I, 6.53; II, 6.38; III, 5.32; IV, 4.94. Pronotum: Length 5.92; width across apex of humeral angles 6.38. Scutellar length 1.82; width 1.74. Body length 24.40.

Dorsal coloration: Head, pronotum, and scutellum black; antennal segments I to IV pale yellowish orange; clavus with basal half yellow, and apical half black; corium yellow; hemelytral membrane black; connexivum and abdominal segments shiny yellowish orange. *Ventral coloration:* Head and thorax black; rostral segments I and II black, III and IV dark orange with apex of IV black; legs, anterior and posterior lobe of metathoracic peritreme, and evaporative area yellow; abdomen with middle third of sterna II to VI black, and laterally yellow with pale pinkish-orange marks;

genital capsule yellow with pinkish-orange marks.

Structure: Humeral angles produced into long lunate spine, directed upwards and forwards, with apex more slender and acute (Fig. 4). Parameres slender and weakly curved (Figs. 5–6).

Female: Head length 2.20; width across eyes 2.61; interocular space 1.52; interocellar space 0.78; length antennal segments: I, 6.84; II, 6.65; III, 5.62; IV, 5.32. Pronotum: Length 6.84; width across apex of humeral angles 7.37. Scutellar length 2.43; width 2.35. Body length 29.48.

Coloration similar to male. Connexival segments III to IX, dorsal abdominal segments III to IX, lateral margins of abdominal sterna III to VI, and genital plates dark reddish orange; abdominal sternite VII dark reddish orange, with irregular black transversal mark near anterior margin.

Distribution.—This species was described and previously known only from Peru.

Type material examined.—*Euagona juno*: TYPE: male, Peru (without data) (BMNH).

Additional material examined.—New records. 1 ♀, Peru: Loreto Province, 80 km NE Iquitos, Explorama Lodge, 1 km from Amazon River on Rio Yanamono, 1–5-IX-1992, J. Castner and P. Skelley (FSCA). 1 ♂, 1 ♀, Peru: Loreto Province, Explorama Inn, NE Iquitos, 9-VII-1990, S. Dunkle (FSCA, UNAM).

Key to *Euagona* Species

1. Hemelytral membrane black . . . . . *E. juno* Distant
– Hemelytral membrane never black 2
2. Hemelytral membrane pale yellowish white, with entire margin dark to pale brown; clavus yellow, with distal third black . . . . . *E. diana* Dallas
– Hemelytral membrane pale yellowish, with only basal angle and apical border dark brown; clavus yellow, with only the claval commissure dark brown. . . . . ***E. hamata*, n. sp.**

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