

Redefinition of *Mesoleptobasis* Sjöstedt 1918 with the inclusion of *Metaleptobasis cyanolineata* (Wasscher 1998) comb. nov. and description of a new species, *Mesoleptobasis elongata* (Odonata: Coenagrionidae)

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Abstract

Metaleptobasis cyanolineata is transferred to *Mesoleptobasis* and a new species, *Mesoleptobasis elongata*, is described. The genus is diagnosed by the combination of rounded frons, highly modified pronotum with long processes at least in males, pterothoracic color pattern lacking dark mid-dorsal stripe, pretarsus with supplementary tooth vestigial or absent, vein descending from quadrangle forming an unbroken line to wing margin, and genital ligula with a small inner fold and with spine-like projections on lateral margins distal to flexure. Its species are illustrated, mapped, and keyed.

Key words: Odonata, damselfly, Coenagrionidae, key, *Mesoleptobasis*, *Metaleptobasis*, taxonomy, South America

Resumen

Metaleptobasis cyanolineata es transferida a *Mesoleptobasis* y una nueva especie, *Mesoleptobasis elongata*, es descrita. El género es diagnosticado por la combinación de frente redondeada, pronoto marcadamente modificado con largos procesos al menos en machos, patrón de coloración pterotorácico sin raya medio-dorsal oscura, pretarso con diente suplementario vestigial o ausente, vena descendente del cuadrángulo formando una línea recta hasta el margen del ala, y lígula genital con un pequeño pliegue interno y con proyecciones a modo de espigas en los márgenes laterales distalmente a la flexura. Se proveen ilustraciones, mapa y clave para sus especies.

Introduction

Mesoleptobasis Sjöstedt 1918 is a small, poorly known South American genus of medium-sized pale damselflies. Sjöstedt (1918) described it to include his new species *M. incus*. He distinguished it from *Leptobasis* Selys 1877 by 1) CuP located midway between first and second antenodals rather than closer to second antenodal; 2) short CuA ending at vein descending from nodus or one to three cells distal to it; 3) pterostigma covering less than one cell; 4) upright process on posterior margin of male prothorax; 5) male cerci very short and wide, triangular, shorter than S10; and 6) long, narrow male paraprocts convergent distally. Santos (1961) described two new species of *Mesoleptobasis* and distinguished them from *M. incus*. Other than mere mention in synonymic and distributional lists, the genus was not treated again until Lencioni (2006) reproduced drawings of the three species from original descriptions and provided a brief diagnosis based on the species from Brazil only. Heckman (2008) keyed the genus and its species, but his work relied entirely on other sources and repeated errors in the literature.

Wasscher (1998) described from Surinam *Metaleptobasis cyanolineata*, which had been previously mentioned and partly illustrated but not named by Williamson (1915), without giving a rationale for inclusion in that genus. As we were analyzing generic concepts of New World Coenagrionidae, we realized that *M. cyanolineata* shares diagnostic characters with *Mesoleptobasis* rather than *Metaleptobasis*. Here we describe a new species, *M. elongata*, redefine the genus, and illustrate, map, and key its five species.

Materials and methods

Adults of all described species of *Mesoleptobasis*, including paratypes of *M. cantralli* and *M. cyanolineata* and syntypes of *M. incus*, and most species of *Metaleptobasis* were examined and all original descriptions were analyzed. Diagnostic characters were illustrated with the aid of a camera lucida; drawings are not to scale except where indicated. Measurements are in mm, pterostigma length was measured along its costal side, and total length and abdominal length do not include appendages. Terminology follows Riek & Kukalová-Peck (1984) for wing venation, Westfall & May (2006) for body morphology, Pessacq (2008) for additional head terminology, and Kennedy (1916) for genital ligula terminology. Abbreviations for structures used throughout the text are as follows: Fw: forewing; Hw: hindwing; pt: pterostigma; Px: postnodal crossveins; S1–10: abdominal segments 1 to 10. Diagnoses, illustrations, and distribution ranges are provided for all species of *Mesoleptobasis*. Maps were created electronically from the Digital Chart of the World (1:1,000,000) using ArcView 9.1.

Codens for collections are as follows:

ABMM	Angelo B.M. Machado personal collection, Belo Horizonte, Minas Gerais, Brazil
IORI	International Odonatological Research Institute, Gainesville, FL, USA
IRSN	Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium
MNRJ	Museu Nacional, Rio de Janeiro, Brazil
NHRS	Naturhistoriska riksmuseet, Stockholm, Sweden
RMNH	Nationaal Natuurhistorisch Museum Naturalis, Leiden, The Netherlands
RWG	Rosser W. Garrison personal collection, Sacramento, California, USA
SWD	Sidney W. Dunkle personal collection, Tucson, AZ, USA
UMMZ	University of Michigan, Museum of Zoology, Ann Arbor, MI, USA

Specimens of *Mesoleptobasis* examined are listed under species accounts; other specimens examined include:

Metaleptobasis amazonica Sjöstedt 1918. Brazil, Amazonas State: 1 ♂, Igarapé Tarumanzinho, 46 km N of Manaus, 06 ii 1979, leg. O.S. Flint, Jr. (RWG).

M. bicornis (Selys 1877). Amazonas [no locality] 1 holotype ♀, leg. M. Bates (IRSN).

M. bovilla Calvert 1907. Costa Rica, Alajuela Province: 1 ♂, Laurel Galán, Finca Rigoberto, 02 v 1987, leg. J. Belle (RWG); Limón Province: 1 ♂, Tortuguero, 17 vii 1985, leg. V. Hellebuyck (RWG); Heredia Province: 1 ♂, 1 ♀, Finca La Selva, 2.4 km S of Puerto Viejo, 12 iv 1967, leg. D.R. Paulson (RWG).

M. dicerus (Selys 1877). Brazil, Pará State: 1 syntype ♀, Pará (IRSN).

M. foreli Ris 1918. Colombia, Magdalena Province: 2 ♂, 2 ♀, Fundación, S of Aracataca, 11 i 1917, leg. J.H. Williamson, E.B. Williamson (RWG); 1 ♂, 1 ♀, El Banco, 24 i 1917, leg. J.H. & E.B. Williamson (RWG). Venezuela, Falcón State: 2 ♂, Palma Sola, 09 iii 1920, J.H. Williamson, E.B. Williamson, W.H. Ditzler (RWG).

M. incisula De Marmels 1989. Venezuela, Bolívar State: 3 ♂, wooded swamp 4 km W of El Paují near Río Chaverú, 06 viii 1990, leg. R.W. Garrison (RWG); Amazonas State: 1 paratype ♂, Sima Marawaka, macizo central, 10 iii/17 iii 1985, leg. Terramar Expedition (RWG).

M. lilliana Daigle 2004. Bolivia, Cochabamba Department, Chapare Province: 1 paratype ♂, Lake Tunari, 2.5 km W of Villa Tunari Gate on highway 4, at noon, 11 xi 2001, leg. J.J. Daigle (RWG); Santa Cruz Department, Guarayos Province: 1 ♀, small pool, 6.6 km NE of highway 9, road from Santa María to Yaguarú, 26 viii 2003, leg. K.J. Tennessen (RWG).

M. manicaria Williamson 1915. French Guiana, Cayenne: 5 ♂, 2 ♀, Woods 5 km N of Matoury on N2, 14 ii 1988, leg. R.W. Garrison (RWG); Trinidad, St. Andrew County: 1 ♂, 11.2 km E of Valencia, 07 iv 1965, leg. T.W. Donnelly (RWG); 19 ♂, 2 ♀, same but forest cut and forest 3.2 km SE of Valencia on Eastern Main road, 07 iv 1980, leg. R.W. Garrison (RWG); 1 ♀, same but swamp just N of Sangre Grande, on Eastern Main road, 13 i 1981, leg. R.W. Garrison (RWG).

M. mauffrayi Daigle 2000. Peru, Loreto Department: 2 ♂, 1 ♀, Explorama Lodge, on Amazon River 25 mi E of Iquitos, 09 viii 1992, leg. S.W. Dunkle (RWG); 1 ♀, Aguas Negras, flooded forest stream, 09 iii 1994, leg. J.A. Louton (RWG). Ecuador, Napo Province: 1 ♂, small stream 3.6 km of Scientific Research Station, Yasuni National Park, 18 vi 1996, leg. K.J. Tennessen (RWG).

M. mauritia Williamson 1915. Trinidad, St. Andrew County: 1 ♂, Valencia, forest, 10 iv 1965, leg. T.W. Donnelly (RWG). Brazil, Pará State: 2 ♂, Rio Xingu Camp, ca 60 km S of Altamira, Igarapé N of Camp, 09 viii 1986, leg. P. Spangler, O.S. Flint, Jr. (RWG); 1 ♂, 1 ♀, same but 16 viii 1986 (RWG).

M. quadricornis (Selys 1877). Brazil, Pará State: 1 holotype ♀, Pará, leg. M. Bates (IRSN).

M. selysii Santos 1956. Brazil, Espírito Santo State: 1 ♂, Linhares Regoneia Km 4, 01/31 iii 1944, leg. P. Elias (RWG).

M. weibezahni Rácenis 1955. Surinam, Para District: 1 ♀, Zanderij, Troelinde Creek, 01 viii 1959, leg. J. Belle (RWG); Marowijne District: 1 ♂, Mooi Wanna Creek (Weijneweg), 04 i 1964, leg. J. Belle (RWG).

M. westfalli Cumming 1954. Panama, Panamá Province: 1 ♀, Barro Colorado Island, pond at Standley near road 5, 18 ii 1972, leg. M. May (RWG); 1 ♂, same but 06 ii 1974 (RWG).

Results

Mesoleptobasis Sjöstedt 1918

Mesoleptobasis Sjöstedt 1918: 21 (description); — St. Quentin 1960: 45, 51 (generic key and characterization); — Davies 1981: 2; — Davies & Tobin 1984: 77 (catalog); — Bridges 1994: III.30 (catalog); — Steinmann 1997: 288 (catalog); — Tsuda 2000: 39 (catalog); — Lencioni 2006: 18 (key), 41 (notes); — Heckman 2008: 305 (key to neotropical genera).

Type species. *Mesoleptobasis incus* Sjöstedt 1918 by monotypy.

[NOTE: Davies & Tobin (1984) followed by Tsuda (2000), Steinmann (2007), and Heckman (2008) listed this species as *Mesoleptobasis inca* apparently to conform to Art. 31.2.1 of the Code. The species epithet *incus* is a noun in apposition (f., Latin: anvil), probably referring to the shape of the pronotum, and therefore should not be changed [Arts. 32. 2.2 and 31.2.3].

Other species included. *M. acuminata* Santos 1961, *M. cantralli* Santos 1961, *M. cyanolineata* (Wasscher 1998), *M. elongata* sp. nov.

Characterization. Medium sized (36–45 mm), largely pale coenagrionids with a long abdomen (ratio of 5.1–6.36 to length of head plus thorax); head and dorsum of abdomen orange to brown or black with some metallic iridescence, pale areas yellow or light blue. Blue postocular spots present or absent and pale occipital bar absent. Pterothorax lacking dark mid-dorsal and metapleural stripes; in mature specimens brown mesepisternal and metepisternal stripes and pale antehumeral, mesepimeral, and metepisternal stripes present (Fig. 8a); in immature specimens pterothorax entirely pale brown or orange. Frons rounded; location of most posterior point of head at level of eyes (Fig. 1a). Posterior lobe of prothorax in male with long projections, which may be represented by lateral processes (Fig. 4a) or by a medial bifurcate process (Figs. 4b–e); pronotum in female projected as in male (in *M. cyanolineata*; Fig. 5d) or slightly trilobate (in *M. acuminata*,

M. cantralli, *M. elongata*, and *M. incus*; Figs. 5a–c, e–g). Hind femur short, not reaching anterior margin of S1; metatibial spurs shorter than twice intervening spaces (Fig. 8a); pretarsus with vestigial supplementary tooth represented by an obtuse low prominence (Fig. 9a). CuA extending from two to four (Figs. 10a) or six or seven cells (in *M. cyanolineata* and females of *M. acuminata*; Figs. 11a, 12a, 13a) distal to vein descending from subnodus to one or two cells proximal to vein descending from subnodus (Figs. 10b, 11b, c); CuP reaching posterior margin of wing; vein descending from quadrangle forming an unbroken line to wing margin (Figs. 10–13). Genital ligula distal segment with inner fold; with sclerotized areas present as spine-like projections on lateral margins (Fig. 15); with two pairs of lateral lobes, a smaller latero-basal one and a larger latero-medial one; apex transverse (*M. acuminata*; Fig. 14a) or deeply bifid (Figs. 14b–e). Postero-dorsal margin of male S10 projected caudally and with a pair of medial lobe-like projections (*M. cantralli*, *M. elongata*, and *M. incus*; Figs. 17b, d, e, 18b, d, e, 19a–c) or emarginate and lacking lobe-like projections (*M. acuminata* and *M. cyanolineata*; Figs. 17a, c, 18a, c). Male cercus entire, approximately horizontal with tip bent ventrally, shorter than to subequal to S10 (Figs. 17–19), with an elongate membranous depression on dorsal surface only in *M. acuminata* (Fig. 17a); male paraproct forcipate, much longer than S10, with tip recurved medio-ventrally (Figs. 17–19). Female lacking vulvar spine on S8 (Figs. 16a, b) or with a very small spine in some females of *M. cyanolineata* (reported by Wasscher 1998 for allotype) and *M. incus* (Fig. 16e); postero-dorsal margin of S9 with denticles; ovipositor extending beyond tips of cerci for a distance shorter (Figs. 16a, c, e) to subequal (Fig. 16d) or longer (Fig. 16b) than cerci length.

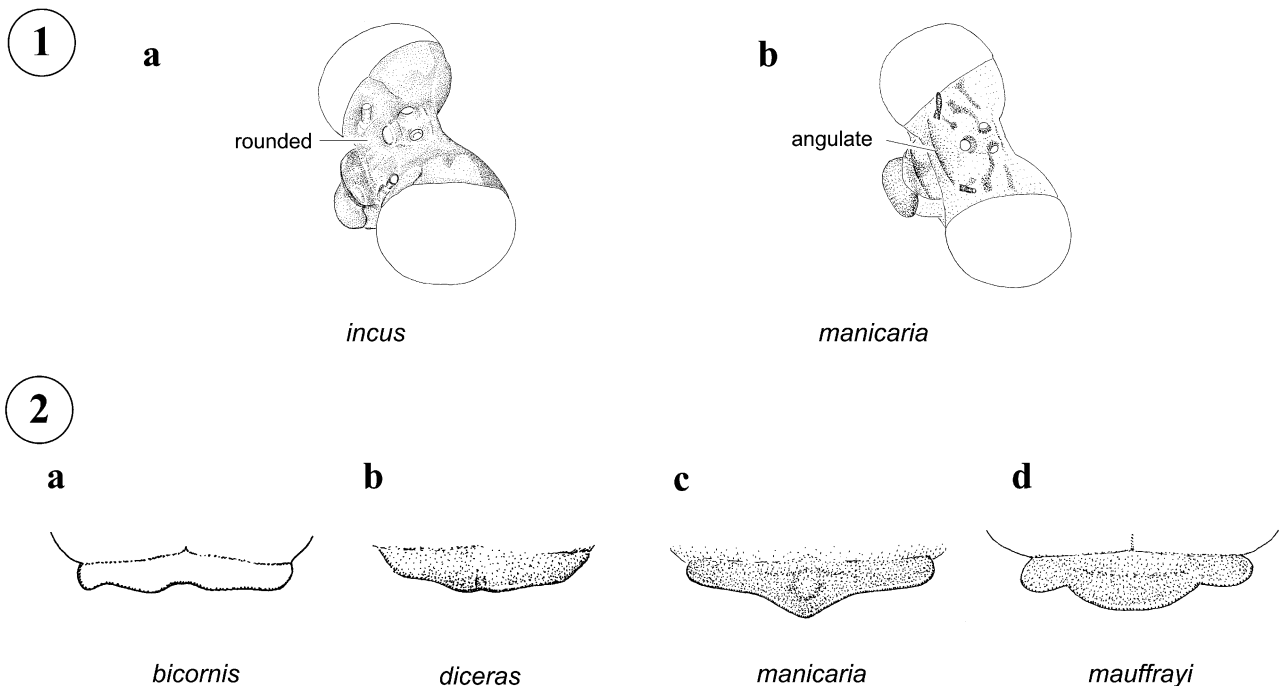


FIGURE 1. Head, medio-dorsal view. (a) *Mesoleptobasis incus*, male lectotype, Brazil, Rio Autaz; (b) *Metaleptobasis manicaria*, male Trinidad, SE of Valencia.

FIGURE 2. Pronotum, dorsal view. (a) *Metaleptobasis bicornis* female holotype, Amazonas; (b) *M. diceras*, female syntype, Brazil, Pará; (c) *M. manicaria*, male Trinidad, SE of Valencia; (d) *M. mauffrayi*, male Peru, Explorama Lodge.

Diagnosis. Within New World Coenagrionidae, *Mesoleptobasis* shares only with *Aceratobasis* and *Metaleptobasis* the combination of a pretarsus with vestigial supplementary tooth represented by an obtuse low prominence or else absent (Fig. 9) and a vein descending from quadrangle forming an unbroken line to wing margin (Figs. 10–13). However, it differs from both *Aceratobasis* and *Metaleptobasis* by its rounded frons (Fig. 1a), highly modified pronotum with long processes at least in males (Figs. 3, 4, 5d), pterothoracic color pattern lacking dark mid-dorsal stripe (Fig. 8a), and genital ligula with a small inner fold and with spine-like projections on lateral margins distal to flexure (Fig. 15), this last character being unique for the genus. In *Aceratobasis* and *Metaleptobasis* the frons is angled (Fig. 1b), the pronotum is devoid of long projections

(Fig. 2), and the distal segment of genital ligula lacks an inner fold, lateral lobes, and any sclerotized projections distal to flexure (Cumming 1954; Rácenis 1955; von Ellenrieder & Garrison 2008). CuA in *Metaleptobasis* extends more than seven cells posterior to the vein descending from the subnodus and males of all species have long mesepisternal horns (Fig. 8b), which in females are similar in size and length (Figs. 6b, c) or may be reduced to tubercles in some species (Fig. 6d). In *Mesoleptobasis* CuA never extends more than 7 cells distal to the vein descending from the subnodus (Figs. 10–13) and the mesepisterna are always smooth (Figs. 6a, 7). *Mesoleptobasis* further differs from *Aceratobasis* by having male cerci entire and shorter than long, forcipate paraprocts (Figs. 17–19); cerci in *Aceratobasis* are branched with a ventro-basal spur or spine and are longer than the paraprocts.

Distribution. Amazon forest in Venezuela, Guyana, Surinam, Brazil, and Peru (Fig. 21). Specimens are infrequently collected, and it is therefore likely that distribution ranges are larger than those indicated by existing specimens.

Habitat. Adults found within forest, in dark or shaded areas flying near the ground; some specimens of *M. cyanolineata* were captured at night attracted to lights (Wasscher 1998); breeding habitat and larvae unknown.

Key to Males of *Mesoleptobasis*

1. Costal side of FW pt shorter than basal side, its posterior margin strongly convex (Fig. 10a); prothoracic projections in anterior view with no common stem, acuminate apices directed laterally (Fig. 4a); attenuate cercus dorsally with a membranous central area (Fig. 17a); genital ligula in ectal view with distal margin transverse and lateral sub-apical deep emarginations (Fig. 14a); Amazonian region of Peru (Fig. 21) *M. acuminata*
- 1'. Costal side of FW pt longer than basal side, its posterior margin slightly convex (Figs. 10b, 11a–c); prothoracic projections in anterior view with a common stem, apices directed dorso-laterally (Fig. 4c) or laterally (Figs. 4b, d, e); cercus dorsally lacking a membranous area (Figs. 17b–e, 19); genital ligula in ectal view with distal margin deeply bifid and lacking lateral emarginations (Figs. 14b–e) 2
2. Prothoracic projections in anterior view with apices directed dorso-laterally (Fig. 4c); CuA ending four cells distal to vein descending from subnodus (Fig. 11a); posterior margin of S10 recessed and with a medio-dorsal emargination, lacking postero-lateral processes (Fig. 17c); cercus strongly arched, curled over itself with tip directed antero-ventrally (Figs. 17c, 18c); paraproct robust and basally as high as half of S10 height in lateral view (Fig. 18c); genital ligula in lateral view with basal lobe low and dorsal margin of lateral lobe denticulate (Fig. 15c); Guyana and Sarawak and Marowijne Districts of Surinam (Fig. 21) *M. cyanolineata*
- 2'. Prothoracic projections in anterior view with apices directed laterally (Figs. 4b, d, e); CuA ending two cells proximal to two cells distally to vein descending from subnodus (Figs. 10b, 11b, c); posterior margin of S10 projected medio-dorsally, with a pair of postero-lateral small lobe-like processes (Figs. 17b, d, e, 19a–c); cercus smoothly curved, with tip directed postero-ventrally (Figs. 17b, d, e); paraproct slender and basally narrower than half of S10 height in lateral view (Figs. 18b, d, e); genital ligula in lateral view with basal lobe long, sclerotized, and pointed, and dorsal margin of lateral lobe with a single spine (Figs. 15b, d, e) 3
3. Cercus oblong, longer than wide, and usually armed at tip with a small externally recurved tooth (Figs. 17b, 19a); Amazonas and Rondônia States in Brazil (Fig. 21) *M. cantralli*
- 3'. Cercus approximately semicircular, about as long as wide, lacking a small externally recurved tooth at tip (Figs. 17d, e, 19b–e) 4
4. Base of paraproct with a thumb-like tubercle (Fig. 18d); FW CuA ending one or two cells proximal to vein descending from subnodus (Fig. 11b); abdomen longer: 37–40 mm (Fig. 20a); Para District in Surinam and Amazonas State in Brazil (Fig. 21) *M. elongata*
- 4'. Base of paraproct slightly convex, lacking a thumb-like tubercle (Fig. 18e); FW CuA ending at or one or two cells distal to subnodus (Fig. 11c); abdomen shorter: 31–33 mm (Fig. 20b); Amazonas State in Venezuela and Amazonas and Rondônia States in Brazil (Fig. 21) *M. incus*

Key to Females of *Mesoleptobasis*

1. Pronotum with projections (as in Fig. 4a; Fig. 5d) 2
- 1'. Pronotum lacking projections, its posterior margin slightly bi- or trilobate (Figs. 5a, b, e, f) 3

2. Pronotal projections in dorsal view with a common stem and apices directed dorso-laterally (Fig. 5d); Guyana and Saramacca and Marowijne Districts in Surinam (Fig. 21) *M. cyanolineata*
- 2'. Pronotal projections in dorsal view with no common stem, acuminate apices directed laterally (as in Fig. 4a); Rondônia State in Brazil *M. sp. (M. acuminata sensu Santos, 1961)*
3. Costal side of FW pt shorter than basal side, its posterior margin convex (Fig. 12a); posterior lobe of pronotum trilobate with medial lobe smoothly convex and extending posteriorly beyond level of lateral lobes (Fig. 5a); Amazonian region of Peru (Fig. 21) *M. acuminata*
- 3'. Costal side of FW pt subequal to longer than basal side, its posterior margin slightly convex (Figs. 12b, 13b–c); posterior lobe of pronotum bi- or trilobate, in the latter case medial lobe reaching same level as lateral lobes posteriorly (Figs. 5b, c, e–g) 4
4. FW CuA ending one or two cells proximal to vein descending from subnodus (Fig. 13b); Para District in Surinam and Amazonas State in Brazil (Fig. 21) *M. elongata*
- 4'. FW CuA ending at or one or two cells distal to vein descending from subnodus (Fig. 12b, 13c) 5
5. Middle lobe of hind margin of prothorax bent anteriorly (Figs. 5f, g); ovipositor surpassing tip of cerci for a distance shorter than length of cerci (Fig. 16e); Amazonas State in Venezuela and Amazonas and Rondônia States in Brazil (Fig. 21) *M. incus*
- 5'. Middle lobe of hind margin of prothorax not bent anteriorly (Figs. 5b, c); ovipositor surpassing tip of cerci for a distance subequal to length of cerci (Fig. 16b); Amazonas and Rondônia States in Brazil (Fig. 21) *M. cantralli*

***Mesoleptobasis acuminata* Santos 1961**

Figs. 3a, 4a, 5a, 7a, 9a, 10a, 12a, 14a, 15a, 16a, 17a, 18a, 21

Mesoleptobasis acuminata Santos 1961: 200 (in part, description of ♂); — Davies & Tobin 1984: 77 (catalog); — Bridges 1994: VII.2 (catalog); — Steinmann 1997: 288 (catalog); — Tsuda 2000: 39 (catalog); — Lencioni 2006: 159 (notes and illustrations from original description); — Heckman 2008: 395 (key and reproduction of Santos 1961 illustrations).

Types. Holotype (locality unknown) in MNRJ (not examined but our illustrations compared and confirmed with holotype by J.M. Costa).

Specimens examined. Total: 3 ♂, 4 ♀. Peru, Loreto Department: 1 ♂, Explorama Lodge, 80 km NE of Iquitos on Amazon River at junction with Yanamono River (3°21'59"S, 72°47'56"W), 14 viii 1989, leg. S.W. Dunkle (RWG); 2 ♂, same but 13 viii 1989 (RWG); 2 ♀, same but 17 viii 1989 (RWG); 2 ♀, same but 31 viii 1989 (RWG); Explornapo Camp at junction of Sucusari River and Napo River, ca 160 km NE of Iquitos (3°16'33"S, 72°56'18"W), 27 viii 1989, leg. S.W. Dunkle (SWD).

Diagnosis. Male prothorax with a pair of lateral projections separated at base (Fig. 4a; unique) and with acuminate apices directed antero-laterally; female prothorax lacking processes, with posterior margin slightly trilobate, with smoothly convex medial lobe slightly projected posteriorly beyond level of lateral lobes (Fig. 5a; unique). Costal side of FW pt shorter than basal side (unique), its posterior margin strongly convex in male (Fig. 10a), moderately convex in female (Fig. 12a). CuA relatively long (shared with *M. cyanolineata*), extending one and a half to four cells distal to vein descending from subnodus in male, three to seven cells in female (Figs. 10a, 12a). Genital ligula in ectal view with distal margin transverse and lateral sub-apical deep emarginations (Fig. 14a; unique); in lateral view with a large triangular lateral lobe bearing a spine at its posterior base (Fig. 15a; unique), and with an inconspicuous low latero-basal lobe (shared with *M. cyanolineata*). Posterior margin of male S10 recessed and with a medio-dorsal emargination, lacking postero-lateral processes (Figs. 17a, 18a; shared with *M. cyanolineata*). Male cercus subtriangular and attenuate dorsally with a membranous central area (Fig. 17a; unique); in lateral view smoothly curved, with tip directed postero-ventrally (Fig. 18b; shared with *M. cantralli* and *M. incus*); male paraproct about as high as half of S10 height at base in lateral view (Fig. 18a; shared with *M. cyanolineata*); base of paraproct lacking a thumb-like tubercle (Figs. 17a, 18a; shared with *M. cyanolineata* and *M. incus*). Ovipositor surpassing tip of cerci for a distance shorter than length of cerci (Fig. 16a; shared with *M. cyanolineata* and *M. incus*).

Dimensions. Males (*n* 3; mean in parenthesis): Hw 18.5–19.0 (18.8); abdomen 32.0–33.0 (32.7); total length 38.0–39.0 (38.3). Females (*n* 4): Hw 20.0–21.0 (20.6); abdomen 32.0–33.0 (32.25); total length 37.0–39.0 (38.0).

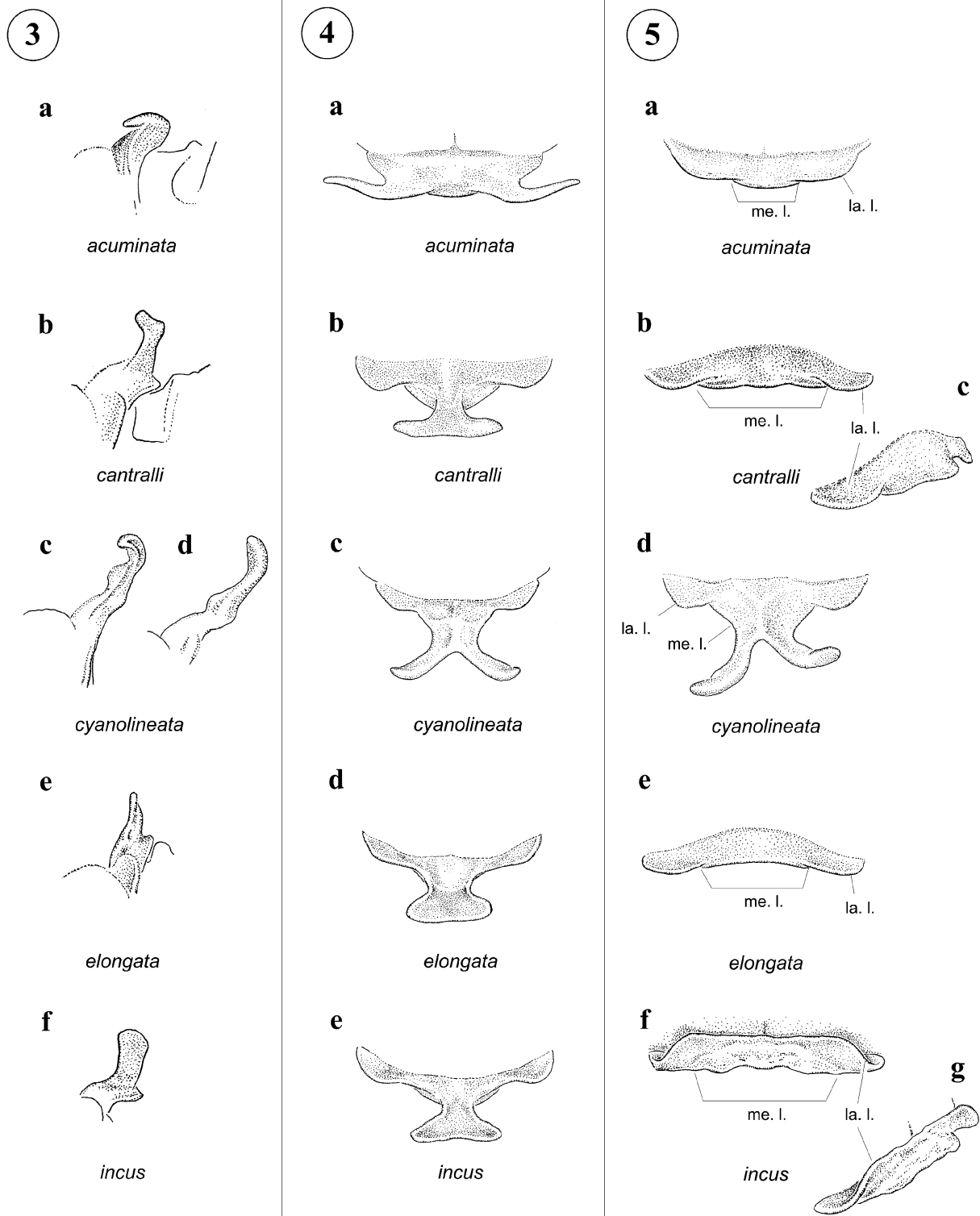


FIGURE 3. Pronotum, lateral view. (a) *Mesoleptobasis acuminata*, male Peru, Explorama Lodge; (b) *M. cantralli*, male paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, male paratype, Surinam, Mungatapoe; (d) *M. cyanolineata*, female paratype, Surinam, Mungatapoe; (e) *M. elongata*, holotype; (f) *M. incus*, lectotype, Brazil, Rio Autaz.

FIGURE 4. Male pronotum, anterior view. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (d) *M. elongata*, holotype; (e) *M. incus*, lectotype, Brazil, Rio Autaz.

FIGURE 5. Female pronotum. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b, c) *M. cantralli*, paratype, Brazil, Porto Velho; (d) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (e) *M. elongata*, allotype; (f, g) *M. incus*, Brazil, Porto Velho. (a), (b), (d), (e), (f), dorsal view; (c), (g), medio-dorsal view. la. l.: lateral lobe; me. l.: medial lobe.

Remarks. Santos (1961) described this species from one male lacking locality data, which he designated as holotype, and two females from Porto Velho, Rondônia, Brazil. His description and figures of the holotype show no central membranous area on the dorsal surface of male cercus characteristic of the males from Peru we examined (Fig. 17a). Unfortunately the holotype is incomplete and only its wings and hind legs remain (J.M. Costa pers. comm.). J.M. Costa kindly illustrated a pair of its wings for us, which had not been figured by Santos (1961). Her drawing (J.M. Costa in litt.) shows Fw Pt as less markedly convex along posterior margin than in the male we illustrated (Fig. 10a), and Hw Pt rectangular, with costal and posterior sides slightly longer than basal and distal sides, rather than rhomboidal, with costal and posterior sides slightly shorter than basal and distal sides, as in our illustration (Fig. 10a). The remainder of Santos' (1961) description and illustrations of the holotype fully agree with males we ascribe to this species, and we consider them conspecific.

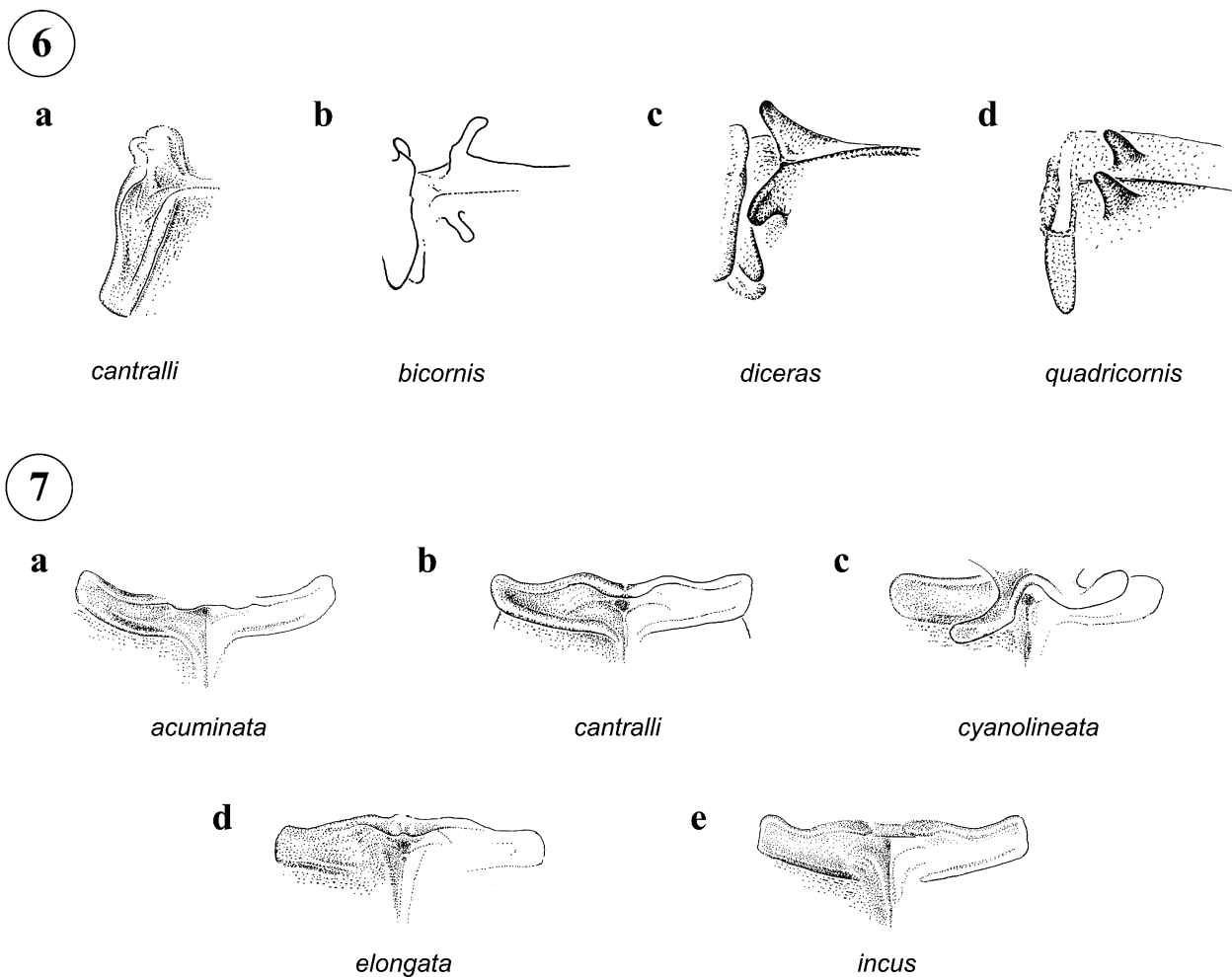


FIGURE 6. Female anterior portion of mesanepisterum, medio-dorsal view. (a) *M. cantralli*, paratype, Brazil, Porto Velho; (b) *Metaleptobasis bicornis*, holotype, Amazonas; (c) *M. diceras*, syntype, Brazil, Pará; (d) *M. quadricornis*, holotype, Brazil, Pará.

FIGURE 7. Female mesostigmal plates, dorsal view. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (d) *M. elongata*, allotype; (e) *M. incus*, paralectotype, Brazil, Rio Autaz.

The females described by Santos (1961) as *M. acuminata* (allotype and paratype) are still in the MNRJ and not in the UMMZ as stated in the description (J.M. Costa pers. comm.). J.M. Costa sent us illustrations of one pair of wings, posterior lobe of pronotum, and S8-10 of female allotype (J.M. Costa in litt.). According to her drawings, pterostigmata are unmodified and rectangular and ovipositor is short, not surpassing tip of cerci.

The posterior lobe of the pronotum has lateral processes similar to those of males of *M. acuminata*, but the posterior margin between the lateral processes is bilobate lacking a medial lobe, rather than trilobate with a medial lobe as in the holotype and in our males (Fig. 4a). We believe these females are not conspecific with the holotype male, and belong instead to an undescribed species (*M. sp.* in the key). We have females collected at the same locality as males we ascribe to *M. acuminata*, and they lack the long lateral prothoracic processes mentioned by Santos (1961). They have instead a smooth pronotum with slightly trilobate posterior margin (Fig. 5a), similar to the trilobate margin of male (Fig. 4a). They also differ by their ovipositor, which is longer (surpassing tip of cerci; Fig. 16a) compared to the illustrations by Santos (1961, fig. 12) and J.M. Costa (in litt.). We believe we have correctly associated the female sex of *M. acuminata* since it shares the characteristic modified pterostigma of male (unique for this species within *Mesoleptobasis*), although the modification is less pronounced than in male. The identity of the two females described by Santos (1961) as *M. acuminata* will remain uncertain until more of these females are found in association with males.

Distribution. Amazonian region of Peru (Fig. 21).

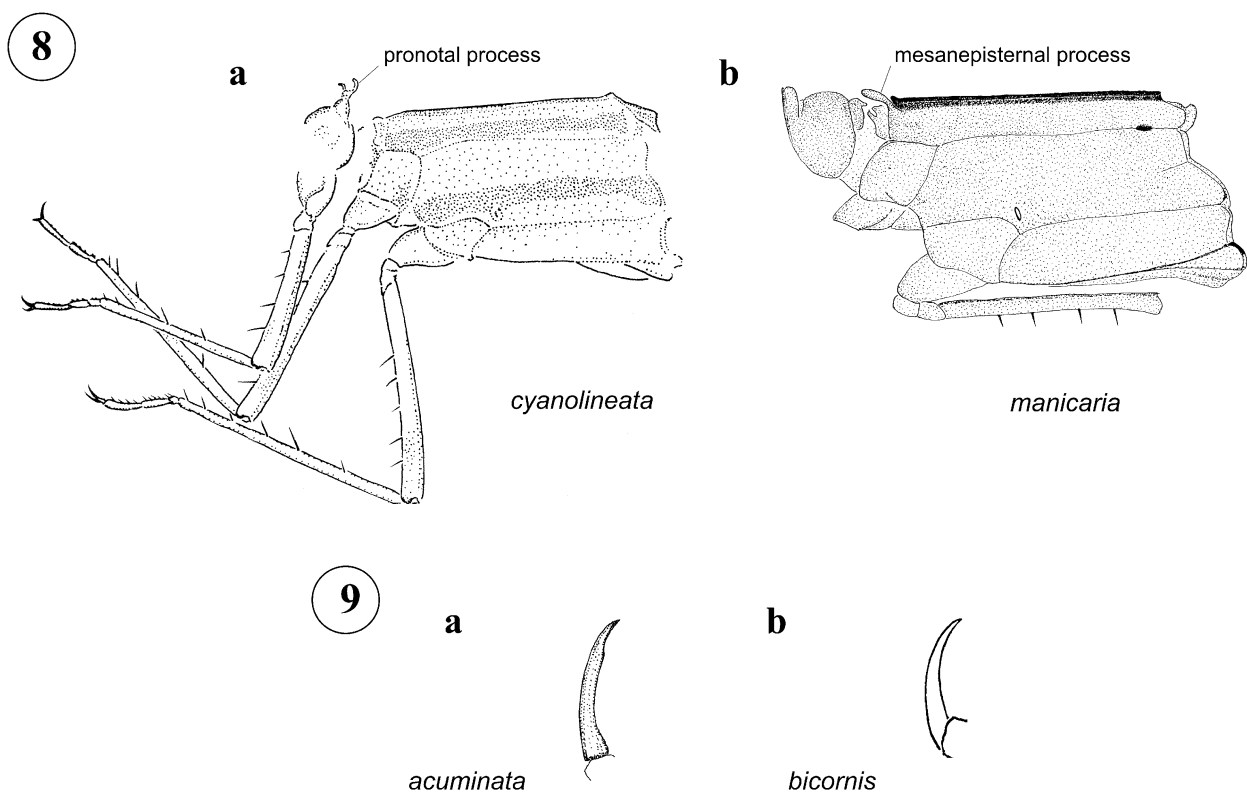


FIGURE 8. Male thorax, lateral view. (a) *Mesoleptobasis cyanolineata*, paratype, Surinam, Mungatapoe; (b) *Metaleptobasis manicaria*, male Trinidad, SE of Valencia.

FIGURE 9. Metapretarsus, lateral view. (a) *Mesoleptobasis acuminata*, male Peru, Explorama Lodge; (b) *Metaleptobasis bicornis*, female holotype, Amazonas.

Mesoleptobasis cantralli Santos 1961

Figs. 3b, 4b, 5b, c, 6a, 7b, 10b, 12b, 14b, 15b, 16b, 17b, 18b, 19a, 21

Mesoleptobasis cantralli Santos 1961: 197–200, 202 (description of ♂ and ♀); — Davies & Tobin 1984: 77 (catalog); — Bridges 1994: VII.43 (catalog); — Steinmann 1997: 288 (catalog); — Tsuda 2000: 39 (catalog); — Lencioni 2006: 160 (notes and illustrations from original description); — Heckman 2008: 393 (key and reproduction of illustrations from original description).

Types. Holotype (from Porto Velho, Rondônia, Brazil) in UMMZ (not examined).

Specimens examined. Total: 5 ♂, 8 ♀. Brazil, Rondônia State: 1 paratype ♂, Porto Velho (8°46'S, 63°53'W), 22 ii 1922, leg. J.H. Williamson & J.W. Strohm (RWG); 1 paratype ♀, same but 24 iv 1922 (RWG); 1 paratype ♀, same but (UMMZ); 1 paratype ♂, same but 27 ii 1922 (RWG); 1 paratype ♀, same but 04 v 1922 (RWG); 2 paratypes ♂, 1 paratype ♀, same but 14 v 1922 (UMMZ); 3 paratypes ♀, same but 16 v 1922 (UMMZ); Amazonas State: 1 ♂, 1 ♀, Rio Uaupés, Taraquá (3°27'15"S, 62°51'5"W), 14 viii 1964, leg. A.B.M. Machado & Pereira (ABMM).

Diagnosis. Male prothorax with a medial bifurcate process with arms forming a transverse line between them (Fig. 4b; shared with *M. elongata* and *M. incus*) and apices directed anteriorly (Fig. 3b; shared with *M. acuminata* and *M. cyanolineata*); female prothorax lacking processes, with posterior margin slightly trilobate and medial lobe not surpassing lateral lobes posteriorly; lateral lobes not bent anteriorly (Figs. 5b, c; shared with *M. elongata*). Costal side of FW pt longer than basal side, its posterior margin slightly convex in both sexes (Figs. 10b, 12b; shared with *M. cyanolineata*, *M. elongata*, and *M. incus*). WF CuA relatively short (shared with *M. elongata* and *M. incus*), ending from one cell proximal to vein descending from subnodus (Fig. 10b) to level of vein descending from subnodus (Fig. 12b) in both sexes. Genital ligula in ectal view with distal margin deeply bifid and lacking lateral emarginations (Fig. 14b; shared with *M. cyanolineata*, *M. elongata*, and *M. incus*); in lateral view with basal lobe sclerotized, long, pointed, and directed posteriorly, and dorsal margin of lateral lobe with a single small sclerotized spine (Fig. 15b; shared with *M. incus*). Posterior margin of S10 projected medio-dorsally, with a pair of postero-lateral small lobe-like processes (Fig. 17b, 19a; shared with *M. elongata* and *M. incus*). Male cercus lacking a membranous area dorsally (shared with *M. cyanolineata*, *M. elongata*, and *M. incus*), oblong, longer than wide (Figs. 17b, 19a; unique), and usually armed at tip with a small externally recurved tooth (Figs. 17b, 19a); in lateral view smoothly curved, with tip directed postero-ventrally (Fig. 18b, shared with *M. acuminata*, *M. elongata*, and *M. incus*); paraproct slender and narrower than half of S10 height at base in lateral view (Fig. 18b, shared with *M. elongata* and *M. incus*); base of paraproct usually with well developed thumb-like process (Figs. 17b, 18b, 19a; shared with *M. elongata*), which can be vestigial. Ovipositor surpassing tip of cerci for a distance subequal to length of cerci (Fig. 16b; shared with *M. elongata*).

Dimensions. Males (*n* 5; mean in parenthesis): Hw 17.0–18.0 (17.6); abdomen 33.0–36.0 (34.6); total length 39.0–41.0 (39.8). Females (*n* 8): Hw 18.5–20.0 (19.1); abdomen 30.0–34.0 (31.9); total length 35.0–39.0 (37.5).

Remarks. The pair of *M. cantralli* from Taraquá differs from the type series as follows: male lacks the small externally recurved tooth (as in Figs. 17b, 19a), and the thumb-like process at the base of paraproct is vestigial; female middle lobe of hind lobe of pronotum is more strongly developed, but still does not surpass lateral lobes. Wing venation, shape of male pronotal process, male cerci, and morphology of hind lobe of female pronotum as well as length of ovipositor (surpassing tip of cerci for a distance subequal to length of cerci as in Fig. 16b) match those for the type series and indicate that this pair is correctly placed here.

Distribution. Amazonas and Rondônia State in Brazil; sympatric with *M. incus* in the latter (Fig. 21).

***Mesoleptobasis cyanolineata* (Wasscher 1998) comb. nov.**

Figs. 3c, d, 4c, 5d, 7c, 8a, 11a, 13a, 14c, 15c, 16c, 17c, 18c, 21

Metaleptobasis (?), sp. — Williamson 1915: 604–607 (partial description and illustrations of ♀ from Rockstone, Guyana).

Metaleptobasis cyanolineata Wasscher 1998: 487–490 (description of ♂ and ♀); — Tsuda 2000: 39 (catalog); — Heckman 2008: 395 (key and reproduction of illustrations from original description).

Types. Holotype (from Mungotapoe, Marowijne District, Surinam) in RMNH (not examined).

Specimens examined. Total: 1 ♂, 1 ♀. Surinam, Marowijne District: 1 paratype ♂, 1 paratype ♀, Mungotapoe (5°35'N, 54°15'W), 20 ix 1948, leg. D.C. Geijskes (RWG).

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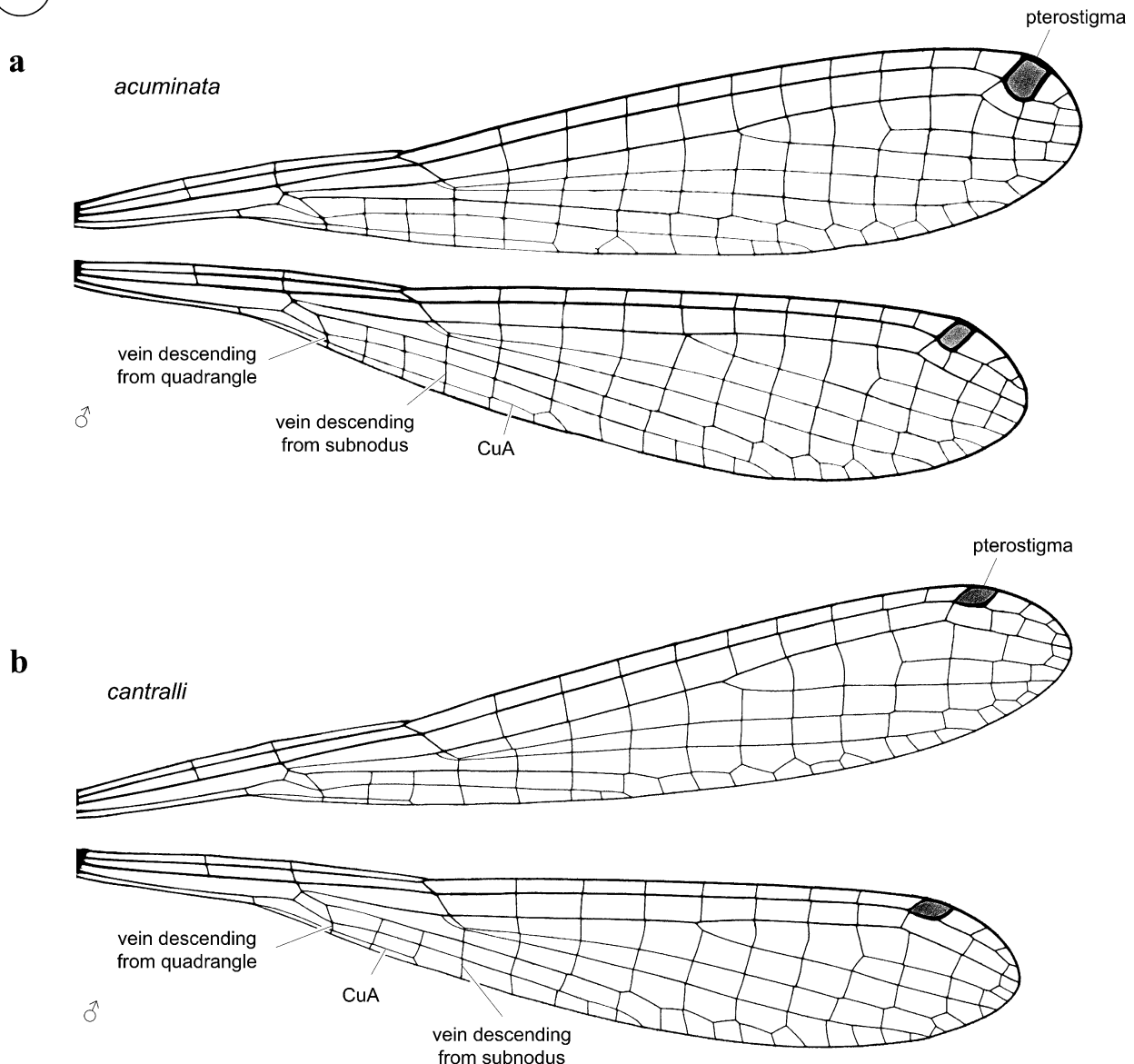


FIGURE 10. Male wings. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho.

Diagnosis. Male prothorax with medial bifurcate process with arms directed latero-posteriorly forming a v-shaped line between them (Fig. 4c; unique); female prothorax with similar processes (Fig. 5d; unique). Costal side of FW pt longer than basal side, its posterior margin slightly convex in both sexes (Fig. 11a; shared with *M. cantralli*, *M. elongata*, and *M. incus*). CuA relatively long (shared with *M. acuminata*), extending four to six cells distal to vein descending from subnodus in male (Fig. 11a), two to six cells in female (Fig. 13). Genital ligula in ectal view with distal margin deeply bifid and lacking lateral emarginations (Fig. 14c; shared with *M. cantralli*, *M. elongata*, and *M. incus*); in lateral view with a small triangular lateral lobe bearing a series of denticles along its dorsal margin (Fig. 15c; unique), and with an inconspicuous low latero-basal lobe (shared with *M. acuminata*). Posterior margin of male S10 recessed and with medio-dorsal emargination, lacking postero-lateral processes (Fig. 17c; shared with *M. acuminata*). Male cercus strongly arched, curled over itself with tip directed antero-ventrally (Figs. 17c, 18c; unique); male paraproct about as high as half of S10 height at base in lateral view (Fig. 18c; shared with *M. acuminata*); base of paraproct

lacking a thumb-like tubercle (Figs. 17c, 18c; shared with *M. acuminata* and *M. incus*). Ovipositor only slightly surpassing tip of cerci, for a distance shorter than cerci length (Fig. 16c; shared with *M. acuminata* and *M. incus*).

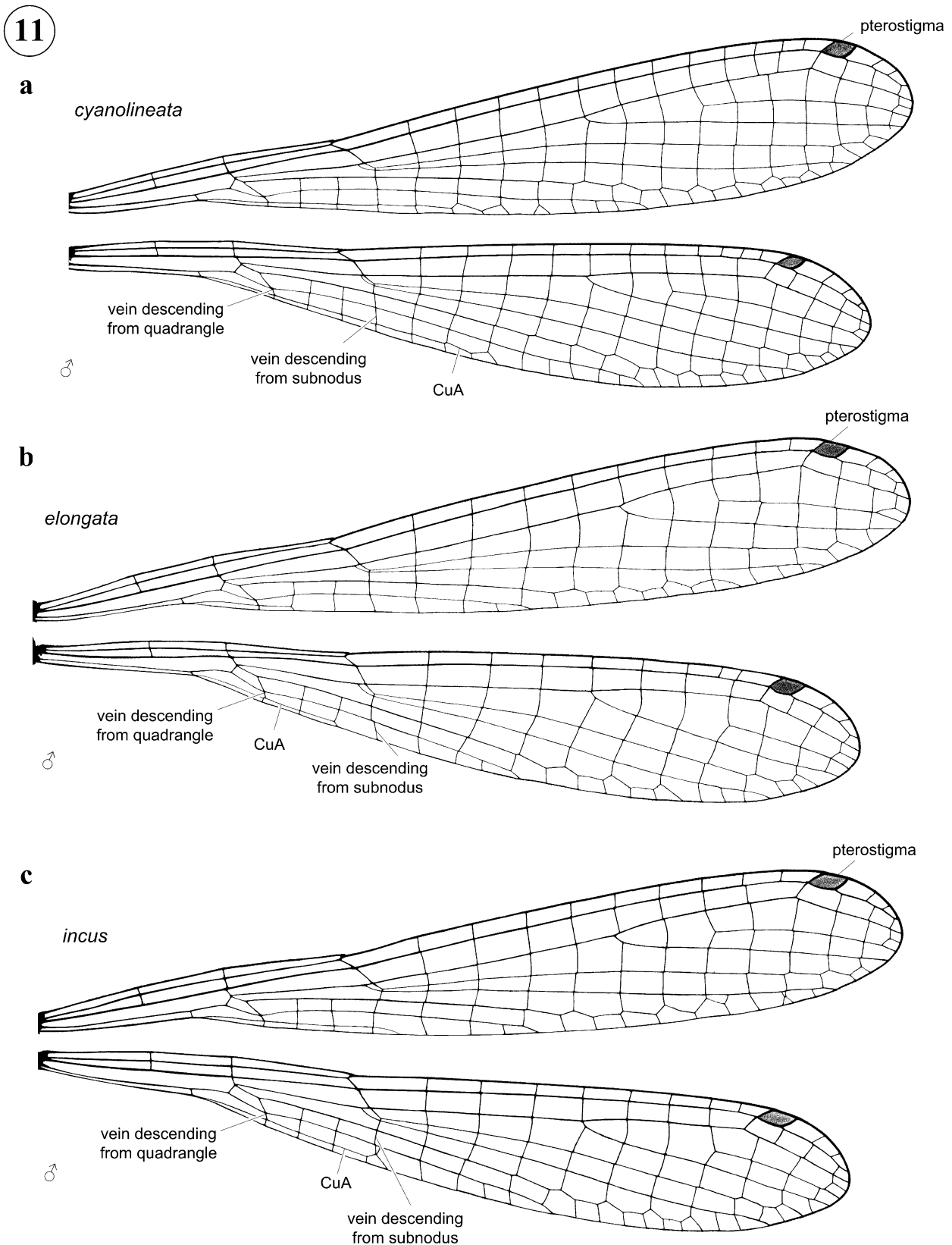


FIGURE 11. Male wings. (a) *Mesoleptobasis cyanolineata*, paratype, Surinam, Mungatapoe; (b) *M. elongata*, paratype, Brazil, Rio Curari; (c) *M. incus*, lectotype, Brazil, Rio Autaz.

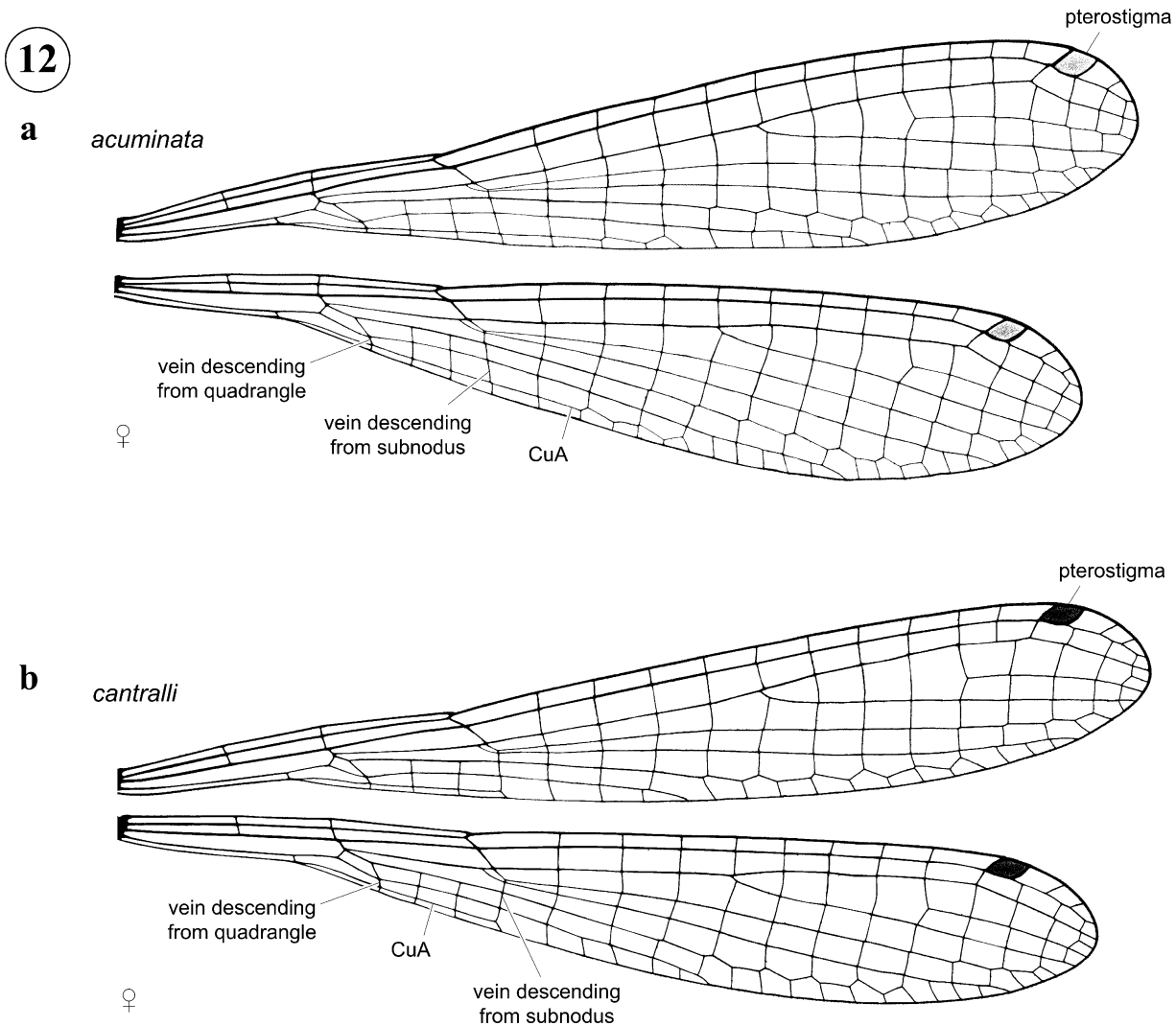


FIGURE 12. Female wings. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho.

Dimensions. Males (n 1): Hw 19.5; abdomen 35.0; total length 38.0. Females (n 1): Hw 19.5; abdomen 30.5; total length 36.

Remarks. Wasscher (1998) did not justify placement of *M. cyanolineata* in *Metaleptobasis*. He noted it differed from all *Metaleptobasis* species by the presence of pale blue pterothoracic stripes (Fig. 8a), and named the species according to that feature. The presence in *M. cyanolineata* of well developed male prothoracic processes (Figs. 3c, 4c, 8a) and of pale stripes in pterothorax is shared with all known species of *Mesoleptobasis*, as is its rounded frons (as in Fig. 1a) and presence of affixed sclerotized processes in genital ligula (Fig. 15c), none of which is found within *Metaleptobasis*. All *Metaleptobasis* species have a pair of well developed horns on the anterior portion of the male mesepisterna and a dark metallic-green mid-dorsal stripe on the pterothorax (Fig. 9b), absent in *M. cyanolineata* and in all known *Mesoleptobasis*. For these reasons we transfer *M. cyanolineata* from *Metaleptobasis* to *Mesoleptobasis*.

Distribution. Guyana and Saramacca and Marowijne Districts in Surinam (Fig. 21).

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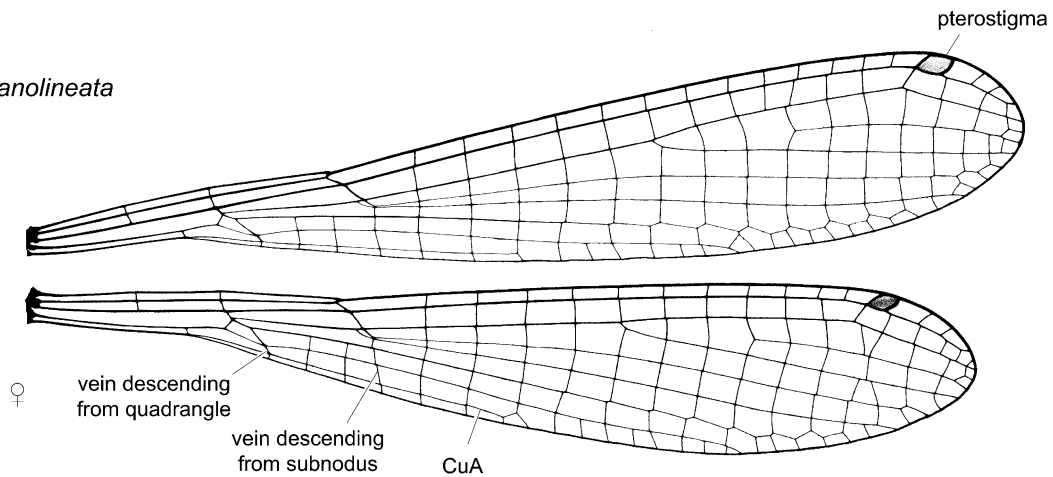
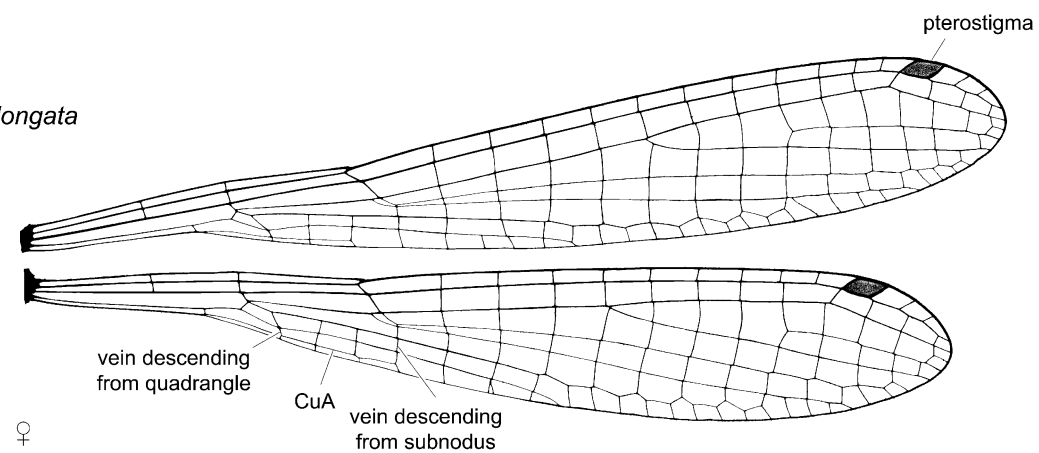
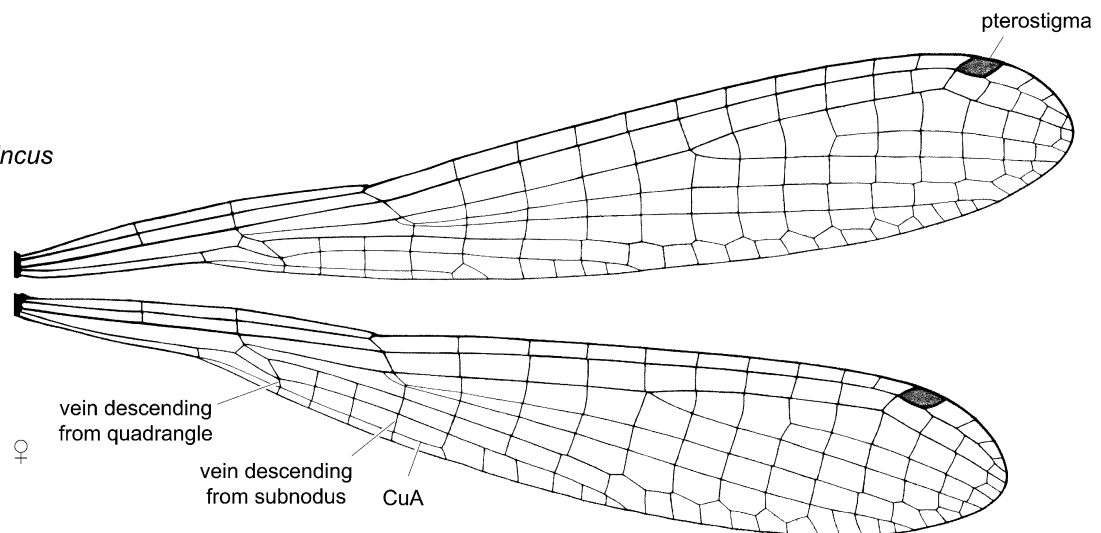
a *cyanolineata*b *elongata*c *incus*

FIGURE 13. Female wings. (a) *Mesoleptobasis cyanolineata*, paratype, Surinam, Mungatapoe; (b) *M. elongata*, allotype; (c) *M. incus*, paralectotype, Brazil, Rio Autaz.

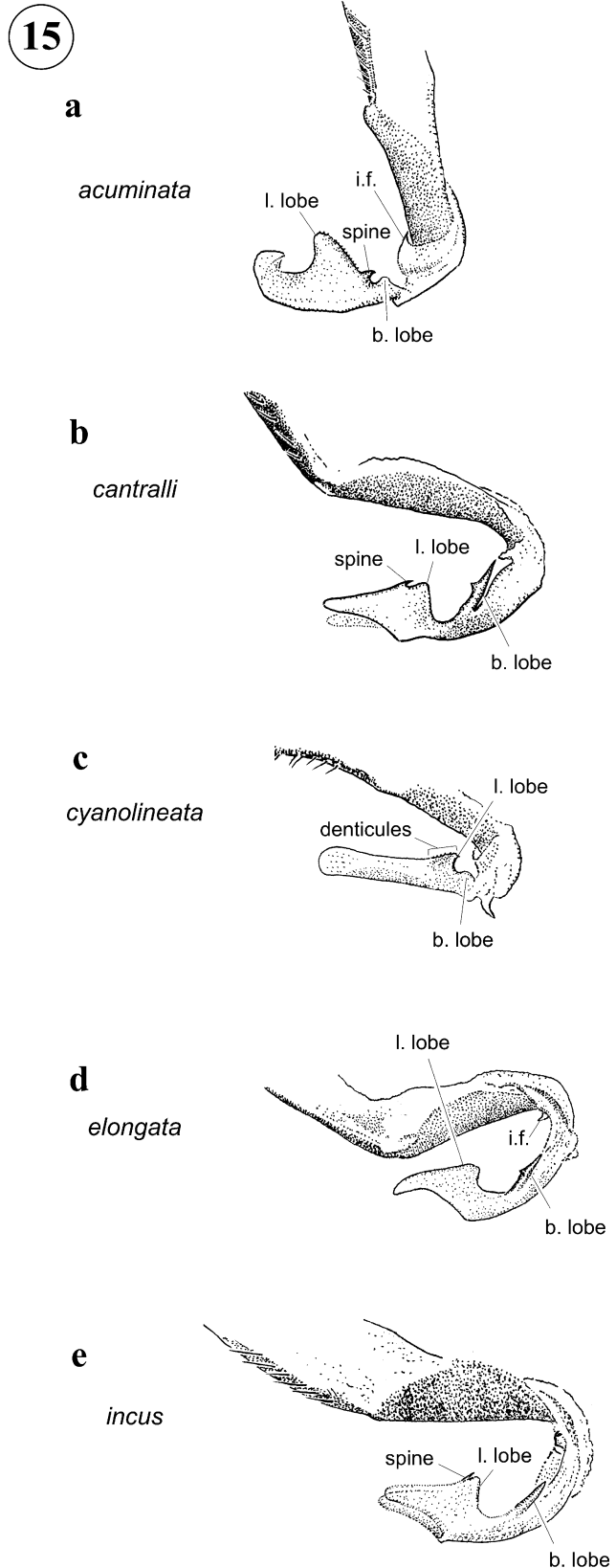
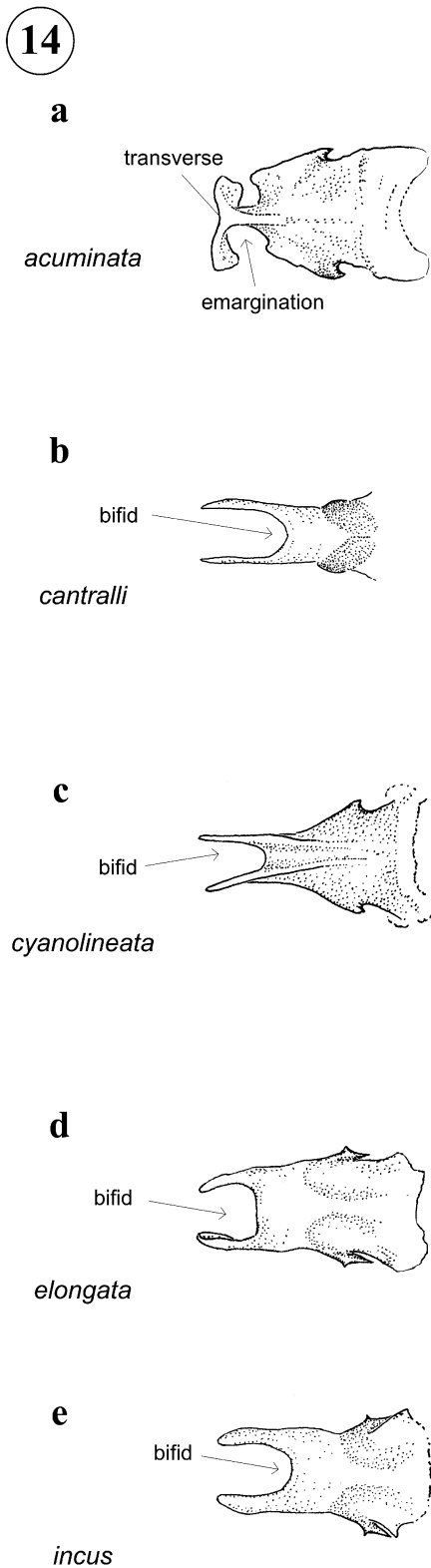


FIGURE 14. Genital ligula, ectal view. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (d) *M. elongata*, holotype; (e) *M. incus*, lectotype, Brazil, Rio Autaz.

FIGURE 15. Genital ligula, lateral view. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (d) *M. elongata*, holotype; (e) *M. incus*, lectotype, Brazil, Rio Autaz. b. lobe: basal lobe; i. f.: inner fold; l. l. lateral: lateral lobe.

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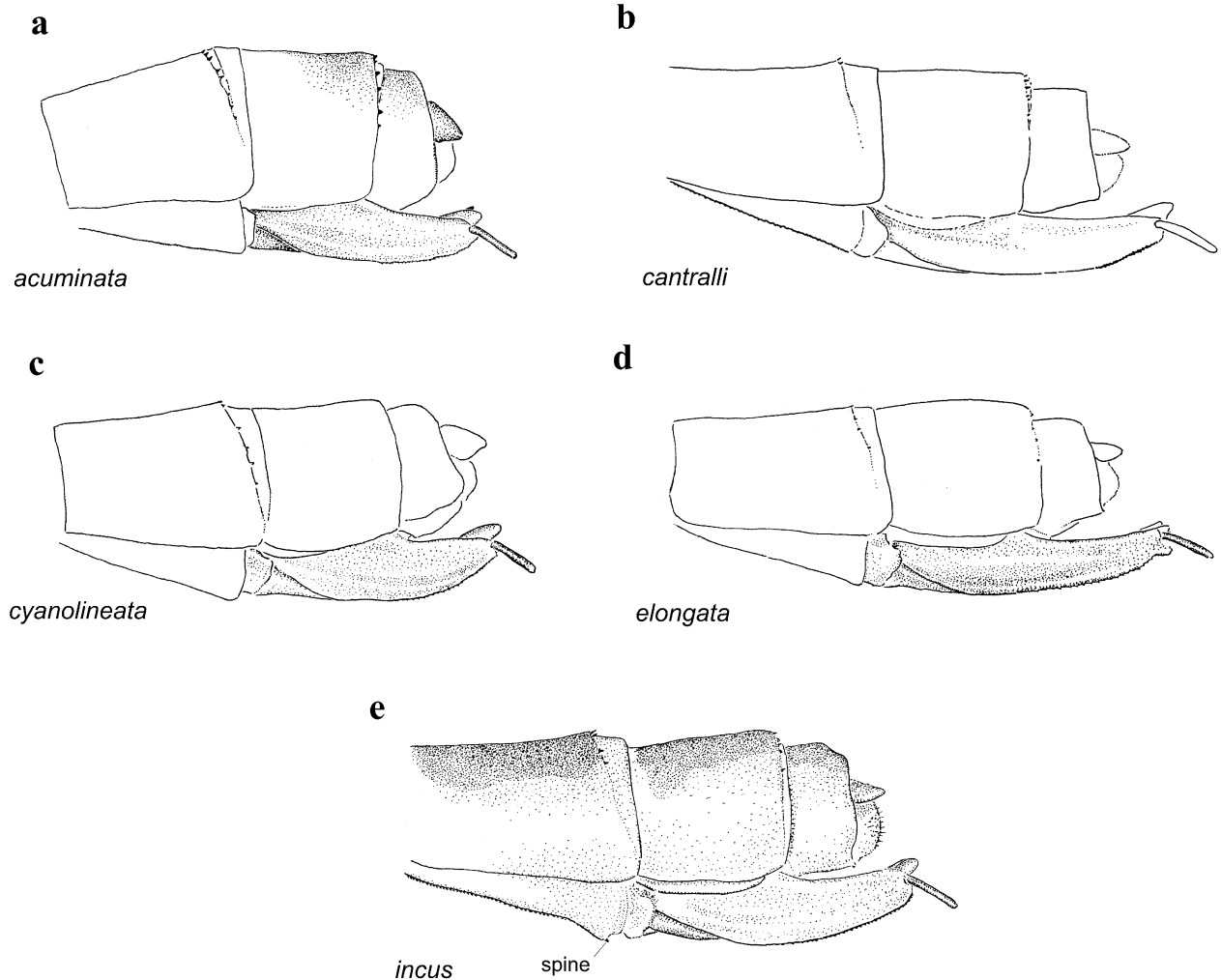


FIGURE 16. Female S8–10, lateral view. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (d) *M. elongata*, holotype; (e) *M. incus*, paralectotype, Brazil, Rio Autaz.

***Mesoleptobasis elongata* sp. nov.**

Figs. 3e, 4d, 5e, 7d, 11b, 13b, 14d, 15d, 16d, 17d, 18d, 19b, d, 20a, 21

Etymology. From *elongatus* (Lat.), referring to its long abdomen which distinguishes it from its congeners (Fig. 20a).

Types. Holotype ♂ (from Boven Coesewijne, Para, Surinam, 5°22'N, 55°32'W) in RMNH (examined).

Specimens examined. Total: 2 ♂, 1 ♀. Surinam, Para District: 1 ♂ holotype, 1 ♀ allotype, Boven Coesewijne (5°22'N, 55°32'W), 06 viii 1960, leg. J. Belle (RMNH). Brazil, Amazonas State: 1 ♂ paratype, Paraná Costa da Ilha de Curari (Rio Solimões), canopy fogging (with pyrethrum), project TRS #04, tray #322, white water inundation forest, varzea (3°25'S, 60°15'W), 03 viii 1914, leg. Adis, T. Erwin, Montgomery, *et al.* (RWG).

Description. Male holotype (Fig. 20a). — Head: Labium ivory, remainder of head including epicranium dull olive green, paler on rear of head, dark brown along base of postfrons, base of antennae, postfrontal

suture, and irregular diffuse spot between ocelli and antenna; postocular spots absent. — Thorax: Prothorax dull olive blue, middle lobe light brown; pterothorax entirely olive blue with diffuse brown thoracic stripes along medial portion of mesepisternum and mesopleural suture, remainder of thorax becoming paler laterally; hind lobe of prothorax with a medial bifurcate process (Fig. 4d), with apices directed laterally (Fig. 3e) forming a transverse line between them. Costal side of Fw pt longer than basal side, its posterior margin slightly convex. CuA relatively short, ending one cell proximal to vein descending from subnodus. Wings hyaline, Px Fw 10; Px Hw 8 (left)/ 9 (right); RP₂ originating at Px 5 in Fw, at Px 4 in Hw; pterostigma 0.4 mm long. Legs ivory with wash of brown at flexor surfaces of femora, spines black— Abdomen: S1-7 brown dorsally, pale olive blue laterally, S3-7 with pale basal ring, S8-10 dull orange brown. Genital ligula in ectal view (Fig. 14d) with distal margin deeply bifid and lacking lateral emarginations; in lateral view (Fig. 15d) with basal lobe sclerotized, long, pointed, and directed posteriorly, and dorsal margin of lateral lobe lacking a single small sclerotized spine. Posterior margin of S10 (Figs. 17d, 18d) projected medio-dorsally, with a pair of postero-lateral small lobe-like processes. Male cercus lacking a membranous area dorsally, approximately semicircular, as long as wide; in lateral view (Fig. 18d) smoothly curved, with tip directed postero-ventrally; paraproct slender and narrower than half of S10 height at base in lateral view; base of paraproct with a thumb-like tubercle (Fig. 18d).

Dimensions. Hw 18.4; abdomen 40; total length 45.

Female allotype. Head: similar to male but head entirely dark olive becoming paler along genae and lacking dark suture and epicranial spots. — Thorax: as in male except hind lobe of pronotum (Fig. 5e) weakly trilobate, transverse, gently concave medially in dorsal view and with middle lobe erect; mesostigmal plates as in Fig. 7d. Costal side of FW pt longer than basal side, its posterior margin slightly convex. CuA relatively short, ending one cell proximal to vein descending from subnodus in Fw, at level of subnodus in Hw (Fig. 13b). Wings hyaline, Px Fw 11 (left)/ 10 (right); Px Hw 9 (left)/ 10 (right); RP₂ originating at Px 5 in Fw, at Px 4 in Hw; pterostigma 0.5 mm long. — Abdomen: as in male but shorter, more robust, and S8-10 dark brown above and pale green laterally; ovipositor surpassing tip of cerci for a distance subequal to length of cerci (Fig. 16d).

Dimensions. —Hw 19.2; abdomen 32; total length 38.

Variation in male paratype. As in holotype but overall body coloration paler with more of an orange tinge on olivaceous areas, CuA relatively short, ending two cells proximal to vein descending from subnodus in Fw, one cell proximal in Hw (Fig. 11b), Px Fw 9; Px Hw 8 (left)/ 7 (right); RP₂ originating at Px 5 in Fw, at Px 4 in Hw; pterostigma 0.4 mm long.

Dimensions. Hw 18.0; abdomen 37; total length 42.

Diagnosis. Morphology of genital ligula, male cerci and paraprocts, and female ovipositor ally this species to *M. cantralli* and *M. incus*, but the longer abdomen of male (Fig. 20a) relative to the other two species (as in Fig. 20b) readily separate them. It can be further diagnosed from its congeners by: male prothorax with a medial bifurcate process with arms directed laterally forming a transverse line between them (Fig. 3e; shared with *M. cantralli* and *M. incus*); female prothorax lacking processes, with posterior margin slightly trilobate, with medial lobe not surpassing lateral lobes posteriorly; lateral lobes not bent anteriorly (Fig. 5e; shared with *M. cantralli*). Costal side of Fw pt longer than basal side, its posterior margin slightly convex in both sexes (Figs. 11b, 13b; shared with *M. cantralli*, *M. cyanolineata*, and *M. incus*). CuA relatively short (Figs. 11b, 13b; shared with *M. cantralli* and *M. incus*), ending one or two cells proximal to vein descending from subnodus in male and one cell proximal to vein descending from subnodus in female. Genital ligula in ectal view with distal margin deeply bifid and lacking lateral emarginations (Fig. 14d; shared with *M. cantralli*, *M. cyanolineata*, and *M. incus*); in lateral view with basal lobe sclerotized, long, pointed, and directed posteriorly (Fig. 15d; shared with *M. cantralli* and *M. incus*). Posterior margin of S10 projected medio-dorsally, with a pair of postero-lateral small lobe-like processes (Figs. 17d, 19b; shared with *M. cantralli* and *M. incus*). Male cercus lacking a membranous area dorsally (shared with *M. cantralli*, *M. cyanolineata*, and *M. incus*), approximately semicircular, as long as wide (Figs. 17d, 19b, d; shared with *M.*

incus); in lateral view smoothly curved, with tip directed postero-ventrally (Fig. 18d); paraproct slender and narrower than half of S10 height at base in lateral view (Fig. 18d; shared with *M. cantralli* and *M. incus*); base of paraproct with a thumb-like tubercle (Fig. 18d; shared with *M. cantralli*). Ovipositor surpassing tip of cerci for a distance as long as length of cerci (Fig. 16d; shared with *M. cantralli*).

Remarks. Despite careful examination we did not observe any spines such as those present in *M. cantralli* (Fig. 15b) and *M. incus* (Fig. 15e) on the dorsal margin of lateral lobe of genital ligula; this area appears to be slightly darker and thickened in the holotype.

Distribution. Para State in Surinam and Amazonas State in Brazil (Fig. 21). The paratype male was canopy-fogged.

Mesoleptobasis incus Sjöstedt 1918

Figs. 1a, 3f, 4e, 5f, g, 7e, 11c, 13c, 14e, 15e, 16e, 17e, 18e, 19c, e, 20b, 21

Mesoleptobasis incus Sjöstedt 1918: 22–23 (description of ♂ and ♀); — St. Quentin 1960: 51 (illustration of FW base); — Davies 1981: 2; — Bridges 1994: VII.114 (catalog); — Lencioni 2006: 161 (notes and reproduction of original illustrations).

Mesoleptobasis inca — Davies & Tobin 1984: 77 (catalog); — Steinmann, 1997: 288 (catalog); — Tsuda 2000: 39 (catalog); — Heckman 2008: 395 (key and reproduction of original illustrations).

Types. Lectotype by present designation (from Rio Autaz, Amazonas, Brazil) in NHRS (examined).

Specimens examined. Total: 8 ♂, 15 ♀. Brazil, Amazonas State: 1 ♂ lectotype, Rio Autaz, W to lower Madeira River, S. Amelia, forest (4°24'51"S, 59°56'21"W), viii 1914, leg. A. Roman (NHRS); 2 ♂, Tefé (3°22'S, 64°42'W, 43 m), i 1962, leg. A. Carvalho (ABMM); 1 ♂, same but Amana Lake, i 1991, leg. J. Ribeiro (ABMM); 1 ♂ paralectotype, 2 ♀ paralectotypes, same but ix 1914 (NHRS); Rondônia State: 1 ♀, Porto Velho (8°46'S, 63°53'W), 03 ii 1922, leg. J.H. Williamson & J.W. Strohm (UMMZ); 2 ♀, same but 06 ii 1922 (UMMZ); 2 ♀, same but (FSCA); 2 ♀, same but (IORI); 1 ♂, 1 ♀, same but 13 ii 1922 (UMMZ); 1 ♂, 1 ♀, same but 21 ii 1922 (UMMZ); 1 ♂, 1 ♀, same but 22 ii 1922 (FSCA); 2 ♀, same but 27 ii 1922 (UMMZ); 1 ♀, same but 14 v 1922 (RWG).

Diagnosis. Male prothorax with medial bifurcate process with arms directed laterally forming a transverse line between them (Fig. 3f; shared with *M. cantralli* and *M. elongata*); female prothorax lacking processes, with posterior margin slightly trilobate, with medial lobe not surpassing lateral lobes posteriorly; lateral lobes bent anteriorly (Figs. 5f, g; unique). Costal side of FW pt longer than basal side, its posterior margin slightly convex in both sexes (Figs. 11c, 13c; shared with *M. cantralli*, *M. cyanolineata*, and *M. elongata*). FW CuA relatively short (Figs. 11c, 13c; shared with *M. cantralli* and *M. elongata*), ending at vein descending from subnodus to two cells distal in male and four cells distal in female. Genital ligula in ectal view with distal margin deeply bifid and lacking lateral emarginations (Fig. 14d; shared with *M. cantralli*, *M. cyanolineata*, and *M. elongata*); in lateral view with basal lobe sclerotized, long, pointed, and directed posteriorly, and dorsal margin of lateral lobe with a single small sclerotized spine (Fig. 15e; shared with *M. cantralli*). Posterior margin of S10 projected medio-dorsally, with a pair of postero-lateral small lobe-like processes (Figs. 17e, 19c; shared with *M. cantralli* and *M. elongata*). Male cercus lacking a membranous area dorsally (shared with *M. cantralli*, *M. cyanolineata*, and *M. elongata*), approximately semicircular, as long as wide (Figs. 17e, 19c, e; shared with *M. elongata*); in lateral view smoothly curved, with tip directed postero-ventrally (Fig. 18e); paraproct slender and narrower than half of S10 height at base in lateral view (Fig. 18e; shared with *M. cantralli* and *M. elongata*); base of paraproct lacking a thumb-like tubercle (shared with *M. acuminata* and *M. cyanolineata*). Ovipositor surpassing tip of cerci for a distance shorter than length of cerci (Fig. 16e; shared with *M. acuminata* and *M. cyanolineata*).

Dimensions. Males (*n* 6; mean in parenthesis): Hw 16.9–19.5 (17.8); abdomen 31.0–33.0 (32.2); total length 37.0–38.0 (37.5). Females (*n* 10): Hw 19.0–20.0 (19.4); abdomen 30.0–32.0 (30.3); total length 35.0–37.0 (36.4).

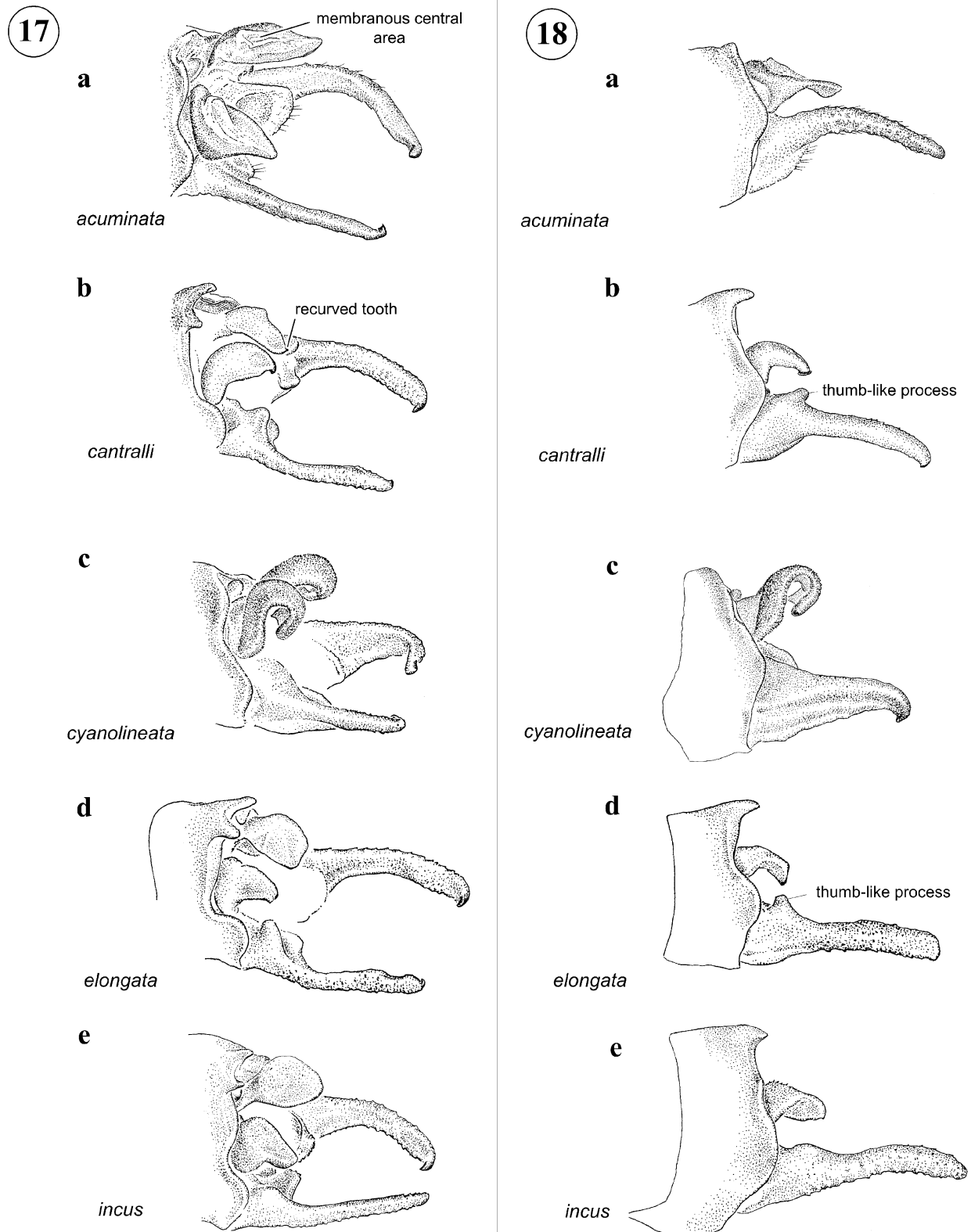


FIGURE 17. Male S10, medio-dorsal view. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (d) *M. elongata*, holotype; (e) *M. incus*, lectotype, Brazil, Rio Autaz.

FIGURE 18. Male S10, lateral view. (a) *Mesoleptobasis acuminata*, Peru, Explorama Lodge; (b) *M. cantralli*, paratype, Brazil, Porto Velho; (c) *M. cyanolineata*, paratype, Surinam, Mungatapoe; (d) *M. elongata*, holotype; (e) *M. incus*, lectotype, Brazil, Rio Autaz.

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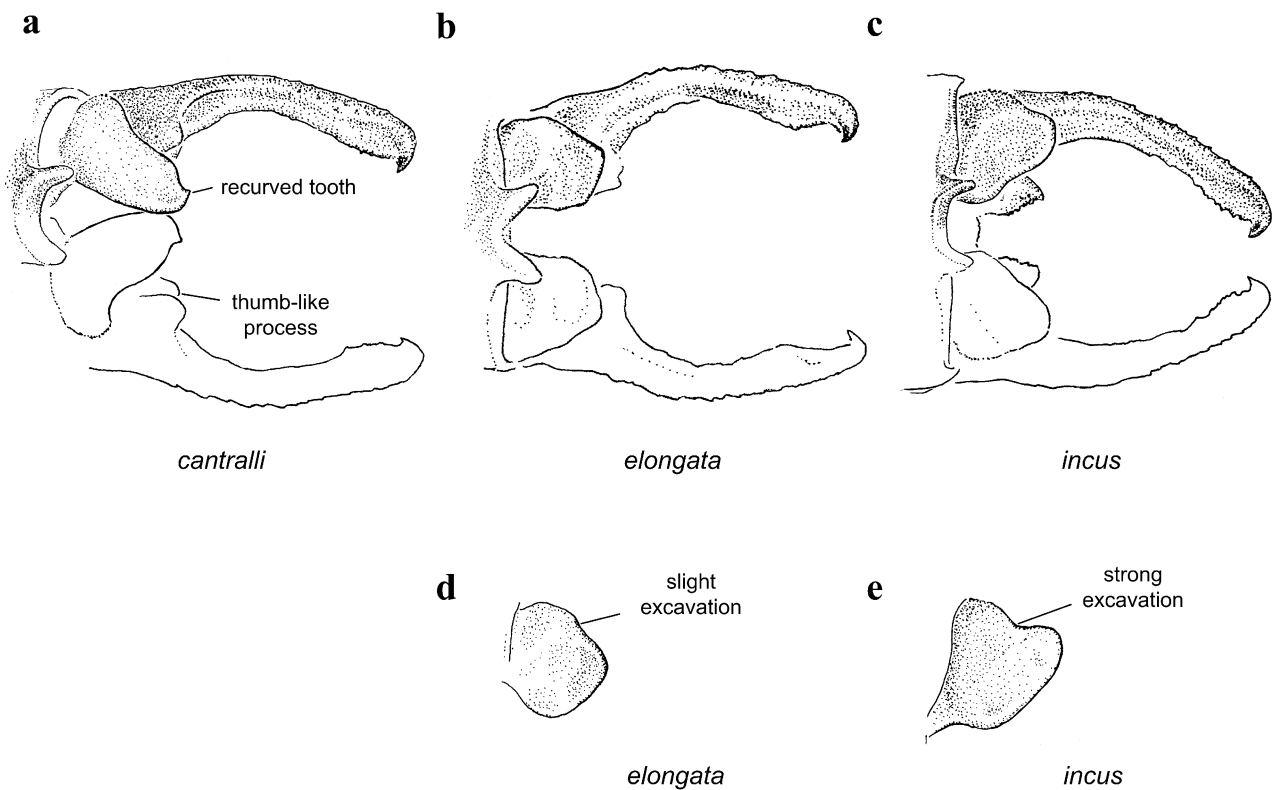


FIGURE 19. Male S10, dorsal view. (a) *Mesoleptobasis cantralli*, paratype, Brazil, Porto Velho; (b) *M. elongata*, Brazil, Rio Curari; (c) *M. incus*, lectotype, Brazil, Rio Autaz; (d) detail right cercus, *M. elongata*, Brazil, Rio Curari; (e) detail right cercus, *M. incus*, Brazil, Porto Velho.

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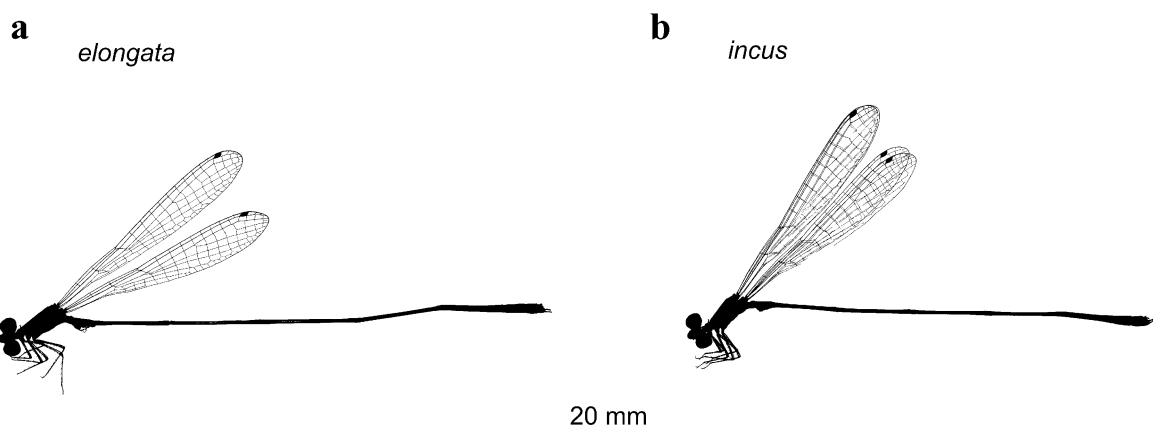


FIGURE 20. Male habitus, lateral view (to scale). (a) *Mesoleptobasis elongata*, holotype; (c) *M. incus*, Brazil, Porto Velho.

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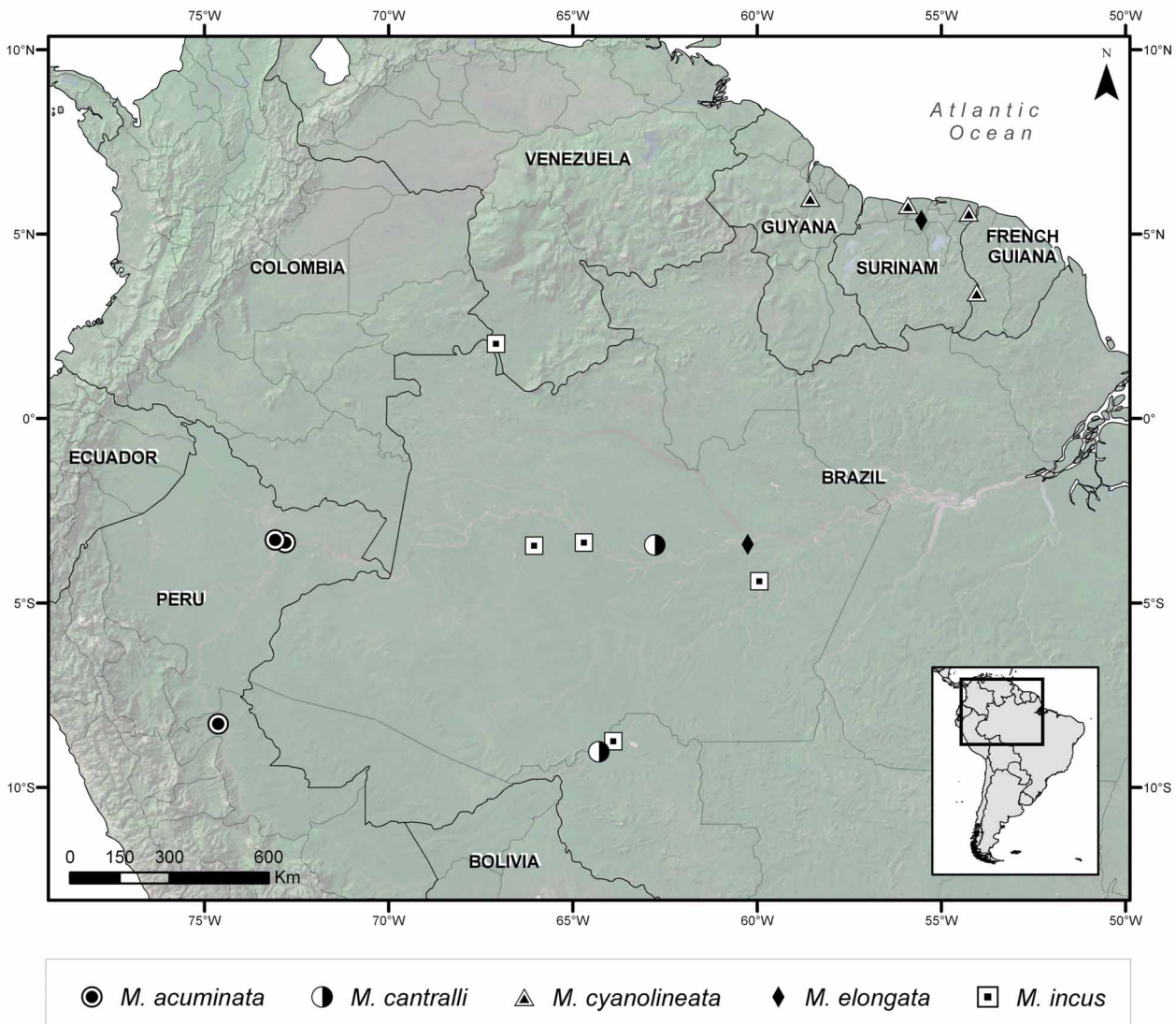


FIGURE 21. Distribution of *Mesoleptobasis*.

Remarks. Sjöstedt (1918) described *M. incus* based on a syntype series of four males and three females. We designate here a male labeled (all printed unless noted otherwise) 'Amazon/Roman, Rio/Autaz, aug., *Mesoleptobasis*/♂ *incus* n. sp. [written]/Yngve Sjöstedt det.' as lectotype, and provide illustrations of its diagnostic structures (Figs 1a, 3f, 4e, 11c, 14e, 15e, 17e, 18e, 19c). The small series collected by J.H. Williamson and J.S. Strohm in 1922 was identified by E.B. Williamson as *M. incus* although there is no evidence that he ever compared them directly with Sjöstedt's types. The series of males from Rondônia agree with the lectotype (Fig. 19c) except that the cercus in dorsal view is more strongly excavated laterally (Fig. 19e).

Distribution. Amazonas State in Venezuela and Amazonas and Rondônia States in Brazil, sympatric with *M. cantralli* in the latter (Fig. 21).

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