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Julieta Brambila

Florida State Collection of Arthropods, Florida Department of Agriculture and Consumer Services,
Gainesville, FL

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Two new species of *Botocudo*
from Trinidad, Tobago, and Grenada
(Hemiptera: Rhyparochromidae: Antillocorini)

Julieta Brambila

Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, FL 32614-7100

Abstract. *Botocudo trinidadensis* is described and illustrated from the islands of Trinidad and Grenada and *Botocudo fasciatus* is described and illustrated from Trinidad and Tobago.

Resumen. Se describen e ilustran *Botocudo trinidadensis*, de las islas de Trinidad y Granada, y *Botocudo fasciatus*, de Trinidad y Tobago.

Key Words: Hemiptera, Lygaeoidea, Lygaeidae, Antillocorini, *Botocudo*, *Cligenes*, *picturata*, Trinidad, Grenada, Tobago, West Indies.

Introduction

The descriptions of *Botocudo trinidadensis* and *fasciatus* are presented here to make their names available for a work on the lygaeoid fauna of the West Indies nearing completion by R. M. Baranowski and J. A. Slater and for a revisional study in progress on the genus *Botocudo*. These species appear to be congeneric with the type species of *Botocudo* since they have one trichobothrium anterior to the spiracle on the fifth abdominal sternite and a second trichobothrium posterior to the same spiracle (Figs. 5, 15), as illustrated by Slater and Brailovsky (1994) for the type species of *Botocudo*, *B. diluticornis* (Stål); furthermore, they lack a longitudinal groove on the prosternum (Brambila 2000) as well as spines on the fore femora, they have low and long bucculae and a narrow gula, and their lateral pronotal margins are not laminate.

All measurements are in millimeters.

The following acronyms indicate the deposition of specimens: AMNH (American Museum of Natural History, New York); BMNH (The Natural History Museum, London, England); LBOB (Lois B. O'Brien Collection, Tallahassee, Florida); FSCA (Florida State Collection of Arthropods, Gainesville, Florida); JAS (J. A. Slater Collection, Storrs, Connecticut); NMNH (National Museum of Natural History, Washington, D.C); REW (R. E. Woodruff Collection, Gainesville, Florida); RMB (R. M. Baranowski Collection, Homestead, Florida); TAMU (Tex-

as A&M University, College Station, Texas); and UNAM (Colección Entomológica, Instituto de Biología, Universidad Nacional Autónoma de México, D.F., México).

Botocudo trinidadensis Brambila, new species (Figs. 1-10)

Description. Male. Head, pronotum, scutellum, a large and oblique macula along lateral corial margin at level of claval commissure, a large subapical corial macula which extends across corium (Fig. 1), pleuron, sternum, abdominal sternites, and labial segments I and II dark reddish brown. Clavus, corium, apex of scutellum, labial segments III and IV, and legs creamy white, but with fore femur yellowish brown. Tylus, labial segments III and IV, coxae, and genital capsule yellowish brown. Antennal segment I yellowish brown; II pale orange brown; and III and IV dull orange brown, nearly black at extreme proximal ends. Membrane of hemelytron transparent. Head, antennae, legs, and abdominal sternum with decumbent silvery setae. Occiput without setae, polished. Tylus reaching middle of first antennal segment. Gula shallow with bucculae low, forming a point at posterior end (Fig. 2), reaching anterior margin of prosternum. Labium extending posteriorly slightly beyond mesocoxae; segment I not attaining anterior prosternal margin. Prono-

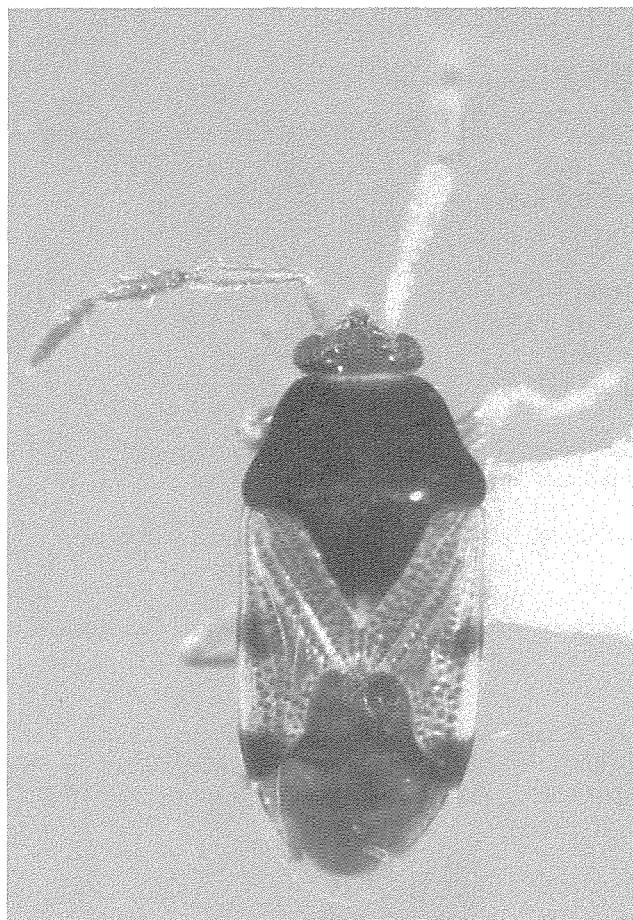
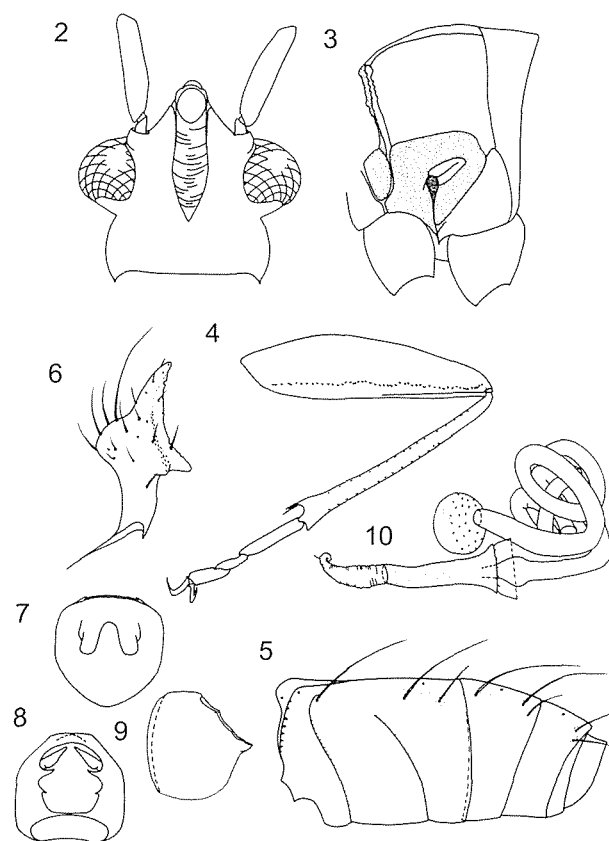


Fig. 1: *Botocudo trinidadensis*, n. sp., dorsal view of holotype, photograph.

tum and scutellum coarsely punctate, at most only slightly shining; "pseudocollar" marked by punctures; lateral margins sinuate, posterior margin concave, anterior lobe dorsally slightly convex, posterior lobe dorsally flat. Metathoracic scent gland small, slightly raised above evaporative surface, strongly curving posteriorly (Fig. 3). Evaporative area covering less than half of metapleuron, with lateral margin straight but rounded posteriorly; evaporative area on mesopleuron covering mesepimeron and extending in a narrow band to reach dorsal margin (Fig. 3). Abdominal sternum polished. Fore femur width 1.5x width of middle femur, without rows of large spines (Fig. 4). Clavus with three rows of brown punctures. Corium with brown punctures except on large translucent area that reaches posterior margin. Inner half of posterior margin of corium deeply indented.

Total body length 2.26. Head length 0.28, width 0.50, interocular space 0.28. Length left antennal segments I 0.26, II 0.42, III 0.38, IV 0.44. Length



Figs. 2-10: *B. trinidadensis*, illustrations, not to scale. 2: head, ventral view; 3: metapleuron with scent gland auricle and evaporative area; 4: left fore leg, anterior view; 5: male abdomen, lateral view; 6: right paramere; 7-9: male genital capsule caudal, dorsal, and lateral views, respectively; 10: spermatheca.

labial segments I 0.26, II 0.30, III 0.24, IV 0.19. Pronotum trapezoidal, length along midline 0.46, width across posterior margin 0.93. Scutellar length 0.52, width 0.56. Total fore wing length at midline of body 1.64, claval commissure length 0.18, midline distance from apex of clavus to apex of membrane 0.94, membrane extending beyond tip of abdomen. Male genital capsule, right paramere and spermatheca (from paratypes) as in Figs. 6-10.

Variation. Paratypes range from 2.00 to 2.48 mm in body length. All specimens of both sexes are macropterous. The color of the females is similar to the color of the males. The anterior margin of the pronotum varies in color from white to dark reddish brown; this region, here called the pseudocollar, is indicated by a row of punctures that is even or sometimes uneven. Some specimens have the wing

membrane translucent-white instead of transparent.

Holotype: Male. TRINIDAD: St. George Co., Arima-Blanchisseuse Rd., Simla, 22-X-1983, coll. R. M. Baranowski (RMB). To be deposited in FSCA. In good condition, glued on its right side to a paper point, but missing the distal half of the left hind tibia and left hind tarsus.

Paratypes: 13m, 32f. TRINIDAD. 2f St. Augustine, 19--, N.A. Weber (AMNH); 5m, 2f Simla Biol. Sta., at light, M. Emsley (JAS); 1m Arima Valley, 800-1,200 ft., 10-22-II-1964, Rosen & Wygodzinsky (AMNH); 2f Simla, Arima-Blanchisseuse Rd., 12-VII-1975, elev. 600 ft., black light trap, J. Price (RMB); 1f same except 16-VII-1975 (RMB); 1f St. George Co., Lalaja Rd., 7.5 mi. post, 26-IX-1978, R. M. Baranowski (RMB); 1f St. George Co., Arima-Blanchisseuse Rd., Simla, 17-X-1983, R. M. Baranowski (RMB); 1m same except 22-X-1983 (RMB); 1m, 1f St. George Co., Simla Research Center, 4 mi. N. Arima, 20-X-6-XI-1983, Malaise [trap], M. J. Smolen (TAMU); 1f St. George Co., Simla, Arima Valley, 12-VII-1978, black light trap, M. Ramla (RMB); 1m, 1f same except 13-VII-1978 (RMB); 2m same except 21-IX-78 (RMB); 1f same except 12-X-1978 (RMB); 1f same except 26-X-1978 (RMB); 1f same except 2-XI-1978 (RMB); 2m, 8f same except 3-XI-1978 (RMBC); 4f same except 4-XI-1978 (RMB); 1f same except 10-XI-78 (RMB); 1f same except 14-XI-1978 (RMB); 1f same except 11-XII-1978 (RMB); 1f same except 12-XII-1978 (RMB); 1f same except 13-XII-1978 (RMB).

Other Material Examined: GRENADA: 1f, [18]97, S351, Balthazar (Windward side), #66, coll. H. H. Smith (*Salacia picturata* Dist.) (NMNH); 1m St. Andrews Parish, Mirabeau Agric. Lab., 30-I-1990, BL [black light] trap, J. Telesford (RMB); 1m, 2f same except 31-I-1990, BL trap, A. Thomas (RMB); 1f St. Andrew, Mirabeau Agric. Lab., 4-II-1991 black light trap, J. Telesford (REW); 1m, 1f Grand Etang N. P., Mt. Qua Qua Tr., 7-IX-1991, C. W. & L. B. O'Brien (LBOB); 1f same except 9-IX-1991 (LBOB).

Etymology. This species is named "trinidensis" because the holotype and most of the paratypes were collected in Trinidad.

Biology. Unknown, as nearly all specimens were collected in light traps.

Distribution. Trinidad and Grenada.

Discussion. The specimen from Balthazar, Grenada, was previously identified by Uhler (1893) as *Salacia picturata* Distant, now *Botocudo picturatus* (Slater 1964), and reported by Bergroth (1895) as *Cligenes picturatus* in a key to all species of *Cligenes*. *Botocudo picturatus* was described and illustrated from Panama by Distant (1893) as *Salacia* (?) *picturata*. Although with some similarities in the corial coloration, the specimen from Grenada is unlike the lectotype selected by Scudder (1967) for "*Botocudo picturata*" (from BMNH), which was examined by the author. *B. trinidensis* differs from *B. picturatus* in part by size, ratios, and color as follows: 1) the range of total body length of holotype and paratypes of *B. trinidensis* is 2.00 to 2.48 while the lectotype of *B. picturatus* measures 3.06; 2) the ratio of pronotal width to head width is 1.86 for the holotype of *B. trinidensis* and 2.1 for *B. picturatus*; 3) the pronotum of *B. trinidensis* is entirely or nearly entirely dark reddish brown while on *B. picturatus* the anterior lobe of the pronotum is reddish brown, the posterior lobe yellowish brown, and the lateral margins are yellowish brown; and 4) the antennal segment IV of *B. trinidensis* is orange brown with the base nearly black instead of whitish yellow with base and apex brown, as is in *B. picturatus*. Uhler's record of *picturata* is referred here to *trinidensis*.

***Botocudo fasciatus* Brambila,
new species
(Figs. 11-20)**

Description. Male. Yellowish brown. Head darker than pronotum. Pronotum without markings but with humeral angles slightly darker than rest of pronotum. Scutellum with base dark reddish brown and slightly iridescent, apex white. Clavus white except along inner margin and along commissure reddish brown. Corium white with smooth area anterior to indentation transparent and reddish brown, with brown band extending across corium at level of claval commissure, with a brown marking subapically (Fig. 11), and with apex creamy white. Membrane transparent but reddish brown. Abdomen with sternites reddish brown and genital capsule pale yellowish brown. Labium pale yellowish brown, except second segment brown. Antennae yellowish brown with base of segments II-IV reddish brown and apex of IV and pale. Femora yellowish brown, tibiae and tarsi pale yellowish brown.

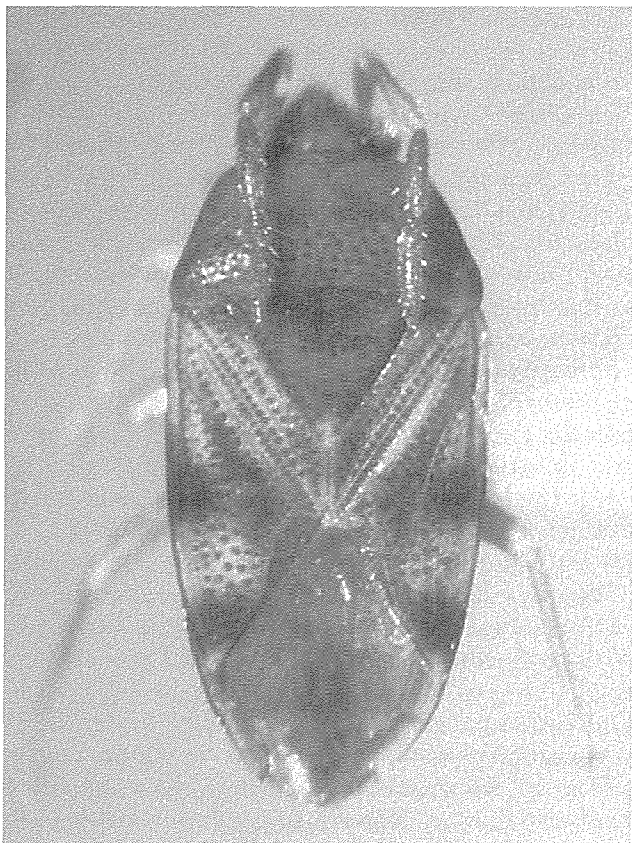
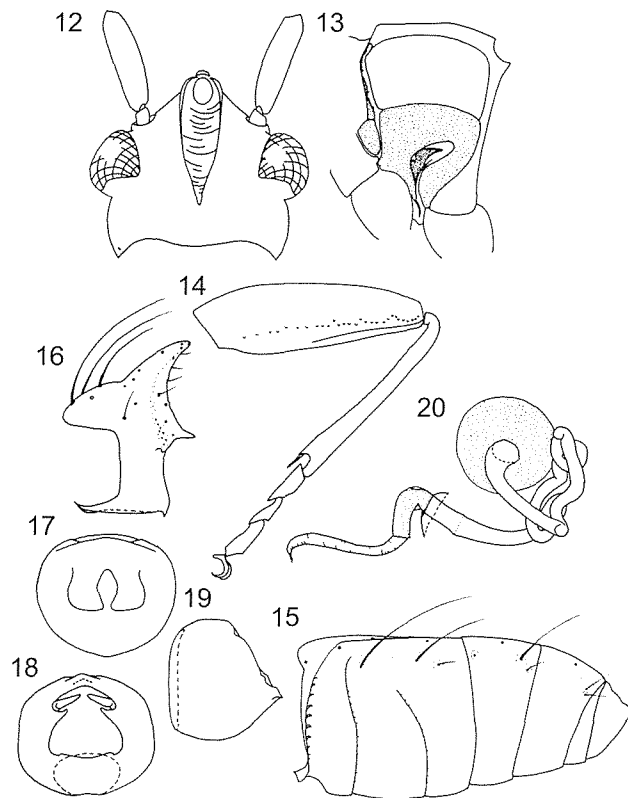


Fig. 11: *Botocudo fasciatus*, n. sp., dorsal view of holotype, photograph.

Head laterally and anteriorly setose; vertex polished, smooth, strongly differentiated. Anterior lobe of pronotum with impunctate calli, pseudocollar strongly differentiated by closely set punctures, and with a row of punctures along lateral margins; posterior lobe coarsely punctate, slightly shining, with few short setae. Scutellum punctate, not polished, with few short setae. Abdominal sternites polished, with golden decumbent setae.

Head with tylus nearly reaching middle of antennal segment I; gula narrow with bucculae low, joining to form a point (Fig. 12), nearly reaching prosternal margin. Labium slightly exceeding mid-coxae; first segment not attaining prosternal margin. Pronotum trapezoidal with lateral margins slightly sinuate and carinate but not laminate, with weakly marked indentation between lobes; anterior lobe as long as posterior lobe measured at midline, 2.0x wider at humeral angles than long at midline, and 2.0x wider than head across eyes. Fore femur width 1.5x width of mid femur. Metathoracic scent gland with auricle raised slightly above evaporative surface, curved posteriorly, apex pointed. Evapora-



Figs. 12-20: *Botocudo fasciatus*, n. sp., illustrations, not to scale. 12: head, ventral view; 13: metapleuron with scent gland auricle and evaporative area; 14: left fore leg, anterior view; 15: male abdomen, lateral view; 16: right paramere; 17-19: male genital capsule caudal, dorsal, and lateral views, respectively; 20: spermatheca.

tive area covering less than half of metapleuron, lateral margin straight but curving posteriorly; on mesopleuron evaporative area covering mesepimeron and reaching dorsal margin as a narrow band (Fig. 13). Clavus with three rows of punctures; corium with inner half of apical margin deeply indented; surface of corium coarsely punctate. Membrane not reaching apex of abdomen. Male genital capsule, right paramere and spermatheca (from paratypes) as in Figs. 16-20.

Total body length 2.30, total length to tip of membrane 2.20. Head length 0.44, width 0.52, interocular distance 0.28. Pronotum length at midpoint 0.48, length at humeral angles 0.54, width between lobes 0.84, width at humeral angles 0.99. Scutellum length 0.52, width at base 0.58. Claval commissure 0.20, membrane length 0.76, total wing length at midline 1.48. Length left antennal segments I 0.25, II 0.38, III 0.34, IV 0.38. Length labial segments I 0.24, II 0.36, III 0.20, IV 0.18.

Variation. Paratypes with membrane variable in length, from leaving seventh segment exposed to slightly exceeding apex of abdomen. Females similar to males. Color variable, from yellowish to orange or reddish brown; some with most of antennal segment IV white; some without iridescence on scutellum; some with slight iridescence at vertex. Range of body length 2.04 to 2.50 mm.

Holotype: Male. Trinidad, St. George Co., Arima-Blanchisseuse Rd., Simla, 12-XI-1983, R. M. Baranowski (RMB). To be deposited at FSCA. Holotype with wing tips broken but otherwise in good condition, glued on its right side to a paper point.

Paratypes: 11m, 21f. TRINIDAD: 2m, 2f St. Augustine, 19--, N. A. Weber (AMNH); 1f same (UNAM); 4m, 3f Simla Biol. Sta., at light, M. Emsley (JAS); 1f Arima Valley, 800-1200 ft., 10-22-II-1964, Rozen & Wygodzinski (AMNH); 1f St. George Parish, Blanchisseuse Rd., N. of Spring Hill, 21-24-VII-1979, L. Sorkin (AMNH); 2f Blanchisseuse Rd., 8 ¾ mi. N. Arima, 13-VI-1973, R. Baranowski, F. O'Rourke, V. Picchi, J. Slater (JAS); 1f St. George Co., Aripo Valley, Rapsey Est., 11-18-IX-1978, Malaise trap, R. M. Baranowski (RMB); 1f St. George Co., Simla, Arima Valley, 19-VI-1978, black light trap, M. Ramla (RMB); 2f same except 9-VIII-1978 (RMB); 1f same except 3-X-1978 (RMB); 1m, 1f same except 12-X-1978 (RMB); 1f same except 3-XI-1978 (RMB); 1m same except 4-XI-1978 (RMB); 3f same except 8-XI-1978 (RMB); 2m same except 17-XII-1978 (RMB); 1f Arima-Blanchisseuse Rd., mi. mark 7.75, 23-VIII-1982, R. M. Baranowski (JAS); 1m St. George Co., Arima-Blanchisseuse Rd., Simla, 12-XI-1983, R. M. Baranowski (RMB).

Other Material Examined: TOBAGO: 1f St. John Prov., Charlotteville, 14-21-III-1979, D. Hardy & W. Rowe (NMNH).

Etymology. From *fascia* (Latin), band, in reference to the banded appearance of the hemelytra.

Distribution. Trinidad and Tobago.

Biology. Unknown. Attracted to lights since many specimens were collected at lights or in ultraviolet light traps; others were collected in Malaise traps.

Discussion. *Botocudo fasciatus* displays wing polymorphism. The short-winged specimens are brachypterous, following the terminology of Slater

(1975). In their condition of brachyptery, the clavus and corium are differentiated and not fused; the membrane is reduced, leaving the seventh abdominal tergum exposed; and the hind wing is much reduced but not flap-like.

This species, as well as *Botocudo trinidadensis*, probably also occur in South America.

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