

*Thyanta nitidula* was described by Ruckes (1956) from 12♂♂ and 3♀♀, all from Brazil. The holotype was examined, and is conserved in the American Museum of Natural History (New York). This specimen is intermediate in size between the lectotype of *T. humilis* and the holotype of *P. patruelis* and falls within the range of variation exhibited by these two specimens (see Comments below).

*Distribution.* Central Brazil and southern Peru south to Argentina (Map 2).

*Specimens examined.* 584 specimens collected during every month of the year except August; deposited in: AMNH, BMNH, CAS, CU, DAR, DBT, EGER, ISU, LACM, LHR, MBR, MGA, MCN, MNRJ, MZRS, OSU, POLH, PUL, SMEK, UEC, UMA, UNAM, USNM, ZMB. PERU: Curabaya; La Merced, Chanchamaya; Cusco: Quillabamba. Junín: 40–55 km SE Satipo. BRAZIL: Chapada de Guimarães; Demerary; Lagoa de Camarim; Nordeste; Piriapolis. Bahia: Encruzilhada; Itap; Nova Conquista; Salvador. Ceará: Barbalha; Fortaleza. Espírito Santo: Guarapari; Linhares; Vitória. Goiás: Argarças; Brasília; Jataí. Mato Grosso: Cuiabá; Independencia. Mato Grosso do Sul: Aquidauna; Bodoqueña; Corumbá; Morro do Urucún; Rondonópolis. Minas Gerais: Carmo do R. Clavo; Cordisburgo; Pedra Azul; Bandeiro; Santa Barbara, Varginha. Paraíba: Juazeirinho. Parañá: Araucaria; 30 mi W Irati; Rolandia; Vila Velha Pk. Pernambuco: Bonito Prov.; Caruaru; Petrolina. Rio de Janeiro: Mangaratiba; Nova Iguaçu; Petrópolis; Quinta Boa Vista, Horto Botânica; Rio de Janeiro; Teresópolis. Rio Grande do Sul: Campos; Glorinha; Ipanema; Pelotas; Pôrto Alegre; Santa Maria; Taimbezinho, Parque Nacional dos Aparados da Serra Est.; Viamão; Vila Oliva. Santa Catarina: Corupá; Florianópolis; Nova Teutônia. São Paulo: 10 mi S Guapara; Piracicaba; São Paulo; São Vicente. BOLIVIA: Cochabamba: Christal-Mayu, Prov. Chapare. La Paz: Yungas de La Paz. Santa Cruz: Buena Vista, Prov. Ichilo; Roboré; Saavédra-Malezas, Est. Expt. Agr.; Santa Cruz. PARAGUAY: Asunción: Asunción. Gran Chaco. Central: Areguá; Luque. Chaco: Río Negro. Corrientes: San Bernardino. Guaira: Villarrica. Paraguari. Presidente Hayes: 42 km NW Benjamín Aceval. ARGENTINA: Buenos Aires: Isla Martín García; Punta Lara; San Isidrio. Chaco. Corrientes: San Roque. Entre Ríos: Leigre; Liebig. Formosa: Gran Guardia. Misiones: Apartado; Bompland; Eldorado; Let; Loreto; Posados; Puerto Iguazu; San Ignacio. Santa Fe: Villa Ana. URUGUAY: Canelones: Atlantida. Montevideo: Montevideo. Paysandú: Constanica. Río Negro.

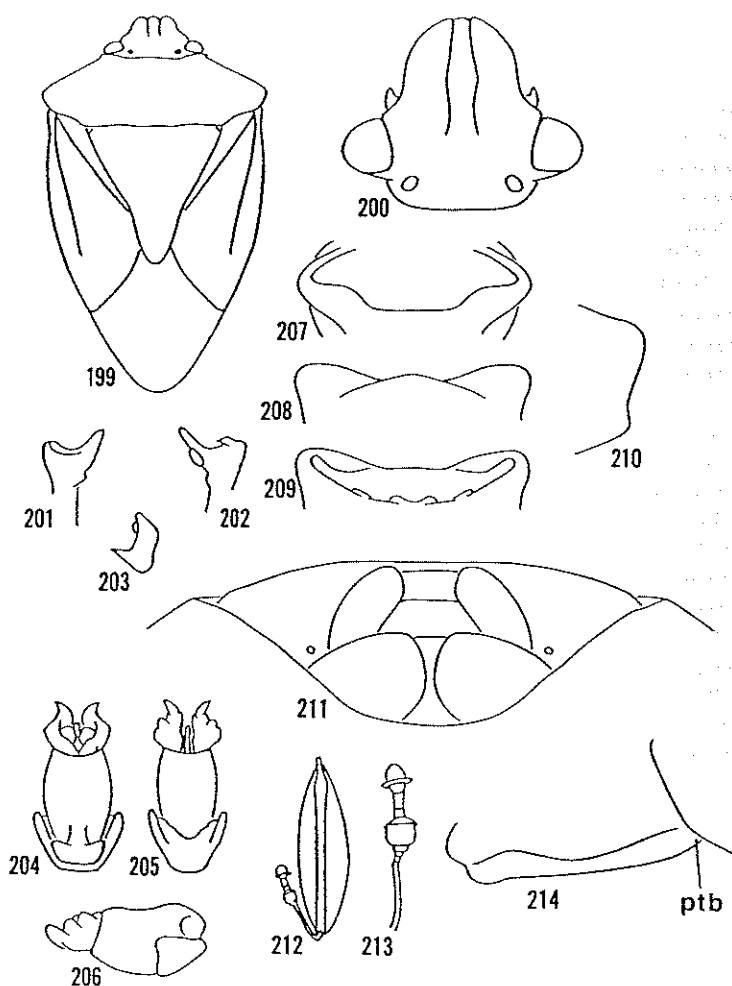
*Comments.* *Thyanta patruelis* is a highly variable species with regard to both size and coloration. It is possible that it represents a group of several very closely related, morphologically indistinguishable species. Two specimens from opposite ends of the spectrum in variability (color, size) appear to be distinct species, but when a series of specimens are examined, it is obvious that all manner of intermediates exist. Also, no matter what the size or color of the specimen, the male and female genitalia are constant, with only minor variations in an occasional specimen.

*Thyanta (Argosoma) acuminata* Ruckes

Figs. 199–214, Map 2

*Thyanta acuminata* Ruckes, 1956:63–65, fig. 5.

*Diagnosis.* Small to medium; dorsal surface green to brown, sometimes with reddish markings on dorsal surface of pronotum and head; punctures usually concolorous with surface.



Figs. 199–214. *T. acuminata*. 199. Habitus. 200. Head. 201–203. Right paramere. 201. Medial view. 202. Lateral view. 203. Ectal view. 204–206. Theca and related structures. 204. Ventral view. 205. Dorsal view. 206. Lateral view. 207–210. Pygophore. 207. Caudal view. 208. Ventral view. 209. Dorsal view. 210. Lateral view. 211. Genital plates, caudoventral view. 212. Spermatheca. 213. Spermathecal pump. 214. Buccula, lateral view. Symbol: ptb, posterior termination of buccula.

Apex of head evenly rounded; outer jugal margins subparallel for middle third of distance from eyes to apex (Fig. 200). Anterolateral margins of pronotum straight to slightly concave in dorsal view; humeral angles rounded, protruding only slightly beyond base of adjacent coria (Fig. 199); pronotal cicatrices immaculate. Hemelytral membranes hyaline, lacking brown distal flecks. Posterolateral angles of connexival segments usually immaculate, sometimes minutely marked with black. Ventral sur-

face green to brown; posterolateral angles of abdominal sternites immaculate; postspiracular black spots absent. Ostiolar rugae acuminate apically.

Mesial margins of basal plates in caudoventral view convex, separated basally and distally; posterior margins convex; posteromesial angles broadly rounded (Fig. 211). Sclerotized rod relatively short, swollen subapically, gradually narrowing apically (Fig. 212). Swelling of spermathecal duct below proximal flange shorter than spermathecal pump and narrowing rather abruptly (Fig. 213). Posterior margin of pygophore in caudal view broadly and shallowly U-shaped, medial portion nearly straight (Fig. 207); posterolateral angles of pygophore prominent in both ventral and dorsal views (Figs. 208, 209); pygophore sinuous in lateral view (Fig. 210). Apex of each paramere in medial view narrowly rounded to spinose, curving gently dorsad (Fig. 201); concave surface oriented more dorsad than mediad; roughened, spiculate area on lateral surface oval (Fig. 202); possessing a distinct spinose lateral lobe in ectal view (Fig. 203). Aedeagus relatively small; each lateral conjunctival lobe with spinose diverticulum apically; median penial lobes spatulate; penisfilum relatively small, short (Figs. 204–206).

*Types.* Ruckes (1956) described this species from 13♂♂ and 4♀♀, all from Argentina and Paraguay. The holotype, which is conserved in the American Museum of Natural History (New York), was examined.

*Distribution.* Southern South America (Map 2).

*Specimens examined.* 197 specimens collected during every month of the year except July and September; deposited in: AMNH, BMNH, CAS, CU, DAR, EGER, ENGL, FSCA, LHR, MRB, SMEK, IML, UCS, UNL, USNM, ZMB. BOLIVIA: Mataral, V. Grande; Villa Vicencio. *Chuquisaca:* Monteagudo. *La Paz:* Iquisivi. *Santa Cruz:* Buena Vista, Prov. Ichilo; Colpa pump stn., 9 m W Warnes; Ingenio La Belgica, 38 km N Santa Cruz; 10 mi W Portachuelo; Rio Grande pump stn., 35 m S Santa Cruz; Saavedra Res. Stn. *Tarija:* Ing. Bermejo; Villa Montes. BRAZIL: *Minas Gerais:* Carmo do R. Claro. PARAGUAY: *Central:* nr. Nemby. *Chaco:* Copagro, trans. Chaco km 589; Expt. Stn Fern. Col. *Concepción:* Horqueta. *Guaira:* Villarrica. *Nueva Asunción:* Parq. Nac. Tte. Enciso. *Presidente Hayes:* 42 km NW Benjamín Aceval; Gran Chaco. ARGENTINA: Laguna de Malvinas. *Catamarca:* Andalgalá; Belén; Frías. *Chaco:* Colonia Benitez; Fortana; Labo Montevideo; Resistencia; Roque Saenz Peña. *Córdoba:* Alta Garcia; Guanaco Muerto. *Formosa:* Clorinda; 40 km SW Clorinda; Gran Guardia; La Florencia Este; 5 km N Pirané; 14 km SE Pirané. *Jujuy:* Perico. *La Rioja:* La Rioja; Patquia. *Salta:* Guemes; J N Gonzales; Tartagal; Rosario de la Frontera; Urundel. *Santa Fe:* Carcaraña. *Santiago del Estero:* Chaco, Rio Salada. *Tucumán:* Cardinal; El Bachi; La Aguadita; 11 km E de Las Cejas; San Miguel de Tucumán; Siambón.

*Comments.* This species can be separated from most other congeners by the reduction of nearly all black markings and by the lack of brown flecks in the hemelytral membranes. The acute lateral lobe of the parameres is a character this species shares only with *T. hamulata*. In *T. hamulata* the apex of each paramere curves dorsad and caudad forming a distinct hook, while in *T. acuminata* the apex of each paramere curves gently dorsad but does not form a hook. Also, the lateral lobe of the paramere in *T. hamulata* is triangular, while in *T. acuminata* it is digitiform and spinose apically.

Female specimens of *T. acuminata* can be distinguished from the other 3 species

of this subgenus which occur in southern South America by examining the spermatheca. *Thyanta boliviensis* and *T. brasiliensis* both have the sclerotized rod not at all swollen subapically; both *T. acuminata* and *T. patruelis* have this structure swollen subapically, although somewhat less so in *T. acuminata*. The swelling of the spermathecal duct below the proximal flange is much more extensive in *T. patruelis*; the length of the swelling being equal to or longer than the spermathecal pump. Also this swelling usually narrows gradually, giving the whole swollen portion the appearance of an inverted cone. In *T. acuminata*, this swollen portion is much shorter and narrows rather abruptly.

***Thyanta (Argosoma) hamulata* Rider, new species**

Figs. 215–229, Map 3

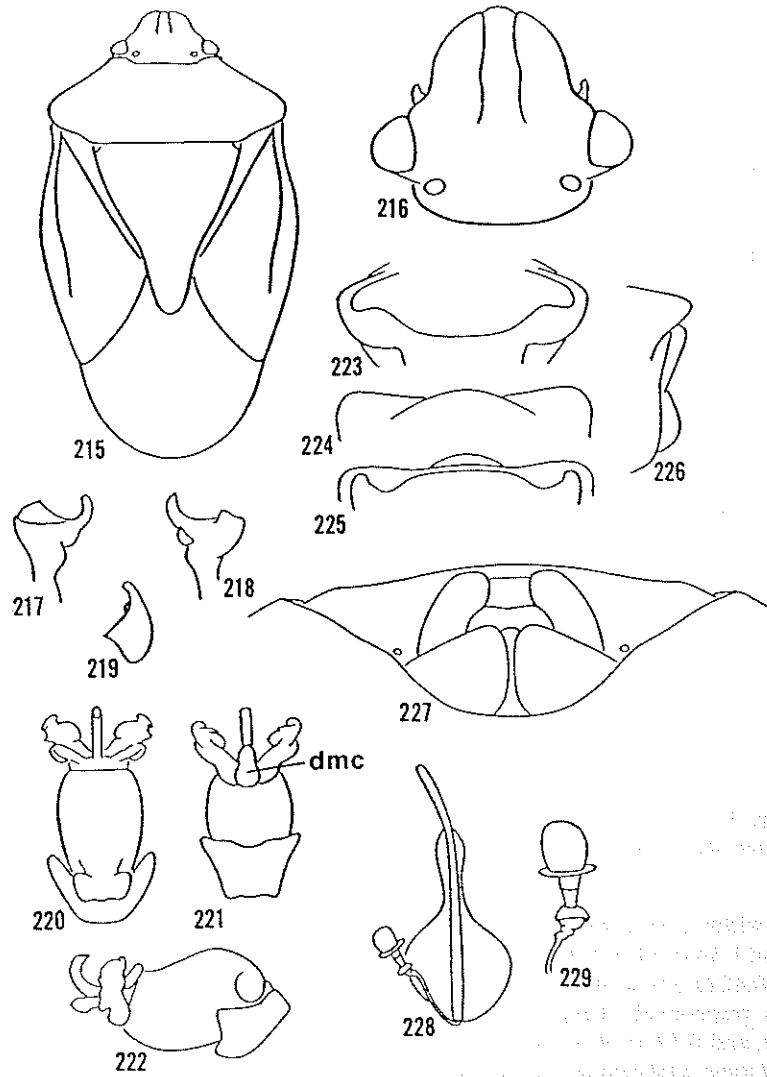
*Description.* Dorsal surface green to pale yellowish-brown, usually no red or black markings present; punctures concolorous with surface.

Apex of head broadly rounded; outer jugal margins sinuous (Fig. 216). Antennae pale brown to green, distal segments slightly darker. Anterolateral margins of pronotum in dorsal view nearly straight; humeral angles obtusely rounded, protruding slightly beyond base of adjacent coria (Fig. 215). Pronotal cicatrices immaculate. Hemelytra uniformly and shallowly punctate; posterior margins weakly convex; costal angles narrowly rounded (Fig. 215), reaching beyond middle of penultimate connexival segments; hemelytral membranes hyaline, a few faint brown flecks sometimes present. Connexiva narrowly or not at all exposed, posterolateral angles of segments sometimes minutely marked with piceous.

Ventral surface pale yellow to yellowish-green; punctures concolorous with surface; rostrum yellow to green, apical half of segment 4 piceous; reaching onto third (second visible) abdominal sternite. Ostiolar canals acuminate apically. Femora and tibiae yellowish-brown to green, tarsal segments sometimes darker. Postspiracular brown spots sometimes vaguely present in brown form; posterolateral angles of abdominal sternites usually immaculate, rarely marked minutely with black.

Mesial margins of basal plates in caudoventral view weakly convex, separated basally; posterior margins nearly straight; posteromesial angles rounded (Fig. 227). Sclerotized rod of nearly equal diameter throughout entire length, not at all swollen near apex; dilation of spermatheca constricted near middle, ending about three-fourths distance from base of sclerotized rod (Fig. 228); spermathecal duct only slightly swollen and coiled below proximal flange (Fig. 229). Posterior margin of pygophore in caudal view broadly and shallowly U-shaped, posterolateral angles somewhat thickened (Fig. 223); chin-like protuberance prominent in ventral and lateral views (Figs. 224, 226); posterior margin nearly straight in dorsal view (Fig. 225). Each paramere with concave surface oriented dorsad; in ectal view, apex narrowly rounded, digitiform, curving gently laterad, with angulate triangular lateral lobe (Fig. 219); from medial view apex curving dorsad and caudad forming a distinct hook (Fig. 217); roughed, spiculate areas on lateral surface of paramere localized, circular (Fig. 218). Each lateral conjunctival lobe of aedeagus with single diverticulum (Fig. 222); dorsomedial lobe present, but small (Fig. 221); penisfilum and median penial lobes of moderate size (Fig. 220).

*Measurements.* Total length 6.31–7.41 (6.39); total width 4.10–4.89 (4.10); medial length of pronotum 1.32–1.61 (1.32). Medial length of scutellum 2.80–3.31 (2.80);



Figs. 215–229. *T. hamulata*. 215. Habitus. 216. Head. 217–219. Right paramere. 217. Medial view. 218. Lateral view. 219. Ectal view. 220–222. Theca and related structures. 220. Ventral view. 221. Dorsal view. 222. Lateral view. 223–226. Pygophore. 223. Caudal view. 224. Ventral view. 225. Dorsal view. 226. Lateral view. 227. Genital plates, caudoventral view. 228. Spermatheca. 229. Spermathecal pump. Symbol: dmc, dorsomedial conjunctival lobe.



Map. 3. *T. (A.) boliviensis*, (○); *T. (A.) brasiliensis*, (●); *T. (A.) emarginata*, (\*); *T. (A.) excavata*, (△); *T. (A.) hamulata*, (□); *T. (A.) obtusa*, (■); *T. (A.) vadosa*, (▲).

basal width 2.58–2.98 (2.58); width at distal end of frena 0.88–0.99 (0.92). Length of head 1.34–1.50 (1.37); width 1.88–2.08 (1.90). Length of segments 1–5 of antennae 0.37–0.42 (0.37), 0.74–0.98 (0.74), 0.81–0.98 (0.81), 0.99–1.21 (1.05), and 1.10–1.14 (1.10), respectively. Length of segments 2–4 of rostrum 1.18–1.29 (1.18), 0.75–0.81 (0.81), and 0.59–0.74 (0.59), respectively.

*Holotype*. ♂ labeled (a) "COLOMBIA: Dept. Valle del Cauca. Bitaco Valley, Finca Kyburz 1 km above Bitaco" (b) "Altitude 4500 ft. 27–28.XI.1963 P. C. Hutchinson & J. K. Wright." Deposited in the California Academy of Sciences (San Francisco).

*Paratypes*. 8♂♂, 9♀♀. Labeled same as holotype (2♂♂ 4♀♀ CAS); (a) "PERU: Dept. Cajamarca Prov. Jaén. Pucara. Rio Huancabamba, 900m 14–18.I.1964" (b) "P. C. Hutchinson and J. K. Wright Collectors" (5♂♂ 2♀♀ CAS), except 2♂♂; labeled "10–13.I.1964"; "PERU: Dept. Amazonas Between Rio Marañón and Bagua. 3-X-1964 P. C. Hutchinson & J. K. Wright" (♂ 2♀♀ CAS); and (a) "PERU: 94 mi. E. of Olmos, Lambayeque I-18-1955" (b) "E.I.Schlinger & E.S.Ross collectors" (♀ CAS).

*Distribution*. Northwestern South America (Map 3).

*Comments*. Only this species and *T. acuminata* have a distinct acute lateral lobe



Map. 4. *T. (P.) acuta*, (□); *T. (P.) acutangula*, (●); *T. (P.) cornuta*, (■); *T. (P.) fimbriata*, (▲); *T. (P.) juvenca*, (○); *T. (P.) robusta*, (△).

on each paramere. In *T. hamulata*, the lateral lobe is triangular, and the apex of each paramere curves dorsad and caudad, forming a distinct hook. In *T. acuminata*, the lateral lobe is spinose, and the apex of each paramere curves gently dorsad, not forming a distinct hook.

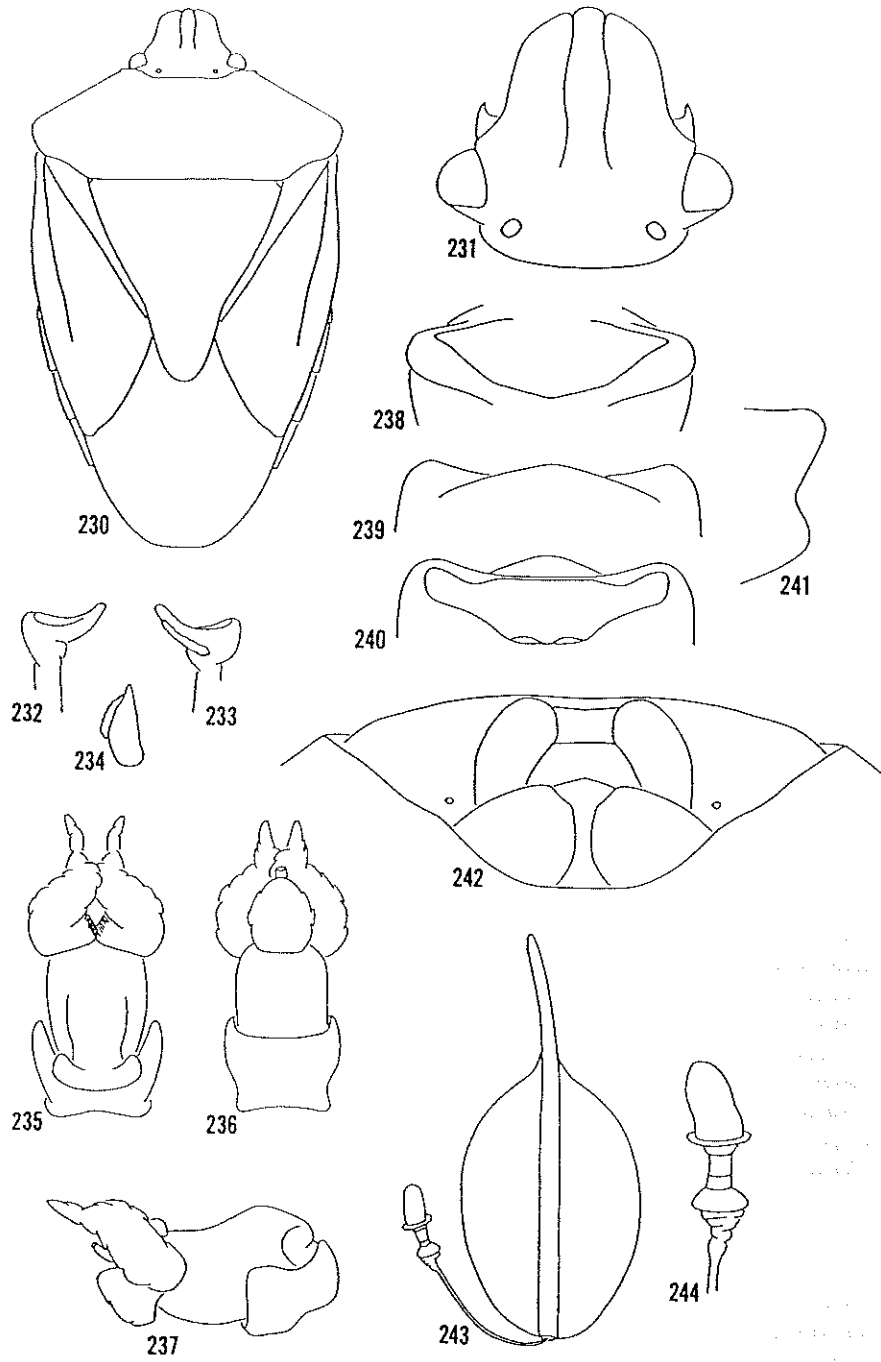
Only four species of *Thyanta* are known to lack the subapical swelling of the sclerotized rod of the spermatheca. *Thyanta emarginata* has the posteromesial angle of each basal plate deeply excavated. *Thyanta hamulata* can be separated from both *T. brasiliensis* and *T. boliviensis* by the constriction in the middle of the dilation of the spermatheca.

*Etymology.* Named for the hamulate or hooked apex of each paramere.

***Thyanta (Argosoma) boliviensis* Rider, new species**

Figs. 230–244, Map 3

*Description.* Medium to large; dorsal surface olive green to reddish-brown; often with reddish-purple markings between humeral angles, on dorsal surface of head, and on apex of scutellum; punctures concolorous with surface.





Apex of head evenly rounded; outer jugal margins sinuous (Fig. 231). Punctures on head rather dense, surface sometimes appearing reticulate. Antennae green to pale brown, distal 3 segments usually marked with red. Anterolateral margins of pronotum straight in dorsal view; humeral angles rounded to nearly angulate, produced beyond base of adjacent coria by one-half width of eye or less (Fig. 230). Pronotal cicatrices immaculate. Hemelytral punctures shallow, slightly more dense on exocorium; posterior margins slightly convex; costal angles narrowly rounded, usually reaching to middle of penultimate connexival segments (Fig. 230); hemelytral membranes hyaline, usually lacking all brown flecks. Connexiva narrowly exposed, posterolateral angles of segments piceous.

Ventral surface yellowish-green to brown; punctures concolorous with surface. Rostrum pale brown, apical half of segment 4 piceous, reaching onto base of third (second visible) abdominal segment. Ostiolar canals acuminate apically. Femora and tibiae pale brown, tarsal segments and distal third of each tibia sometimes darker. Postspiracular spots lacking; posterolateral angles of abdominal sternites piceous.

Mesial margins of basal plates convex, separated basally and distally; posterior margins straight to slightly convex; posteromesial angles slightly emarginate (Fig. 242). Sclerotized rod elongate, neither swollen subapically nor abruptly narrowed apically; dilation of spermatheca extending about three-fourths length of sclerotized rod, not abruptly narrowed on apical fourth (Fig. 243); spermathecal bulb slightly elongate, spermathecal duct with small amount of coiling below proximal flange (Fig. 244). Posterior margin of pygophore sinuously U-shaped in caudal view, medial portion slightly concave (Fig. 238); pygophore emarginate in lateral view (Fig. 241); posterolateral angles not distinctly prominent in ventral or dorsal views (Figs. 239, 240). Apex of each paramere acute, nearly spinose in medial view (Fig. 232); paramere slightly lunate in ectal view, apex nearly spinose (Fig. 234); roughened, spiculate area on lateral surface of paramere linear in shape (Fig. 223), corresponding black carina on wall of pygophore also linear. Each lateral conjunctival lobe of aedeagus with one acute diverticulum apically and one obtuse slightly sclerotized diverticulum ventrally (Fig. 235); dorsomedial lobe well developed (Fig. 236); penisfilum and median penial lobes nearly hidden by conjunctiva (Fig. 237).

*Measurements.* Total length 7.41–9.90 (7.73); total width 4.73–6.07 (4.89); medial length of pronotum 1.40–1.82 (1.51). Medial length of scutellum 3.05–4.08 (3.13); basal width 3.02–3.86 (3.13); width at distal end of frena 0.99–1.32 (1.03). Length of head 1.57–1.82 (1.64); width 2.03–2.32 (2.12). Length of segments 1–5 of antennae 0.48–0.55 (0.52), 0.75–0.99 (0.81), 1.10–1.32 (1.25), 1.32–1.53 (1.47), and 1.36–1.44 (1.44), respectively. Length of segments 2–4 of rostrum 1.21–1.51 (1.21), 0.81–0.96 (0.85), and 0.81–0.99 (0.92), respectively.

*Holotype.* ♂ labeled (a) "Yungas de La Paz, Bolivia Dec. 4–20, 1955, 1200–1700

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Figs. 230–244. *T. boliviensis*. 230. Habitus. 231. Head. 232–234. Right paramere. 232. Medial view. 233. Lateral view. 234. Ectal view. 235–237. Theca and related structures. 235. Ventral view. 236. Dorsal view. 237. Lateral view. 238–241. Pygophore. 238. Caudal view. 239. Ventral view. 240. Dorsal view. 241. Lateral view. 242. Genital plates, caudoventral view. 243. Spermatheca. 244. Spermathecal pump.

M Luis E. Pena, Collector" (b) "J C Lutz Collection 1961." Deposited in the U.S. National Museum of Natural History (Washington, D.C.).

*Paratypes.* 44♂♂, 66♀♀. Labeled same as holotype (4♂♂ 2♀♀ USNM); labeled as holotype, except lacking (b) (6♂♂ 4♀♀ AMNH, FSCA); labeled as holotype, except (b) "Thyanta humeralis Ruckes Det. J. C. Lutz" (♂ AMNH); labeled as holotype, except (b) "Thyanta humeralis Ruckes Lutz '57" (♂ 2♀♀ AMNH, FSCA); "Coripata 1700m. Yungas La Paz Bol. 1-XII-1984 Coll. L.E.Pena" (6♀♀ USNM); "Pte. Mururata Yungas La Paz Bol. 1200-1600m. 24-26-XII-1984 Coll. L.E.Pena" (4♂♂ 5♀♀ USNM); "Chulumani Yungas La Paz Bol. XII-1984 Coll. L.E.Pena" (♀ USNM); (a) "BOLIVIA: Dpt. La Paz, Prov. Sud Yungas, 21 km. W. Chulumani. 4050'.27-V-1989. J.E. Eger, coll." (b) "J.E. Eger Collection" (2♂♂ 4♀♀ EGER); (a) "BOLIVIA: Dpt. La Paz, Prov. Sud Yungas, Puente Villa. 4300'.19-24-V-1989. J.E. Eger, coll." (b) "J.E. Eger Collection" (2♂♂ 5♀♀ EGER); "(SE) Coroico 1800-2100m. La Paz Bol. 30-XI-2-XII-84 Coll. L.E.Pena G." (♂ USNM); "Rio Coroico 1200m. La Paz Bol. 24-26-XI-84 Coll. L.E.Pena" (10♂♂ 6♀♀ USNM); (a) "Bolivia, Coroico 20.12.48 A. Martinez" (b) "C J Drake Coll. 1956" (♂ USNM); (a) "Coroico Bolivia" (b) "H G Barber Colln 1950" (♂ ♀ USNM); (a) "BOLIVIA, L.P., 1190 m., 1 mi. E. Puente Villa, S. Yungas IV-8-1978 C&L O'Brien" (b) "Thyanta misc ♀♀" (♀ ENGL); "Circuata-Cajuata 2400 m. La Paz Bol. 3-5-XII-84 Coll. L.E.Pena" (2♂♂ 2♀♀ USNM); "Monteagudo Chuquisaca Bol. 24-XII-84 Coll. L.E.Pena" (4♀♀ USNM); "(E) Muyupampa 1600 m. Chuquisaca Bol. 21-25-XII-84 Coll. L.E.Pena G." (2♂♂ 3♀♀ USNM); "Mataral (N) V. Grande Bol. 1800-2000m. 15-17-XII-1984 Coll. L.E.Pena" (♀ USNM); "Sta. Rosa 1100 m. (N) Mataral Bol. 15-XII-84 Coll. L.E.Pena" (3♂♂ 3♀♀ USNM); "Pto. Camacho (S) Sta. Cruz Bol. 20-XII-84 Coll. L.E.Pena" (♀ USNM); "Comarapa 1800 m. Santa Cruz Bol. 14-XII-84 Coll. L.E.Pena" (♀ USNM); "TRES ESTEROS Guanay, Boliv 19/25-Aug-89 leg: L.E. Peña" (♀ USNM); (a) "Rurrenabaque Beni Bolivia WMMann" (b) "Nov. 1921" (c) "MULFORD BIOLOGICAL EXPLORATION 1921-1922" (♀ USNM); "Coripata" (♂ 5♀♀ MLP), except 1♀ with (b) "Thyanta, P. DENIER det." (MLP); (a) "Ost Bolivien Prov. Lara 750 m Steinbach S.V." (b) "Z.M.B. Hem." (♀ ZMB); "caranavi" (♀ MLP); "Corzuela n 8.1.36" (♀ MLP); "Peru, 2400m alt. Dept Cusco Machu Picchu VII, 14-15, 1951 sweeping G.H. Dieke" (♀ USNM); (a) "Macchu Picchu Ruins, Cuzco, Peru March 6 1947 Alt. 9500 ft." (b) "J. C. Pallister Coll. Donor Frank Johnson" (c) "Thyanta patruelis Stål det. H. Ruckes" (♀ AMNH); "PERU: Cuzco, Pisac, 3,000m. 15.viii.1971 C. & M. Vardy B.M. 1971-533" (♂ BMNH); (a) "Abancay, PERU. III-6-51" (b) "Ross and Michelbacher Collectors" (2♀♀ CAS); (a) "Arg. Salta Positos II.50 A. Martinez" (b) "C J Drake Coll. 1956" (♂ USNM); and (a) "AcSA: 217C ARGENTINA TUCUMAN Cadillal s/Solanum auriculatum 15/11/85 ERG" (b) "Thyanta sp. Det. T. J. Henry 1987" (♂ USNM).

*Distribution.* Southeastern Peru, Bolivia, and northern Argentina (Map 3).

*Comments.* In general appearance this species resembles larger specimens of *T. patruelis*, but it is more closely related to *T. brasiliensis*. Male specimens can be separated from all other species in the subgenus *Agrosoma* by the elongate, linear spiculate area on the lateral surface of each paramere. Male and female specimens can usually be distinguished from *T. brasiliensis* by the less prominent humeral angles. The only way to reliably separate females of *T. boliviensis* and *T. patruelis* is by examining the spermatheca of each species. In *T. boliviensis*, the sclerotized rod is neither swollen subapically nor abruptly narrowed apically as it is in *T. patruelis*.

Only *T. brasiliensis*, *T. emarginata*, *T. excavata*, and *T. hamulata* have the sclerotized rod as described above. *Thyanta emarginata* can be identified by the distinctly excavated basal plates; the remaining three species can be distinguished by the condition of the dilation of the spermatheca. In *T. boliviensis* this structure is in the form of a single balloon-like structure; in *T. brasiliensis* it is abruptly narrowed for the distal half; and in *T. hamulata* it is constricted in the middle and then dilates again, forming a figure 8 shape.

*Etymology.* Named for the country of the type locality.

*Thyanta (Argosoma) brasiliensis* Jensen-Haarup  
Figs. 245–259, Map 3

*Thyanta brasiliensis* Jensen-Haarup, 1928:187, 189–190.

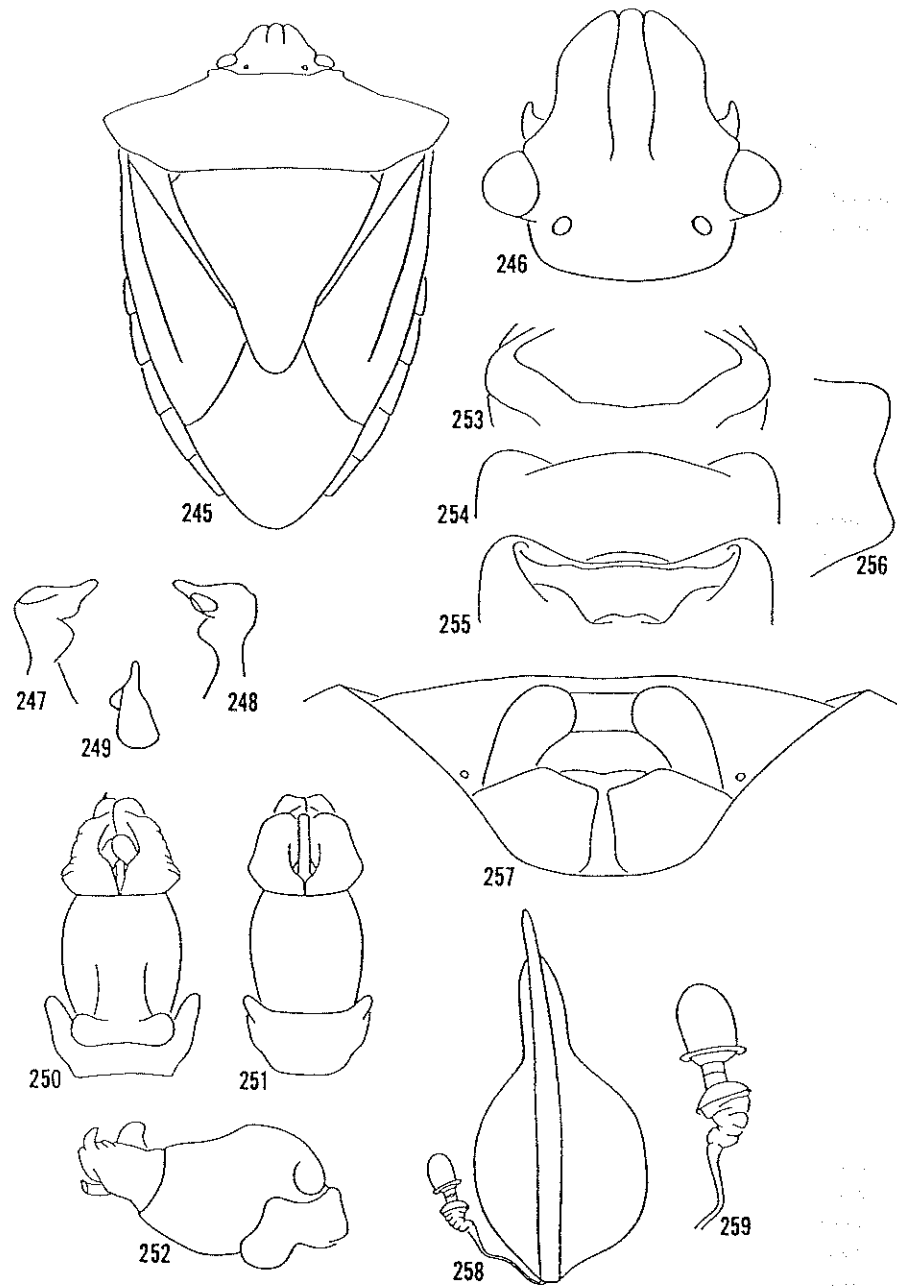
*Thyanta humeralis* Ruckes, 1956:57–59, fig. 2. NEW SYNONYMY.

*Diagnosis.* Medium to large, robust; extremely variable in coloration. One form green to pale brown, usually with dark reddish-purple markings between humeral angles, on dorsal surface of head, and on apex of scutellum. Second form pale green to fuscous, sometimes tending to purplish, often with anterior two-thirds of pronotal disc much paler than rest, sometimes with numerous interstellate pale points on coria. Punctures usually concolorous with surface, sometimes brown.

Outer jugal margins nearly parallel for middle third of distance from eyes to apex (Fig. 246). Anterolateral margins of pronotum in dorsal view concave; humeral angles narrowly rounded to angulate, sometimes marked with black, extending beyond base of adjacent coria by one-half width of eye or more (Fig. 245); pronotal cicatrices not marked with black. Hemelytral membranes hyaline, often with a few brown flecks. Posterolateral angles of connexival segments usually piceous. Postspiracular black spots usually lacking, sometimes present in darker specimens; posterolateral angles of abdominal sternites piceous.

Mesial margins of basal plates in caudoventral view nearly straight, separated basally; posterior margins sinuously convex; posteromesial angles narrowly rounded (Fig. 257). Sclerotized rod not at all swollen subapically, gradually tapering to a narrowly rounded apex; dilation of spermatheca single, but abruptly narrowed for distal third, ending a short distance from apex of sclerotized rod (Fig. 258); spermathecal duct with a moderate amount of coiling below proximal flange (Fig. 259). Posterior margin of pygophore in caudal view broadly U-shaped, medial portion nearly straight (Fig. 253); lateral angles of pygophore and blunt chin-like protuberance prominent when viewed laterally (Fig. 256). Apex of each paramere narrowly rounded, nearly spinose in ectal view (Fig. 249); concave surface oriented more mediad than dorsad, apex narrowly rounded in medial view, shaft with prominent protuberance just below parameral head (Fig. 247); roughened, spiculate area on lateral surface obovate (Fig. 248). Each lateral conjunctival lobe of aedeagus with one acute diverticulum (Fig. 252); median penial lobes relatively large (Fig. 250); penisfilum medium in size; dorsomedial conjunctival lobe apparently absent (Fig. 251).

*Types.* Jensen-Haarup (1928) described *T. brasiliensis* from 1♂ and 1♀ without designating a holotype. The ♂ labeled (a) "♂" (b) "Type Coll. J=Hrp." (c) "Type" (d) "Thyanta brasiliensis J-Hrp Coll. Jensen Haarup." (e) "Lagoa Santa Reinhardt" is designated lectotype. The ♀ labeled (a) "♀" (b) "Type Coll. J=Hrp." (c) "Type" (d)



Figs. 245-259. *T. brasiliensis*. 245. Habitus. 246. Head. 247-249. Right paramere. 247. Medial view. 248. Lateral view. 249. Ectal view. 250-252. Theca and related structures. 250. Ventral view. 251. Dorsal view. 252. Lateral view. 253-256. Pygophore. 253. Caudal view.

"Rio de Janeiro Reinhardt" (e) "Thyanta brasiliensis Jensen-Haarup leg." is designated paralectotype. Both specimens were examined and are housed in the Universitets Zoologiske Museum (Copenhagen, Denmark).

Ruckes (1956) described *T. humeralis* from 9♂♂ and 10♀♀. The holotype was examined, although it is slightly larger than the type of *T. brasiliensis*, there is no other significant difference. The holotype of *T. humeralis* is located in the American Museum of Natural History (New York).

*Distribution.* Southern South America (Map 3).

*Specimens examined.* 163 specimens collected during every month of the year; deposited in AMNH, BMNH, CAS, CU, DAR, DBT, EGER, FSCA, IML, LHR, MCN, MGA, OSU, UEC, USNM, ZMB, ZMUC. PERU: *Junín*: Satipo. *Loreto*: Guyabamba, near Iquitos. BRAZIL: Lagoa Santa; Rodcio. *Esperito Santo*: Vitória. *Mato Grosso*: Cuiabá. *Mato Grosso do Sul*: Corumbá; Miranda. *Minas Gerais*: Varginha. *Pará*: Jacaréacanga. *Paraíba*: 5 mi E Maravilha. *Rio de Janeiro*: Rio de Janeiro; Teresópolis. *Rio Grande do Sul*: Pôrto Alegre. *Santa Catarina*: Anita Garibaldi Est.; Nova Teutônia. *São Paulo*: Bebedouro; Campinas; Cosmópolis; Indiana; Piracicaba. BOLIVIA: Villa Vicencia. *Cochabamba*: Chapare, Christal-Mayu. *El Beni*: Trinidad. *La Paz*: Coroico; Rurrenabaque. *Santa Cruz*: Buena Vista; Montero; Saavedra. PARAGUAY: San Luis. *Alto Paraíba*: Puerto Presidente Stroessner. *Caaguazú*: Estancia Primera. *Central*: Nueva Italia. *Concepción*: Horqueta. *Cordillera*: Inst. Agro. Nac., Caacupé; San Bernardino; 20 km NW San Bernardino. *Guaira*: Villarica. *Itapúa*: Trinidad. *Paraguarí*: Sapucaí. *Presidente Hayes*: Gran Chaco. ARGENTINA: *Córdoba*: Sierra de Córdoba, Cosquin. *Misiones*: Apartado; Eldorado; Leandro Alem; Let; Puerto Iguazú; Puerto Rico; Victoria.

*Comments.* This species occurs in two fairly distinct color forms, but an examination of the genitalia of both sexes and other morphological characters reveals no significant differences. Because some specimens intermediate between the two forms do occur, it is believed that all specimens belong to a single variable species.

This species can be recognized from other congeners by the robust shape, sometimes by the dorsal coloration, often by the distinctly prominent humeral angles and the posteroventral production of the pygophore when viewed laterally, and by the shape of the parameres. Females can be identified by the shape of the spermatheca. It is the only species with the sclerotized rod not swollen subapically and with a single dilation of the spermatheca that is abruptly narrowed distally for a short distance.

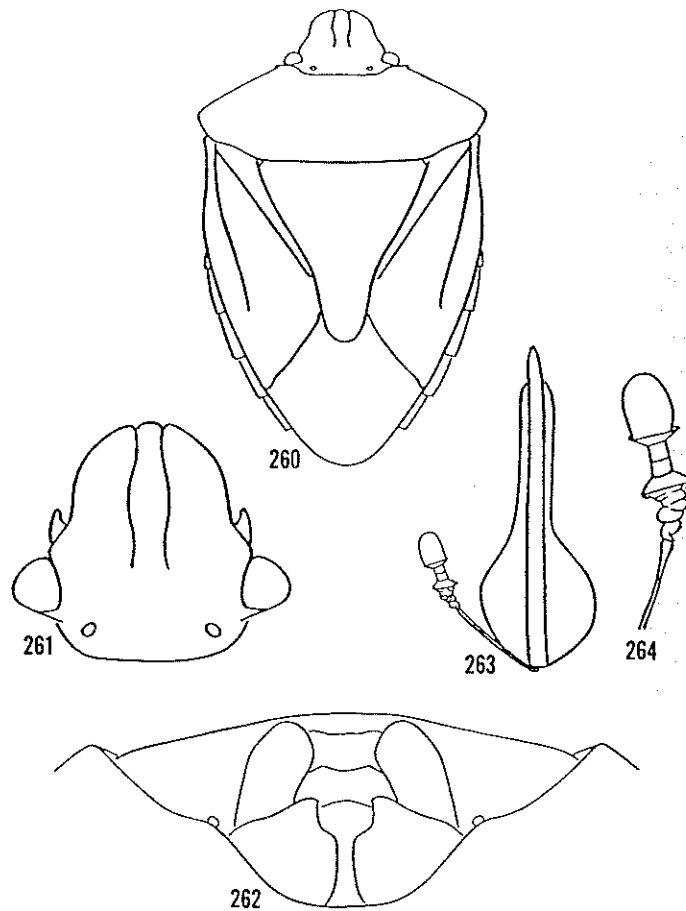
#### ***Thyanta (Argosoma) emarginata* Rider, new species**

Figs. 260–264, Map 3

*Description.* Dorsal surface olive-brown, head and anterior two-thirds of pronotum slightly darker; apex of scutellum reddish; punctures reddish-brown.

Apex of head evenly rounded; outer jugal margins sinuous, nearly parallel for middle third of distance from eyes to apex (Fig. 261); surface of head rather densely punctate, juga appearing somewhat reticulate. Antennae pale brown, some reddish

←  
254. Ventral view. 255. Dorsal view. 256. Lateral view. 257. Genital plates, caudoventral view. 258. Spermatheca. 259. Spermathecal pump.



Figs. 260-264. *T. emarginata*. 260. Habitus. 261. Head. 262. Genital plates, caudoventral view. 263. Spermatheca. 264. Spermathecal pump.

hues on distal 3 segments. Anterolateral margins of pronotum straight in dorsal view; humeral angles rounded, nearly angulate, apex piceous, protruding slightly beyond base of adjacent coria (Fig. 260). Surface of pronotum transversely depressed just posterior to pronotal cicatrices; each pronotal cicatrice marked with fuscous in mesial angle. Hemelytra rather uniformly punctate; posterior margins weakly convex; costal angles reaching beyond middle of penultimate connexival segments (Fig. 260); hemelytral membranes hyaline. Connexiva narrowly exposed, stramineous; posterolateral angles of segments piceous.

Ventral surface pale yellowish brown; punctures concolorous. Rostrum stramineous, segment four black on apical half, reaching to near posterior margin of third (second visible) abdominal sternite. Ostiolar canals acuminate apically. Femora and

tibiae stramineous to pale brown. Postspiracular black spots absent; posterolateral angles of abdominal sternites piceous.

Mesial margins of basal plates in caudoventral view slightly convex; posterior margins sinuous; posteromesial angles deeply excavated; concavity resulting from excavations in basal plates nearly as long as wide, with lateral sides nearly parallel (Fig. 262); surface of basal plates distinctly rugose, area near excavation fuscous. Sclerotized rod relatively elongate, not at all swollen subapically; dilation of spermatheca single, but abruptly narrowed for distal two-thirds of length of sclerotized rod (Fig. 263); spermathecal duct moderately swollen and coiled below proximal flange (Fig. 264). Male unknown.

*Measurements.* Total length 8.36; total width 5.41; medial length of pronotum 1.73. Medial length of scutellum 3.50; basal width 3.20; width at distal end of frena 1.21. Length of head 1.70; width 2.12. Length of segments 1-5 of antennae 0.49, 0.83, 0.99, 1.18, and 1.25, respectively. Length of segments 2-4 of rostrum 1.32, 0.88, and 0.87, respectively.

*Holotype.* ♀ labeled "Peru. Dpto. La Libertad Cumpang. above Uctubamba. 2625 M. 13 X 1979. L. J. Barkley." Deposited in the U.S. National Museum of Natural History (Washington, D.C.). No paratypes.

*Distribution.* Peru (Map 3).

*Comments.* Although several species of *Thyanta* are known to have the posteromesial angle of the basal plates weakly emarginate, only three have this angle deeply emarginate. The resulting concavity in the basal plates of *T. vadosa* is much more shallow and the sides are divergent; both *T. emarginata* and *T. excavata* have the concavity deeper, with the sides nearly parallel. *Thyanta emarginata* differs from *T. excavata* by having the resulting concavity nearly as long as wide, and by the distinctly rugose surfaces of the basal plates, which are weakly rugose in *T. excavata*.

*Thyanta emarginata* further differs from both *T. vadosa* and *T. excavata* by the structure of the spermatheca. The sclerotized rod in *T. emarginata* is not swollen subapically as it is in *T. vadosa* and *T. excavata*. The nonswollen sclerotized rod is a character that *T. emarginata* shares only with *T. hamulata*, *T. brasiliensis*, and *T. boliviensis*. None of these three species have the basal plates excavated.

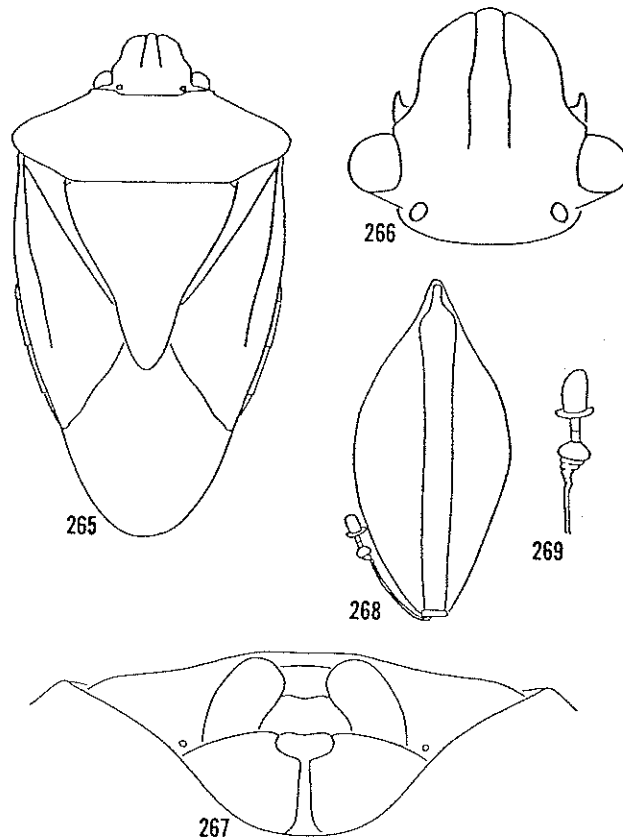
*Etymology.* Named for the distinctly emarginate posteromesial angles of the basal plates.

#### ***Thyanta (Argosoma) excavata* Rider, new species**

Figs. 265-269, Map 3

*Description.* Dorsal surface glossy, pale to medium green with reddish-purple transhumeral band, sometimes with reddish-purple coloration on dorsal surface of head, on apex of scutellum, and on apex of coria; punctures concolorous with surface.

Apex of head evenly rounded, outer jugal margins subparallel for middle third of distance from eyes to apex (Fig. 266). Antennae pale reddish-green, distal two segments slightly darker. Anterolateral margins of pronotum in dorsal view nearly straight; humeral angles obtusely rounded, protruding only slightly beyond margin of adjacent coria (Fig. 265). Pronotal cicatrices immaculate. Hemelytra uniformly and shallowly punctate; posterior margins nearly straight; costal angles narrowly rounded to angulate, extending to beyond middle of penultimate connexival segments; hemelytral



Figs. 265–269. *T. excavata*. 265. Habitus. 266. Head. 267. Genital plates, caudoventral view. 268. Spermatheca. 269. Spermathecal pump.

membranes hyaline, lacking brown flecks. Connexiva narrowly exposed, pale green; posterolateral angles of segments minutely marked with black.

Ventral surface glossy, pale yellow to pale green; punctures concolorous with surface; rostrum pale brown with dark brown markings, apical half of segment 4 piceous, reaching onto base of third (second visible) abdominal sternite. Ostiolar canals acuminate apically. Femora and tibiae pale green. Postspiracular black spots absent; posterolateral angles of abdominal segments minutely marked with black.

Mesial margins of basal plates in caudoventral view nearly straight; posterior margins slightly convex; posteromesial angle of each basal plate distinctly excavated; concavity resulting from excavations in basal plates wider than long, with lateral sides parallel or slightly convergent apically (Fig. 267); surface of basal plates weakly rugose. Sclerotized rod swollen subapically, abruptly narrowed apically (Fig. 268). Spermathecal duct only slightly swollen and coiled below proximal flange (Fig. 269). Male unknown.

*Measurements.* Total length 8.52–8.99 (8.99); total width 5.13–5.68 (5.68); medial



length of pronotum 1.66–1.89 (1.89). Medial length of scutellum 3.53–3.59 (3.59); basal width 3.20–3.42 (3.42); width at distal end of frena 1.21 (1.21). Length of head 1.68–1.72 (1.72); width 2.14–2.21 (2.21). Length of segments 1–5 of antennae 0.40 (0.40), 0.85–0.88 (0.85), 0.92–1.09 (1.09), 1.10, and 1.14, respectively. Length of segments 2–4 of rostrum 1.31–1.44 (1.44), 0.78–0.92 (0.92), and 0.81–0.86 (0.86), respectively.

*Holotype*. ♀ labeled (a) "COLOMBIA: Dept. Magdalena, Socorpa Mission, Sierra de Perija, m. VIII-5-25-1968" (b) "Borys Malkin Collector." Deposited in the American Museum of Natural History (New York).

*Paratype*. 1♀. (a) "Venezuela - AR El Limon 450m 1-VI-1965" (b) "Col. E. Osuna" (c) "Venezuela-Inst Zool. Agrícola-Fac. Agronomía Univ, Central" (♀ IZA).

*Distribution*. Northern South America (Map 3).

*Comments*. Of the three species of *Thyanta* with distinctly excavated basal plates, *T. excavata* can be identified by the wider than long concavity in the basal plates which has the lateral sides parallel or slightly convergent; and by the weakly rugose surface of the basal plates.

#### *Thyanta (Argosoma) vadosa* Rider, new species

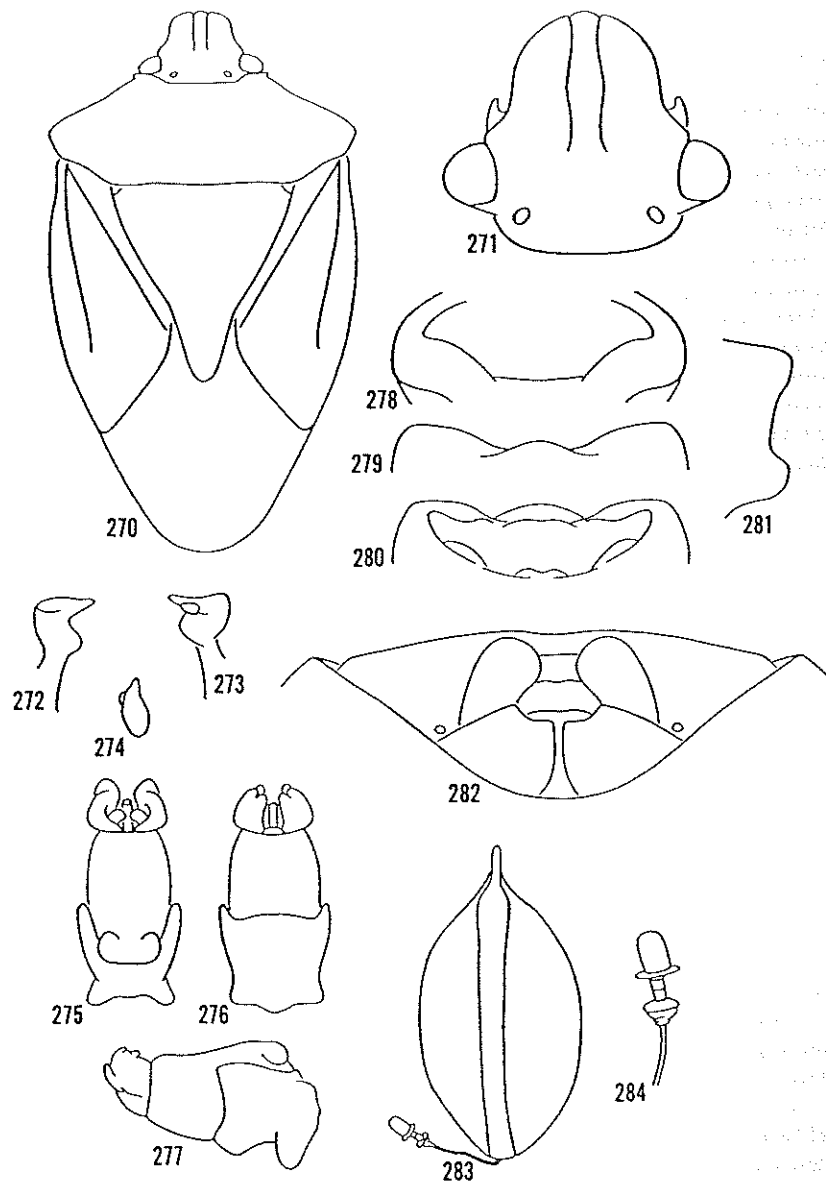
Figs. 270–284, Map 3

*Description*. Ovate; dorsal surface green to pale brown; some interstitial areas of pronotum, scutellum, and elytra pale yellow; sometimes marked with reddish-purple between humeral angles, on apex of scutellum, and on tylus and vertex of head. Punctures green to pale brown.

Apex of head arcuately rounded; outer jugal margins sinuous, subparallel for middle third of distance from eyes to apex (Fig. 271); vertex convex. Antennae pale green to brown, apical portions of distal 3 segments reddish to dark brown. Anterolateral margins of pronotum in dorsal view straight to slightly concave; humeral angles rounded to angulate, often projecting beyond base of adjacent coria (Fig. 270). Pronotal cicatrices immaculate. Punctuation becoming sparse medially, central portion of pronotal disc subcalloused. Posterior third of pronotum often darker than rest of pronotum. Basal disc of scutellum tumid. Hemelytra glossy, punctures shallow, uniformly distributed; costal angles narrowly rounded to angulate, reaching to middle of penultimate connexival segments. Membranes hyaline, with a few obsolescent brown flecks distally. Connexiva narrowly exposed, green to pale brown; posterolateral angles of segments piceous.

Venter pale yellow to green; punctures concolorous. Femora and tibiae pale brown to green, tarsal segments and apex of each tibia darker. Rostrum green to pale brown, distal half of segment 4 black, reaching onto base of abdomen. Ostiolar canals acuminate apically. Postspiracular black spots lacking (except in brown form); posterolateral angles of abdominal sternites marked with piceous, sometimes only minutely so.

Mesial margins of basal plates in caudoventral view straight to slightly convex; posterior margins slightly convex; posteromesial angle of each basal plate broadly and shallowly emarginate, lateral sides of concavity resulting from excavations in basal plates divergent, not parallel (Fig. 282). Distal end of sclerotized rod swollen subapically, narrowed apically (Fig. 283); spermathecal duct moderately swollen and coiled below proximal flange (Fig. 284). Posterior margin of pygophore in caudal



Figs. 270-284. *T. vadosa*. 270. Habitus. 271. Head. 272-274. Right paramere. 272. Medial view. 273. Lateral view. 274. Ectal view. 275-277. Theca and related structures. 275. Ventral view. 276. Dorsal view. 277. Lateral view. 278-281. Pygophore. 278. Caudal view. 279. Ventral view. 280. Dorsal view. 281. Lateral view. 282. Genital plates, caudoventral view. 283. Spermatheca. 284. Spermathecal pump.

view broadly U-shaped, medial portion straight to slightly convex (Fig. 278); chin-like protuberance appearing relatively narrow in ventral and dorsal views (Figs. 278, 279); pygophore deeply emarginate in lateral view (Fig. 281). Each paramere with concave surface oriented medially; from ectal view, apex angling gently mesad (Fig. 274); from medial view, apex acutely angulate, straight or bending slightly ventrad (Fig. 272); roughened spiculate area on lateral surface ovoid (Fig. 273). Each lateral conjunctival lobe of aedeagus without sclerotized diverticula (Fig. 277); dorsomedial conjunctival lobe weakly developed (Fig. 276); median penial lobes spatulate (Fig. 275).

*Measurements.* Total length 7.57–10.17 (8.04); total width 4.73–6.15 (5.05); medial length of pronotum 1.60–1.88 (1.66). Medial length of scutellum 3.15–4.08 (3.42); basal width 2.98–3.75 (3.20); width at distal end of frena 1.14–1.32 (1.18). Length of head 1.59–1.86 (1.64); width 2.12–2.39 (2.21). Length of segments 1–5 of antennae 0.44–0.52 (0.44), 0.81–0.96 (0.85), 0.96–1.14 (1.07), 1.14–1.25 (1.14), and 1.07–1.18 (1.07), respectively. Length of segments 2–4 of rostrum 1.21–1.44 (1.29), 0.74–0.88 (0.77), and 0.70–0.81 (0.74), respectively.

*Holotype.* ♂ labeled (a) "Santa Margarita Hill, TRINIDAD May, 1959" (b) "Taken at light." Deposited in the Canadian National Collection, Ottawa, Canada.

*Paratypes.* 5♂♂, 5♀♀. "Trinidad, W.I. Sept. 58–June 59" (♂ CNC); (a) "Bejucal, Trinidad, BWI, 24 Oct. 1945" (b) "E. McC. Callan Collector" (c) "on inflorescences of *Cordia macrostachya*" (♂ USNM); (a) "Trinidad, 8 II '52, F. Schrader, ♂, 776" (b) "*Thyanta pseudocasta* (Blt.) sp. with TYPE, det. Ruckes" (♂ AMNH); "TOBAGO: W.I. 17–19 July 1964 J.M. Capriles" (♂ USNM); (a) "TRINIDAD: CUREPE, SANTA MARGARITA CIRCULAR RD. 5-III-76 F. D. BENNETT BLACKLIGHT TRAP" (b) "C J Drake Coll. 1956" (♂ USNM); TRINIDAD: Curepe, Santa Margarita Circular Rd. III-19-75-X-1971 F. D. Bennett, Blacklight trap" (2♀♀ ARH); (a) "St. Augustine, Trinidad, BWI, Sept. 15, 1944" (b) "I. E. Kirby Coll." (c) "I.C.T.A. 12953" (♀ USNM); (a) "Trinidad, 16 I '52, F. Schrader, 702" (b) "*Thyanta maculata* (Fabr.), det H. Ruckes" (♀ AMNH); and "VENEZUELA: Lara; Yacambu National Park 13kmSE Sanare, 4800 feet, 4–7 III 1978, blacklight, cloud forest, J.B. Heppner" (♀ USNM).

*Distribution.* Trinidad and Tobago; Venezuela (Map 3).

*Comments.* The shape of the emargination in the posteromesial angle of each basal plate of the female is distinctive. *Thyanta emarginata* and *T. excavata* both have the posteromesial angles of the basal plates deeply emarginate, but the sides of the resulting concavity are nearly parallel, not divergent as in *T. vadosa*. The male genitalia are also distinctive. *Thyanta vadosa* is the only species with the apex of each paramere not only acutely angulate (almost acuminate) but also straight or bending slightly ventrad. All other species in the subgenus *Argosoma* that have the apex of each paramere acute to acuminate also have the apex bending dorsad.

*Etymology.* *Vadosa* is the Latin word for shallow. This species is named for the distinct but shallow excavation of the posteromesial angle of each basal plate.

#### ***Thyanta (Argosoma) curvata* Rider, new species**

Figs. 285–299, Map 1

*Description.* Medium to large; dorsal surface pale green to pale brown, female specimens usually with reddish transhumeral markings in form of oblong spot on

each side of middle and smaller spot near apex of each humeral angle, sometimes apex of scutellum also reddish; punctures usually concolorous with surface.

Apex of head narrowly rounded; outer jugal margins not parallel (Fig. 286). Antennae pale green to pale brown, sometimes distal portions of last three segments darker. Anterolateral margins of pronotum straight to slightly concave in dorsal view; humeral angles narrowly rounded, almost angulate, protruding beyond base of adjacent coria by one-half width of eye or less (Fig. 285); pronotal cicatrices immaculate. Hemelytra shallowly and uniformly punctate; posterior margins straight to slightly convex; posterolateral angles narrowly rounded, ending above penultimate connexival segments; hemelytral membranes hyaline, lacking distal brown flecks. Connexiva usually narrowly exposed; incisures usually minutely tipped with black.

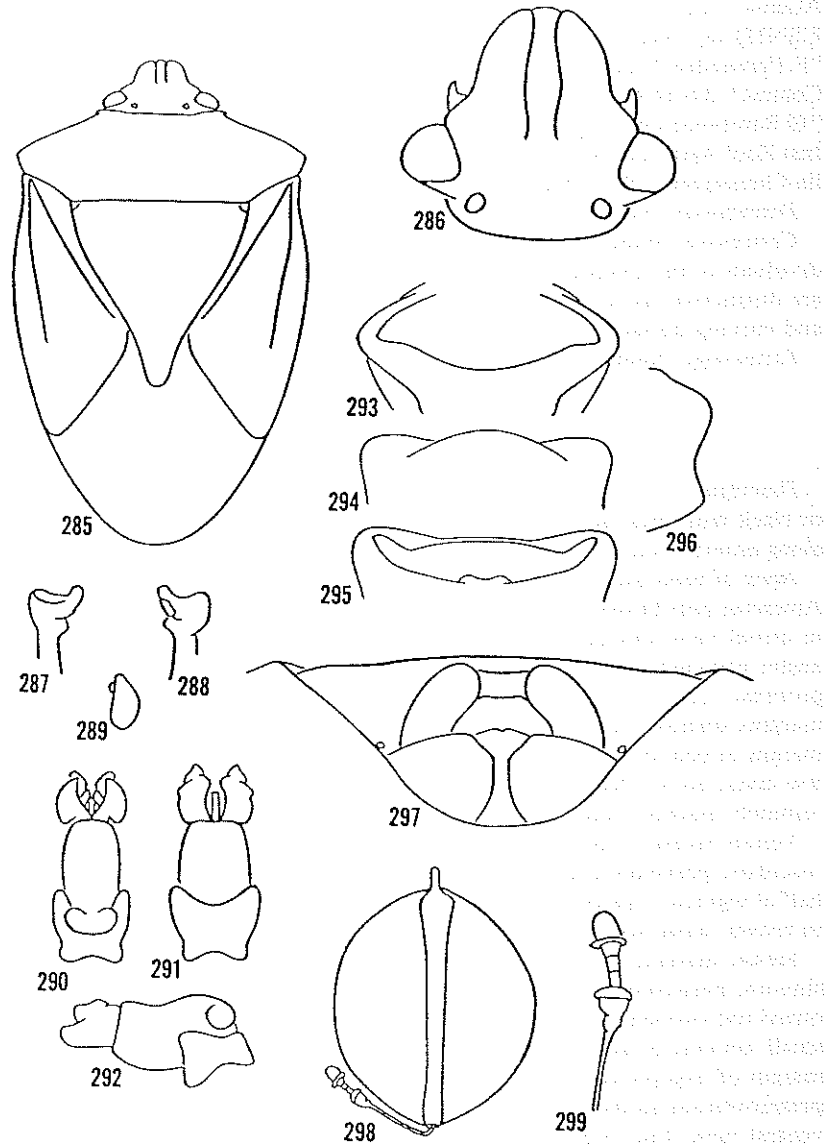
Ventral surface pale yellowish-green to brown; punctures concolorous with surface. Rostrum green to pale brown, apical half of segment 4 piceous; reaching onto third (second visible) abdominal sternite. Ostiolar canals acuminate apically. Femora and tibiae green to brown; tarsi and distal portions of tibiae sometimes darker. Postspiracular black spots lacking; posterolateral angles of abdominal sternites piceous.

Mesial margins of basal plates in caudoventral view straight to slightly convex; posterior margins slightly convex; posteromesial angles slightly emarginate (Fig. 297). Sclerotized rod swollen subapically, distinctly narrowed apically (Fig. 298). Spermathecal duct moderately swollen below proximal flange, without coiling from swollen area to sclerotized rod (Fig. 299). Posterior margin of pygophore in caudal view broadly and shallowly U-shaped, medial portion straight to slightly concave, sinuous (Fig. 293); blunt, chin-like protuberance prominent in ventral view (Fig. 294); posterior margin broadly U-shaped in dorsal view (Fig. 295); pygophore concave in lateral view (Fig. 296). Concave surface of each paramere oriented more dorsad than mediad; in medial view apex short, rounded, distinctly bent dorsad (Fig. 287); in ectal view, apex bluntly rounded (Fig. 289); roughened, spiculate area on lateral surface ovoid (Fig. 288). Each lateral conjunctival lobe of aedeagus with 1-2 narrowly rounded diverticula (Fig. 292); dorsomedial lobe lacking (Fig. 291); median penial lobes and penisfilum relatively small, obscured by conjunctival membranes (Fig. 290).

*Measurements.* Total length 6.78-8.75 (6.75); total width 4.57-5.83 (4.57); medial length of pronotum 1.50-1.73 (1.50). Medial length of scutellum 2.94-3.61 (2.94); basal width 2.80-3.53 (2.80); width at distal end of frena 0.96-1.25 (0.96). Length of head 1.46-1.68 (1.46); width 1.88-2.23 (1.88). Length of segments 1-5 of antennae 0.35-0.44 (0.44), 0.75-0.96 (0.86), 0.77-0.99 (0.77), 0.96-1.10 (0.96), and 0.96-1.10 (0.96), respectively. Length of segments 2-4 of rostrum 1.14-1.32 (1.18), 0.77-0.88 (0.77), and 0.74-0.81 (0.74), respectively.

*Holotype.* ♂ labeled (a) "El Limon AR VENEZUELA 450m. 31-V-57" (b) "F.Fernandez Y., C. J. Rosales Cols." (c) "Venezuela-Inst. Zool.Agricola-Fac.Agronomia Univ. Central." Deposited in the Universidade Central de Venezuela (Maracay).

*Paratypes.* 6♂♂, 11♀♀. Labeled same as holotype (5♂♂/3♀♀ IZA); (a) "Mariara Venezuela, Carabobo 460m. 12-II-1967" (b) "Trampa de luz" (c) "L.Fernandez S. col." (d) "Venezuela-Inst. Zool.Agricola-Fac.Agronomia Univ. Central" (♀ IZA); (a) "Galeras del Pao COJEDES Venezuela 26-IV-1963" (b) "C.J.Rosales A. Perez" (c) "Venezuela-Inst. Zool.Agricola-Fac.Agronomia Univ. Central" (♀ IZA); "VENEZUELA:



Figs. 285-299. *T. curvata*. 285. Habitus. 286. Head. 287-289. Right paramere. 287. Medial view. 288. Lateral view. 289. Ectal view. 290-292. Theca and related structures. 290. Ventral view. 291. Dorsal view. 292. Lateral view. 293-296. Pygophore. 293. Caudal view. 294. Ventral view. 295. Dorsal view. 296. Lateral view. 297. Genital plates, caudoventral view. 298. Spermatheca. 299. Spermathecal pump.

Aragua 2kmN OcumareDeLa Costa, 21-22-VI-1976 A.S.Menke&D.Vincent" (♀ USNM); (a) "Venezuela-Barinas. Reserva Forestal-Ticoporo. 230m 3-10-IV-66" (b) "F. Fernandez. Y Luis.J.July" (c) "Venezuela-Inst Zool.Agricola-Fac.Agronomia Univ. Central" (3♀♀ IZA); "RioFrio Colombia S.A.2-VII-1926 George Salt" (♀ USNM); (a) "El Sombrero Cenarico, Venez. 29-IV 1953" (b) "Col. J. Requena" (c) "Venezuela-Inst Zool.Agricola-Fac.Agronomia Univ. Central" (♀ IZA); and "VENEZUELA: Zulia Carrasquero 29-30 May 1976 A.S.Menke&D.Vincent" (♂ USNM).

*Distribution.* Northern South America (Map 1).

*Comments.* Some female specimens of this species closely resemble maculate individuals of the Central American species *T. (A.) maculata* (F.). The male genitalia are distinctive, as no other congener has the apex of each paramere short, rounded, and curving dorsad in medial view as in this species.

*Etymology.* Named for the distinctly curved apex of each paramere.

#### **Thyanta (Argosoma) sinuata** Rider, new species

Figs. 300-307, Map 2

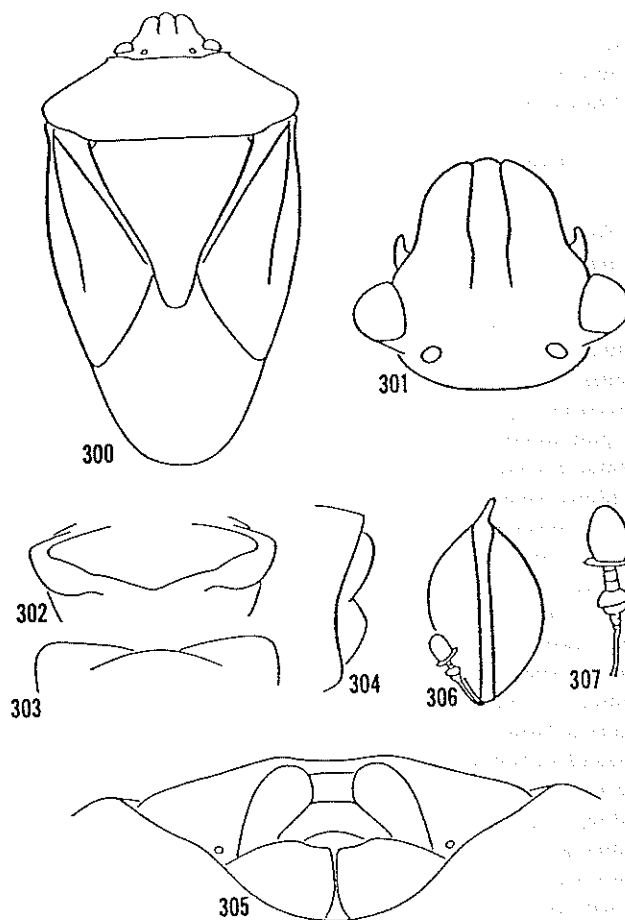
*Description.* Small to medium; dorsal surface pale yellowish-green, lacking all red or black markings; punctures slightly darker than surface, sparse everywhere except along anterior margin of pronotum.

Apex of head narrowly rounded; outer jugal margins not quite parallel (Fig. 301). Antennae pale brown, distal 3 segments darker. Anterolateral margins of pronotum in dorsal view almost straight, nearly devoid of punctures submarginally; humeral angles rounded, protruding only slightly beyond base of adjacent coria (Fig. 300); pronotal cicatrices immaculate. Hemelytra shallowly and sparsely punctate; posterior margins slightly convex; costal angles narrowly rounded, reaching to near posterior margin of penultimate connexival segments; hemelytral membranes hyaline with a few distal brown flecks. Connexiva usually narrowly exposed, incisures sometimes minutely marked with piceous.

Ventral surface yellowish-brown; posterolateral angles of abdominal sternites immaculate; postspiracular black spots lacking. Rostrum pale yellowish-green, apical half of segment 4 piceous, extending onto base of abdomen; femora and tibiae green to brown, tarsal segments sometimes darker. Ostiolar canals acuminate apically.

Mesial margins of basal plates in caudoventral view convex; posterior margins sinuous; posteromesial angles shallowly emarginate (Fig. 305). Distal end of sclerotized rod swollen subapically, narrowed apically (Fig. 306); spermathecal duct with small amount of swelling and coiling below proximal flange (Fig. 307). Posterior margin of pygophore in caudal view shallowly and sinuously V-shaped (Fig. 302); posteroventral surface only feebly produced into blunt, chin-like protuberance in ventral view (Fig. 303); emarginate in lateral view (Fig. 304). Concave surface of each paramere oriented dorsomedial; each paramere robust; in medial view apex broad, nearly angulate, not curving dorsad.

*Measurements.* Total length 6.62-7.89 (6.62); total width 4.49-5.50 (4.49); medial length of pronotum 1.25-1.55 (1.25). Medial length of scutellum 2.86-3.31 (2.86); basal width 2.80-3.09 (2.80); width at distal end of frena 0.96-1.10 (0.96). Length of head 1.46-1.59 (1.46); width 1.94-2.12 (1.94). Length of segments 1-5 of antennae 0.37 (0.37), 0.74-0.79 (0.74), 0.88-0.92 (0.92), 0.96-0.98 (0.96), and 0.92-0.96 (0.92),



Figs. 300–307. *T. sinuata*. 300. Habitus. 301. Head. 302–304. Pygophore. 302. Caudal view. 303. Ventral view. 304. Lateral view. 305. Genital plates, caudoventral view. 306. Spermatheca. 307. Spermathecal pump.

respectively. Length of segments 2–4 of rostrum 1.18–1.21 (1.18), 0.70–0.72 (0.70), and 0.66–0.68 (0.66), respectively.

*Holotype*. ♂ labeled (a) “COLOMB Magdal. Santa Marta X-8-71 GEBohart” (b) “*Thyanta signoreti* Ruckes LHR 74.” The holotype specimen is in poor condition having the abdomen partially loose from the rest of the body. Deposited in the U.S. National Museum of Natural History (Washington, D.C.).

*Paratypes*. 1♂, 2♀♀. Labeled same as holotype except lacking (b) (♀ DAR, ♀ LHR); and (a) “Acarigua Est. Portuguesa Ven. VI-81” (b) “CJ Drake Coll. 1956” (♂ USNM).

*Distribution*. Colombia and Venezuela (Map 2).

*Comments*. The form of the posterior pygophoral margin and the structure of the

parameres are unique within the genus. The sparse overall punctation will also help identify this species. Due to the poor condition of the holotype, the male genitalia were not dissected, but the characters of the parameres are visible without dissection.

*Etymology.* Named for the sinuously V-shaped posterior margin of the pygophore.

***Thyanta (Argosoma) obtusa* Rider, new species**

Fig. 308–321, Map 3

*Description.* Small to medium; dorsal surface pale green to testaceous, lacking all red and black markings; punctures usually concolorous with surface.

Apex of head arcuately rounded; outer jugal margins subparallel for middle third of distance from eyes to apex (Fig. 309). Antennae pale brown, apical 3 segments sometimes reddish-brown. Anterolateral margins of pronotum straight to slightly concave in dorsal view; humeral angles rounded, protruding only slightly beyond base of adjacent coria (Fig. 308); pronotal cicatrices immaculate. Hemelytra shallowly and uniformly punctured; posterior margins slightly convex; costal angles narrowly rounded, reaching beyond middle of penultimate connexival segments; hemelytral membranes hyaline, usually with a few vague brown flecks distally. Connexiva narrowly exposed; incisures sometimes minutely marked with black.

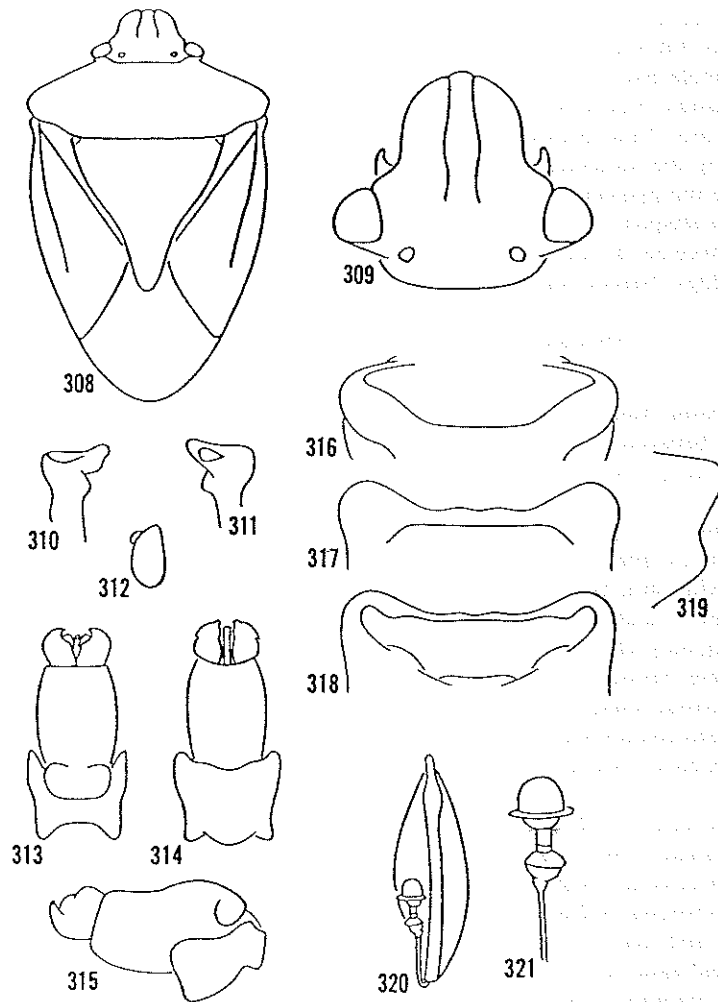
Ventral surface yellowish-green to brown; punctures usually concolorous with surface. Rostrum pale green to brown, apical half of segment 4 black; usually reaching onto third (second visible) abdominal segment. Femora and tibiae green to brown, sometimes tarsal segments darker. Ostiolar canals acuminate apically. Postspiracular black spots absent; posterolateral angles of abdominal sternites usually immaculate, extreme tip sometimes black.

Mesial margins of basal plates nearly straight; posterior margins sinuous; postero-mesial angles rounded. Sclerotized rod slightly swollen subapically, narrowed apically (Fig. 320); spermathecal duct below proximal flange with only slight amount of swelling or coiling (Fig. 321). Posterior margin of pygophore shallowly and broadly U-shaped, medial portion straight to slightly convex in caudal view (Fig. 316); posterolateral angles prominent in ventral and lateral views (Figs. 317, 319); blunt, chin-like protuberance on posteroventral surface relatively small, not visible in dorsal view (Fig. 318). Each paramere in ectal view relatively robust, apex obtuse (Fig. 312); in medial view apex rounded, curving only slightly dorsad, concave surface oriented more dorsad than mediad (Fig. 310); distinct obtuse protuberance on shaft; roughened, spiculate area on lateral surface circular or triangular (Fig. 311). Each lateral conjunctival lobe of aedeagus with 1–2 nonsclerotized diverticula (Fig. 315); dorso-medial lobe apparently lacking (Fig. 314); penisfilum and median penial lobes nearly obscured by conjunctival membrane (Fig. 313).

*Measurements.* Total length 6.86–7.73 (6.86); total width 4.42–5.20 (4.42); medial length of pronotum 1.36–1.62 (1.47). Medial length of scutellum 2.96–3.15 (2.98); basal width 2.80–3.09 (2.83); width at distal end of frena 1.03–1.10 (1.03). Length of head 1.46–1.59 (1.46); width 1.92–2.13 (1.92). Length of segments 1–5 of antennae 0.37–0.42 (0.37), 0.70–0.92 (0.70), 0.83–1.03 (0.92), 1.05–1.20 (1.05), and 1.03–1.18 (1.03), respectively. Length of segments 2–4 of rostrum 1.12–1.23 (1.12), 0.68–0.79 (0.68), and 0.72–0.77 (0.72), respectively.

*Holotype.* ♂ labeled (a) "Villa Vieja Colombia 11-IV-45" (b) "*Thyanta nitidula*





Figs. 308–321. *T. obtusa*. 308. Habitus. 309. Head. 310–312. Right paramere. 310. Medial view. 311. Lateral view. 312. Ectal view. 313–315. Theca and related structures. 313. Ventral view. 314. Dorsal view. 315. Lateral view. 316–319. Pygophore. 316. Caudal view. 317. Ventral view. 318. Dorsal view. 319. Lateral view. 320. Spermatheca. 321. Spermathecal pump.

Ruckes det. H. Ruckes." Deposited in the California Academy of Sciences (San Francisco).

*Paratypes*. 4♂♂, 1♀. "Magdalena, Colom. 11°10'N, 76°08'W Apr. 1973, 800 M M. Madison, Coll." (2♂♂ LHR); (a) "Trujillo Trujillo, Venez. 12-VII-1964" (b) "E. Osuna M. Gelbes" (c) "Venezuela-Inst. Zool. Agricola-Fac, Agronomia Univ. Central" (♂ IZA); (a) "El Limon Ar. VENEZUELA 450m. 30-V-65" (b) "F. Fernandez Y. Col."

(c) "Venezuela-Inst. Zool. Agricola-Fac, Agronomia Univ. Central" ( $\delta$  IZA); and (a) "Turmero; AR Venezuela 466 m 22.V.53" (b) "col. J. Requena" (c) "Venezuela-Inst Zool.Agricola-Fac.Agronomia Univ. Central" ( $\delta$  IZA).

*Distribution.* Northern South America (Map 3).

*Comments.* This species is related to *T. sinuata* and *T. xerotica*, but can be recognized by the structure of the male genitalia. *Thyanta obtusa* has the posterior margin of the pygophore broadly U-shaped in caudal view, while in *T. sinuata* it is broadly V-shaped. *Thyanta obtusa* can be separated from *T. xerotica* by the obtuse protuberance on the shaft of each paramere, which is reduced or absent in *T. xerotica*.

*Etymology.* Named for the obtuse apex of each paramere when viewed medially.

***Thyanta (Argosoma) xerotica* Rider, new species**

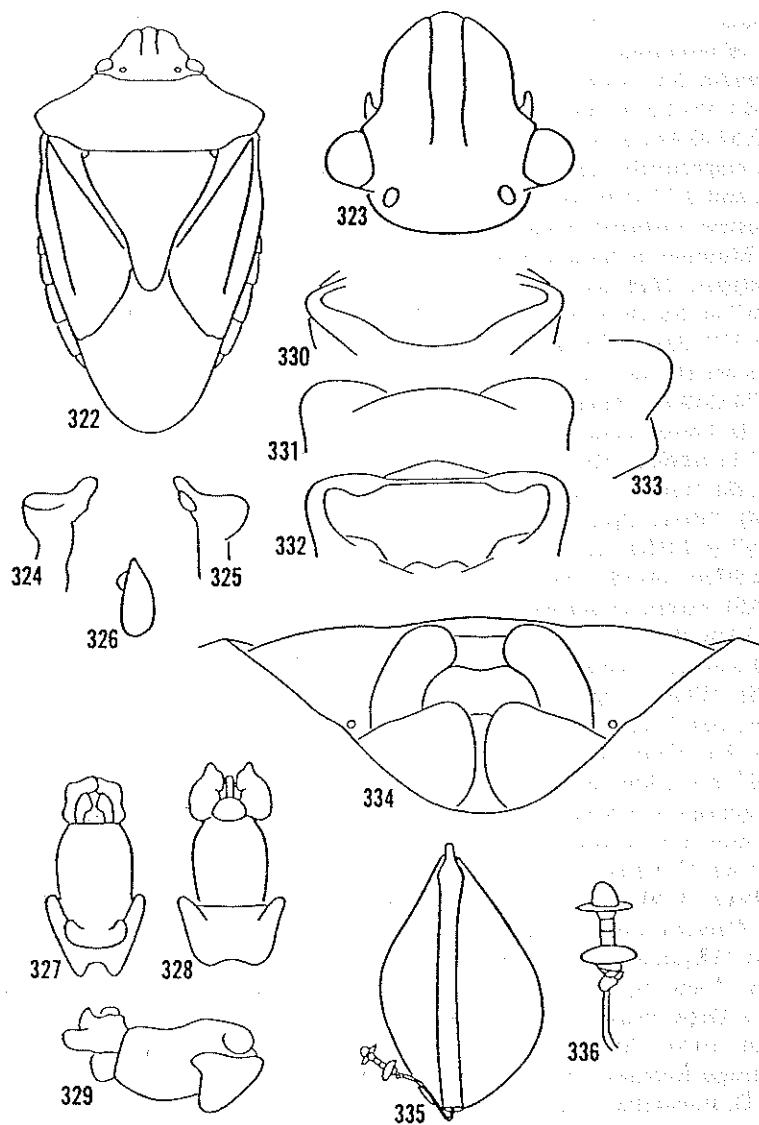
Figs. 322–336, Map 2

*Description.* Medium to large; dorsal surface green to brown; often with reddish markings between humeral angles, on apex of scutellum, and sometimes on vertex of head and apices of coria; punctures usually concolorous with surface, sometimes brown.

Outer jugal margins subparallel for middle third of distance from eyes to evenly rounded apex (Fig. 323). Antennae green to pale brown, distal 3 segments usually marked with dark brown or reddish-brown. Anterolateral margins of pronotum in dorsal view straight to slightly concave; humeral angles rounded to nearly angulate, protruding only slightly beyond base of adjacent coria (Fig. 322); pronotal cicatrices immaculate. Hemelytra uniformly and densely punctate; posterior margins slightly convex; costal angles narrowly rounded to angulate, reaching beyond middle of penultimate connexival segments; hemelytral membranes hyaline, sometimes with numerous brown flecks. Connexiva narrowly exposed; incisures usually marked with black.

Ventral surface green to pale brown; punctures usually concolorous with surface; humeral angles often marked with black. Rostrum green to brown, apical half of segment 4 piceous, apex reaching beyond middle of third (second visible) abdominal segment. Ostiolar canals acuminate apically. Femora and tibiae green to brown, tarsal segments and apex of each tibia often darker. Postspiracular black spots absent, sometimes vague in brown form; posterolateral angles of abdominal sternites piceous.

Mesial margins of basal plates in caudoventral view straight to slightly convex, separated basally; posterior margins sinuous, nearly straight; posteromesial angles broadly rounded (Fig. 334). Sclerotized rod relatively short, somewhat swollen subapically, distinctly narrowed apically (Fig. 335); spermathecal duct only slightly swollen and coiled below proximal flange (Fig. 336). Medial portion of posterior pygophoral margin in caudal view usually concave, continuing line of lateral margins, giving posterior margin a smoothly arcuate form, medial portion sometimes straight and posterior margin more U-shaped (Fig. 330); pygophore emarginate in lateral view (Fig. 333); posterolateral angles moderately prominent in both ventral and dorsal views (Figs. 331, 332). Each paramere relatively robust, concave surface oriented dorsomedial, apex rounded in medial view (Fig. 324), angulate in ectal view (Fig. 326), roughened, spiculate area on lateral surface localized, ovoid (Fig. 325). Each lateral conjunctival lobe of aedeagus with 2 diverticula (Fig. 329); dorsomedial conjunctival lobe prominent (Fig. 328); penisfilum relatively small (Fig. 328).



Figs. 322-336. *T. xerotica*. 322. Habitus. 323. Head. 324-326. Right paramere. 324. Medial view. 325. Lateral view. 326. Ectal view. 327-329. Theca and related structures. 327. Ventral view. 328. Dorsal view. 329. Lateral view. 330-333. Pygophore. 330. Caudal view. 331. Ventral view. 332. Dorsal view. 333. Lateral view. 334. Genital plates, caudoventral view. 335. Spermatheca. 336. Spermathecal pump.

*Measurements.* Total length 6.62–10.25 (7.41); total width 4.34–6.47 (4.73); medial length of pronotum 1.40–1.88 (1.49). Medial length of scutellum 2.72–4.25 (3.13); basal width 2.61–4.08 (2.94); width at distal end of frena 0.94–1.32 (1.05). Length of head 1.55–2.07 (1.68); width 1.99–2.65 (2.13). Length of segments 1–5 of antennae 0.40–0.52 (0.44), 0.71–1.10 (0.88), 1.07–1.42 (1.14), 1.18–1.49 (1.47), and 1.14–1.38 (1.31), respectively. Length of segments 2–4 of rostrum 1.25–1.69 (1.42), 0.70–0.92 (0.77), and 0.77–0.99 (0.77), respectively.

*Holotype.* ♂ labeled "Guayaquil Ecu 1940 CLFagen." Deposited in the U.S. National Museum of Natural History (Washington, D.C.).

*Paratypes.* 28♂♂ and 25♀♀. "Ecuador MANABI SAN CLEMENTE VII 84 Legit: F. CUESTA" (♂ 2♀♀ QCAZ); "ECUADOR, 82 Km. W. Guayaquil Ricklefs & Austin 8 March 77" (2♂♂ DBT); (a) "Guayaquil Ecuador RL Castillo" (b) "Thyanta nitidula Ruckes det H. Ruckes" (♀ CU); (a) "ECUADOR La Toma 1200m. W.Loja 18,19-XI-1970 Coll:L.E.Pena" (b) "33" (♂ DAR); (a) "Peru S.A. I.23 1936 E.G.Smyth" (b) J.R.de la Torre-Bueno Collection K.U." (4♂♂ 7♀♀ SMEK), except 3♂♂ labeled "I.25 1936," 1♂ labeled "III.14 1937," 1♀ labeled "III.15 1937," and 2♀♀ labeled "III.16 1937"; (a) "Lima, Peru Feb. 2, 1939 Carl J. Drake" (b) "C J Drake Coll. 1956" (♂ USNM); "Peru. Dpto. Amazonas 43 K. ne. Chikiaco 1050' 6–10 XI 1978 L. J. Barkley" (♂ LHR); (a) "PERU:Dept. Cajamarca Prov. Jaén. Pucara. Rio Huanca-bamba,900m 14–18.I.1964" (b) "P. C. Hutchison and J. K. Wright Collectors" (♂ 4♀♀ CAS), except 1♂ labeled "10–13.I.1964"; "PERU: Dpto. Lambayeque Cerro la Vieja, 7 km. S of Motupe, el. 100m. 2–17-VII-1981 L.J.Barkley, collector" (♂ LHR); (a) "10 Km.S.of Chiclayo, PERU III-21-51" (b) "Ross and Michelbacher Collectors" (♀ CAS); "PERU: Dpto. Lambayeque 12 km. N of Olmos el. 90m. 1-VII-81 L.J. Barkley, coll." (2♂♂ LHR); (a) "PERU:Dept. & Prov. Lambayeque. 18 km. W. of Olmos. Alt. 520m 30-IX-1964" (b) "P. C. Hutchison & J. K. Wright At Coleman lantern" (♂ ♀ CAS); (a) "PERU: 94 mi. E. of Olmos, Lambayeque I-18-1955" (b) "E.I.Schlinger & E.S.Ross collectors" (♂ CAS); (a) "PERU: Lambayeque. Roadside veg. 1 mile S.E. of town. 20.viii.1971." (b) "Fertile irrigated region in arid coastal desert" (c) "P.S.&H.L. Broomfield B.M. 1971-486 (2♂♂ BMNH); (a) "Chaclacayo Lima,Peru 750Meters" (b) "Acc.38901 E.Escobel" (♀ AMNH); (a) "LIMA PERU 1959 F.Cisneros Col." (b) "UA 696-67" (♂ DAR); (a) "Lima Peru VI-1-39 Weyrauch 91" (b) "Thyanta patruelis Stal det H. Ruckes" (♀ USNM); "PERU: Dpto. Piura Pariñas, 7 km. N, 15 km. E Talara 18-IX-1981 L.J. Barkley, coll." (♂ LHR); (a) "PERU: Dept. Piura, Prov. Ayabaca. 18 km above Puente Tandopa (RioQuiróz)" (b) "Alt. 1000–1700 m. 23-IX-1964 P. C. Hutchison & J. K. Wright" (♀ CAS); "Tamarugal Refresco Enero 16, 1986 D. Bobadilla" (4♂♂ UTAC); "Tamarugal Enero 30, 86 D. Bobadilla" (♂ UTAC); "Tamarugal Enero 30, 86 A. Gallardo" (♀ UTAC); (a) "4" (b) "PAMPA-TAMARUGAL-16-07-86 D. BOBADILLA colector" (♂ IIAS); "CHILE-Arica 19.09.82 Trampa tablero Col. C. Valdés" (♀ IIAS); (a) "5" (b) "TARAPACA CICA.AZAPA LUZ-NEGRA 26–27-I-70" (2♀♀ IIAS), except 1♀ labeled (a) "6"; (a) "Chile, 194 Arg. M. L. Parker" (b) "C J Drake Coll. 1956" (2♂♂ ♀ USNM); and "CHILE. Pica 23.02.84 Vegetación Col. E. Prado" (♀ IIAS).

*Distribution.* Coastal desert areas from Ecuador to northern Chile (Map 2).

*Comments.* This species can be distinguished from other congeners by the form of the posterior margin of the pygophore and by the structure of the parameres. The posterior margin of the pygophore in caudal view is usually arcuately U-shaped. *Thyanta xerotica* is the only species of *Thyanta* with the apex of each paramere

distinctly rounded in medial view and usually lacking the obtuse protuberance on the shaft.

*Etymology.* Named for the xerophytic habitat in which this species lives.

**Thyanta (Argosoma) infuscata** Rider, new species

Figs. 337–351, Map 2

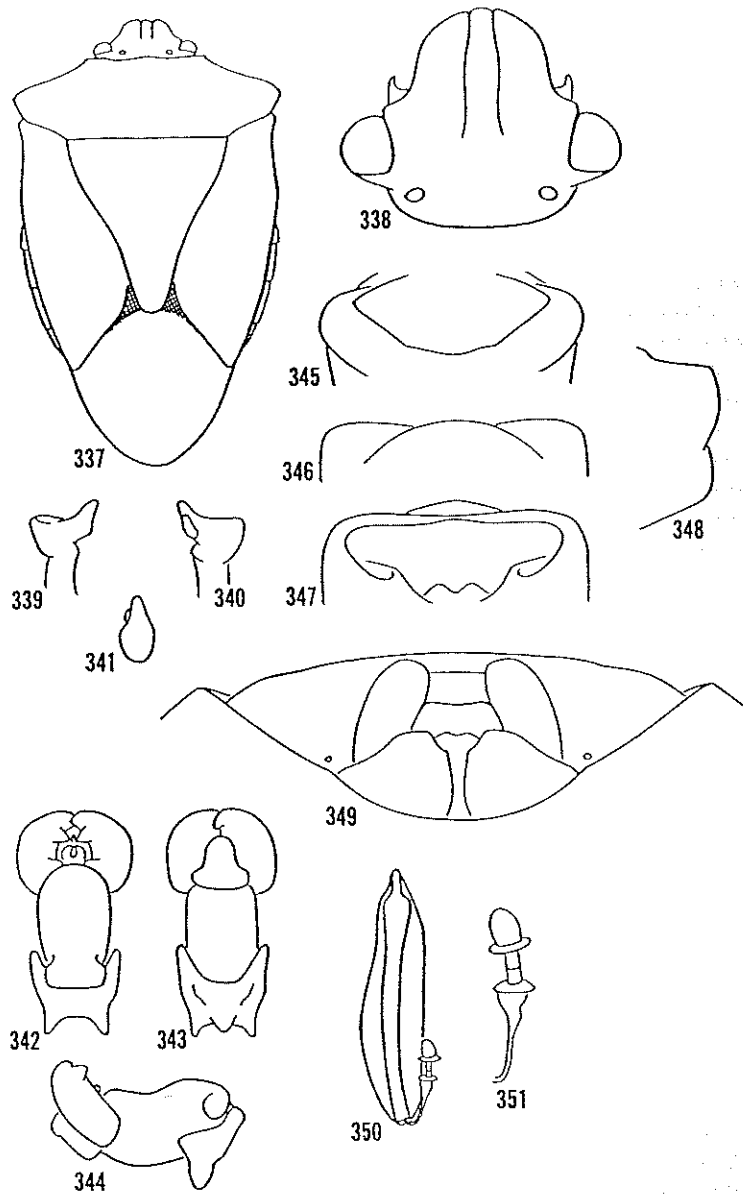
*Description.* Dorsal surface pale green; posterior third of pronotum dark green, margin between pale and dark areas irregular; medial longitudinal band on scutellum yellowish-green; punctures reddish-brown.

Apex of head broadly rounded; outer jugal margins nearly parallel for middle third of distance from eyes to apex (Fig. 338). Antennae pale reddish-brown, distal two and one-half segments darker. Anterolateral margins of pronotum weakly concave in dorsal view; humeral angles narrowly rounded, almost angulate, produced beyond margin of adjacent coria by about one-half width of eye, piceous apically (Fig. 337). Mesial margin of each pronotal cicatrice marked with fuscous or piceous, sometimes only vaguely so. Punctures on pronotum crowded anterior to cicatrices, sparse along anterolateral margins. Hemelytra uniformly and shallowly punctate, punctures slightly more dense on exocorium than corium; posterior margins nearly straight; posterolateral angles narrowly rounded, extending nearly to posterior margin of penultimate connexival segments. Hemelytral membranes hyaline with numerous brown flecks; inner basal angle distinctly infuscated (Fig. 337). Connexiva pale green; posterolateral angles piceous.

Ventral surface yellowish-green; punctures concolorous to reddish-brown. Rostrum pale yellowish brown, apical half of segment 4 black, reaching onto base of third (second visible) abdominal sternite. Ostiolar canals acuminate apically. Femora and tibiae pale yellowish-green; vague brown spot present on superior surface of each femur at distal third. Postspiracular black spots absent. Posterolateral angles of abdominal sternites piceous.

Mesial margins of basal plates in caudoventral view slightly convex, separated basally; posterior margins slightly concave; posteromesial angles slightly emarginate, fuscous (Fig. 349). Sclerotized rod swollen subapically, abruptly narrowed apically (Fig. 350); spermathecal duct moderately swollen below proximal flange, length of duct from proximal flange to sclerotized rod short relative to congeners (Fig. 351). Posterior margin of pygophore broadly and sinuously U-shaped in caudal view, medial portion slightly sinuous (Fig. 345); posteroventral surface only weakly produced into blunt, chin-like protuberance, surface between protuberance and posterior margin appearing only slightly depressed in lateral view (Fig. 348); posterior margin slightly concave in ventral and dorsal views (Figs. 346, 347). Apex of each paramere narrowly rounded in medial view, apex bent dorsad (Fig. 339); narrowly rounded in ectal view (Fig. 341); roughened, spiculate area on lateral surface ovoid, localized (Fig. 340). Aedeagus with conjunctival lobes large, each lateral lobe with 2 obtuse diverticula (Fig. 344); median penial lobes and penisfilum relatively small, obscured by conjunctival lobes (Fig. 342); dorsomedial conjunctival lobe relatively large (Fig. 343).

*Measurements.* Total length 7.41–9.46 (7.41); total width 5.20–5.83 (5.20); medial length of pronotum 1.66–1.88 (1.66). Medial length of scutellum 3.39–3.90 (3.39); basal width 3.31–3.68 (3.31); width at distal end of frena 1.10–1.40 (1.10). Length



Figs. 337-351. *T. infusata*. 337. Habitus. 338. Head. 339-341. Right paramere. 339. Medial view. 340. Lateral view. 341. Ectal view. 342-344. Theca and related structures. 342. Ventral view. 343. Dorsal view. 344. Lateral view. 345-348. Pygophore. 345. Caudal view. 346. Ventral view. 347. Dorsal view. 348. Lateral view. 349. Genital plates, caudoventral view. 350. Spermatheca. 351. Spermathecal pump.

of head 1.46–1.64 (1.46); width 2.08–2.21 (2.08). Length of segments 1–5 of antennae 0.39–0.44 (0.39), 0.77–0.88 (0.77), 1.03–1.10 (1.03), 1.10–1.29 (1.10), and 1.10–1.21 (1.10), respectively. Length of segments 2–4 of rostrum 1.23–1.29 (1.23), 0.74–0.77 (0.77), and 0.74–0.75 (0.75), respectively.

*Holotype*. ♂ labeled "ECUADOR: Pichincha Prov. Tinalandia; 12 km E Sto. Domingo de los Colorados. ca. 2,500 ft, 11–17-V-1986. J. E. Eger, coll." Deposited in the Florida State Collection of Arthropods (Gainesville).

*Paratype*. 1♀. Labeled same as holotype (♀ FSCA).

*Distribution*. Ecuador (Map 2).

*Comments*. No other species of *Thyanta* has the inner basal angle of each hemelytral membrane distinctly infuscated.

*Etymology*. Named for the infuscated basal angle of the hemelytral membrane.

***Thyanta (Argosoma) straminea* Rider, new species**

Figs. 352–356, Map 2

*Description*. Dorsal surface pale green, head and anterior disc of pronotum yellowish-brown, exocorium stramineous, apex of scutellum and apex of each humeral angle reddish; punctures pale brown.

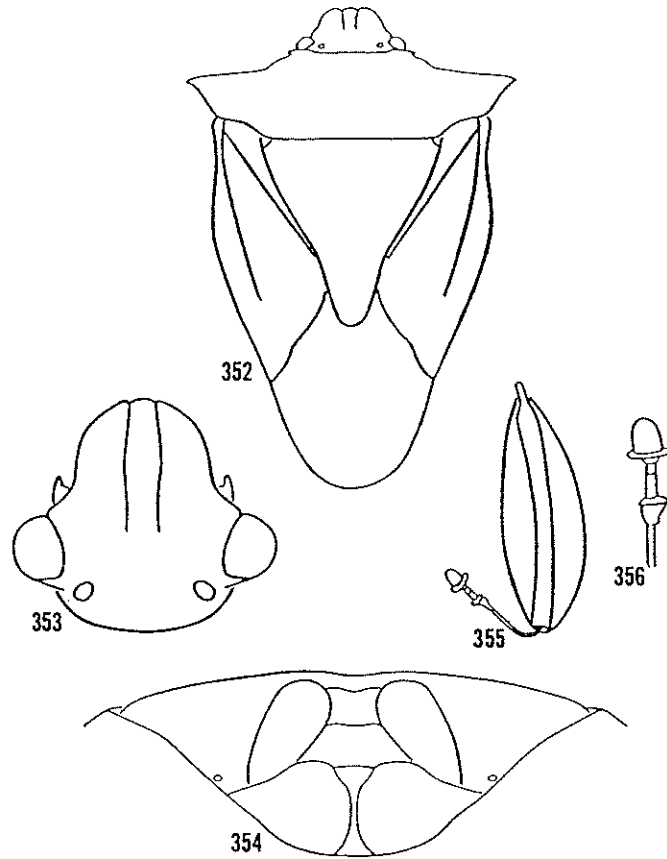
Apex of head evenly rounded; outer jugal margins not quite parallel (Fig. 353); surface transversely tumid, densely and evenly punctate. Anterolateral margins of pronotum in dorsal view concave; humeral angles acutely produced, nearly spinose, protruding beyond base of adjacent coria by more than width of eye (Fig. 352). Pronotal disc uniformly punctate except punctures somewhat crowded anterior to cicatrices; pronotal cicatrices immaculate. Hemelytra rather sparsely punctate especially on distal fourth; posterior margins nearly straight; costal angles acute, reaching to anterior margin of last connexival segments; hemelytral membranes hyaline with a few faint brown flecks distally. Connexiva not exposed, pale yellow, posterolateral angles of segments black.

Ventral surface stramineous with greenish hues on head and propleura; punctures concolorous with surface. Rostrum stramineous with brown markings, distal half of segment 4 piceous, reaching onto base of abdomen. Apex of humeral angles reddish. Ostiolar canals acuminate apically. Femora and tibiae stramineous, tarsal segments and apex of each tibia brownish. Postspiracular spots vague, green; posterolateral angles of abdominal sternites piceous.

Mesial margins of basal plates in caudoventral view convex, separated basally and distally; posterior margins sinuous; posteromesial angles brown, weakly emarginate (Fig. 354); surface of each basal plate punctate on mesial half. Distal end of sclerotized rod slightly swollen subapically, narrowed apically (Fig. 355); only small amount of swelling and coiling below proximal flange (Fig. 356). Male unknown.

*Measurements*. Total length 7.57–8.28 (8.28); total width 5.68–5.96 (5.96); medial length of pronotum 1.50–1.81 (1.81). Medial length of scutellum 3.46–3.64 (3.64); basal width 3.24–3.31 (3.31); width at distal end of frena 1.18–1.32 (1.32). Length of head 1.55–1.59 (1.59); width 1.99–2.08 (2.08). Length of segments 1–5 of antennae 0.40, 0.78–0.79 (0.78), 0.92–1.07 (1.07), 1.05–1.14 (1.14), and 1.10, respectively. Length of segments 2–4 of rostrum 1.23–1.29 (1.29), 0.70–0.75 (0.70), and 0.68–0.75 (0.75), respectively.

*Holotype*. ♀ labeled (a) "Buenaventura Colombia '44 C. L. Fagan" (b) "Thyanta



Figs. 352-356. *T. straminea*. 352. Habitus. 353. Head. 354. Genital plates, caudoventral view. 355. Spermatheca. 356. Spermathecal pump.

*acutangula* Jen-Har. det. H. Ruckes." Deposited in the American Museum of Natural History (New York).

*Paratype*. 1♀. "ECUADOR: NAPO PROVINCE, LIMONCOCHA, ON RIO NAPO 13-XI-1973 BOYCE A. DRUMMOND, III BLACKLIGHT TRAP" (♀ USNM).

*Distribution*. Colombia and Ecuador (Map 2).

*Comments*. The acutely produced humeral angles and the stramineous-colored exocorium will easily identify this species within the subgenus *Argosoma*.

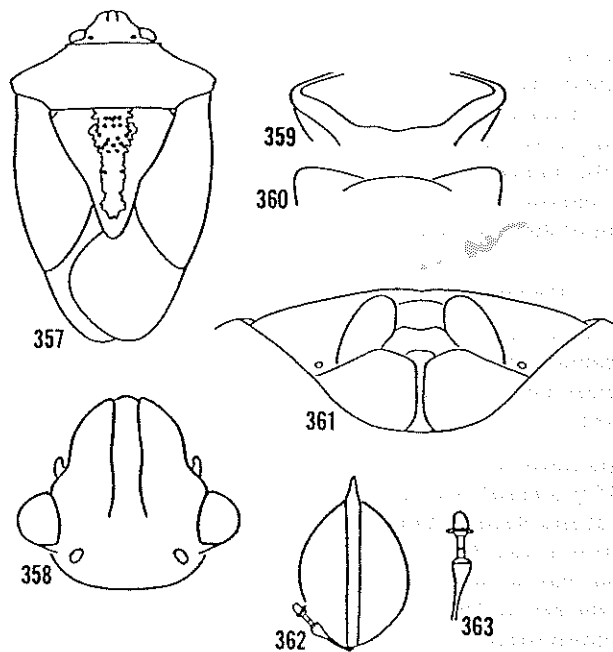
*Etymology*. Named for the stramineous-colored exocorium.

*Thyanta (Argosoma) similis* Van Duzee

Figs. 357-363

*Thyanta similis* Van Duzee, 1933:26-27; Barber, 1934:282; Linsley and Usinger, 1966:133; Froeschner, 1981:71; Froeschner, 1985:43-44.





Figs. 357–363. *T. similis*. 357. Habitus. 358. Head. 359–360. Pygophore. 359. Caudal view. 360. Ventral view. 361. Genital plates, caudoventral view. 362. Spermatheca. 363. Spermathecal pump.

**Diagnosis.** Small; ovate; distinctly convex. Green to testaceous often marked with dark rubescence on scutellum, hemelytra, and posterior disc of pronotum. Scutellum with medial longitudinal band from base to near apex nearly impunctate, subcallosed, cream-colored.

Apex of head broadly rounded; outer jugal margins subparallel for middle third of distance from eyes to apex (Fig. 358); dorsal surface of head evenly but distinctly convex transversely. Anterolateral margins of pronotum concave in dorsal view; humeral angles rounded (Fig. 357). Pronotal cicatrices immaculate. Ostiolar canals acuminate apically. Mesial margins of basal plates in caudoventral view straight to slightly convex; posterior margins sinuously convex; posteromesial angles truncated (Fig. 361). Distal end of sclerotized rod slightly swollen subapically, narrowed apically (Fig. 362); spermathecal duct slightly swollen below proximal flange (Fig. 363). Posterior margin of pygophore sinuously U-shaped in caudal view (Fig. 359); concave in lateral view. Apex of each paramere spinose in ectal view; narrowly rounded in medial view; dorsomedial concave surface oriented more dorsad than mediad; roughened spiculate area on lateral surface circular.

**Types.** Van Duzee (1933) described *T. similis* from 2♀ both collected in the Galapagos Islands. Both specimens were examined and are conserved in the California Academy of Sciences (San Francisco).

**Distribution.** Known only from the Galapagos Islands, Ecuador.

*Specimens examined.* Five specimens collected between 22 January and 24 April; deposited in CAS, DAR, SMEK. ECUADOR: GALAPAGOS ISLANDS: *Floreana Island*: Post Office Bay. *Rábida Island*. *Santa Cruz Island*: Academy Bay.

*Comments.* *Thyanta similis* and *T. setigera* are the only two species of *Thyanta* known to occur in the Galapagos Islands. These two species are easily separated by the shape of the humeral angles, which are rounded in *T. similis* and angulate to spinose in *T. setigera*. *Thyanta similis* is the only species in the genus that has the medial portion of the scutellum nearly punctate and subcalloused.

*Thyanta chilensis* (Herrich-Schäffer), *nomen dubium*

*Pentatoma chilense* Herrich-Schäffer, 1853:323; Signoret, 1863:547.

*Pentatoma chilensis*: Walker, 1867:290; Reed, 1898:26.

*Thyanta chilensis*: Lethierry and Severin, 1893:148; Kirkaldy, 1909:94; Jensen-Haarup, 1928:185.

The type specimen of *Pentatoma chilense* is no longer in existence, and Herrich-Schäffer's (1853) original description is not adequate to identify this species. Both Signoret (1863) and Reed (1898) state that the characters given are not sufficient to determine if it is a true *Pentatoma*. Kirkaldy (1909) transferred this species to the genus *Thyanta*, but he put a question mark beside the name. In his introductory paragraph to the key to *Thyanta* species, Jensen-Haarup (1928) stated that the key included all known species of *Thyanta* except several "dubious" species, one of them *T. chilensis*.

Herrich-Schäffer's description of *P. chilensis* does not match any of the three species of *Thyanta* known to occur in Chile: *T. juvenca*, *T. rubicunda*, and *T. xerotica*. *Thyanta xerotica* is relatively uncommon and occurs only in the coastal desert areas of northern Chile to Ecuador. Approximately equal numbers of *T. juvenca* and *T. rubicunda* in museums have been identified as *T. chilensis*. Due to the inadequacy of the original description, the lack of type material, and the confusion surrounding the name, *T. chilensis* should be considered a *nomen dubium*.

*Thyanta immemor* Kirkaldy, *nomen dubium*

*Pentatoma inconspicua* Dallas, 1851:250.

*Thyanta inconspicua*: Lethierry and Severin, 1893:148.

*Thyanta immemor* Kirkaldy, 1909:94; Jensen-Haarup, 1928:187-188 (replacement name).

Dallas (1851) described *T. inconspicua* without giving a type locality. Kirkaldy (1909) transferred the species to *Thyanta*, and renamed it *T. immemor*, without commenting on either the name change or the transfer to *Thyanta*. Jensen-Haarup (1928), evidently unaware of the name change, included *T. inconspicua* in his key to species, but the couplet is essentially a repeat of Dallas' original description and no locality is given.

Although many of Dallas' type specimens still exist and are housed in the British Museum of Natural History, the type of *T. inconspicua* was not located. Dallas' original description is fairly detailed and contains several characters which would preclude this from being a species of *Thyanta*. Dallas described *T. inconspicua* as

having six lines of brown punctures on the head and a red spot on the ventral surface of the abdomen. These characters have not been observed in any specimen of *Thyanta*. This species may be valid, but it is doubtful that it belongs in *Thyanta*.

*Thyanta humilis viridescens* Kuhlitz, *nomen dubium*

*Thyanta humilis* var. *viridescens* Kuhlitz, 1903:256–257; Kirkaldy, 1909:94.

Kuhlitz (1903) described *viridescens* as a variety of *T. humilis*. Although his description is fairly detailed for its time, this taxon cannot be identified with any certainty. The type specimens may have been destroyed during World War I or II. Kuhlitz listed the distribution of *viridescens* as being from Panama to Guayaquil, Ecuador. The present study has placed *T. humilis* as a junior synonym of *T. patruelis*, which occurs from central Brazil and southern Peru to Argentina. So, it is unlikely that *viridescens* is a subspecies of *humilis* (= *patruelis*). *Thyanta humilis viridescens* should be considered a *nomen dubium*.

INCERTAE SEDIS

*Thyanta vitrea* (Westwood)

*Pentatoma vitrea* Westwood, 1837:36; Lethierry and Severin, 1893:199.

*Thyanta vitrea*: Distant, 1900a:812; Kirkaldy, 1909:95; Jensen-Haarup, 1928:13.

Westwood (1837) described *Pentatoma vitrea* from "Brasilia?." The description is very short and not adequate for accurate placement of this species. The type specimen, which is conserved in the Hope Entomological Collections, Oxford University, England, was examined. It lacks the abdomen, and its condition is too poor to properly place this species within *Thyanta*. In fact, it may actually be a species of the closely related genus *Cyptocephala*.

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