

Izyacapsus (Heteroptera: Miridae: Orthotylinae), a new ceratocapsine plant bug genus established to accommodate two new species from México

Izyacapsus (Heteroptera: Miridae: Orthotylinae), новый род клопов слепняков из трибы Ceratocapsini, установленный для двух новых видов из Мексики

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KEY WORDS. Hemiptera, Heteroptera, Miridae, Orthotylinae, new genus, new species, hosts, distribution.

КЛЮЧЕВЫЕ СЛОВА. Hemiptera, Heteroptera, Miridae, Orthotylinae, новый вид, новый род, кормовые растения, распространение.

ABSTRACT. The genus *Izyacapsus* gen.n. is established to accommodate the two new Mexican species *I. kerzhneri* sp.n. (from the states of México, Michoacán, Puebla, and Veracruz) and *I. rubrocuneatus* sp.n. (from the states of México, Oaxaca, Puebla, Querétaro, San Luis Potosí, and Veracruz). For each new species a photograph of the male and female, scanning electron photomicrographs of selected structures, and illustrations of male genitalia are provided. An identification key to the new species is provided to facilitate recognition.

РЕЗЮМЕ. Новый род *Izyacapsus* gen.n. установлен для объединения двух новых мексиканских видов *I. kerzhneri* sp.n. (из штатов Мехико, Пуэбло и Веракрус) и *I. rubrocuneatus* sp.n. (из штатов Мехико, Пуэбло, Керетаро, Сан-Луис-Потоси и Веракрус). Для каждого вида приведены фотографии самца и самки, электронограммы ряда структур и рисунки гениталий самца. Данна определительная таблица новых видов.

Introduction

The present paper provides the description of a new genus and two new Mexican species belonging to the plant bug tribe Ceratocapsini in the subfamily Orthotylinae. Although Carvalho [1958] and Schuh [1995] treat Ceratocapsini as a synonym of the nominate tribe Orthotylini in their catalogs, Carvalho et al. [1984], Henry [1994], and others have provided substantial evidence for recognizing this New World tribe. In addition, Henry [2000] presented a preliminary phylogenetic analysis of the tribe supporting the monophyly of the Ceratocapsini based on the structure of the male genitalia,

including the externally visible phallotheca. The new taxa described herein provide additional morphological information that will be helpful in better understanding relationships within this diverse tribe.

In this paper, I describe the new genus *Izyacapsus* to accommodate the two new Mexican species *I. kerzhneri* and *I. rubrocuneatus*. Provided for each new species are a diagnosis, description, a dorsal photograph of the male and female, scanning electron photomicrographs of selected structures, illustrations of male genitalia, hosts, and distribution information. A key to the two new species is provided to help facilitate their recognition.

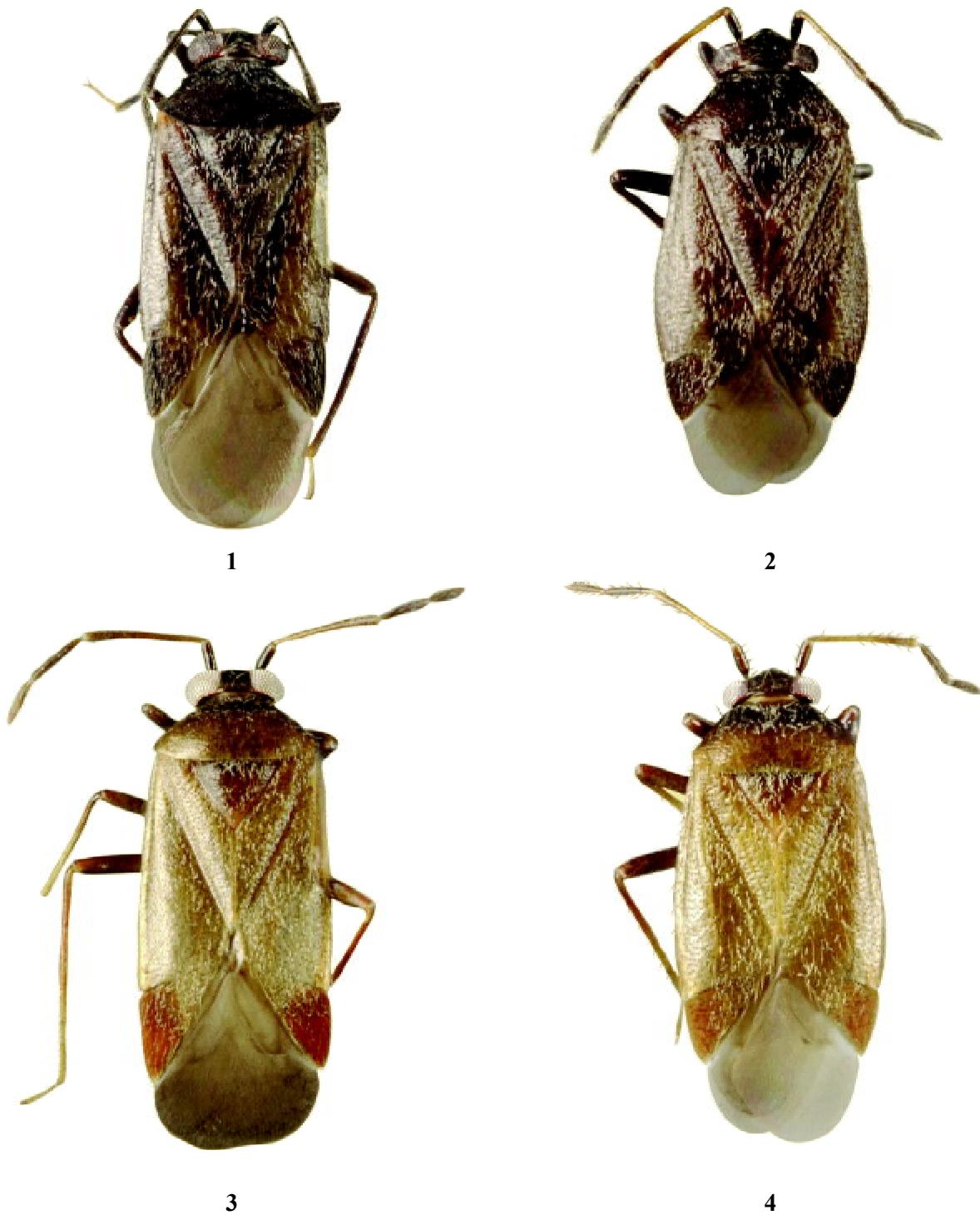
Acronyms for institutions cited in this paper are AMNH (American Museum of Natural History, New York, NY); CNC (Canadian National Collection, Ottawa, Ontario); TAMU (Texas A & M University, College Station); UNAM (Universidad Nacional Autónoma de México, México, D.F.); and USNM (National Museum of Natural History, Smithsonian Institution, Washington, D.C.).

Systematic part

Izyacapsus Henry gen. n.

Type species: *Izyacapsus kerzhneri* Henry sp.n.

DIAGNOSIS. This new genus is readily distinguished by the extended, earlike auricle (Figs 8, 21) found in both sexes; the genital capsule (Figs 13, 25) having an elongate, spatulate process arising from the ventral edge of the aperture below the left paramere; the sickle- or weakly C-shaped left paramere (Figs 14, 26), with a field of shinglelike structures at the middle; and the greatly reduced club-shaped right paramere (Figs 15, 27). Both new species of this genus are sexually dimorphic, with the hemelytra in males elongate and subparallel and in females more broadly oval.



Figs 1–4. *Izyacapsus* spp., dorsal aspect: 1–2 — *I. kerzhneri* sp.n.; 3–4 — *I. rubrocuneatus* sp.n.; 1, 3 — male; 2, 4 — female.
Рис. 1–4. *Izyacapsus* spp., вид сверху: 1–2 — *I. kerzhneri* sp.n.; 3–4 — *I. rubrocuneatus* sp.n.; 1, 3 — самец; 2, 4 — самка.

DESCRIPTION. *Male:* Elongate, subparallel. *Head:* About 2.25 times wider than long, truncate across posterior margin of eyes and vertex, with a distinct carina at base of vertex; eyes large, wide, strongly faceted, dorsal width of eyes three fourths width of head, each eye encompassing entire lateral height of head; vertex narrow, one quarter the width of head;

vertex shagreened, frons transversely rugose, both with scattered erect and semierect simple setae. *Labium:* Slender, ratio of segments about 2: 2: 1.5: 2, extending to middle coxae. *Antenna:* Segment I shortest, stoutest, base arising from indented area at middle of inner anterior margin of eye (less pronounced in females); segment II longest, most slender at

base, gradually enlarging to apex; segment III slightly longer than IV, each subequal in diameter to apex of segment II. *Pronotum*: Trapeziform, about two times wider at base than long at middle; narrow anterior area around calli impunctate and rugose or finely granulate, broad discal area shiny and evenly set with fine, setigerous punctures; evenly clothed with semierect, simple setae arising from fixed bases (Figs 9, 23), intermixed with white, sericeous or slender scalelike setae arising from punctures (Figs 9, 23), especially around calli; each anterior angle with a long, erect, bristlelike seta. *Mesoscutum*: Narrowly exposed under posterior margin of pronotum. *Scutellum*: Nearly equilateral, slightly wider at base than long; transversely rugose and finely punctate; clothed with relatively short, semierect and longer, erect, simple setae, intermixed with white, sericeous setae. *Hemelytron*: Elongate, [hemelytra] subparallel, extending beyond genital capsule by two fifths total length, cuneus only two thirds as wide as long; clavus, corium, and cuneus evenly punctate; clothed with semierect, simple setae, intermixed with white sericeous or slender scalelike setae mostly on clavus and inner half of corium; membrane entire, longitudinally wrinkled, with two closed cells. Ventral surface of thorax shiny, impunctate, nearly glabrous; abdomen shiny or polished, impunctate, ventral area of visible segments one and two each with a broad, possibly stridulatory, quadrate patch (Figs 11, 22) comprised of numerous microtrichia (Fig. 12) (appearing to the unaided eye as a dull or glaucous patch), sparsely clothed with semierect, simple setae. Ostiolar auricle (Figs 7, 20) dull, with evaporative surface closely spaced; scent channel greatly modified into an elongate earlike lobe (Figs 8, 21), extending well away from metapleural surface.

Male genitalia: Genital capsule (Figs 13, 25) relatively small, broadly cone-shaped, narrowed distally, ventral edge of aperture with an elongate, spatulate process arising below left paramere. Left paramere (Figs 14, 26) slender, sickle- or weakly C-shaped; basal sensory lobe weakly swollen with a cluster of long setae on caudal aspect; distal half slender, gradually narrowing to apex, with a patch of overlapping, shinglelike structures on basal area. Right paramere (Figs 15, 27) reduced, club-shaped. Vesica (Figs 16, 28), small, simple, lacking spiculi, consisting of only a distinct gonopore and ductus seminis. Phallotheca (Figs 16, 28) subparallel, apex broadly rounded, attached to phallobase; *in situ*, distal two thirds visible and protruding into aperture behind left paramere.

Female: Similar to male in color, pubescence, texture, and shape of the elongate ostiolar auricle, but differs in the shorter, more broadly rounded hemelytra, the smaller, less coarsely faceted eyes, and proportionally wider vertex.

ETYMOLOGY. I am pleased to name this interesting new genus in honor of Dr. Izya Kerzhner on the occasion of his 70th birthday and for his many contributions to our knowledge of Heteroptera. Dr. Kerzhner's accomplishments are truly remarkable, including his monumental keys to the terrestrial bugs of the European USSR and the Far-Eastern USSR, his monographic work on the Nabidae, and his latest efforts to catalog the Palearctic Heteroptera, particularly the families Miridae and Nabidae. The gender is masculine.

DISCUSSION. *Izyacapsus* belongs to a group of ceratocapsines that have strong sexual dimorphism with the males having elongate, subparallel hemelytra, extending well beyond the apex of the abdomen, and females with shorter, much more broadly oval hemelytra; reduced male genital aperture; and reduced, more simplified parameres, with the left paramere usually sickle- or weakly C-shaped. More work is needed, however, before the *Izyacapsus* can be properly placed in a phylogenetic context.

KEY TO THE SPECIES OF *IZYACAPSUS*

1. Dorsum uniformly fuscous to black; antennal segments I and II uniformly black, length of segment II subequal to width of head across eyes *I. kerzhneri* sp.n.
- Dorsum brown to reddish brown, with cuneus distinctly brighter red to reddish brown; antennal segment I fuscous to black, segment II yellow to yellowish brown, with apical one third dark brown, length of segment II equal to width of head across eyes plus the width of the vertex *I. rubrocuneatus* sp.n.

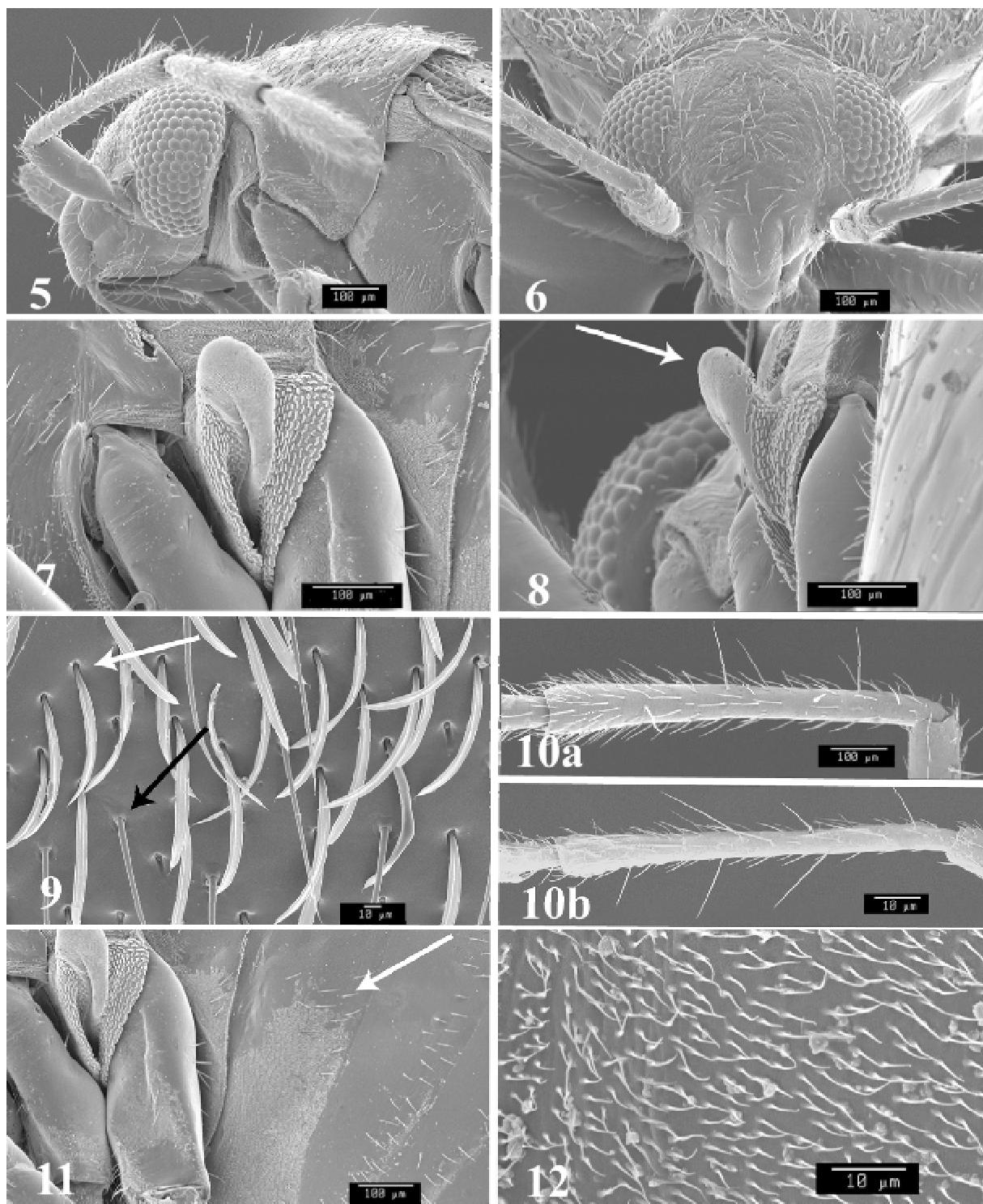
Izyacapsus kerzhneri Henry sp.n.

Figs 1, 2, 5–10a, 11–16.

MATERIAL. HOLOTYPE: MÉXICO: ♂, Michoacán, km 13, Acambaro-Huejambaro, 27 July 1988, M. Garcia (UNAM). PARATYPES: MÉXICO: México: 1 ♀, 19 mi S Toluca, 15 July 1966, P. M. & P. K. Wagner (TAMU); 1 ♀, 22 mi W Toluca, 16 July 1966, P. M. & P. K. Wagner (TAMU); 1 ♂, 6 mi E Valle de Bravo, 16 July 1966, P. M. & P. K. Wagner (TAMU); 1 ♀, La Venta, 9 July 1969, L. A. Kelton (CNC); 1 ♀, La Marquesa, 30 Aug. 1969, L. A. Kelton, on *Abies* sp. (CNC); 2 ♀♀, San Fc. de los Ranchos, 19 Oct. 1983, E. Barrera (UNAM); 5 ♀♀, Km 6, carr. Temascaltepec Tenayac, 21 Nov. 1984, M. Vertez, E. Barrera, and F. Arias (UNAM, USNM). Michoacán: 3 ♀♀, same data as for holotype (UNAM); 1 ♂, 7 ♀♀, 8 July 1969, L. A. Kelton (AMNH, CNC); 3 ♀♀, Km 218, Morella, 28 July 1988, M. Garcia (UNAM); 1 ♂, 1 ♀, Km 10, carr. Atlacomulco-El Oro, 22 May 1988, A. Cadena & L. Cervantes (UNAM); 1 ♂, 7 ♀♀, 4 mi NW Uruapan, 11–12 Apr. 1980, Cuda & Schaffner (AMNH, TAMU, USNM). Morelos: 1 ♀, Huitzilac, 19E2'N, 99E19'W, 12 Oct. 1989, K. Pullen, on *Baccharis conferta* (USNM). Puebla: 4 ♀♀, Tlahuapan, 28 Aug. 1969, L. A. Kelton (CNC); 1 ♂, 1 ♀, Km 40, Azumilla-Teletan, 3 Nov. 1988, E. Barrera & L. Cervantes (UNAM); 1 ♂, 2 ♀♀, San Martin Texmelucan ex Hacienda Chigniana-Pan, 1 Nov. 1990, H. Brazilovsky & E. Barrera (UNAM); 1 ♀, Carr. Pubela-Atlixco, Puente los Mornos, 21 Mar. 1994, G. Ortega & E. Barrera (UNAM). Veracruz: 4 ♀♀, Km 30 Carr.-Perote, Jalapa, 1 Feb. 1978, G. Ortega (UNAM); 1 ♀, R. Ramirez, 19E39'N, 97E9'W, 13 Dec. 1980, K. Pullen, on *Baccharis conferta* (USNM).

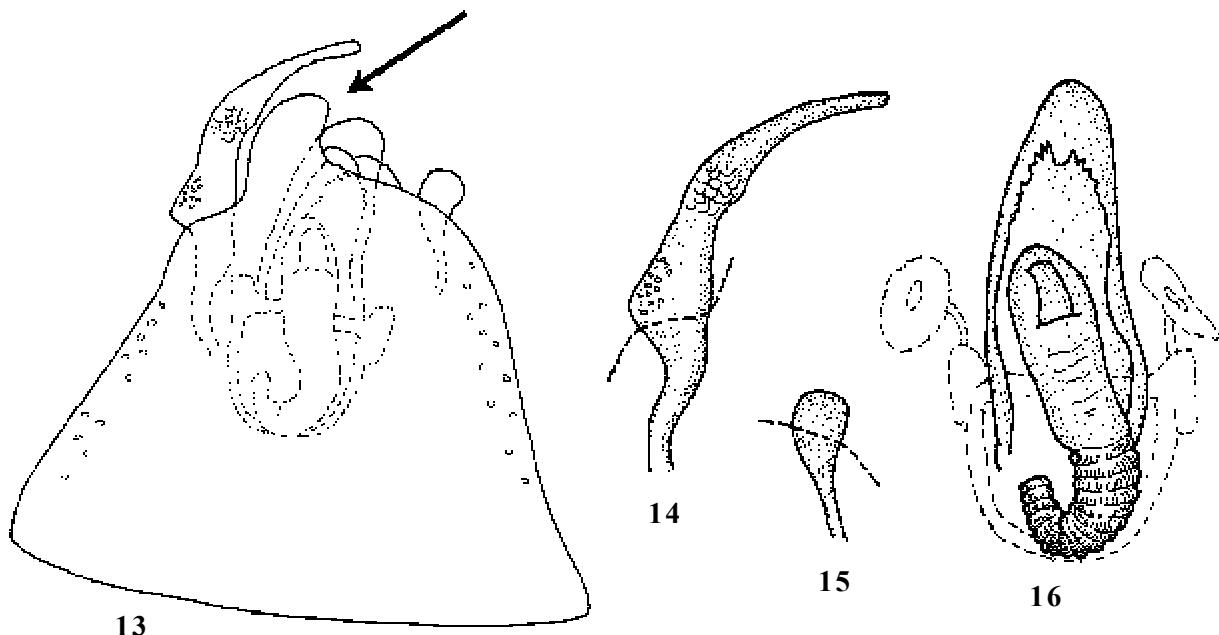
DIAGNOSIS. *Izyacapsus kerzhneri* (Figs 1–2) is distinguished from *I. rubrocuneatus* by the overall dark fuscous or black coloration; the more contrasting white, sericeous dorsal setae; the uniformly dark antenna, with segment II subequal to the width of the head and set with only three or four long setae (Fig. 10a); the slightly more curved left paramere (Fig. 14), and the more apically rounded right paramere (Fig. 15).

DESCRIPTION. **Male** (n=5; holotype in parentheses): Length 3.55–4.00 mm (3.55 mm), width 1.34–1.36 mm (1.34 mm). **Head**: Width across eyes 0.72–0.76 (0.72 mm), width of vertex between eyes 0.26–0.28 mm (0.26 mm); uniformly fuscous or black, vertex shagreened, frons transversely rugose, sparsely set with recumbent, pale, simple setae. **Labium**: Length 1.04–1.06 mm (1.04 mm), extending to bases of middle coxae. **Antenna**: Segment I length 0.22–0.24 mm (0.22 mm), uniformly black; II 0.72–0.77 mm (0.72 mm), uniformly black, thickly clothed with pale, semierect, simple setae subequal to diameter of segment at base, interspersed with only three or four much longer, erect, simple setae three or more times longer than diameter of segment; III 0.38–0.43 mm (0.40 mm), uniformly black; IV 0.35–0.37 mm (0.35 mm), uniformly black. **Pronotum**: Length 0.45–0.46 mm (0.45 mm), basal width 1.12–1.16 mm (1.12 mm); shiny fuscous to black, set with numerous, evenly spaced, fine setigerous punctures, except for weakly rugose, impunctate area around calli, calli concolorous fuscous to black; sparsely clothed with semierect, simple setae, more thickly interspersed with



Figs 5–12. Scanning electron photomicrographs of female *Izacapsus kerzhneri* sp.n.: 5 — head and pronotum; 6 — head; 7–8 — ostiolar auricle (indicated by white arrow) and evaporative area; 9 — white scalelike setae arising from pits or punctures (indicated by white arrow) and simple setae arising from fixed bases (indicated by black arrow) on hemelytra; 10 — antennal segment II (a — *I. kerzhneri* sp.n.; b — *I. rubrocuneatus* sp.n.); 11 — ostiolar area and abdominal segments I and II showing patches of microtrichia (indicated by white arrow); 12 — microtrichia on abdominal segment II; 5, 7 — lateral view; 6 — frontal view; 8 — posterior view.

Рис. 5–12. Электронограммы самки *Izacapsus kerzhneri* sp.n.: 5 — голова и переднеспинка; 6 — голова; 7–8 — ушковидный склерит (показан белой стрелкой) и испарительная область пахучей железы; 9 — белые уплощенные волоски, основания которых расположены в ямках (показаны белой стрелкой) и простые волоски с обычными основаниями (показаны черной стрелкой), надкрылья; 10 — второй сегмент антенн (а — *I. kerzhneri* sp.n.; б — *I. rubrocuneatus* sp.n.); 11 — отверстие пахучей железы и первые два брюшных сегмента (белой стрелкой показаны покрытые микротрихиями участки); 12 — микротрихии на втором сегменте брюшка под большим увеличением; 5, 7 — сбоку; 6 — спереди; 8 — сзади.



Figs 13–16. Male genitalia of *Izyacapsus kerzhneri* sp.n.: 13 — genital capsule, ventral aspect showing spatulate process (indicated by arrow); 14 — left paramere; 15 — right paramere; 16 — vesica and phallotheca.

Рис. 13–16. Гениталии самца *Izyacapsus kerzhneri* sp.n.: 13 — генитальная капсула, снизу, лопатовидный отросток показан стрелкой; 14 — левый парамер; 15 — правый парамер; 16 — везика и фаллоторея.

white, sericeous setae. *Mesoscutum*: Fuscous to black, with a few pale simple and sericeous setae. *Scutellum*: Fuscous to black, transversely rugose, with a few indistinct, fine punctures; clothed with simple, pale and white, sericeous setae. *Hemelytron*: Uniformly fuscous to black; evenly set with fine, indistinct setigerous punctures; clothed with pale, semierect, simple setae, thickly interspersed with white scale-like setae; membrane uniformly dark brown. *Ventral surface*: Thorax and abdomen uniformly shiny fuscous to black; setal patch (Fig. 11) on abdominal segment II truncate across dorsal margin. *Ostiolar area* (Figs 7, 8): Largely fuscous to black, earlike lobe of scent channel fuscous to dark reddish brown. *Legs*: Coxae, trochanters, and femora reddish brown to fuscous; fore and middle tibiae fuscous to reddish brown on basal two thirds, brown to yellowish brown on apical third, hind tibiae fuscous to reddish brown, sometimes paler at apex; tarsi and claws brown.

Male genitalia: Genital capsule (Fig. 13); left paramere (Fig. 14) weakly C-shaped, punctate on lower sensory lobe, with a patch of overlapping, shinglelike structures at base of distal half; right paramere (Fig. 15) short, club-shaped, apex evenly rounded; vesica and phallotheca (Fig. 16), simple, as described for genus.

Female (n=10): Length 2.95–3.35 mm, width 1.32–1.46 mm. **Head**: Width across eyes 0.66–0.68 mm, width of vertex between eyes 0.30–0.32 mm. **Labium**: Length 1.00–1.04 mm, extending to bases of middle coxae. **Antenna**: Segment I, length 0.22–0.24 mm; II 0.61–0.69 mm; III 0.37–0.40 mm; IV 0.35–0.37 mm. **Pronotum**: Length 0.42–0.46 mm, basal width 1.12–1.16 mm. Very similar to male in overall color and pubescence, but differs in the shorter, broader hemelytra, narrower head, and proportionately wider vertex.

ETYMOLOGY. This new species is named in honor of Dr. Izya Kerzhner in fond remembrance of our productive, hurricane-impacted, Mexican field trip in 1989 with Ernesto Barrera (UNAM), where we first met thanks to an arrange-

ment made possible by our friend and colleague Dr. Harry Brailovsky (UNAM).

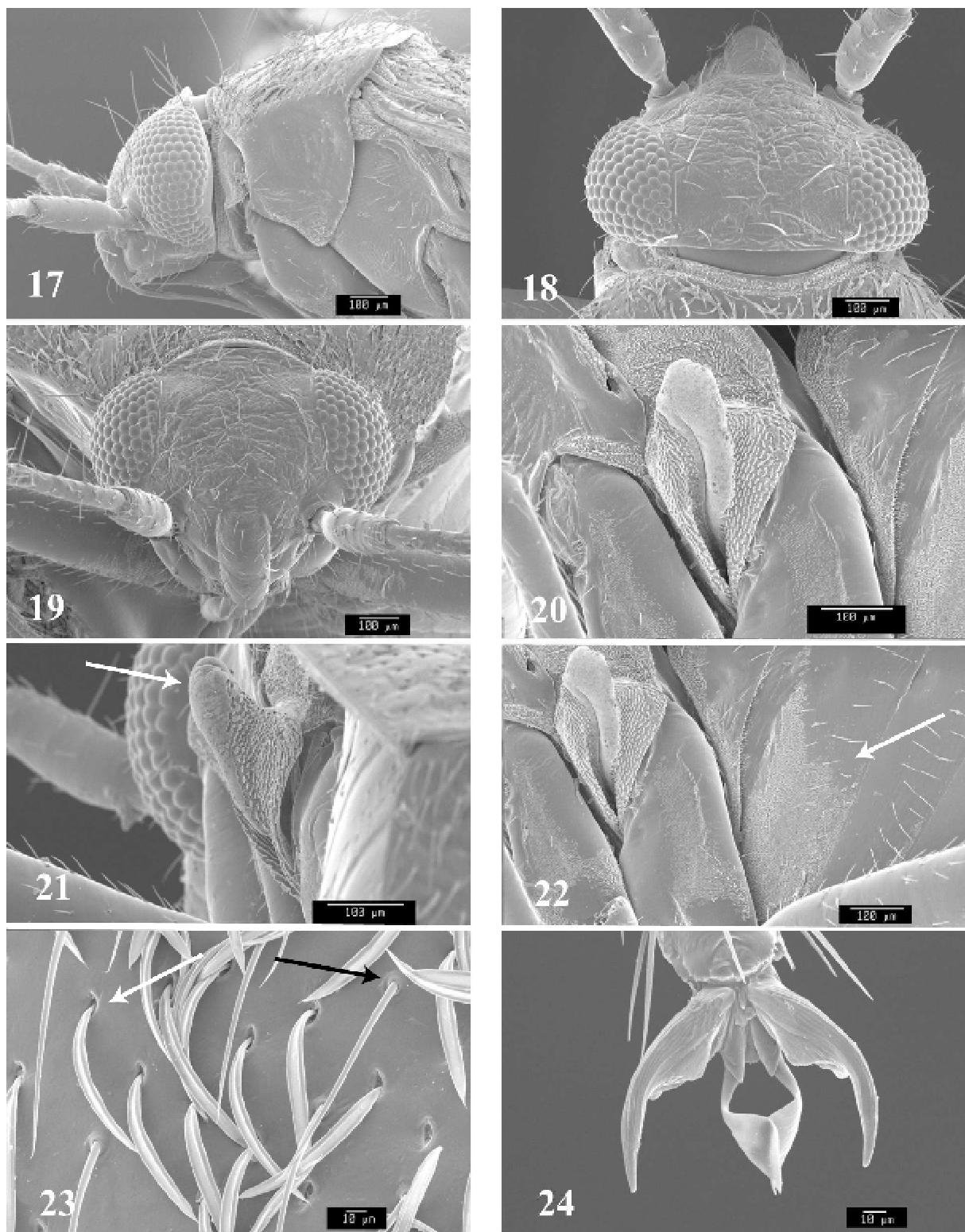
HOST. Several paratypes from different localities were collected on *Baccharis* sp. and *Baccharis conferta* Kunth (Asteraceae). One specimen with the host label "on *Abies*," probably represents an accidental record.

DISTRIBUTION. Known from the Mexican states of México, Michoacán, Puebla, and Veracruz.

Izyacapsus rubrocuneatus Henry sp.n. Figs 3, 4, 10b, 17–28

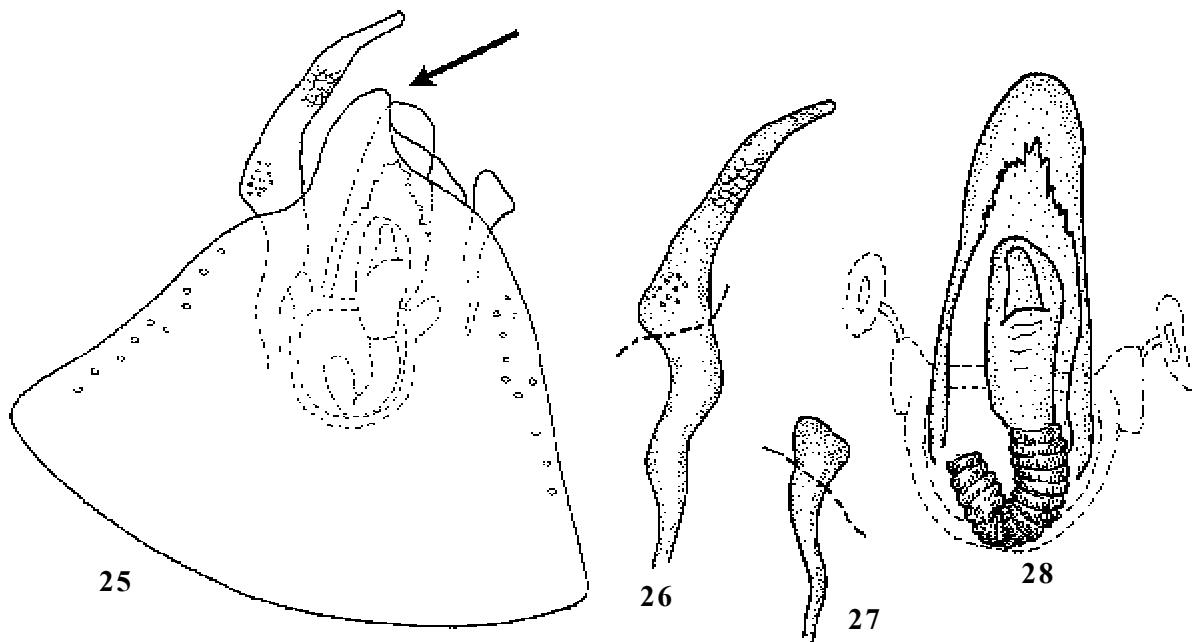
MATERIAL. HOLOTYPE: ♂, MÉXICO: Puebla, 15 km Tehuacan, Rt. 135, 18E35.9°N, 97E28.5°W, 16 Nov. 2003, T. J. Henry & E. Barrera, "desert willow" (UNAM). PARATYPES: MÉXICO: México: 3 ♀♀, Rio Cuautitlan, Planada de Coyotepec, Mun. Coyotepec, 99E11'07"N, 19E45'57"W, alt. 2250, 14 July 2002, M. Silvestre M. coll., on "maleza asociada" (USNM). Puebla: 8 ♀♀, same data as for holotype (AMNH, CNC, USNM); 4 ♀♀, 5 km SE Chapulco, el. 2310 m, 18E37.8°N, 97E20.3°W, 31 Jul. 1995, T. J. Henry & E. Barrera (USNM); 2 ♀♀, 24 km N Tehuacan, along Rt. 135 at Loma Colorado River, 18E39.6°N, 97E27.4°W, 16 Nov. 2003, T. J. Henry & E. Barrera, on "desert willow" (USNM). Oaxaca: 5 ♀♀, 10 mi SE Tejupan, 27 June 1965, Burke, Meyer, & Schaffner (AMNH, TAM, USNM); 1 ♀, Guelatao, 18 Aug. 1969, L. A. Kelton (CNC). Querétaro: 2 ♀♀, 14 mi E of Landa de Matamoros, 23 July 1979, Schaffner, Murray, Phelps, and Hart, at light (TAMU). San Luis Potosí: 1 ♀, 32 mi E San Luis, 26 July 1970, Murray, Phelps, Harts, Schaffner (TAMU). Veracruz: 1 ♂, 3 ♀♀, Las Hinas, 6 Sept. 1977 & 12 Sept. 1986, E. Barrera & H. Brailovsky (UNAM, USNM).

DIAGNOSIS. *Izyacapsus rubrocuneatus* (Figs 3, 4) is distinguished from *I. kerzhneri* by the overall paler brown coloration, with the cuneus usually distinctly red to reddish brown; the less dense, white, sericeous dorsal setae; the longer, yellowish-brown antennal segment II, subequal to the combined width of the head and vertex and set with six or eight long setae (10b); the less curved left paramere (Fig. 26); and the more apically truncate right paramere (Fig. 27).



Figs 17–24. Scanning photomicrographs of female *Izyacapsus rubrocuneatus* sp.n.: 17 — head and pronotum; 18 — head; 19 — head; 20–21 — ostiolar auricle (indicated by white arrow) and evaporative area; 22 — ostiolar auricle and abdominal segments I and II showing patches of microtrichia (indicated by white arrow); 23 — white scalelike setae arising from pits or punctures (indicated by white arrow) and simple setae arising from fixed bases (indicated by black arrow) on hemelytra; 24 — claw and parempodia; 17, 20 — lateral aspect 18 — dorsal aspect; 19 — frontal aspect; 21 — posterior aspect.

Рис. 17–24. Электронограммы самки *Izyacapsus rubrocuneatus* sp.n.: 17 — голова и переднеспинка; 18 — голова; 19 — голова; 20–21 — ушковидный склерит (показан белой стрелкой) и испарительная область пахучей железы; 22 — отверстие пахучей железы и первые два брюшных сегмента, белой стрелкой показаны покрытые микротрихиями участки; 23 — белые уплощенные волоски, основания которых расположены в ямках (показаны белой стрелкой) и простые волоски с обычными основаниями (показаны черной стрелкой) на надкрыльях; 24 — коготок и парэмподий; 17, 20 — сбоку; 18 — сверху; 19 — спереди; 21 — сзади.



Figs 25–28. Male genitalia of *Izyacapsus rubrocuneatus* sp.n.: 25 — genital capsule, ventral aspect showing spatulate process (indicated by black arrow); 26 — left paramere; 27 — right paramere; 28 — vesica and phallotheca.

Рис. 25–28. Гениталии самца *Izyacapsus rubrocuneatus* сп.п.: 25 — genitalная капсула, снизу, лопатовидный отросток показан черной стрелкой; 26 — левый парамер; 27 — правый парамер; 28 — везика и фаллоторека

DESCRIPTION. Male (n=3; holotype in parentheses): Length 4.00–4.25 mm (4.20 mm), width 1.40–1.48 mm (1.46 mm). **Head:** Width across eyes 0.72–0.74 mm (0.74 mm), width of vertex between eyes 0.21–0.24 mm (0.22 mm), fuscous to dark reddish brown, narrow basal area of vertex sometimes paler brown. **Labium:** Length 1.06–1.12 mm (1.12 mm), extending to bases of middle coxae; pale brown. **Antenna:** Segment I length 0.27–0.29 mm (0.29 mm), dark brown to fuscous; II 0.88–0.93 mm (0.93 mm), yellowish brown, becoming dark brown on distal half; clothed with short, relatively sparse, semierect, simple setae much shorter than diameter of segment at base, interspersed with six to eight long, erect, simple setae, some three times or more longer than diameter of segment; III 0.48–0.51 mm (0.51 mm), uniformly fuscous; IV 0.40–0.43 mm (0.43 mm), uniformly fuscous. **Pronotum:** Length 0.59–0.64 mm (0.61 mm), basal width 1.20–1.24 mm (1.24 mm); discal area yellowish brown, evenly set with small, fuscous, setigerous punctures, anterior third around calli dark brown to fuscous, transversely rugose, collar yellowish brown. **Mesoscutum:** Yellowish brown, with a few simple and sericeous setae. **Scutellum:** Brown, paler brown near apex; transversely rugose and evenly set with small, dark, setigerous punctures; clothed with scattered simple and white, sericeous setae. **Hemelytron:** Brown to yellowish brown, evenly set with dark brown, setigerous punctures, intermixed with white sericeous setae, especially on clavus and basal third of corium; cuneus red to reddish brown, except for brown inner basal angle; membrane uniformly brown. **Ventral surface:** Thorax and abdomen shiny dark brown to fuscous; setal patch (Fig. 22) on abdominal segment II extended into a point on anterior dorsal edge before becoming more truncate posteriorly. **Ostiolar area** (Figs 20, 21): Uniformly reddish brown to dark brown, including evaporative area and extended lobe of scent channel. **Legs:** Coxae

dark brown to dark reddish brown; trochanters pale brown; femora dark brown to reddish brown; tibiae brown to yellowish brown on basal fourth to third, dark brown to reddish brown beyond, hind tibia often more uniformly reddish brown; tarsi and claws brown.

Male genitalia: Genital capsule (Fig. 25); left paramere (Fig. 26) weakly C-shaped (less curved than in *I. kerzhneri*), punctate on lower sensory lobe, with a patch of overlapping, shinglelike structures at base of distal half; right paramere (Fig. 27), short, club-shaped, apex flattened; vesica and phallotheca (Fig. 28), simple, as described for genus.

Female (n=10): Length 3.10–3.36 mm, width 1.40–1.46 mm. **Head:** Width across eyes 0.67–0.69 mm, width of vertex between eyes 0.32–0.34 mm. **Labium:** Length 1.00–1.06 mm, extending to bases of middle coxae. **Antenna:** Segment I, length 0.24–0.27 mm; II 0.72–0.77 mm; III 0.40–0.43 mm; IV 0.35–0.40 mm. **Pronotum:** Length 0.56–0.58 mm, basal width 1.12–1.14 mm. Females are similar to males in overall coloration and pubescence.

ETYMOLOGY. This species is named *rubrocuneatus* to denote the red to reddish-brown cuneus present on most specimens.

HOST. Collected on “desert willow,” a name commonly applied to *Chilopsis linearis* (Cav.) Sweet (Bignoniaceae), but this interpretation needs confirmation. Three specimens were labeled as taken on “weeds.”

DISTRIBUTION. This new species is known from the Mexican states of México, Oaxaca, Puebla, Querétaro, San Luis Potosí, and Veracruz.

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References

- Carvalho J. C. M. 1958. Catalog of the Miridae of the World. Part III Orthotylinae // Arquivos Museu Nacional. Vol.47. P.1–161.
- Carvalho J.C.M., Fontes A.V. & Henry T.J. 1984. Taxonomy of the South American species of *Ceratocapsus*, with descriptions of 45 new species (Hemiptera: Miridae) // United States Department of Agriculture Technical Bulletin. No.1676. P.1–58.
- Henry T. J. 1994. Revision of the myrmecomorphic plant bug genus *Schaffneria* Knight (Heteroptera: Miridae: Orthotylinae) // Proceedings of the Entomological Society of Washington. Vol.96. P.701–712.
- Henry T. J. 2000. Phylogeny of the New World plant bug tribe Ceratocapsini (Heteroptera: Miridae: Orthotylinae) // XXI-International Congress of Entomology, Iquassu Falls, Brazil, August 20–26, 2000. Abstract book II. P.917.
- Schuh R. T. 1995. Plant Bugs of the World (Insecta: Heteroptera: Miridae). Systematic Catalog, Distributions, Host List, and Bibliography. New York Entomological Society, New York. Vol.1. 329 pp.