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New taxa and combinations in Neotropical Issidae (Hemiptera: Fulgoroidea)

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0031

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(Hemiptera: Fulgoroidea)

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New taxa and combinations in Neotropical Issidae
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Abstract. Six new genera are erected as follows: in the Issini, *Argepara* gen. n. (type species: *Hysteropterum semipellucidum* Melichar, 1906), *Aztecus* gen. n. (type species: *Hysteropterum montezuma* Kirkaldy, 1913), *Incasa* gen. n. (type species: *Hysteropterum riobambae* Schmidt, 1910), *Bumaya* gen. n. (type species: *Bumaya knorozovi* sp. n.); and in the Colpopterini, *Caudibeccus*, gen. n. (type species: *Colpoptera carlota* Myers, 1928) and *Jamaha* gen. n. (type species: *Poeciloptera elevans* Walker, 1858).

Four new generic synonymies are proposed: *Prothona* Caldwell, 1945 and *Plummerana* Caldwell, 1945 are placed in synonymy under *Proteinissus* Fowler, 1904. *Thionissa* Metcalf, 1938 is placed in synonymy under *Dracela* Signoret, 1861. *Hesperophara* Kirkaldy, 1904 is placed in synonymy under *Colpoptera* Burmeister, 1835.

Twenty-three new combinations resulting from generic synonymies or transfer of species into new genera are: *Argepara lyra* (Berg, 1883), *Argepara semipellucida* (Melichar, 1906), *Aztecus auroriferus* (Caldwell, 1945), *Aztecus erratus* (Caldwell, 1945), *Aztecus mexicanus* (Kirkaldy, 1909), *Aztecus montezuma* (Kirkaldy, 1913), *Aztecus sierrae* (Fowler, 1904), *Aztecus viridatus* (Caldwell, 1945), *Caudibeccus carlota* (Myers, 1928), *Caudibeccus lucaris* (Fennah, 1955), *Caudibeccus meleagris* (Fennah, 1955), *Caudibeccus punctatus* (Metcalf, 1954), *Colpoptera rustica* (Fabricius, 1803), *Dracela acuta* (Metcalf, 1938), *Incasa riobambae* (Schmidt, 1910), *Jamaha chrysops* (Fennah, 1955), *Jamaha elevans* (Walker 1858), *Paralixes fowleri* (Melichar, 1906), *Proteinissus isolatus* (Caldwell, 1945), *Proteinissus pentagonatus* (Caldwell, 1945), *Proteinissus punctatus* (Caldwell, 1945), *Proteinissus reticulatus* (Caldwell, 1945), *Proteinissus viridus* (Caldwell, 1945).

Three new species are described: *Bumaya knorozovi* sp. n. from Belize and Mexico, *Traxus kasparyani* sp. n. from Mexico, and *Caudibeccus emeljanovi* sp. n. from Cuba. The description of *T. kasparyani* represents the first Mexican country record for the genus *Traxus* Metcalf.

The species *Hysteropterum acanthum* Caldwell, 1945 is placed in synonymy under *Aztecus montezuma* (Kirkaldy, 1913). *Colpoptera sinuata* Burmeister, 1835 is redescribed. New country records are presented for *A. semipellucida* from Argentina, *A. lyra* from Paraguay and Uruguay, *D. acuta* from Ecuador, and *D. annulipes* Signoret, 1861 from Brazil, Peru, and Ecuador. Keys to the species of the genera *Aztecus* gen. n., *Argepara* gen. n., *Traxus* Metcalf, and *Dracela* Signoret are given. An ant association is recorded for the first time for *A. lyra*.

Key words. Issidae, Issini, Thioniini, Colpopterini, planthoppers, new genera, new species, new combinations, keys, ant association.

Introduction

The purpose of this series of papers is to redescribe New World Issidae in a framework that facilitates description of new species from the Americas by other workers. Because in Fulgoromorpha some external characters are plastic, some species with female types may not be included in this project until males of the species can be found; male genitalia provide some of the best characters for identification. Because of this, a key to genera will be delayed.

The most recent monograph of Issidae of the world is by Melichar (1906), which includes many species now assigned to Caliscelidae, Nogodinidae, and Tropiduchidae. Contributions to the study of Central and South American issids have been made by Fowler (1904), Metcalf (1938), Caldwell (1945), and Fennah

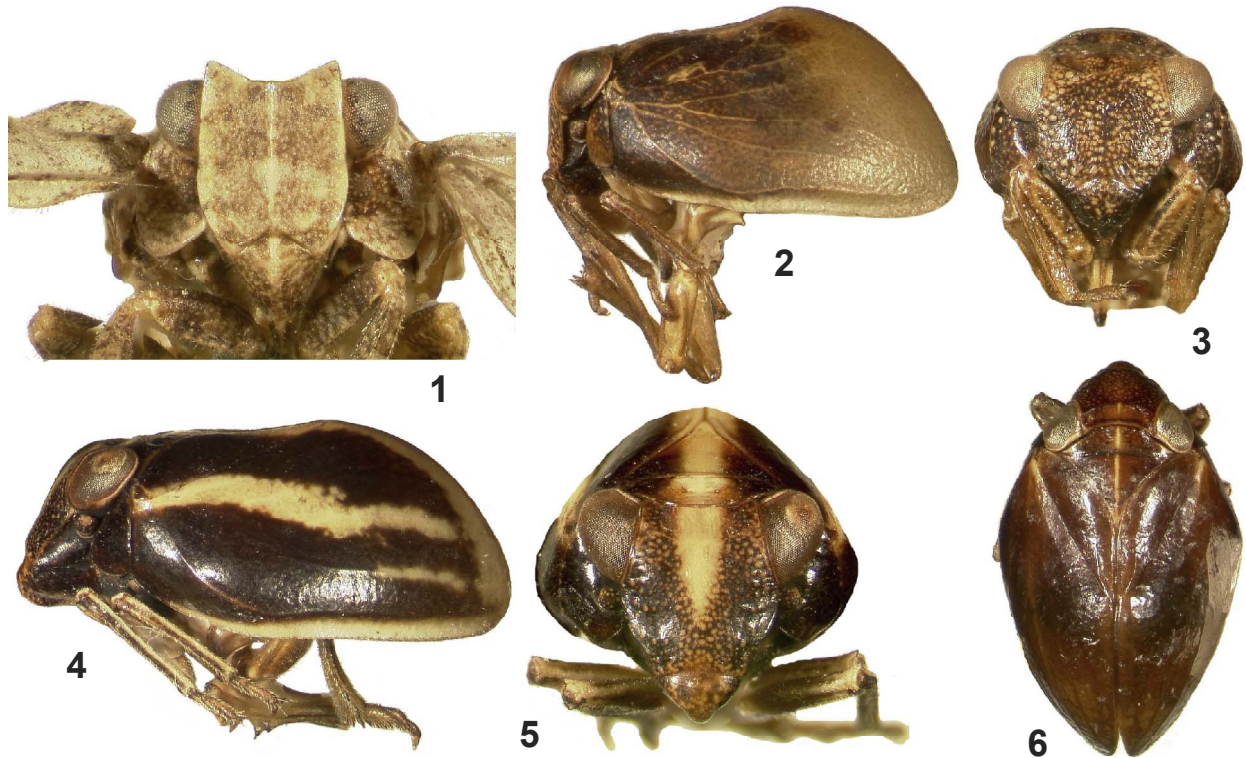


Figure 1-6. Issidae. **1)** *Aztecus mexicanus* (Kirkaldy), syntype, head in ventral view. **2)** *Argepara semipellucida* (Melichar), syntype, female, lateral view. **3)** *A. semipellucida* (Melichar), syntype, male, head in ventral view. **4)** *Argepara lyra* (Berg), female, lateral view (Argentina). **5)** Same, head in ventral view. **6)** Same, melanistic form, dorsal view (Paraguay).

(1955). Metcalf (1938) included keys for Panama, Central America, and northern South America, many of them translations of Melichar, with species from other than the Americas removed. Melichar did not see types from Britain, and Metcalf did not study types, relying only on the written descriptions. Both Melichar and Metcalf made several errors. Metcalf (1958) supplied a world catalog of 206 genera and 981 species of Issidae which at that time included Calicelidae and some Nogodinidae and Tropiduchidae, with at least 118 species from the Nearctic, 103 from the Caribbean, and 87 from the neotropical regions. Recently, taxonomic revisions of U.S. *Hysteropterum* Amyot and *Serville sensu lato* were published (Gnezdilov 2004; Gnezdilov and O'Brien 2006a, b), placing U.S. species in New World genera. During the present study, specimens from Central and South America, including types, were examined.

In the Americas south of the U.S., we have approximately 175 species in three tribes, Issini (with short hind wings), Thioniini (with long folded hind wings), and Colpopterini (with elongate fore wings). Issini include the non-native subtribe Agalmatiina, with the species *Agamatium bilobum* (Fieber) introduced into California from the Mediterranean, and the native subtribe Hysteropterina with *Aztecus* gen. n., *Delongana* Caldwell, *Bumaya* gen. n., *Paralixes* Caldwell, *Traxanellus* Caldwell, *Traxus* Metcalf, *Ulixes* Stal and *Ulixoides* Haupt from Central America; *Amphiscepa* Germar, *Argepara* gen. n., *Incasa* gen. n., and *Sarnus* Stal from South America; and *Abolloptera* Gnezdilov and O'Brien, *Balduza* Gnezdilov and O'Brien, *Kathleenum* Gnezdilov, and *Stilbometopius* Gnezdilov and O'Brien, from the U.S. and northern Mexico. Thioniini comprise *Cheiloceps* Uhler from the West Indies; *Annisa* Stal, *Dracela* Signoret (including *Thionissa* Metcalf), *Duroides* Melichar, *Heremon* Kirkaldy, *Oronoqua* Fennah, and *Paranipeus* Melichar from South America; *Picumna* Stal, *Proteinissus* Fowler (including *Prothona* Caldwell and *Plummerana* Caldwell), *Thioniella* Metcalf, and *Thioniamorpha* Metcalf from Central America, and *Thionia* Stal from both continents and the West Indies. Colpopterini have five genera, *Caudibeccus* gen. n., *Colpoptera* Burmeister (including *Hesperophara* Kirkaldy), *Jamaha* gen. n., *Neocolpoptera* Dozier, and *Ugoa* Fennah, primarily from the West Indies and Central America.

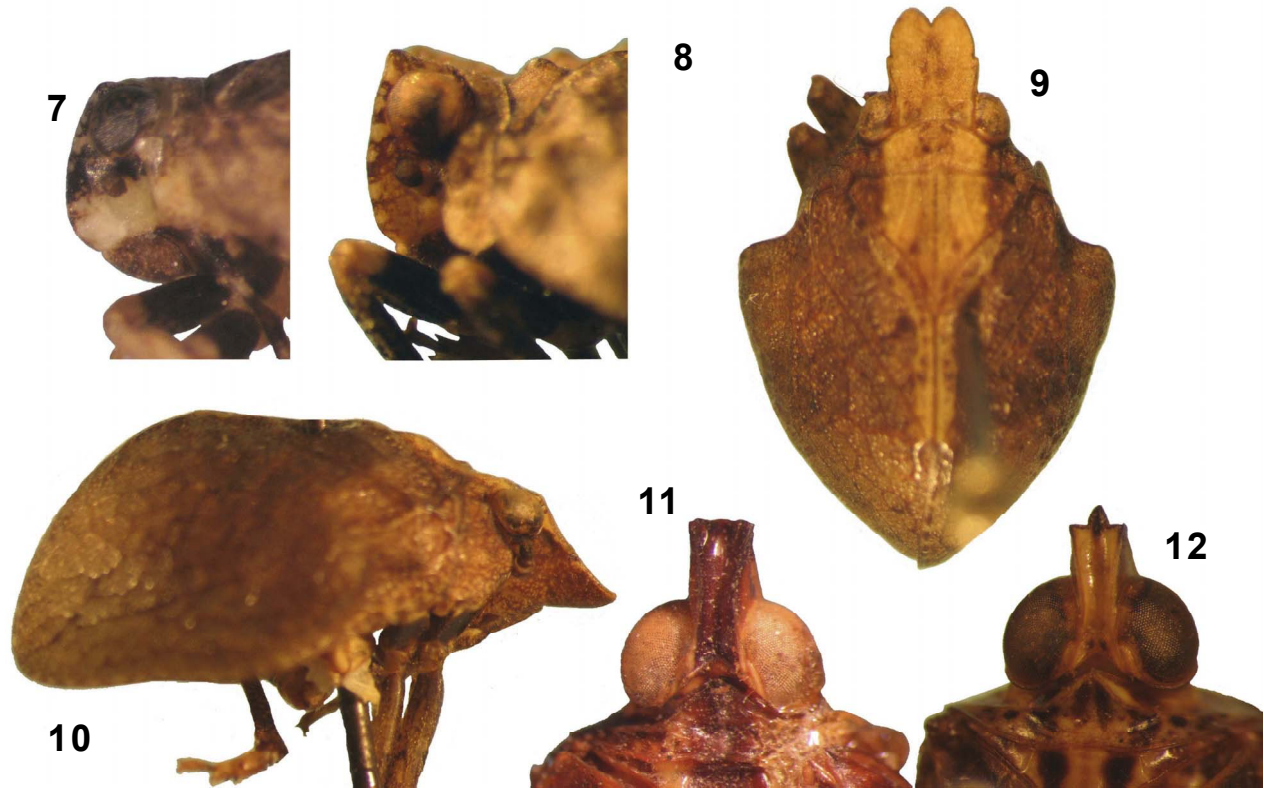


Figure 7-12. Issidae, total view. **7)** *Traxus kasparyani* sp. n., paratype, head in lateral view. **8)** *Traxus fulvus* Metcalf, head in lateral view. **9)** *Bumaya knorozovi* gen. et sp. n., holotype, dorsal view. **10)** Same, lateral view. **11)** *Dracela annulipes* Signoret, syntype, head in dorsal view. **12)** *Dracela acuta* (Metcalf), head in dorsal view.

This paper places New World species from two genera now restricted to the Old World, *Hysteropterum* Amyot and Serville and *Falcidius* Stal, in new genera; describes a new species which places *Traxus* in Mexico; describes a new genus, *Bumaya*, from Belize and Mexico; and addresses some new combinations in Thionini and some new genera in Colpopterini.

Material and methods

Morphological nomenclature and systematics of the family follow Gnezdilov (2003 a, b) and for wing venation also follow Anufriev and Emelyanov (1988). The genital segments of the examined specimens were macerated in 10% KOH and figured in glycerine jelly using a light microscope. Pictures of specimens were made using Leica MZ8 with JVC video camera KY F7OB and Leica MZ95 with camera CANON A620; images were produced using the software Synoptics Automontage. The material studied is deposited in the following collections:

| | |
|--------------|---|
| BMNH | The Natural History Museum, London, UK |
| BPBM | Bernice P. Bishop Museum, Honolulu, Hawaii, USA |
| CAS | California Academy of Sciences, San Francisco, California, USA |
| INBio | Instituto Nacional de Biodiversidad, Santo Domingo de Heredia, Costa Rica |
| LBOB | Lois B. O'Brien, Green Valley, Arizona, USA |
| MSNG | Museo Civico di Storia Naturale "Giacomo Doria", Genoa, Italy |
| MNHN | Muséum National d'Histoire Naturelle, Paris, France |
| NHMW | Naturhistorisches Museum Wien, Vienna, Austria |
| NHRS | Naturhistoriska Riksmuseet, Stockholm, Sweden |
| OSU | Ohio State University, Columbus, Ohio, USA |
| UNAM | Universidad Nacional Autónoma de México, Mexico City, Mexico |

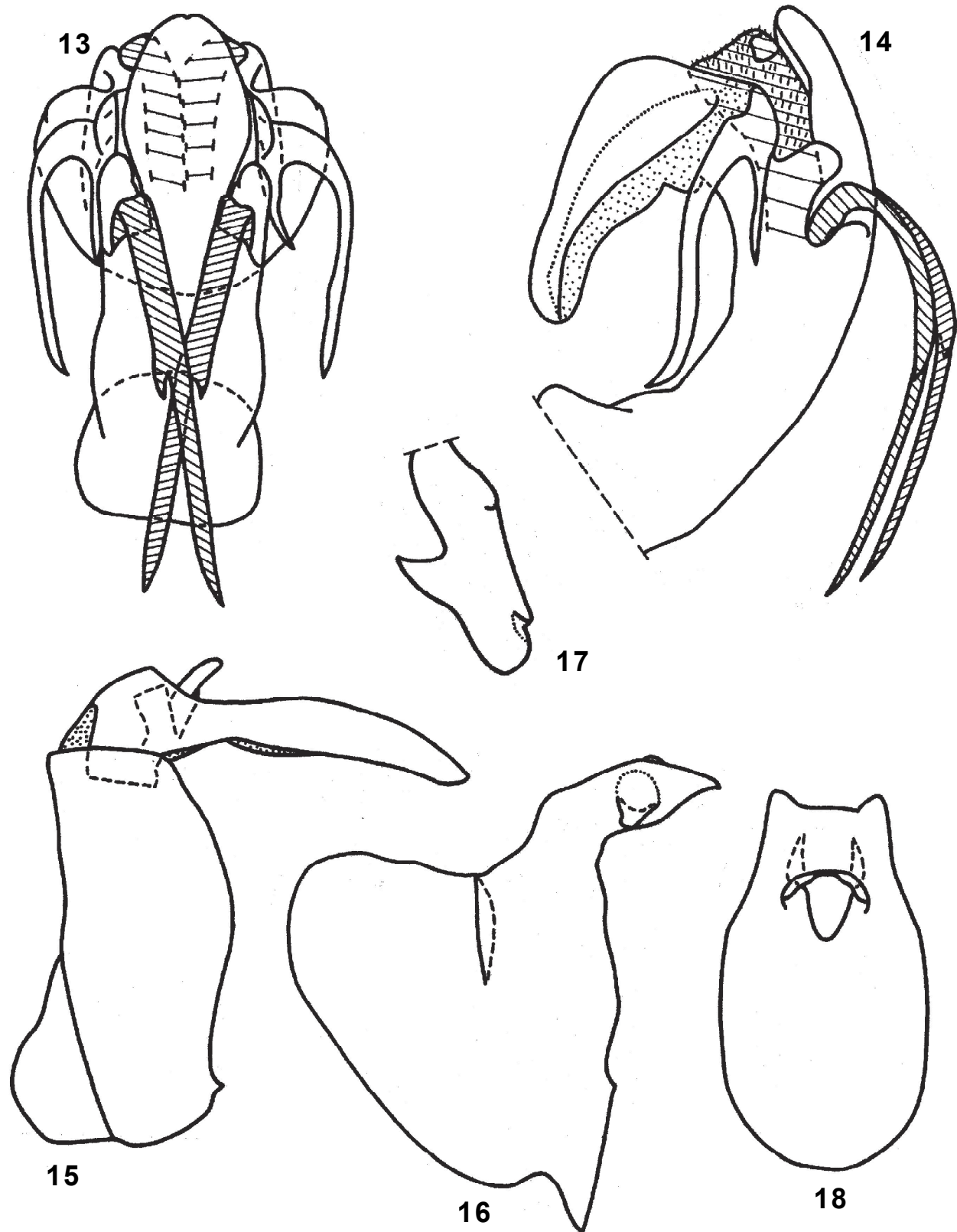


Figure 13-18. *Aztecus montezuma* (Kirkaldy), syntype, male genitalia. **13)** Aedeagus, ventral view. **14)** Aedeagus, lateral view. **15)** Pygofer and anal tube, lateral view. **16)** Style, lateral view. **17)** Capitulum of style, dorsal view. **18)** Anal tube, dorsal view.

| | |
|------|---|
| USNM | National Museum of Natural History, formerly United States National Museum, Washington, D.C., USA |
| ZIN | Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia |
| ZMHB | Museum für Naturkunde der Humboldt-Universität, Berlin, Germany |

Taxonomy

SUBFAMILY Issinae Spinola

TRIBE Issini Spinola

Three new genera, *Aztecus*, *Incasa*, and *Argepara* are erected in the tribe Issini for the remaining American "*Hysteropterum*" species. All described genera clearly differ from *Hysteropterum* Amyot et Serville in external morphology and the structure of male and female genitalia. Also a new genus and a new species related to *Ulixes* Stal, *Bumaya knorozovi* gen. et sp. n., is described from Belize and Mexico and *Traxus kasparyani* sp. n. is described from Mexico, which is the first record of the genus for this country.

GENUS *Aztecus* gen. n.

Type species: *Hysteropterum montezuma* Kirkaldy 1913, here designated.

Diagnosis: Metope vertical, flat, slightly elongate, with lateral carinae parallel, strong median carina, and very weak or indistinct sublateral carinae (Fig. 1). Upper margin of metope usually deeply angularly concave. Postclypeus sharply angled in lateral view, with median carina. Coryphe wide and short (4-5 times as wide as long). Pronotum sometimes with carinae. Scutellum sometimes with weak median carina and with distinct lateral carinae. Fore wings weakly elongate, with widely rounded apices, with wide hypocostal plate or without it. Radius and cubitus anterior bifurcate, median bi- or trifurcate (R 2 M 2-3 CuA 2), often with many transverse veins. Hind wings rudimentary. Hind tibiae with 2 lateral teeth. Metatarsomere I with 1-2 intermediate sole setae.

Male (Fig. 13-25). Pygofer with weakly or angularly convex hind margin. Anal tube long. Anal column short. Dorsolateral phallobase lobes fused into long broad dorsal process which is directed forward and downward (Fig. 14, 20). Each lobe with long narrow and bifurcate subapical process. Ventral phallobase lobe relatively long and wide, narrowing apically. Ventral aedeagal hooks long, bifurcate. Apical aedeagal processes wide, with rounded apical projections. Style with concave hind margin, caudodorsal angle rounded. Capitulum on long neck, with subapical projection. Apical tooth pointed, lateral tooth in shape of narrow plate.

Female (based on examination of *H. mexicanus*). Hind margin of sternum VII with deep and wide incision. Anal tube elongate, weakly narrowing to truncated apex. Anal column short. Gonopods without carinae. Distal parts of posterior connective lamina of gonapophyses IX with a pair of dentate processes. Median field of the lamina convex with fused lobes. Lateral fields of the lamina weakly convex. Anterior connective lamina of gonapophysis VIII with 3 teeth in apical group and 5 teeth (including 4 keeled teeth) in lateral group, comb wide. Endogonocoxal process gradually narrowing apically with subapical lobe. Gonocoxae VIII with concave hind margin. Gonospiculum bridge flattened laterally.

Etymology: The generic name is derived from the ancient Mesoamerican nation - Aztecs. The gender is masculine.

Composition: The genus comprises 6 species known from Mexico.

Comparison: The genus differs from *Hysteropterum* s. str. and from all American genera of the tribe Issini by the dorsolateral phallobase lobes fused in the shape of a long wide dorsal process directed downward and forward (Fig. 14, 20.) The genus is close to *Traxus* according to the presence of a bifurcate subapical process on each phallobase lobe and the long neck of the capitulum of the style.

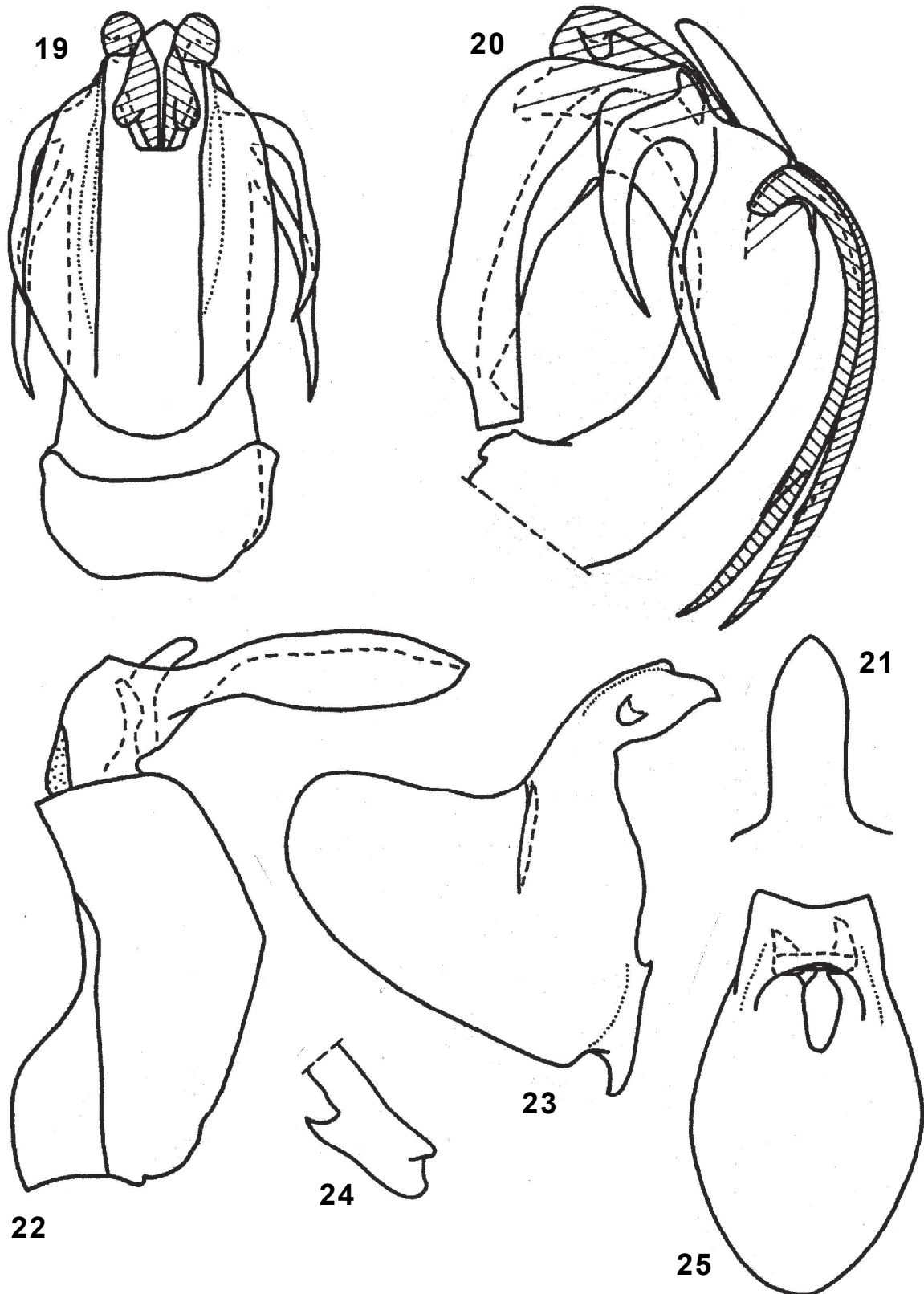


Figure 19-25. *Aztecus mexicanus* (Kirkaldy), male genitalia. 19) Aedeagus, caudo-dorsal view. 20) Aedeagus, lateral view. 21) Ventral phallobase lobe. 22) Pygofer and anal tube, lateral view. 23) Style, lateral view. 24) Capitulum of style, dorsal view. 25) Anal tube, dorsal view.

***Aztecus montezuma* (Kirkaldy 1913), comb. n.** (Fig. 13-18)*Hysteropterum montezuma* Kirkaldy 1913: 27*Hysteropterum acanthum* Caldwell 1945: 104, pl. II, fig.4; pl. III, fig.12, **syn. n.**

Material examined: Mexico: Morelos: 1 M, paratype of *H. montezuma*, Yantepec (BPBM); paratypes of *H. acanthum* (all USNM): 1 M, 2 F, Cuernavaca, 5.XII.1931, C.C. Plummer leg.; 1 M, Tepotzlan, 11.IX.1941, DeLong, Good, Caldwell & Plummer leg.; 1 F, near Jiutepec, 25.VII.1934, C.C. Plummer leg.; 1 F, Xochitepec, 30.XI.1934, C.C. Plummer leg. **Guerrero:** 1 F, Taxco, 9.IX.1939, DeLong & Plummer leg.

Note: Paratypes of both species were examined. Caldwell missed the bifurcation of the subapical process of the phallobase in his figure of the aedeagus of *H. acanthum* (Caldwell 1945, plate II, fig. 4). To try to understand this discrepancy, a dissection was allowed to dry out and be rehydrated several times. A process did break off and was noticed only because the stub was seen in the spot plate.

Aztecus auriferus* (Caldwell 1945), comb. n.Hysteropterum auriferum* Caldwell 1945: 101, pl. II, fig.2; pl. III, figs 10, 10a.

Material examined: Mexico: Michoacan: 3 M, paratypes, Zamora, 2.X.1941, DeLong, Good, Caldwell & Plummer leg. (USNM).

Aztecus erratus* (Caldwell 1945), comb. n.Hysteropterum erratum* Caldwell 1945: 102, pl. II, fig. 3; pl. III, figs. 11, 11a.

Material examined: Mexico: Michoacan: 6 M, 4 F, Hwy 15, 3-4 mi SE Tuxpan, 6500 ft., 15-16.VIII.1976, C.W. & L. O'Brien & G. Wibmer leg. (ZIN, UNAM, LBOB).

***Aztecus mexicanus* (Kirkaldy 1909), comb. n.** (Fig. 19-25)*Hysteropterum mexicanum* Kirkaldy 1909: 391, nom. nov. pro *H. angulare* Fowler*Hysteropterum angulare* Fowler 1904: 120, pl.12, figs.11, 11a, nec Fieber 1872

Material examined: Mexico: syntype of *Hysteropterum angulare* Fowler (without abdomen), **Guerrero:** Chilpancingo, 4600 ft., June, H.H. Smith leg. (BMNH). **Oaxaca:** 9 M, 9 F, Hwy 175, 6 mi NW Miahuatlan, 6200', 1.VI.1976, C.W. & L. O'Brien & G. Marshall leg. (ZIN, UNAM, LBOB).

Aztecus sierrae* (Fowler 1904), comb. n.Hysteropterum sierrae* Fowler 1904: 119, pl. 12, figs 10, 10a.

Material examined: M, syntype, Sierra de Las Aguas Escondidas, Guerrero, 9500 ft., July, H.H. Smith leg. (BMNH).

Aztecus viridatus* (Caldwell 1945), comb. n.Hysteropterum viridatum* Caldwell 1945: 104

Note: The species was described from a female (Caldwell 1945) and the validity of the name is unclear. It has been placed in the key provisionally.

Key to species of *Aztecus*

1. Fore wing with wide hypocostal plate 2
 — Fore wing without hypocostal plate ***A. sierrae* (Fowler)**

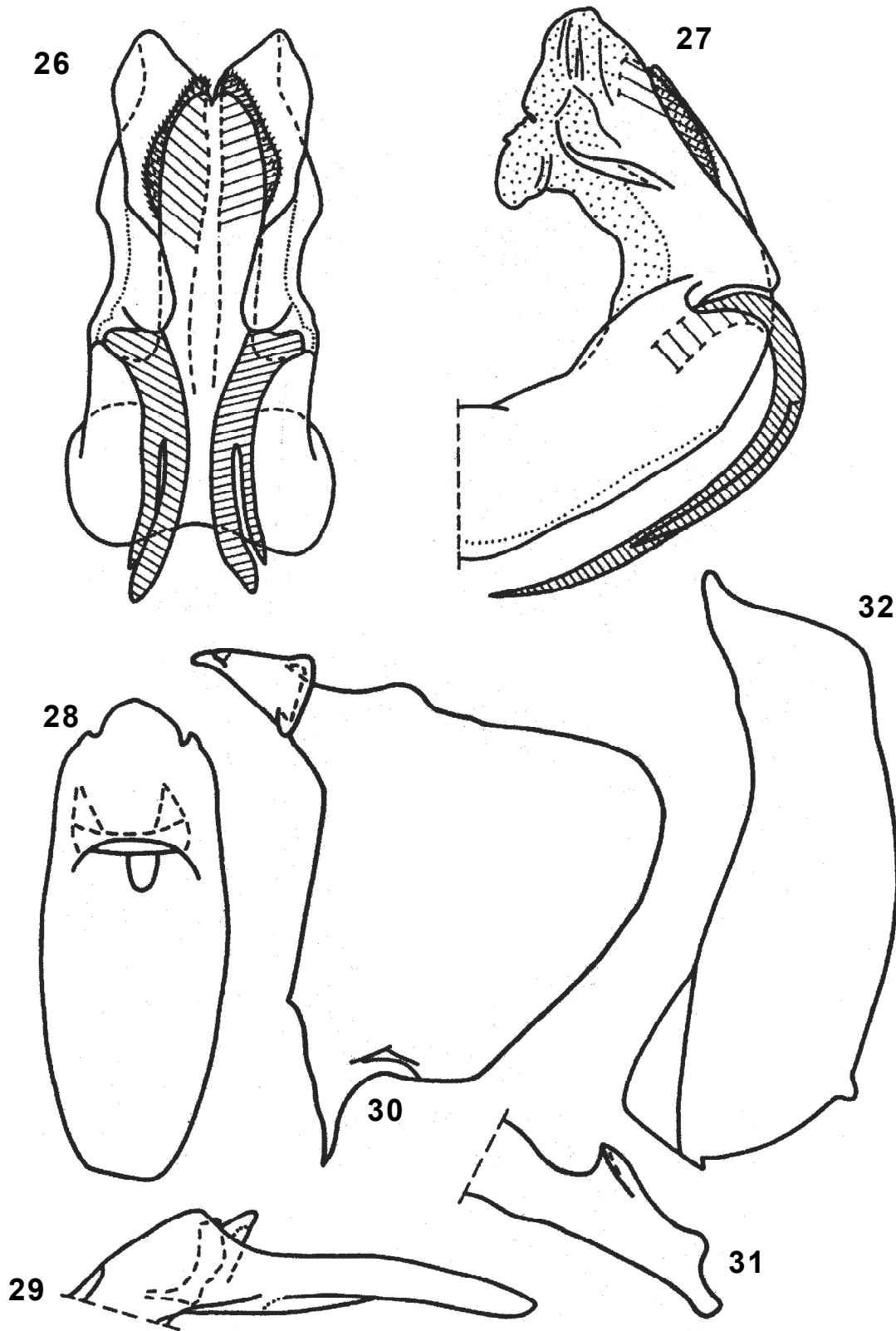


Figure 26-32. *Incasa riobambae* (Schmidt), male genitalia. 26) Aedeagus, ventral view. 27) Aedeagus, lateral view. 28) Anal tube, dorsal view. 29) Anal tube, lateral view. 30) Style, lateral view. 31) Capitulum of style, dorsal view. 32) Pygofer, lateral view.

- 2(1). Small: males - 3.7 mm, females - 4.0-4.2 mm; metope with weak sublateral carinae *A. mexicanus* (Kirkaldy)
 — Larger: males - 4.4-4.8 mm, females - 5.0-5.1 mm; sublateral carinae of metope indistinct 3
- 3(2). General coloration light yellowish brown or light yellow 4
 — General coloration light greenish brown *A. viridatus* (Caldwell)
- 4(3). Fore wing with elevated longitudinal and transverse veins; metatarsomere I with single intermediate socle seta; apex of dorsal phallobase process rounded 5
 — Fore wing with weakly visible transverse veins; metatarsomere I with 2 intermediate socle setae; apex of dorsal phallobase process blunt *A. auroriferus* (Caldwell)
- 5(4). Ventral branch of subapical process of the phallobase long *A. erratus* (Caldwell)
 — Ventral branch of subapical process of the phallobase short *A. montezuma* (Kirkaldy)

GENUS *Incasa* gen. n.

Type species: *Hysteropterum riobambae* Schmidt 1910, here designated.

Diagnosis: Metope longer than wide, with strong median carina, sublateral carinae indistinct. Coryphe transverse, short, depressed medially, anterior margin straight. Pronotum without carinae. Scutellum with distinct lateral carinae and sometimes with weak median carina. Fore wings nearly oval, widely rounded apically, with narrow hypocostal plate. Radius and median bifurcate, cubitus anterior simple (R 2 M 2 CuA 1). Hind wings rudimentary. Hind tibia with 2 lateral teeth distally. Metatarsomere I with 5 intermediate socle setae.

Male (Fig. 26-32). Anal tube long and narrow, truncated apically. Anal column short. Pygofer with nearly straight hind margin. Phallobase curved at right angle (in lateral view). Each dorsolateral phallobase lobe with narrow short subapical process and triangular long process above aedeagal hooks. Ventral phallobase lobe long and wide, narrowing to notched rounded apex. Ventral aedeagal hooks long, bifurcate. Style with straight hind margin, caudo-dorsal angle nearly straight. Capitulum of style on long neck, narrow (in dorsal view), with additional tooth, lateral tooth wide, apical tooth large.

Female. Sternum VII with widely concave hind margin. Anal tube elongate, parallel sided, with truncated apex. Anal column short. Gonopods without carinae. Distal parts of posterior connective lamina of gonapophyses IX turned at nearly right angle. Median field of the lamina convex, with deep incision between lobes. Lateral fields of the lamina weakly convex. Anterior connective lamina of gonapophysis VIII with 3 teeth in apical group and 5 teeth (including 3 keeled teeth) in lateral group. Hind margin of gonocoxa VIII not protruding. Endogonocoxal process bifurcate apically (with two finger-shaped apical processes). Gonospiculum bridge laterally flattened.

Etymology: The generic name is derived from the ancient South American nation - Incas. It is feminine in gender.

Comparison: The genus differs from *Hysteropterum* s. str. as follows: metope with strong median carina, sublateral carinae indistinct; ventral aedeagal hooks bifurcate. The genus differs from other American genera by the structure of the phallobase which is curved at a right angle and each of its dorsolateral lobes has a narrow short subapical process. Also the structure of the style which has a wide plate with straight hind margin and an elongate capitulum on a long neck, with an additional tooth.

***Incasa riobambae* (Schmidt 1910), comb. n.** (Fig. 26-32)

Hysteropterum riobambae Schmidt 1910: 161

Material examined: Ecuador: 3 M, 1 F, 18 km NW Cayambe (Hwy 35), 3.V.1978, C.W. & L.B. O'Brien & Marshall leg. (LBOB, ZIN); 6 M, 1 F, 25 km. SW. Cayambe, same date and collectors (LBOB); 3 M, 2 F, 5 km. SW Pelileo, 26.IV.1978, same collectors (LBOB); 8 M, 3 F, Cuenca, 1905, Dr G. Rivet leg.

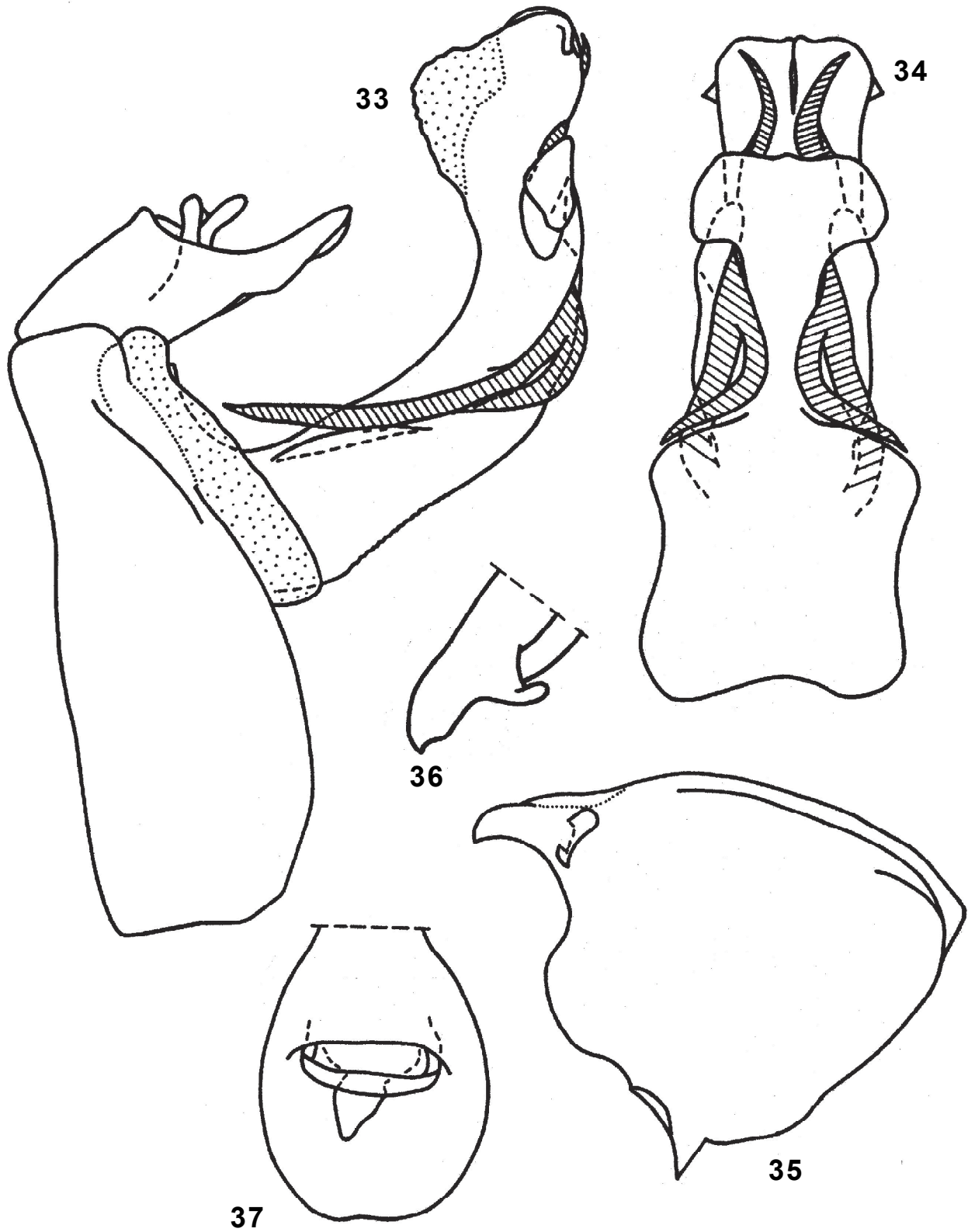


Figure 33-37. *Argepara semipellucida* (Melichar), syntype, male genitalia. **33)** Pygofer, anal tube, and aedeagus, lateral view. **34)** Aedeagus, ventral view. **35)** Style, lateral view. **36)** Capitulum of style, dorsal view. **37)** Anal tube, dorsal view.

(MNHN); 1 M, 3 F, Casitagua, 3500 m, 1903, P. Rivet leg. (MNHN); 7 M, 6 F, Pinnllar, 2900 m, 1903, P. Rivet leg. (MNHN); 1 F, Borma, 3100 m, 1905, P. Rivet leg. (MNHN); 2 M, 1 F, Quito, 1930, R. Benoist leg. (MNHN).

GENUS *Argepara* gen. n.

Type species: *Hysteropterum semipellucidum* Melichar 1906

Diagnosis: Metope wide, convex, with weak median carina or with carina absent (Fig. 3, 5), pustules along lateral margins. Postclypeus small, flat or strongly convex (Fig. 4). Coryphe broad and short (Fig. 6). Fore wing narrowing apically, without hypocostal plate (Fig. 2, 4). Radius bifurcate, median bi- or trifurcate, cubitus anterior simple or bifurcate (R 2 M 2-3 CuA 1-2), longitudinal veins weak, transverse veins indistinct. Costal portion of fore wing rounded under at 45-degree angle from horizontal. Hind wings rudimentary. Pronotum short, sometimes with median carina. Scutellum without carinae. Hind tibiae with 2 lateral teeth distally and with 8 apical teeth. Metatarsomere I with 4-5 (3-4 + 1) intermediate sole setae.

Male (Fig. 33-42). Anal tube wide, apex weakly truncate. Anal column short. Pygofer with convex hind margin, enlarged basally (in lateral view). Phallobase enlarged basally (in ventral view). Each dorso-lateral phallobase lobe with supporting process under aedeagal hook. Ventral phallobase lobe strongly enlarged apically. Aedeagus with a pair of long bifurcate acuminate ventral hooks (one branch twice longer than the other). Style massive, with convex hind margin, caudodorsal angle nearly right or rounded. Capitulum of style without neck, narrowing apically (in dorsal view), with subapical tooth or without it, lateral tooth wide.

Female (based on examination of *A. lyra*). Hind margin of sternum VII deeply concave. Anal tube elongate, narrowing to truncated apex. Anal column short. Gonoplaes without carinae. Third gonoplae lobes isolated by deep incision. Distal parts of posterior connective lamina of gonapophyses IX arcuately bent. Median field of the lamina with deep incision, without lobes. Lateral fields of the lamina weakly convex. Anterior connective lamina of gonapophysis VIII with 3 teeth in apical group and 5 keeled teeth in lateral group, comb wide. Gonocoxa VIII with straight hind margin. Endogonocoxal process trilobed apically (with 3 finger-shaped processes).

Etymology: The generic name is a combination of letters derived from the combination of words Argentina and Paraguay. It is feminine in gender.

Ant association: Ants of the genus *Camponotus* Mayr were attending the specimens of *A. lyra* collected in Argentina at 3 km N. Laguna del Morne, and similar ants, presumably the same genus, were also observed with them at other localities.

Comparison: The genus differs from all other genera of Issini by the following combination of features: metope wide, convex, with weak median carina or without it; longitudinal veins of fore wing weak, transverse veins indistinct; ventral phallobase lobe strongly enlarged apically; ventral hooks of aedeagus bifurcate; median field of posterior connective lamina of gonapophyses IX with deep incision, without lobes; endogonocoxal process trilobed.

***Argepara semipellucida* (Melichar 1906), comb. n.** (Fig. 2, 3, 33-37)

Hysteropterum semipellucidum Melichar 1906: 147

Material examined: Paraguay: 1 M, 1 F, syntypes, S. Bernardino, Nov. 1898, G. Boggiani leg. (MSNG); 1 M, 3F, San Bernardino, Lago Ypacarai, 11.X.1968, L. & C.W. O'Brien leg. (ZIN, LBOB); 6 M, 6 F, 7 km W of Caacupe, 11.X.1968, at night, C.W. & L. O'Brien leg. (LBOB, ZIN); 1F, Central, near Nemby, 11.I.1983, E.G. Riley leg. (ZIN). **Argentina: Misiones:** 1 M, 3 F, 5 km N of Santa Ana, 22.I.1989, C.W. & L. O'Brien & G. Wibmer leg. (LBOB).

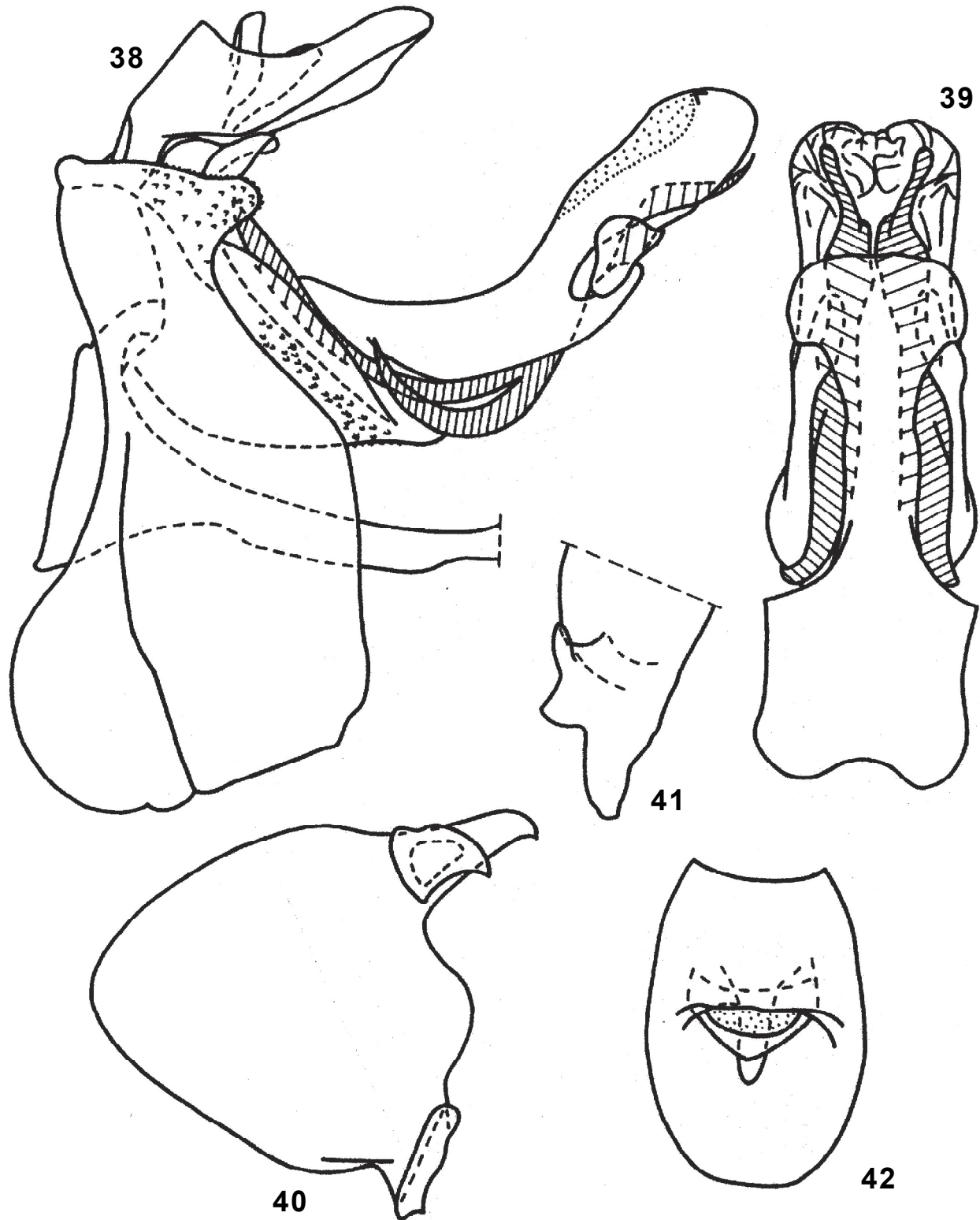


Figure 38-42. *Argepara lyra* (Berg), male genitalia. 38) Pygofer, anal tube, and aedeagus, lateral view. 39) Aedeagus, ventral view. 40) Style, lateral view. 41) Capitulum of style, dorsal view. 42) Anal tube, dorsal view.

Argepara lyra (Berg 1883), **comb. n.** (Fig. 4-6, 38-42)

Falcidius lyra Berg 1883: 238.

Material examined: **Argentina: Entre Rios:** 3 M, 3 F, 22 km E of Basavilbaso, Hwy 39, 14.I.1989, C.W. & L. O'Brien & G. Wibmer leg. (LBOB, ZIN); **Corrientes:** 4 M, 2 F, 18 km N of Empedrado, 16.I.1989, C.W. & L. O'Brien & G. Wibmer leg. (LBOB, ZIN); **Misiones:** 1 F, Santa Anna (MNHN); 2 F, env. de San-Ignacio, Villa Lutecia, 1910, E.R. Wagner leg. (MNHN). **Chaco:** 2 M, 70 km SW Resistencia, Hwy. 1, 30. I. 1989, C.W. & L. O'Brien & G. Wibmer leg. (LBOB); **Buenos Aires:** 8 M, 4 F, 3 km N Laguna del Monte, 31. I. 1989, C.W. & L. O'Brien & G. Wibmer leg., herded by *Camponotus* ants on *Eryngium* (LBOB). **Paraguay:** 2 F, 3 km E of Ypacarai, 7.X.1968, at night, C.W. & L. O'Brien leg. (LBOB, ZIN); 1 F, same locality, 6.VII.1968, L. & C.W. O'Brien leg. (ZIN); 1 F (melanistic specimen), San Bernardino, K. Fiebrig leg. (BMNH). **Uruguay:** 2 M, 2 F, Colonia, Arroyo San Pedro, Ruta 21, km. 194, 1. I. 2000, G. J. Wibmer leg. (LBOB).

Note: The genus *Falcidius* was redefined as being only Mediterranean (Gnezdilov and Wilson, 2007).

Key to the species of *Argepara*

1. Postclypeus flat, fastigium at nearly right angle (in lateral view) (Fig. 2); head and dorsum brown or dark brown excluding pale costal margins of fore wings (Fig. 2, 3); hind margin of pygofer without apical process (Fig. 33); capitulum of style without subapical tooth (in dorsal view) (Fig. 36) ***A. semipellucida* (Melichar)**
- Postclypeus strongly convex, forming a cone-shaped projection, fastigium at obtuse angle (in lateral view) (Fig. 4); head and dorsum from dark brown to black with median yellow vitta thru metope to wing tip (reduced in melanistic specimens) (Fig. 5, 6), with costal and median stripes joining at wing apex (Fig. 4); hind margin of pygofer with large apical process (Fig. 38); capitulum of style with large subapical tooth (in dorsal view) (Fig. 41) ***A. lyra* (Berg)**

GENUS *Traxus* Metcalf

Type species: *Traxus fulvus* Metcalf 1923: 189, pls. 42, 52, 62, 65.

Traxus kasparyani, **sp. n.** (Fig. 7, 43-49)

Examined material: **Mexico: Tamaulipas:** Holotype, M, 15 km NNW Cd Viktoria, Rancho Nuevo, 12.XI.1998, D.R. Kasparyan leg. (ZIN). Paratypes: 1 M, 2 F, as holotype (ZIN); 1 M, as holotype, 16.X.1998 (ZIN); 1 F, Jaumave, 4.X.1998, D.R. Kasparyan leg. (ZIN); 4 M, 11mi.SW.Cd.Victoria, Hwy. 101, 4000', 22 July 1976, L.B.O'Brien, G. Wibmer leg. (LBOB, UNAM); 2 F, ca. 25 ml. N.C. Monte Nacimiento del Rio Frio, 31.VII.1970, C.W. O'Brien leg. (LBOB); 1 F, El Limon, XII.30.1968, L.B. & C.W. O'Brien leg. (LBOB); 1 F, 23 mi S Ciudad Victoria, 25.V.1974, C.W. & L. O'Brien & Marshall leg. (LBOB); **Nuevo Leon:** 2 F, El Chocolate Creek, 9 km N Hualahuises, Hwy. 85, 500 m, 24.V.1977, beating micropilous vegetation, A. N. Garcia-Aldrete leg. (LBOB); 2 M, Hwy. 59, 20 mi.W.Linares, 3250', 21.VII.1976, C.W. & L.B.O'Brien leg (LBOB).

Diagnosis: Metope twice longer than wide, with strongly carinate margins and fine median and sublateral carinae. Sublateral carinae of metope joined apically and basally. Surface of clypeus obtusely angled in lateral view, anterior portion below plane of metope, with median carina. Coryphe transverse, wide and short (3.5 times as wide as long). Pronotum without carinae. Scutellum longer than pronotum, with distinct lateral carinae lying on bosses. Fore wings narrowing to rounded apices, without hypocostal plate. Radius, median, and cubitus anterior bifurcate (R 2 M 2 CuA 2), with many additional branches. Hind wings rudimentary. Hind tibiae with 2 lateral teeth. Metatarsomere I with single intermediate socle setae.

Coloration. General coloration from light grayish brown to dark brown with dark dots. Genae light (Fig. 7). Legs dark.

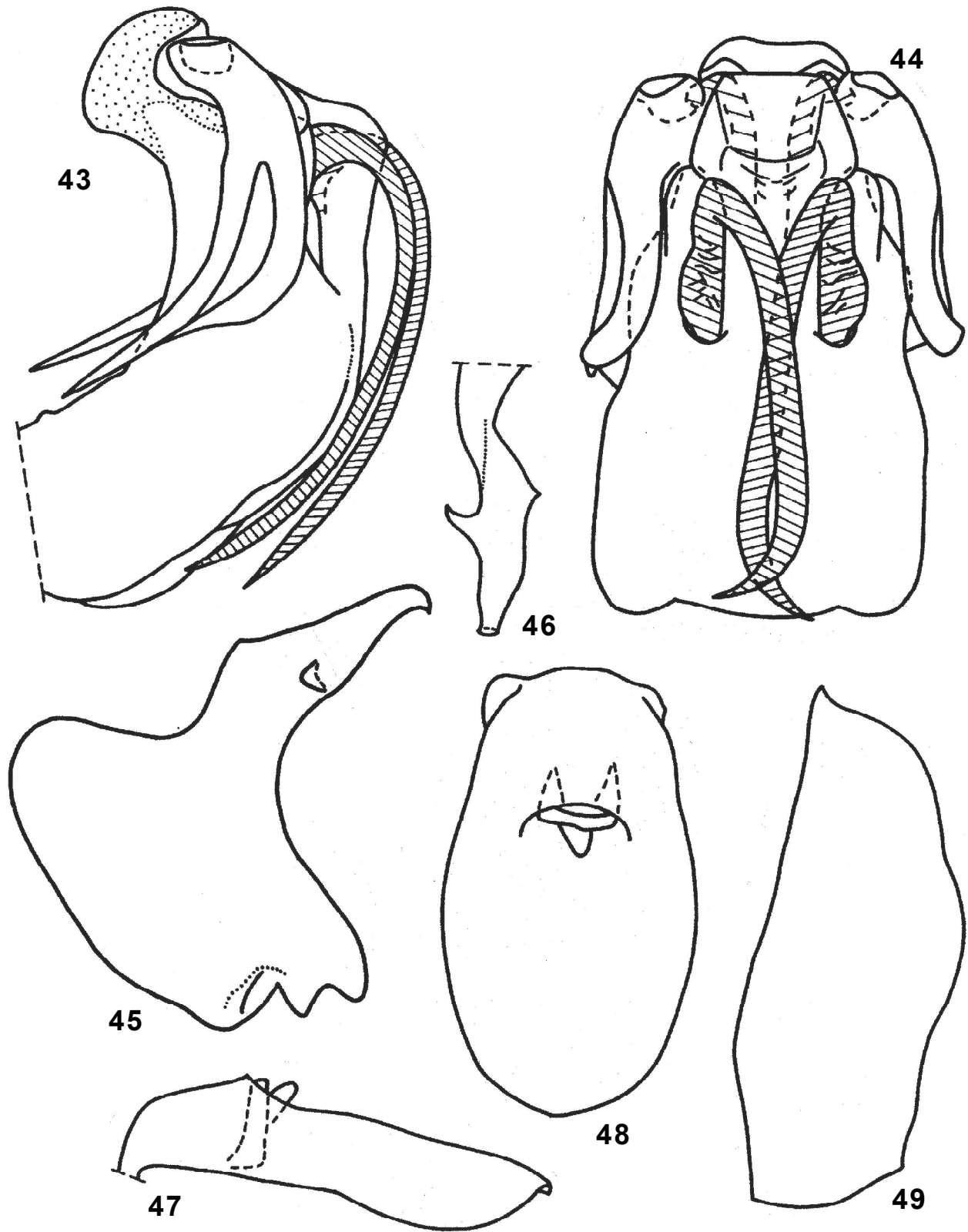


Figure 43-49. *Traxus kasparyani* sp. n., holotype, male genitalia. 43) Aedeagus, lateral view. 44) Aedeagus, ventral view. 45) Style, lateral view. 46) Capitulum of style, dorsal view. 47) Anal tube, lateral view. 48) Anal tube, dorsal view. 49) Pygofer, lateral view.

Male (Fig. 43-49). Anal tube elongate, wide, lateral margins turned down. Anal column very short. Pygofer with convex hind margin. Phallobase wide, weakly curved (in lateral view). Dorsolateral phallobase lobes fused dorsally, its apical part in shape of weakly sclerotized tippet covering apical aedeagal processes. Each lobe with long bifurcate subapical process bearing deep cavity proximally. Ventral phallobase lobe wide, with basal bulge, widely rounded apically. Ventral aedeagal hooks long, pointed, directed downward. Apical aedeagal processes with subapical lobes. Style with straight hind margin, caudo-dorsal angle widely rounded. Capitulum long, narrow, narrowing apically (in dorsal view), with acute subapical projection. Lateral tooth in shape of narrow lobe, apical tooth strong.

Female. Anal tube long and narrow.

Body length. Males - 4.8-5.0 mm. Females - 5.5-5.8 mm.

Etymology: The species name is derived from the surname of the well-known Russian hymenopterist Prof. Dmitry R. Kasparyan, the collector of the holotype.

***Traxus fulvus* Metcalf 1923** (Fig. 8)

Traxus fulvus Metcalf 1923: 189, pls. 42, 52, 62, 65.

Examined material: USA: Texas, Brownsville: 1 M, 1 F, 31.V.[19]33, P.W. Oman leg. (USNM); 2 M, 3F, Cameron Co, Sabal Palm Grove, 19.VII.1982, C.W. & L. O'Brien & G. Wibmer leg. (ZIN, LBOB); 2 M, same except 20.VII.1982, (LBOB); 3 M, 1F, same except 4.V.1993, O'Briens & Marshall leg. (LBOB); 3 M, 2F, Hidalgo Co., D.J. & J. N. Knull leg. (LBOB, OSU).

Key to the species of *Traxus*

1. Fastigium with obtuse angle, genae wide (in lateral view) (Fig. 7); lateral carinae of scutellum on weak bosses; general coloration of dorsum light grayish brown ***T. kasparyani* sp. n.**
- Fastigium with nearly right or acute angle, genae narrow (in lateral view) (Fig. 8); lateral carinae of scutellum on strong bosses; general coloration of dorsum light yellowish brown ***T. fulvus* Metcalf**

GENUS *Paralixes* Caldwell

Type species: *Issus scutatus* Walker 1858

***Paralixes fowleri* (Melichar 1906), comb. n.**

Hysteropterum fowleri Melichar 1906: 149, nom. nov. pro *H. montanum* Fowler, nec Becker 1865.

Hysteropterum montanum Fowler 1904: 120, pl.12, fig. 12, 12a.

Examined material: Mexico: M, syntype of *Hysteropterum montanum* Fowler, [Durango] Ciudad, 8100 ft., Forrer leg. (BMNH).

Supplementary diagnosis: Metope flat with distinct median carina. Clypeus with median carina. Coryphe transverse (2.3 times as wide as long). Scutellum with distinct median and lateral carinae. Fore wings elongate, without hypocostal plate. Radius, median, and cubitus anterior bifurcate (R 2 M 2 CuA 2). Hind wings rudimentary. Hind tibia with 2-3 lateral teeth (1 small tooth proximally and 2 large teeth distally). Metatarsomere I with 2 intermediate socle setae.

Male. Ventral phallobase lobe wide, narrowing apically. Aedeagus with a pair of short ventral hooks.

Body length. 5.8 mm.

Note: The species is placed in the genus provisionally.

GENUS *Bumaya* gen. n.

Type species: *Bumaya knorozovi* sp. n., here designated.

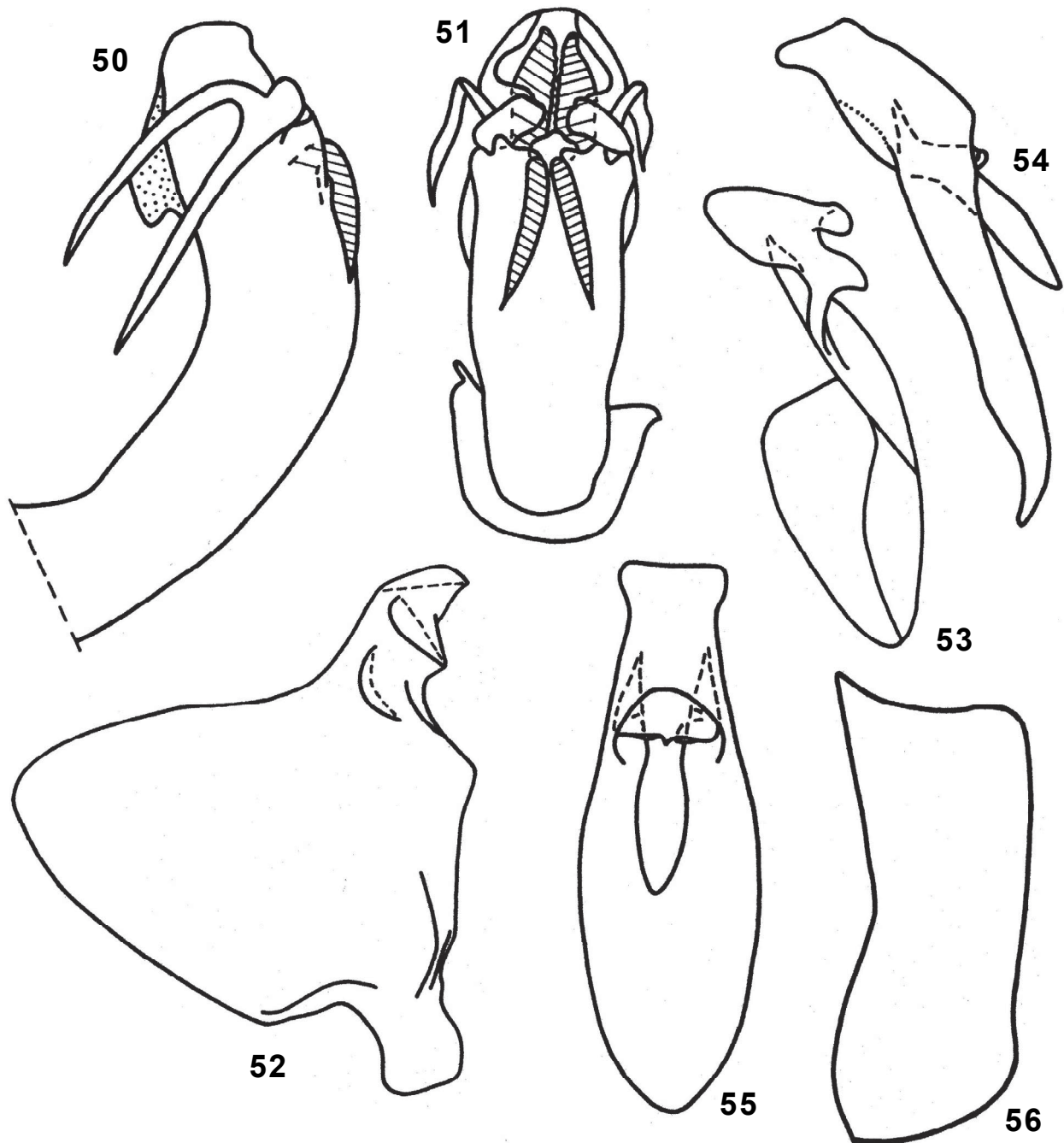


Figure 50-56. *Colpoptera sinuata* Burmeister, syntype, male genitalia. **50)** Aedeagus, lateral view. **51)** Aedeagus, ventral view. **52)** Style, lateral view. **53)** Style, dorsal view. **54)** Anal tube, lateral view. **55)** Anal tube, dorsal view. **56)** Pygofer, lateral view.

Diagnosis: Metope wide and long (1.2 times as long as wide), with very weak traces of median and sublateral carinae. Fastigium obtusely angled (metope completely visible in dorsal view) (Fig. 9, 10). Apex of metope with deep notch, lateral margins with weak middle ledge. Clypeus large, with median carina. Coryphe transverse, wide and short (3.5 times as wide as long), anterior margin straight. Pronotum short, without carinae. Scutellum large, longer than pronotum, with lateral carinae lying on bosses. Fore wings wide, strongly angled at shoulders, without hypocostal plate. Radius and cubitus anterior bifur-

cate, median trifurcate (R 2 M 3 CuA 2), with densely reticulate veins. Clavus medially bulbous, with apical concavity near the fusion of Pcu and A₁. Hind wings well developed, reaching the apex of abdomen. Hind tibiae with 2 lateral teeth. Metatarsomere I with 2 intermediate socle setae.

Female. Sternum VII with widely concave hind margin. Anal tube elongate. Gonoplaes rounded.

Etymology: The generic name is derived from the ancient Mesoamerican nation - Maya, preceded by the prefix Bu-, meaning large, because of the large size of the specimens. The gender is feminine.

Comparison: The genus is closely related to *Ulixes* Stal by the fore wings strongly angled at the shoulders. It is distinguished by the wide and long metope, joined with the coryphe at an obtuse angle and wholly visible from above, with a deep notch apically and lateral margins with a weak middle ledge, and with densely reticulate venation of the fore wings.

***Bumaya knorozovi* sp. n.** (Fig. 9, 10)

Examined material: Belize: Holotype, F, Cayo [District], Xunantunich, 14.VIII.1977, C.W. & L. O'Brien & Marshall leg. (LBOB). Paratypes: 1 F, Belize, Orange Walk [District], Rio Bravo Cons[ervation] Area, Mahogany Trail, 10.VII.1996, UV & Hg vapor lights, C.W. & L.B. O'Brien leg. (LBOB). **Mexico:** 1 F, Yuc[atan], 22 km S.Valladolid, 28.VII.1990, C.W. & L.B. O'Brien leg. (ZIN); 1 F, Quint[ano] Roo, Xcan Nuevo, 7.VI.1959, P. & C.Vaurie leg. (AMNH).

Diagnosis: General coloration dark yellowish brown. Metope, most of pronotum and scutellum excluding lateral parts brownish yellow. Fore and middle coxae black. Femora and tibiae with dark brown spots. Teeth and socle setae with black apices. Claws brown or dark brown. Gonoplaes black.

Body length. 9.3 mm.

Etymology: The species name is derived from the surname of the Russian scientist Dr. Yuriy Knorozov whose research played a pivotal role in the decipherment of Mayan script.

TRIBE Thioniini Melichar

In the tribe Thioniini, *Prothona* Caldwell and *Plummerana* Caldwell are placed in synonymy under *Proteinissus* Fowler, and *Thionissa* Metcalf is placed in synonymy under *Dracela* Signoret based on external morphological features of the type-species of the genera.

GENUS *Proteinissus* Fowler

Proteinissus Fowler 1904: 121. Type species: *Proteinissus bilimeki* Fowler 1904.

Prothona Caldwell 1945: 111, **syn. n.** Type species: *Prothona punctata* Caldwell 1945.

Plummerana Caldwell 1945: 110, **syn. n.** Type species: *Plummerana isolata* Caldwell 1945.

Diagnosis: Metope elongate, with only median or with median and sublateral carinae joined before its upper margin. Coryphe with median carina. Subbrachypterous, fore wings with very narrow hypocostal plate. Radius and median bifurcate, cubitus anterior simple (R 2 M 2 CuA 1). Hind wings with rudimentary or reduced vannus. Hind tibia with 3 lateral teeth. Metatarsomere I with 4-6 intermediate socle setae. Each dorsolateral phallobase lobe with narrow curved subapical process. Style without neck.

Note: The synonymy was based on the external morphological features above, and the male and female genitalia of the type species of the genera.

***Proteinissus bilimeki* Fowler 1904**

Proteinissus bilimeki Fowler 1904: 121, pl.12, figs. 13, 13a-b.

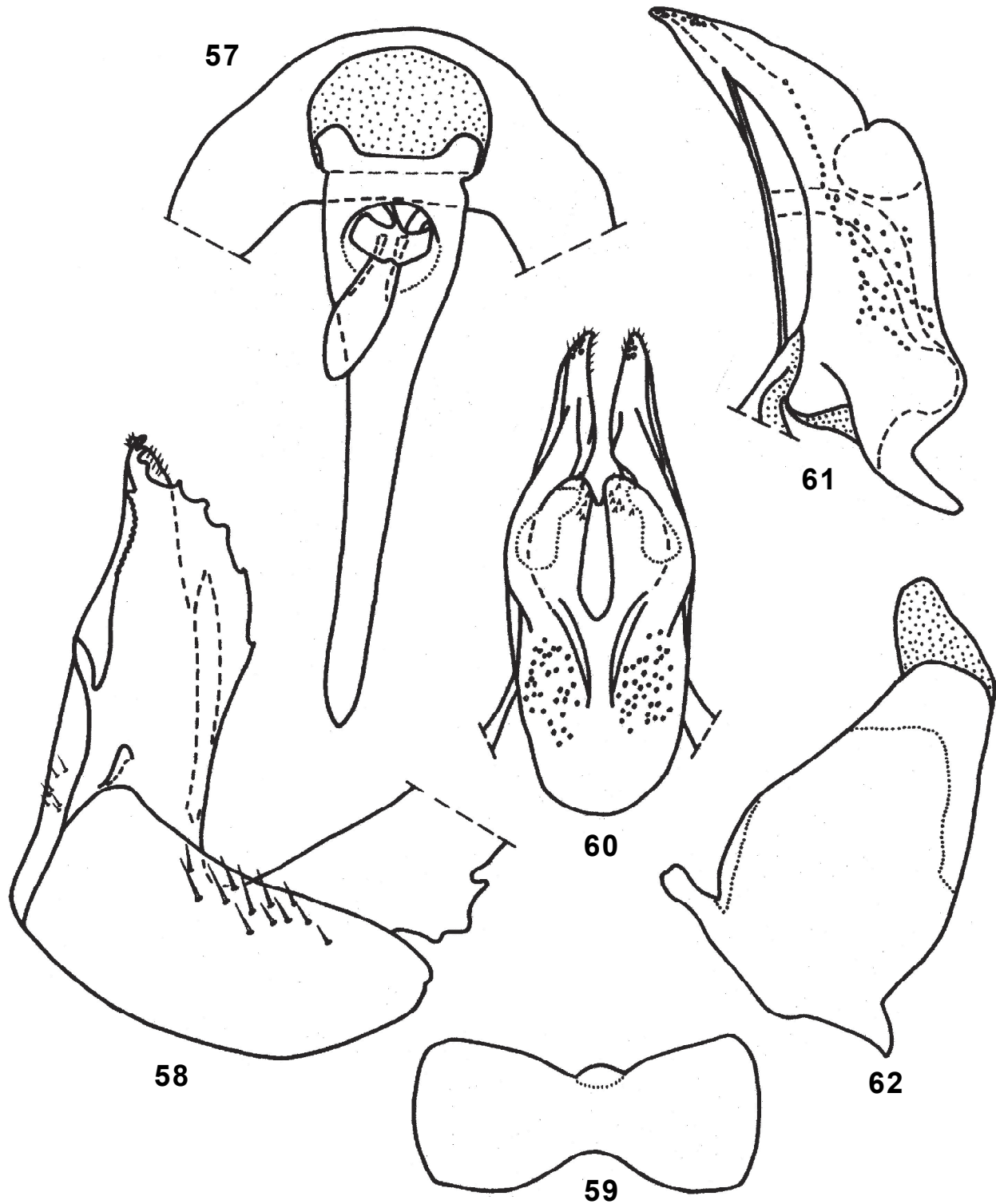


Figure 57-62. *Colpoptera sinuata* Burmeister, syntype, female genitalia. 57) Anal tube, dorsal view. 58) Anterior connective lamina of gonapophysis VIII, lateral view. 59) Sternum VII. 60) Posterior connective lamina of gonapophyses IX, dorsal view. 61) Same, lateral view. 62) Gonoplac, lateral view.

Examined material: Mexico: 27 M, 5 F, Mexico (state), 9 km E of Amecameca, 4.XI.1973, C.W. O'Brien leg. (LBOB, ZIN, UNAM); 3 M, Autopista Mexico City-Puebla, km. 38, 1.XI.1973, C.W. O'Brien leg. (LBOB); 1 M, Mor[elos], 2 km. N. Jcn. 95 & 115, 18. II.1972, C.W. & L.B. O'Brien leg. (LBOB); Puebl[a] 1 M, 1 F, 19 mi. E. San Martin Texmelucan, 1.XI.1973, C.W. O'Brien leg. (LBOB).

***Proteinissus pentagonatus* (Caldwell 1945), comb. n.**

Prothona pentagonata Caldwell 1945: 112, pl. III, fig. 8.

***Proteinissus punctatus* (Caldwell 1945), comb. n.**

Prothona punctata Caldwell 1945: 111, pl. II, fig. 8, pl. III, fig. 5.

Examined material: Mexico: 7 M, 3 F, D[istrito] F[ederal], P[arque] N[acional], Desierto de los Leones, 9600 ft., 29.V.1974, at night, L. & C.W. O'Brien & Marshall leg. (LBOB, ZIN).

***Proteinissus reticulatus* (Caldwell 1945), comb. n.**

Prothona reticulata Caldwell 1945: 112, pl. III, fig. 7

***Proteinissus viridus* (Caldwell 1945), comb. n.**

Prothona virida Caldwell 1945: 112, pl. II, fig. 9, pl. III, fig. 6

***Proteinissus isolatus* (Caldwell 1945), comb. n.**

Plummerana isolata Caldwell 1945: 111, pl. II, fig. 7, pl. III, fig. 1

Examined material: Mexico: F, syntype, km N Toluca Rd, D.F., 11.VII.1934, C.C. Plummer leg. (USNM); Puebla: 3 M, 6 mi. NW. Jacatepec, 8600 ft., 27.XII.1963, C.W. O'Brien leg. (LBOB).

GENUS *Dracela* Signoret

Dracela Signoret 1861: 501. Type species: *Dracela annulipes* Signoret 1861.

Thionissa Metcalf 1938: 412, **syn. n.** Type species: *Thionissa acuta* Metcalf 1938.

Diagnosis: Metope long and narrow, with only median keel, its upper margin angulately concave. Postclypeus with strong median carina. Coryphe long and narrow, with keel-shaped lateral margins (trench-shaped). Fore wings with very narrow hypocostal plate. Radius bifurcate, median tetra- or pentafurcate, cubitus anterior simple (R 2 M 4-5 CuA 1). Hind wings well developed, 3-lobed. Hind tibia with 2 lateral teeth. Metatarsomere I with 6-8 intermediate socle setae.

Note: Type species of both genera were examined.

***Dracela annulipes* Signoret 1861 (Fig. 11)**

Dracela annulipes Signoret 1861: 501, pl. 10, figs. 2, 2a (or see also illustration in Melichar 1906: 226, fig. 53)

Examined material: [French Guiana]: M, type, Cayenne, Coll. Signoret (NHMW). **Brazil:** 1 F, Rondonia: 62 km. SW. Ariquimes, F[azenda] Rancho Grande, 13.XI.1994, C.W. & L.B.O'Brien leg. (ZIN). 1 M, same data, except 12-22.XI.1991, L.C.Bezark & D.E.Russell leg. (LBOB). **Ecuador:** 1 M, 18 km. E. Tena, 28.IV.1970, C.W. & L.B.O'Brien & Marshall leg. (LBOB). **Peru:** 1 M, 35 km. W. Pucallpa, 17.VII.1968, C.W. & L.B.O'Brien leg. (LBOB).

***Dracela acuta* (Metcalf 1938), comb. n. (Fig. 12)**

Thionissa acuta Metcalf 1938: 413, pl. 14, 15, 19

Examined material: Paratypes (USNM): **Costa Rica:** 1 F, San Carlos, Coll. Schild-Burgdorf. **Panama:** 1 F, Bocas del Toro, 5.VII.1908, W. Robinson leg., 1 M, Barro Colorado, Canal Zone, 3.IV.1929, S.W. Frost

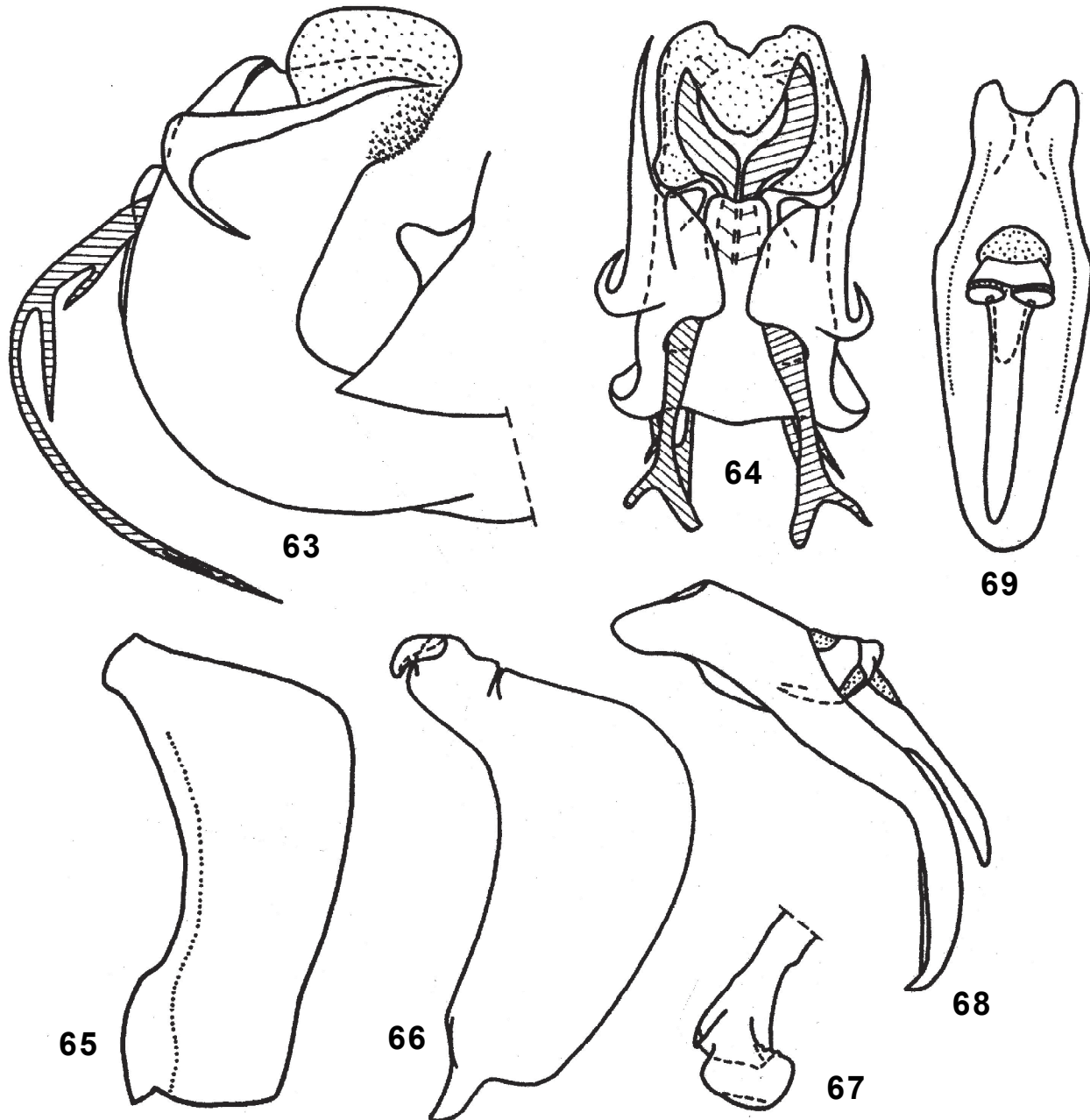


Figure 63-69. *Caudibeccus emeljanovi* sp. n., holotype, male genitalia. **63)** Aedeagus, lateral view. **64)** Aedeagus, ventral view. **65)** Pygofer, lateral view. **66)** Style, lateral view. **67)** Capitulum of style, dorsal view. **68)** Anal tube, lateral view. **69)** Anal tube, dorsal view.

leg. **Additional material:** **Panama:** 1 M, 2 F, Canal Zone, Pipe Line Rd, 30.VI.1974, C.W. & L. O'Brien & Marshall leg. (ZIN, LBOB); 1 M, Canal Zone, Coco Solo Hospital, 1.VII.1974, same collectors (LBOB); 1 M, Canal Zone, Fort Davis, Atl., 17.IV.1981, D. Engleman leg. (LBOB); Barro Colorado Is. XI-22-1944, K.R. Frick leg. (CAS); 1 M, km. 7 Llano-Carti Road, 3.VIII.1995, C.W. & L.B. O'Brien leg. (LBOB); **Costa Rica:** 1M, Prov. Limon, Sector Cocori, 30 km.N. de Cariari, Finca E. Rojas, 100m., III.1994, E. Rojas leg, LN 286000 567500 #2790 (INBio). **Ecuador:** 1 M, Santo-Domingo de Los Colorados, 1930, R. Benoist leg. (MNHN).

Comparison: The species differs from *D. annulipes* in the shape of the anterior margin of the coryphe (Fig. 11, 12).

***Dracela pehlkei* Schmidt 1923**

Dracela pehlkei Schmidt 1923: 20.

Examined material: Colombia: 2 F, Bogota, Lindig (NHRS).

Comparison: This species differs from the others by having the coryphe as long as the pronotum and mesonotum combined.

Key to species of *Dracela*

1. Coryphe with anterior margin straight or v-shaped, depending upon angle (Fig. 11) 2
 — Coryphe with anterior margin projecting triangularly medially in dorsal view (Fig. 12)
 *D. acuta* (Metcalf)
- 2(1). Coryphe shorter than pro- and mesonotum combined *D. annulipes* Signoret
 — Coryphe as long as pro- and mesonotum combined *D. pehlkei* Schmidt

TRIBE Colpopterini Gnezdilov

In the tribe Colpopterini, *Hesperophara* Kirkaldy is placed in synonymy under *Colpoptera* Burmeister. *Caudibeccus* gen. n. and *Jamaha* gen.n. are erected in the tribe based on the structure of male and female genitalia of the included species. A new species of the genus *Caudibeccus* gen. n. is described from Cuba which is a second species of the tribe known from the island.

GENUS *Colpoptera* Burmeister

Colpoptera Burmeister 1835: 155. Type species: *Colpoptera sinuata* Burmeister 1835.

Hesperophara Kirkaldy 1904: 279 (nom. nov. pro *Leptophara* Stal 1869), nec Billberg 1820, **syn.n.**

Note: Type specimens of *Colpoptera sinuata* and photos of the type specimen of *Flata rustica* were examined.

***Colpoptera rustica* (Fabricius 1803), comb. n.**

Flata rustica Fabricius 1803: 53

Leptophara rustica Stal 1869: 103

Hesperophara rustica Metcalf 1958: 463 [catalogued]

Note: According to Zimsen's (1964) book on the Fabricius collections in Copenhagen, one specimen of *Flata rustica* was deposited in Copenhagen and two in Kiel. We have examined photos of these three specimens kindly sent by Prof. Niels P. Kristensen, who writes: "The specimen in the "Copenhagen Collection" (i.e., the one from the Tønder Lund collection to which reference is made in the original description) belongs to one family, the two in the "Kiel Collection" to another." The female specimen in the Copenhagen collection fits the description of *Flata rustica* Fabricius, which has been correctly placed in the Issidae since Stal (1869). The two specimens in the Kiel collection do not fit the description. They are Cenchreini, Derbidae, with lateral carinae on the pronotum partially encircling the antennae. Since no number of specimens is given in the description, and the single specimen in the Copenhagen collection has the correct data (a green square designating the Fabrician collection, a red "Type" label, and "Amer.

merid. Schmidt/ Mus. Seh et L./Rustica F.”), we assume it is a holotype, not a syntype, and no lectotype designation is necessary. We cannot explain the presence of the other two specimens.

***Colpoptera sinuata* Burmeister 1835** (Fig. 50-62)

Colpoptera sinuata Burmeister 1835: 155

Examined material: **Mexico:** 1 M, 1 F, syntypes, Deppe (ZMHB); **Tamaulipas:** 1 M, 4 F, Cd Victoria - Soto la Marina, 68th km, selva, 5.XI.2005, D.R. Kasparyan leg. (ZIN); 4 M, 5 F, 5 mi E Nuevo Morelos, 1700 ft., 16.VIII.1971, C.&L.O'Brien & Marshall leg. (LBOB); **Vera Cruz:** 3 M, 1 F, 29 mi SE Jalapa, 900 ft., 26.XII.1963, C.W.O'Brien leg. (LBOB).

Supplementary diagnosis: Metope elongate, with median carina extending through base of postclypeus. Coryphe transverse, anterior margin straight, posterior margin concave. Pronotum narrow, sometimes with median carina, anterior margin strongly convex. Mesonotum long, with arcuate transverse carina basally. Fore wing narrowing to rounded apex, with narrow hypocostal plate and many transverse veins apically. Radius, median, and cubitus anterior bifurcate (R 2 M 2 CuA 2). Hind wing: radius and cubitus anterior bifurcate, median, cubitus posterior, postcubitus, first and second anal veins simple (R 2 CuA 2 M 1 CuP 1 Pcu 1 A₁ 1 A₂ 1). M and CuA fused basally. CuA₂ combining with CuP. CuA₂ + CuP weakened, running into weak incision of wing margin. Pcu and A₁ not fused. Coupling lobe present. Hind tibia with single lateral tooth distally. Metatarsomere I with 5 intermediate socle setae.

Coloration. General coloration light brown. Fore wings with wide dark brown sinuate stripe. Females with abdominal segments including genital ones dark brown with light brown spots.

Male (Fig. 50-56). Anal tube long, narrowing basally and to acuminate apex, lateral margins and apex directed downward (in lateral view). Anal column long. Pygofer with straight hind margin. Each dorsolateral phallobase lobe with long subapical bifurcate process (branches are equal in length). Ventral phallobase lobe reduced to short process. Aedeagus with a pair of short hooks distally. Connective large. Style with weakly convex hind margin, caudodorsal angle rounded. Neck of style with large lobe-shaped lateral process. Capitulum of style depressed dorsoventrally, broad, narrowing apically (in dorsal view), lateral tooth in shape of wide lobe.

Female (Fig. 57-62). Hind margin of VII sternum with tooth-shaped median process. Anal tube long and narrow, distinctly longer than gonoplacs. Anal column long. Gonoplacs nearly triangular, fused medially. Proximal part of posterior connective lamina of gonapophyses IX convex. Distal parts of the lamina weakly convex. Median field of the lamina convex, with a pair of short apical lobes. Lateral fields of the lamina flat. Gonocoxa VIII with straight hind margin. Endogonocoxal process narrowing to apex. Anterior connective lamina of gonapophysis VIII with large process basally, with 4 (3 + 1) teeth in apical group and 4 teeth without carinae in lateral group.

Body length. Males - 5.5 mm. Females - 6.3 mm.

GENUS *Caudibeccus* gen. n.

Type species: *Colpoptera carlota* Myers 1928, here designated.

Diagnosis: Metope enlarged before the clypeus, with only median carina running through clypeus. Coryphe transverse, with keel-shaped lateral margins, anterior margin straight, posterior margin concave. Pronotum narrow, with acutely angulate anterior margin, posterior margin concave. Scutellum long, with strong median carina and sometimes with sublateral carinae. Fore wing with wide hypocostal plate. Radius and median bifurcate, cubitus anterior simple or bifurcate (R 2 M 2 CuA 1-2); longitudinal veins with numerous branches distally. Hind tibia with single lateral tooth. Metatarsomere I with 5-6 intermediate socle setae.

Male (Fig. 63-69). Anal tube elongate, strongly convex. Pygofer with convex hind margin. Each dorsolateral phallobase lobe with a bifurcate process. Aedeagus with a pair of long ventral hooks. Stylus with rounded caudo-dorsal angle. Capitulum of the style rudimentary, with only lateral tooth in shape of quadrate plate.

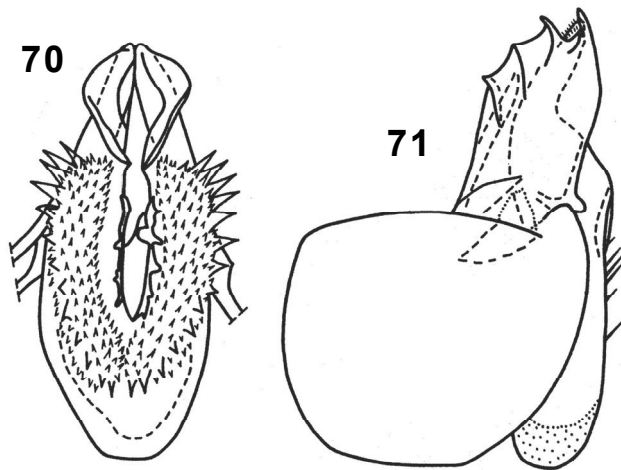


Figure 70-71. *Jamaha elevans* (Walker), female genitalia. **70)** Posterior connective lamina of gonapophyses IX, dorsal view. **71)** Anterior connective lamina of gonapophyse VIII, lateral view.

Female. Anal tube long and narrow, narrowing to apex (in dorsal view) and curved (in lateral view). Anal column narrow and long. Gonoplacs convex, more or less triangular, strongly narrowing apically, fused medially almost along entire length. Posterior connective lamina of gonapophyses IX more or less horseshoe-shaped. Proximal part of the lamina short. Distal parts of the lamina almost parallel to each other. Median field of the lamina in shape of a pair of large lobes proximally. Lateral fields of the lamina flat. Gonospiculum bridge in shape of broad tube, fused with proximal part of posterior connective lamina. Gonocoxa VIII with straight hind margin. Endogonocoxal process narrow and pointed, flattened laterally, with comb of setae on dorsal margin, lateral sides with more short setae, its ventral margin without setae, except for apical part. (See Gnezdilov 2003b, figs. 2-4). Anterior connective lamina of gonapophysis VIII narrow, flattened laterally, without teeth, entirely covered with setae.

Etymology: The generic name is derived from the Latin words - *cauda* (tail) and *beccus* (beak), referring to the unusual long and narrow ovipositor. The gender is masculine.

Composition: In addition to the type species *C. carlota*, *Colpoptera punctata* Metcalf, 1954, *C. meleagris* Fennah, 1955, *C. lucaris* Fennah, 1955 and *Caudibeccus emeljanovi* sp. n. also belong to the genus.

Distribution: Cuba, South Bimini Island, Bahama Islands, and Dominica.

Comparison: Similar to *Colpoptera* Burmeister externally and in the structure of male genitalia, but distinguished by the narrow and elongated parts of the ovipositor which probably represents a different manner of oviposition - the elongated and fused gonoplacs are probably used as a directing case for the narrow and pointed endogonocoxal processes and anterior connective laminae in oviposition (Gnezdilov 2003b). The lateral margins of the coryphe are keel-shaped in *Caudibeccus* and not in *Colpoptera* examined to date; however, all *Colpoptera* species have not yet been examined for comparison.

***Caudibeccus carlota* (Myers 1928), comb. n.**

Colpoptera carlota Myers 1928: 25.

Colpoptera carlota Gnezdilov 2003b: 308, figs 1-4.

Examined material: (BMNH). **Cuba:** 15 M, 4 F, paratypes, Trinidad Mts., 21-25.III.1925.

Diagnosis. Male. The lower branch of the bifurcate process of dorsolateral phallobase lobe is additionally bifurcate. Ventral phallobase lobe long and narrow. Ventral aedeagal hooks without processes. Style with concave hind margin. Anal tube with two pairs of processes laterally: one pair of short basal processes and one pair of long subapical processes. Anal column narrow, about $\frac{1}{4}$ as long as anal tube.

Etymology: This species was described from specimens from Mina Carlota. Thus the name is considered a noun in apposition, and is not changed when moved to a genus masculine in gender.

***Caudibeccus punctatus* (Metcalf 1954), comb. n.**

Colpoptera punctata Metcalf 1954: 15, figs 20, 21.

***Caudibeccus meleagris* (Fennah 1955), comb. n.**

Coloptera meleagris Fennah 1955: 27, fig. 1, p-v.

***Caudibeccus lucaris* (Fennah 1955), comb. n.**

Coloptera lucaris Fennah 1955: 28, fig. 2, m, n.

***Caudibeccus emeljanovi* sp. n.** (Fig. 63-69)

Examined material: (ZIN). **Cuba:** Holotype, M, Soroa, 8.XI.1986, A.F. Emeljanov leg. Paratype: 1 F, data as holotype.

Diagnosis: Metope wide. Fore wings long, narrow, widely rounded apically, with wide hypocostal plate. Radius and median bifurcate, cubitus anterior simple or bifurcate (R 2 M 2 CuA 1-2). Metatarsomere I with 5 intermediate socle setae.

Coloration. Head and pronotum from light greenish brown to brown. Anteclypeus and upper part of postclypeus dark brown. Scutellum and fore wings brown; fore wings of male with large yellowish brown areas proximally and indistinct dark brown spots through whole wing. Legs and abdominal sternites light yellowish brown.

Male (Fig 63-69). Pygofer with convex hind margin. Anal tube long, narrow, narrowing to pointed apex, which is turned down. Anal column half as long as anal tube. Phallobase curved at nearly right angle (in lateral view). Suspensorium with projection. Each dorsolateral phallobase lobe with a bifurcate process (branches joined at acute angle, upper longer branch directed apically and lower shorter branch directed nearly horizontally). Ventral phallobase lobe short. Each ventral aedeagal hook with a pair of spine-shaped processes. Style with straight hind margin.

Female. Hind margin of sternum VII with wide and long rounded apically tongue-like process.

Body length. Male and female - 5.5 mm.

Comparison: It differs from the closely related *C. carlota* in the structure of male genitalia: anal tube without processes laterally, lower branch of the bifurcate process of dorsolateral phallobase lobe without additional bifurcation, ventral phallobase lobe short, ventral aedeagal hooks with spine-shaped processes, style with straight hind margin.

GENUS *Jamaha* gen. n.

Type species: *Poeciloptera elevans* Walker 1858, here designated.

Diagnosis: Metope elongate, enlarged before clypeus, with median carina running through the postclypeus only. Fore wings widely rounded apically. Radius, median, and cubitus anterior bifurcate (R 2 M 2 CuA 2). Hind tibia with single tooth distally.

Male. Hind margin of pygofer with long process medially. Aedeagus without ventral hooks.

Female (Fig. 70-71). Anal tube long and narrow. Anal column very long (about 0.7 as long as anal tube). Gonoplares rounded, not fused medially. Median field of posterior connective lamina of gonapophyses IX with two areas bearing small denticles inside and large teeth marginally. Lateral fields of the laminae without processes. Gonocoxa VIII with weakly convex hind margin. Endogonocoxal process narrowing apically. Anterior connective lamina of gonapophysis VIII with 3 teeth in apical group and 3 keeled teeth in lateral group.

Etymology: The generic name is a combination of letters derived from the words Jamaica and Haiti. It is feminine in gender.

Composition: According to the structure of the male genitalia, *Coloptera chrysops* Fennah, 1955 also belongs to the genus.

Distribution: Jamaica and Haiti.

Comparison: The new genus differs from the closely related genus *Colpoptera* Burmeister by the following features: aedeagus without ventral hooks, hind margin of pygofer with long process, gonoplaes not fused medially, median field of posterior connective lamina of gonapophyses IX in shape of two fillets bearing denticles and teeth.

***Jamaha elevans* (Walker 1858), comb n.** (Fig. 70-71)

Poeciloptera elevans Walker 1858: 335.

Colpoptera elevans Distant 1910: 315.

Colpoptera elevans Fennah 1955: 33, pl. 2, figs. o-s.

Examined material: Jamaica: 1 M, 1 F, Irwin, Montego Bay, 25.X.1978, F. Eskafi leg. (ZIN).

***Jamaha chrysops* (Fennah 1955), comb. n.**

Colpoptera chrysops Fennah 1955: 33, pl. 1, figs. k-o.

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