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A REVIEW OF THE GENUS *EUPHYLLODROMIA* SHELFORD, 1908 (DICTYOPTERA: ECTOBIIDAE), WITH DESCRIPTION OF THREE NEW SPECIES

L.N. Anisyutkin

Zoological Institute of the Russian Academy of Sciences, Universitetskaya Emb. 1, 199034 Saint Petersburg, Russia;
e-mail: dictyoptera@zin.ru

ABSTRACT

The genus *Euphyllodromia* is reviewed. Three new species (*E. propinqua* sp. nov., *E. rasnitsyni* sp. nov. and *E. tingomariensis* sp. nov.) and a first fossil representative from the Colombian Copal (Pleistocene-Holocene) (*E. cf. angustata*) are described. *E. angustata*, *E. peruana*, *E. albomaculata*, *E. venezuelica*, *E. hystrix*, *E. erytromelas*, *E. nigrochlamys* and *E. boliviensis* are redescribed. A detailed morphological description of the male genitalia is provided for the first time. Geographical distribution of the studied species is clarified.

Key words: Ectobiidae, cockroaches, Colombian copal, Dictyoptera, *Euphyllodromia*, morphology, Neotropical Region

ОБЗОР РОДА *EUPHYLLODROMIA* SHELFORD, 1908 (DICTYOPTERA: ECTOBIIDAE) С ОПИСАНИЕМ ТРЕХ НОВЫХ ВИДОВ

Л.Н. Анисюткин

Зоологический институт Российской академии наук, Университетская наб. 1, 199034 Санкт-Петербург, Россия;
e-mail: dictyoptera@zin.ru

РЕЗЮМЕ

В статье дается обзор рода *Euphyllodromia*. Описываются три новых вида (*E. propinqua* sp. nov., *E. rasnitsyni* sp. nov. и *E. tingomariensis* sp. nov.) и первый ископаемый представитель из копала Колумбии (плейстоцен-голоцен) (*E. cf. angustata*). Виды *E. angustata*, *E. peruana*, *E. albomaculata*, *E. venezuelica*, *E. hystrix*, *E. erytromelas*, *E. nigrochlamys* и *E. boliviensis* переописываются. Впервые дается детальное морфологическое описание гениталий самцов. Уточнено географическое распространение изученных видов.

Ключевые слова: Ectobiidae, тараканы, колумбийский копал, Dictyoptera, *Euphyllodromia*, морфология, Неотропическая область

INTRODUCTION

Tropical forests of South and Central America represent one of the modern centres of cockroach species diversity. Yet the cockroach fauna of these regions remains poorly known, with many new taxa awaiting description. The present paper attempts to bring some clarity to a well defined genus of Neotropical cockroaches for which a detailed morphological description is provided.

The genus *Euphyllodromia* Shelford, 1908 was originally described as a subgenus of *Pseudophyllodromia* Brunner von Wattenwyl, 1865 and diagnosed on the basis of the following characters: “branches of ulnar vein (= M – L.A.) of tegmina longitudinal, parallel, three in number, branches of ulnar vein (= Cu – L.A.) of wings three to four in number” (Shelford 1908: 17). The type species was not designated in the original description. Later, Hebard (1920) raised the rank of *Euphyllodromia* to that of full genus, expanded

its diagnosis and designated *E. angustata* (Latreille, 1811) as the type species.

The genus *Euphyllodromia* was recently revised by Rocha e Silva (1984) and Ramirez Perez (1993). Nevertheless, a detailed structure of the male genitalia has been described for two species only: viz., *E. rondonensis* Lopes, Oliveira et Araujo, 2007 and *E. jugata* Rehn, 1928 (Lopes et al. 2007).

MATERIAL AND METHODS

This paper is mostly based (except for the fossil specimen from Colombian Copal) on the material kept in the collection of the Zoological Institute of the Russian Academy of Sciences (Saint Petersburg, Russia). The majority of specimens studied was collected and preserved in 70% ethanol. In order to study sclerites of the male genital complex (anal plate, hypandrium and the male genitalia), the apical part of abdomen was removed and treated with ca. 10% KOH. Both specimens and their genital structures are preserved in microvials (in 70% ethanol). The author is against mounting of the genital complexes on permanent preparations, since some delicate structures can be distorted and their detailed examination at various angles will be impossible.

Temporary preparations were made in dishes with paraffin bottom. Illustrations and photos were sketched with a drawing apparatus of Leica MZ 16 binocular microscope; further examination and drawings were made using MBS-10 binocular microscope. 'Distance between eyes /length of eye'-ratio was measured as interocular distance on vertex (*i.o.* in Fig. 6H) to dorsoventral length of eye (*d.e.* in Fig. 6H). In all illustrations, anterior is towards the top and posterior is towards the bottom of the sheet. The main attention is paid to sclerotized structures, whereas the shape of membranous foldings is shown schematically.

The nomenclature of male genital sclerites follows Klass (1997), with some complements. The terminology used by Grandcolas (1996) is given in parentheses. Terms introduced by author are given in quotation marks.

All the recently studied material, including the types of newly described species, is deposited in the Zoological Institute of the Russian Academy of Sciences, Saint Petersburg, Russia. The fossil specimen (Colombian Copal) is deposited in the Manchester Museum, University of Manchester, Manchester, UK (the curator: D. Gelsthorpe).

Abbreviations used in figures (see text for further details):

- 1.f.s.*, *2.f.s.*, *3.f.s.* – 1st, 2nd and 3rd “fringed sclerites” of the male genitalia respectively;
- a.p.* – “anterior protrusion” of the right phallomere of the male genitalia;
- b.CuP* – bend of CuP before the point of running into posterior margin of tegmen;
- c.b.f.* – “chaeta-bearing field” of the male genitalia;
- c.b.m.a.* – “chaetae-bearing membranous area” of the male genitalia;
- c.b.s.* – “chaeta-bearing sclerite” of the male genitalia;
- d.e.* – dorsoventral length of eye;
- d.m.o.* – “dorso-medial outgrowth” of the right phallomere of the male genitalia;
- d.p.* – “dorsal plate” of the apex L2D sclerite of the male genitalia;
- e.f.s.* – “elongated fringed sclerite” of the male genitalia;
- e.s.* – everted structure, probably rectum or brood sac;
- f.s.* – “fringed sclerite” of the male genitalia;
- hge* – groove of the sclerite L3 of the male genitalia;
- i.o.* – interocular distance on vertex;
- i.t.* – intercalar triangle of wing;
- k.s.* – “knot-like structures” of the male genitalia;
- L2D*, *L3*, *L4U*, *L4V* – sclerites of the male genitalia;
- l.i.* – lateral inflations of the 8th abdominal tergite or anal plate;
- m.a.* – membranous area of 7th abdominal tergite;
- m.a.s.* – membranous area and setae of the 7th abdominal tergite;
- m.s.* – membranous structure of the male genitalia;
- pv.par.* – pv sclerites of the paraprocts;
- r.plm.* – right phallomere of the male genitalia;
- r.o.* – “rounded outgrowth” of the sclerite L3 of the male genitalia;
- v.p.* – “ventral plate” of the apex L2D sclerite of the male genitalia.

SYSTEMATICS

Family Ectobiidae Brunner von Wattenwyl, 1865

Genus *Euphyllodromia* Shelford, 1908

Type species: *Blatta angustata* Latreille, 1811.

Description. Brightly and contrastingly coloured cockroaches. Sexual dimorphism weak, both sexes with tegmina and wings fully developed, exceed abdo-

men in length. General coloration usually light, from pale yellow to dark brown; eyes blackish; pronotum (Fig. 7A–Q) and, in some cases, head (Fig. 6C–E, L) with pronounced colour pattern. Head usually more or less elongated (Fig. 6A, C, G), rarely transverse (Fig. 6D, E, L); eyes large, shifted onto the dorsal part of head, approximate but not contacting in the area of vertex. Antennae filiform, sparsely haired (Figs. 1E, F, 2F) or markedly incrassate and plumose (Fig. 5A–C, F, G). Pronotum approximately hexagonal in shape, caudal margin caudally protruded (Fig. 7A–Q). Tegmina and wings weakly sclerotized and nearly transparent, sometimes partly darkened. Tegmina (Fig. 13A): Sc simple and slightly incrassated [here and elsewhere in the text we follow Rehn (1951)]; R sigmoid, not differentiated into R1 and RS, with about 17–21 anterior rami (without intercalary veins); M with 2–3 nearly straight rami; CuA with 1–2 rami, posterior one vestigial; CuP with sharp bend before point of running into posterior margin of tegmen (Fig. 13A, *b.CuP*); anal veins 5–6. Wings (Fig. 13B): Sc simple, sometimes weakened, apically clubbed, R1 strong, apically clubbed; RS with more or less regular spaced rami, 5–7 proximal ones apically clubbed; M single; CuA with 4–5 branches; intercalated triangle small, but distinct (Fig. 13B, *i.t.*). Anterior margin of fore femur armed according to the type B (*sensu* Bey-Bienko 1950, Roth 2003) with 6–10 spines, including 3, rarely 2 (in fossil *E. cf. angustata* and *E. tingomariensis* sp. nov.), apical ones. Structure of hind tarsus (Fig. 8A): metatarsus longer than other segments combined; metatarsus, 2nd and 3rd segments with 2 rows of spines along lower margin and several isolated spines displaced dorsally, without pulvilli; 4th segment with pulvillus and single pair of spines; claws symmetrical, simple; arolium large. Abdomen: 7th tergite of both sexes specialized medially, with membranous area and setae (Fig. 8B, *m.a.s.*) in males or membranous area in females (Fig. 8M, *m.a.*); 8th tergite with paired lateral inflations (Fig. 8B, *l.i.*). Anal plate (10th, ultimate tergite) transverse, more or less triangular in shape, frequently with small membranous area at middle of caudal margin; cerci long, with 11–13 segments, 6–7 apical ones with membranous areas dorsally. Paraprocts nearly symmetrical, with clearly visible pv sclerites (Fig. 8C, *pv.par.*) (*sensu* Klass 1997), without armament (with exception of *E. venezuelica* – see below). Hypandrium elongate, with antero-lateral parts (lateral sternal apodemes or apophyses *sensu* Klass 1997) elongated

and strongly asymmetrical (Figs. 8F, H, 10C, 11C, P, 12D, 13F, 14C, 15D, 16C, 17B, S); styli more or less short, solidly connected with hypandrium; “median triangle” distinct, with more or less expressed row of denticles along the right side (Figs. 8I–K, 10D, E, 11D, Q, 12E, 13G, H, 14D, E, 15E, F, 16D, 17C–E, T). Genital plate of female (7th, ultimate, sternites) medially deeply incised (Figs. 8L, N, 10G, 12G, 14G, H, 15H, 16Q, 17G).

The male genitalia of the families Blattellidae and Blaberidae consist of a complex of partly connected structures (sclerites, chaetae-bearing membranous areas) lying in a large membranous sac (Fig. 8B, G).

The male genitalic structures can be subdivided in conservative and labile complexes (Anisyutkin 2009). Structures of the conservative complex present in all representatives of the Blattellidae and Blaberidae and form the groundplan of their male genitalia. This includes the following structures (described from left to right; Figs. 8G, 12H, 16E): the right phallomere [the complex of sclerites R + N – here and elsewhere in the text terms of Grandcolas (1996) are given in parentheses], the rod-like sclerite L2D (L1) occupying the median position, and sclerites L3 (L2d) and L4U (L3d) forming an united complex. It should be remembered that the corresponding sclerites in the subfamily Pseudophyllodromiinae are mirrored: i.e., the right phallomere is actually situated on the left side. The labile complex includes sclerites and more or less sclerotized areas covered with chaetae, which are variable in shape and composition. The homologization of these structures is sometimes difficult. For structures of the labile complex we use descriptive names: viz., “anterior protrusion”, chaetae-bearing sclerite”, “chaetae-bearing field”, etc.

The male genitalic structures of the genus *Euphyllodromia* can be characterized as follows (from left to right) (Figs. 8G, 12H, 16E). The right phallomere (R+N) is of peculiar conformation: with large “anterior protrusion” and long “dorso-medial outgrowth” of R1N (Figs. 9A–D, 13I–L, *a.p.*, *d.m.o.*). “Anterior protrusion” of the right phallomere is connected with “chaetae-bearing sclerites” and/or “chaetae-bearing field” (Figs. 8G, 9A, 10L, 17U, *c.b.s.*, *c.b.f.*). The sclerite L2D (L1) is elongated, rod-like and not subdivided in apical (caudal) and basal (cranial) parts. Another rod-like sclerite, L4V, with crown of chaetae at apex usually presents together with the L2D (Figs. 8H, 11H, 12H, 13M, 14L, 15I, 16E, 17J). The sclerite L3 (L2d) is long and slender, with more or

less expressed rounded outgrowth opposed to hook hla; hook hla with groove hge (=subapical incision *sensu* Roth 1970) (Fig. 9Q, *hge*, *r.o.*). The sclerite L4U (L3d) always presents, plate-like (Figs. 8G, 10H, 11R, 14P), but is usually weakly sclerotized and difficult to observe. Additional specific structures (sclerites and chaetae-bearing membranous areas) can be found in representatives of the genus.

While the membranous sac is erected, all the included genitalic structures protrude caudad (Figs. 8B, D, E, G, 10L, 12H). The right phallomere revolves and its "anterior protrusion" acts like the lever to protrude the "elongated fringed sclerite" and "chaeta-bearing sclerite" caudad (Figs. 8G, 10L). The sclerite L3 turns inside out of the membranous sheath (Fig. 16E).

Representatives of the genus *Euphyllodromia* were reported to have diurnal lifestyle (Bell et al. 2007). The author of the present paper observed active specimens of *Euphyllodromia* sp. at the daytime in Peru (department Junin, prov. Satipo, ~25 km SE of town Satipo, near Vil. Rio Venado). The cockroaches ran over banana leaves and looked like small wasps. Unfortunately, these specimens were not collected. Later, specimens of *E. hystrix* were collected from the same locality, but there is no direct evidence of their identity with the specimens earlier observed from there.

Included species. The composition of the genus follows Princis (1969), Rocha e Silva (1984), Ramirez-Perez (1993) and Lopes et al. (2007). Yet we consider *E. semivitrea* (Brunner von Wattenwyl, 1892) [this species name was synonymized with *E. lineolata* (Dalman, 1823) by Princis (1969: 936), but this decision is still an open question] to be a valid species due to an insufficient description of *E. lineolata*. In our opinion, there is no reason to consider *Blatta burmeisteri* Princis, 1969 (= *Blatta signata* Burmeister, 1838, nec Escholtz, 1822) a member of the genus *Euphyllodromia*. This species is only known from a poor original description (pallide fulva, capite rubro; pronoti disco nigro, pallide 4-punctato. Long 4) (Burmeister 1838: 497) and was transferred to *Euphyllodromia* by Princis (1969) without any argumentation.

At present, the genus *Euphyllodromia* includes 38 species: *E. albinervis* (Brunner von Wattenwyl, 1893), *E. albomaculata* (Shelford, 1909), *E. amazonsensis* Rocha, 1984, *E. angustata* (Latreille, 1811), *E. atropos* Rehn, 1928, *E. aurora* Rehn, 1932, *E. bolivien-*

sis (Shelford, 1909), *E. cerdai* Ramirez-Perez, 1993, *E. chopardi* Hebard, 1921, *E. elegans* (Shelford, 1907), *E. erythromelas* Rehn, 1932, *E. fasciatella* (Saussure, 1868), *E. fernandesi* Ramirez-Perez, 1993, *E. fluvialilis* Rehn, 1932, *E. heydeniana* (Saussure, 1864), *E. hystrix* (Saussure, 1869), *E. jugata* Rehn, 1928, *E. jutai* Rocha, 1984, *E. lineolata* (Dalman, 1823), *E. literata* (Burmeister, 1838), *E. liturifera* (Walker, 1871), *E. marowijnensis* Bruijning, 1959, *E. maturaca* Rocha, 1984, *E. nigrochlamys* Rehn, 1928, *E. obscura* (Saussure, 1873), *E. osunai* Ramirez-Perez, 1993, *E. pavonacea* (Rehn, 1903), *E. peruana* (Saussure, 1864), *E. prona* (Rehn, 1906), *E. rondonensis* Lopes, Oliveira et Araujo, 2007, *E. semivitrea* (Brunner von Wattenwyl, 1892), *E. stigmatosoma* Hebard, 1921, *E. tupi* Rehn, 1928, *E. variegata* (Walker, 1868), *E. venezuelica* Princis, 1951, *E. propinqua* sp. nov., *E. rasnitsyni* sp. nov. and *E. tingomariensis* sp. nov.

***Euphyllodromia angustata* (Latreille, 1811)**
(Figs. 1A, 6A, 7A–C, 8A–M, 9A–Q)

Material examined. 1 male, 1 female – PANAMA, prov. Panama: Parque Nacional Soberania, summit, 22 August 1998, coll. B. Korotyaev, H.E. Barrios; 1 female – same data, but 6–12 km of Llano – Cardi Rd., 26 August 1998, coll. B. Korotyaev. 5 males, 1 female (one pair in copula) – MEXICO, Chiapas: 130 km WN of city Tapachula, Vil. Ejido Las Golondrinus (reserve El Triunfo), 800–1000 m, 13–17 May 2006, coll. A. Gorochoy, M. Berezin; 1 male, 1 female – same data, but env. of city Tuxtla Gutierrez, near reserve El Ocote, 600–1000 m, tropical forest, 19–24 May 2006, coll. A. Gorochoy, M. Berezin; 1 male – same data, but vicinity of town Palenque, near Maya archaeological centre, ~200 m, rainforest, 18–20 November 2006, coll. A. Gorochoy, A. Ovtshinnikov.

Description. Male. General coloration as in Fig. 1A; head with vertex and genae laterally darkened, longitudinal striation on vertex weak (Fig. 6A) or nearly absent; antennae yellowish at base (scapus and about 8–9 proximal segments), brownish in distal part; maxillary palps with proximal segments (1st, 2nd and, partly, 3rd) yellowish and pale distal segments (3–rd, partly, 4th and 5th); colour pattern of pronotum somewhat variable (Fig. 7A–C); tegmina yellowish and translucent, blackish along veins; legs yellow, very weakly darkened along upper (exterior) margin of femora, tibiae and distal parts of tarsal segments; abdomen yellow, sternites with more

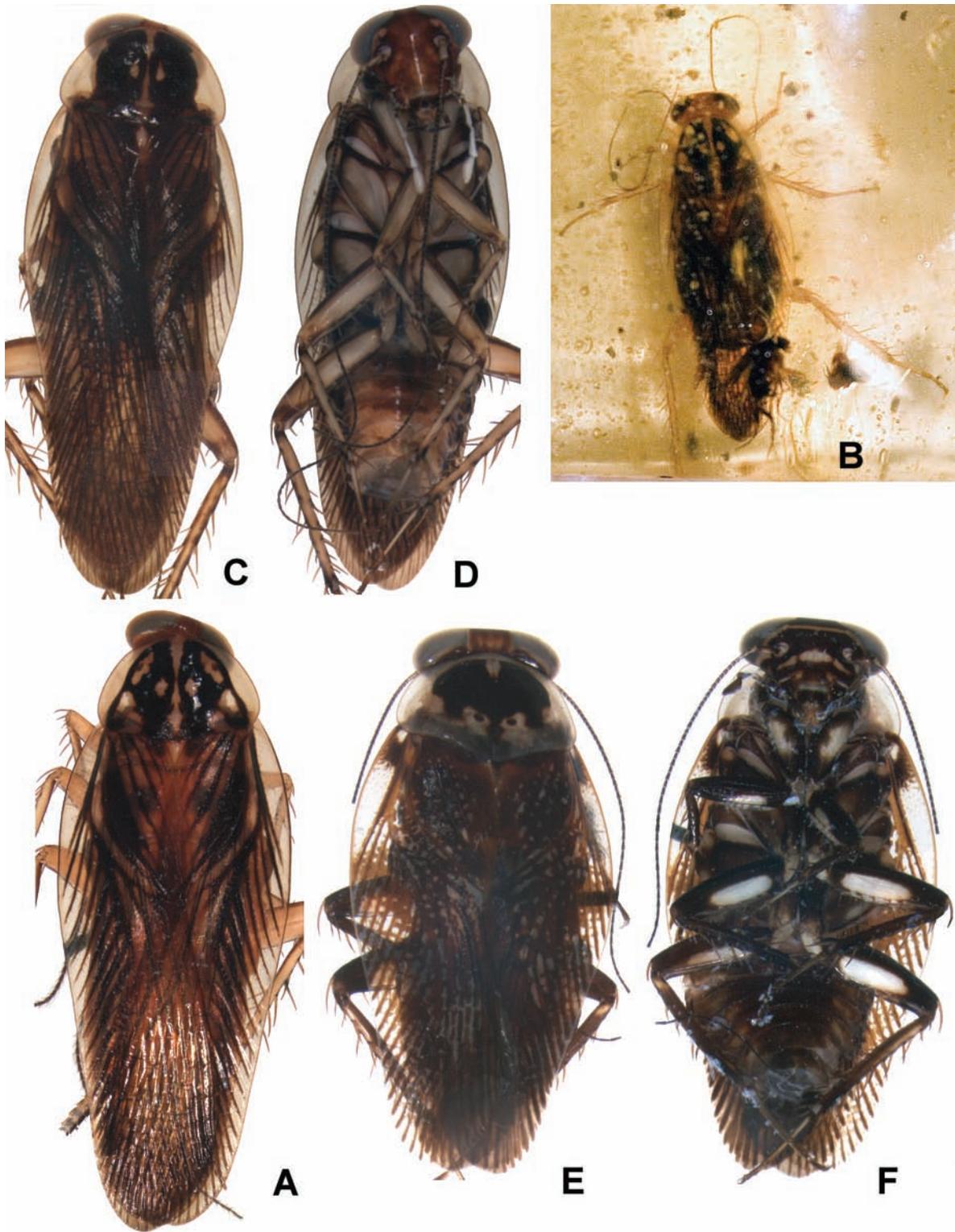


Fig. 1. *Euphyllodromia* spp.: A, *E. angustata* (male, El Triunfo); B, *E. cf. angustata* (female, Colombian Copal); C, D, *E. peruana* (male, Rio Cuyabeno); E, F, *E. albomaculata* (male). General view from above (A–C, E) and below, abdominal apex removed (D, F).

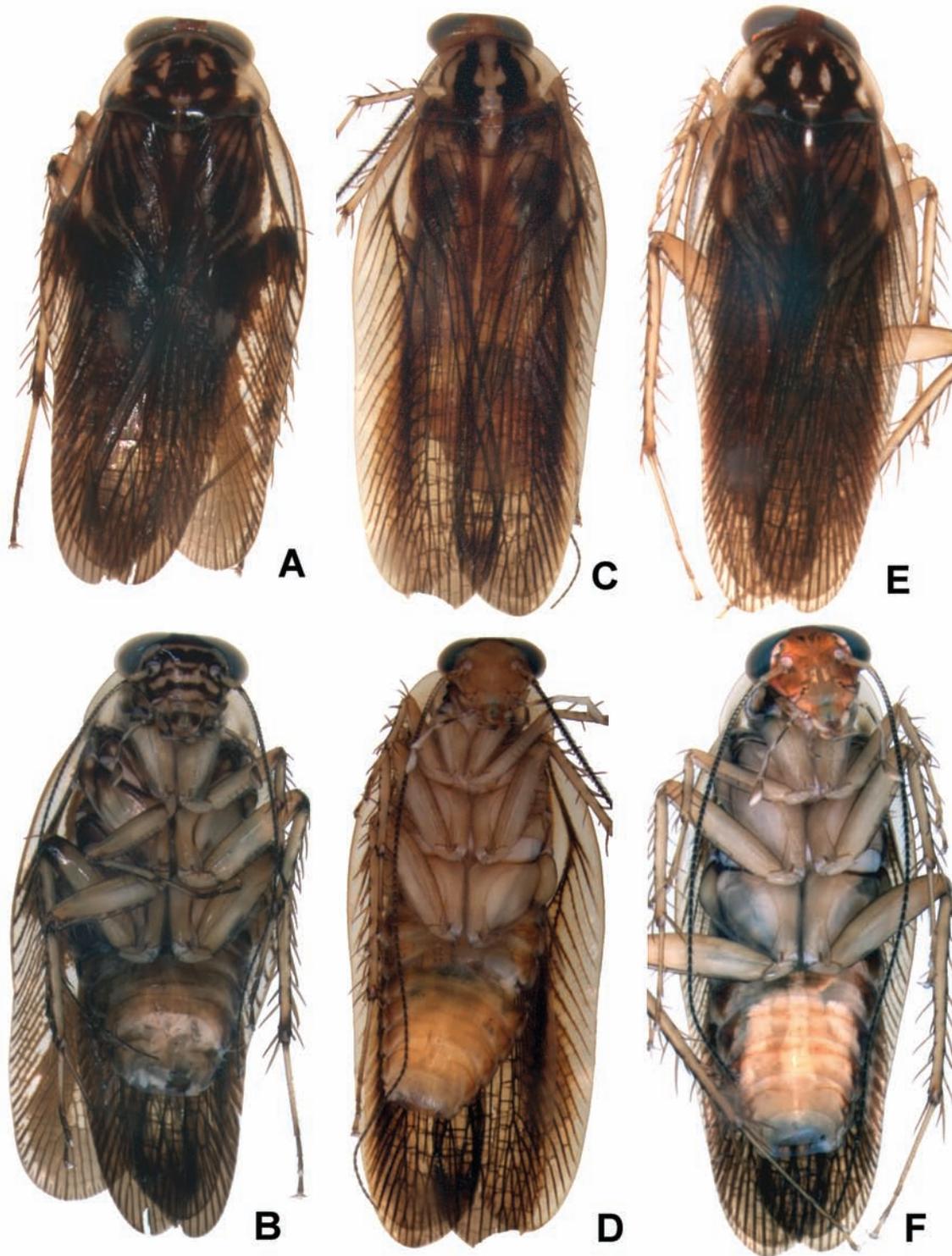


Fig. 2. *Euphyllodromia* spp., males: A, B, *E. venezuelica*; C, D, *E. hystrix* (Rio Venado); E, F, *E. erytromelas* (Rio Aquarico). General view from above (A, C, E) and below, abdominal apex removed (B, D, F).

or less expressed brown spots laterally; cerci partly darkened from below. Head subtriangular (Fig. 6A); distance between eyes 0.4–0.5 times eye length; distance between antennal sockets 1.2–1.8 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 0.9–1.0 : 1.0–1.3 : 0.8–1.0. Antennae filiform, sparsely pilose. Pronotum as in Fig. 7A–C. Abdominal apex as in Fig. 8B–E. Anal plate with small medial membranous area at caudal margin (Fig. 8B); cerci long, with 12–13 segments, 6 apical segments with membranous areas dorsally; paraprocts as in Fig. 8C. Hypandrium as in Fig. 8F, H; styli separated from hypandrium, with membranous apices (Fig. 8I); “medial triangle” nearly isosceles, teeth number varies (Fig. 8I–K).

Male genitalia (Figs. 8B, D, E, G, H, 9A–Q). Right phallomere as in Figs. 8G, *r.plm.*, 9A–D; “anterior protrusion” bifurcated, more or less robust (Fig. 9A, *a.p.*), with “chaeta-bearing sclerite” and “chaeta-bearing field” connected with it extremities (Figs. 8G, 9A, D, E, *c.b.f.*, *c.b.s.*). “Chaetae-bearing sclerite” anchor-like, bifurcated, with more or less asymmetrical extremities and fringe of bristles (Figs. 8B, G, 9A, E, *c.b.s.*). L2D long, rod-like (Fig. 8G, H), with apex variable in shape, curved, with addition small tooth and partly covered with very small denticles (Fig. 9K–M). L4V present, comparatively short, with apex slightly variable (Figs. 8H, 9N–P). L3 as in Figs. 8G, 9Q. Additionally, “elongated fringed sclerite” with 1 or 2 tufts of chaetae presents (Figs. 8B–E, G, H, 9F–H, *e.f.s.*) and two (or one in the specimen from Panama) “chaetae-bearing membranous areas” in shape of long and narrow strip (Figs. 8G, 9I, J, P, *c.b.m.a.*).

Female. Similar to male, dark element of coloration more expressed: abdominal tergites and sternites with wide lateral dark stripes (Fig. 8L, M); 3–5th abdominal sternites with wide longitudinal dark stripe; 7th (ultimate) sternite bordered with black along caudal margin (Fig. 8L). Distance between antennal sockets about 1.7 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 0.9 : 1.0 : 0.7. 7–9th abdominal tergite specialized medially; genital plate (ultimate sternite) medially incised (Fig. 8L).

Measurements (mm). Head length: male 2.4–2.7, female 2.6–2.7; head width: male 2.3–2.7, female 2.5–2.7; pronotum length: male 2.2–2.6, female 2.4–2.7; pronotum width: male 3.4–3.9, female 3.6–3.9; tegmen length: male 9.5–12, female 9.8–10.8; tegmen

width (at the point where *CuP* running into posterior margin of tegmen): male 2.5–3, female 2.5–3.

Remarks. *E. angustata* was described from Mexico, Veracruz (Latreille 1811) on the coast of Mexican Gulf. The species is reported to have a very wide range, from Mexico to Venezuela and Brazil (Princis 1969; Rocha e Silva 1984; Ramirez Perez 1993; Velez 2008). Differences in the male genitalic structures, particularly in apices of the sclerites L2D, L4V (Fig. 9K–M and Fig. 9N, O) and conformation of the “elongated fringed sclerite” (Fig. 9F–J), between specimens from different localities probably reflect an intraspecific variation. In order to elucidate this matter, it is necessary to undertake a wide-range investigation of the male genitalia across the entire species range.

***Euphyllodromia cf. angustata* (Latreille, 1811)**
(Figs. 1B, 6B, 7D, 8N)

Material examined. 1 female – COLOMBIA, Santander, Colombian Copal, ‘Young amber’ – tree resin, Pleistocene – Holocene, LL. IS961.

Specimen is deposited in the Manchester Museum, University of Manchester, Manchester, UK.

Description. Female. Similar to the female of *E. angustata*. General coloration yellowish brown (Fig. 1B); head light yellow, with vertex slightly darkened; antennae with scapus light yellow, followed by several darker segments, the rest of antennal segments brownish; maxillary palps with 1st – 3rd segments light yellow, 4th and 5th ones whitish; pattern of pronotum coloration as in Fig. 7D, blackish, lateral parts of pronotum light yellow; tegmina yellowish, blackish along veins; legs yellowish, with femora and tibia having a thin black border along the upper (exterior) margin; abdomen dirty yellowish from below, without a visible colour pattern, except for a thin black border along the caudal margin; cerci slightly darkened. Head wide (Fig. 6B); distance between eyes smaller than eye length (an exact measuring is impossible due to deformation of the include); 4th and 5th maxillary palp segments of about equal length. Pronotum as in Fig. 7D. Tegmina with Sc simple, reaching to about one third of tegmen length; R with a regular row of anterior branches (more than 10); CuA bifurcated; anal field with about 5–6 veins. Anterior margin of fore femur with 6 spines, including 2 apical ones. Genital plate (ultimate sternite) elongated, medially incised (Fig. 8N). Cerci with more than 9 visible seg-

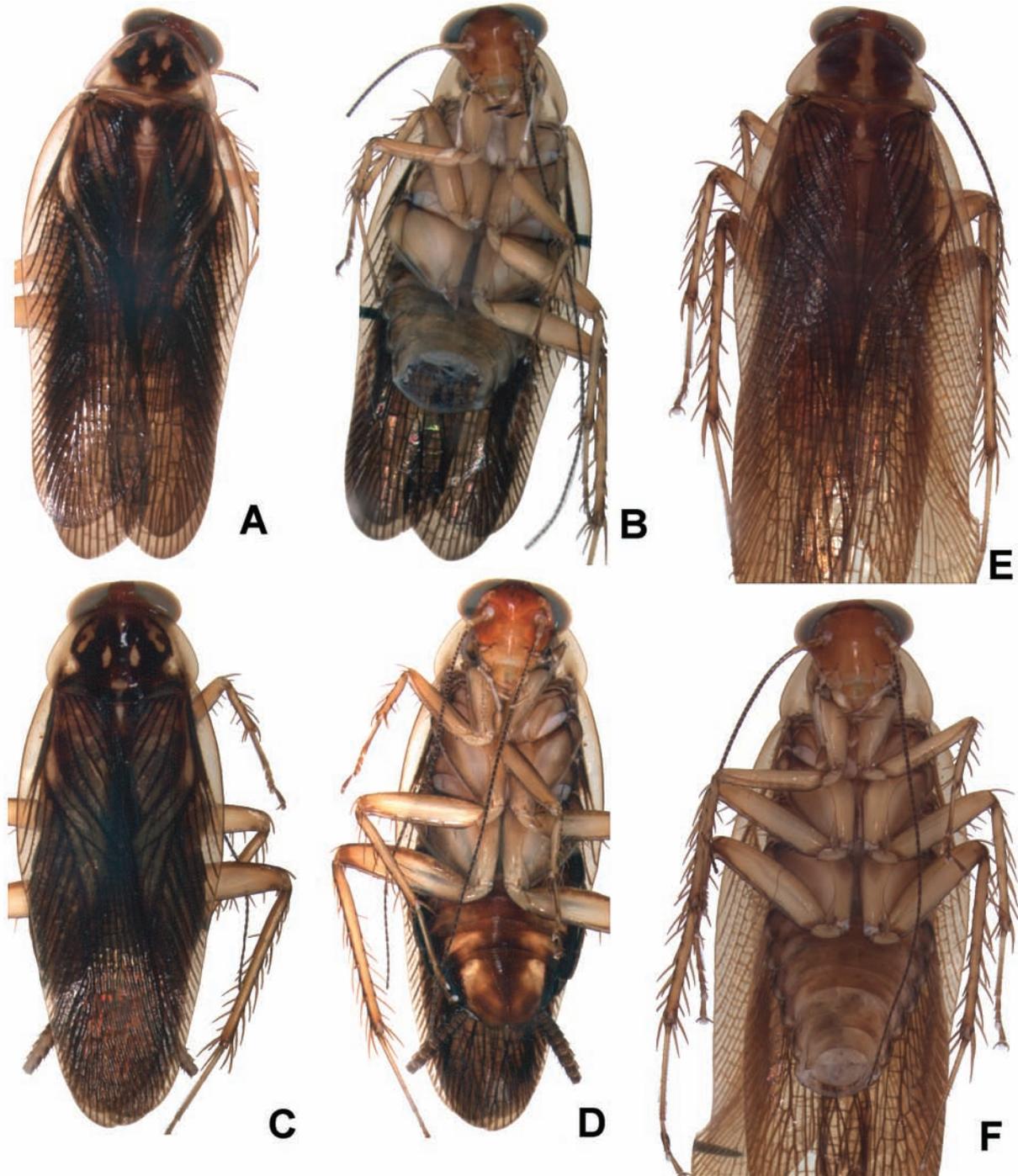


Fig. 3. *Euphyllodromia* spp.: A–D, *E. propinqua* sp. nov. [male, holotype (A, B) and female, paratype (C, D)]; E, F, *E. rasnitsymi* sp. nov. (male, holotype). General view from above (A, C, E) and below (B, D, F), abdominal apex removed (B, F).

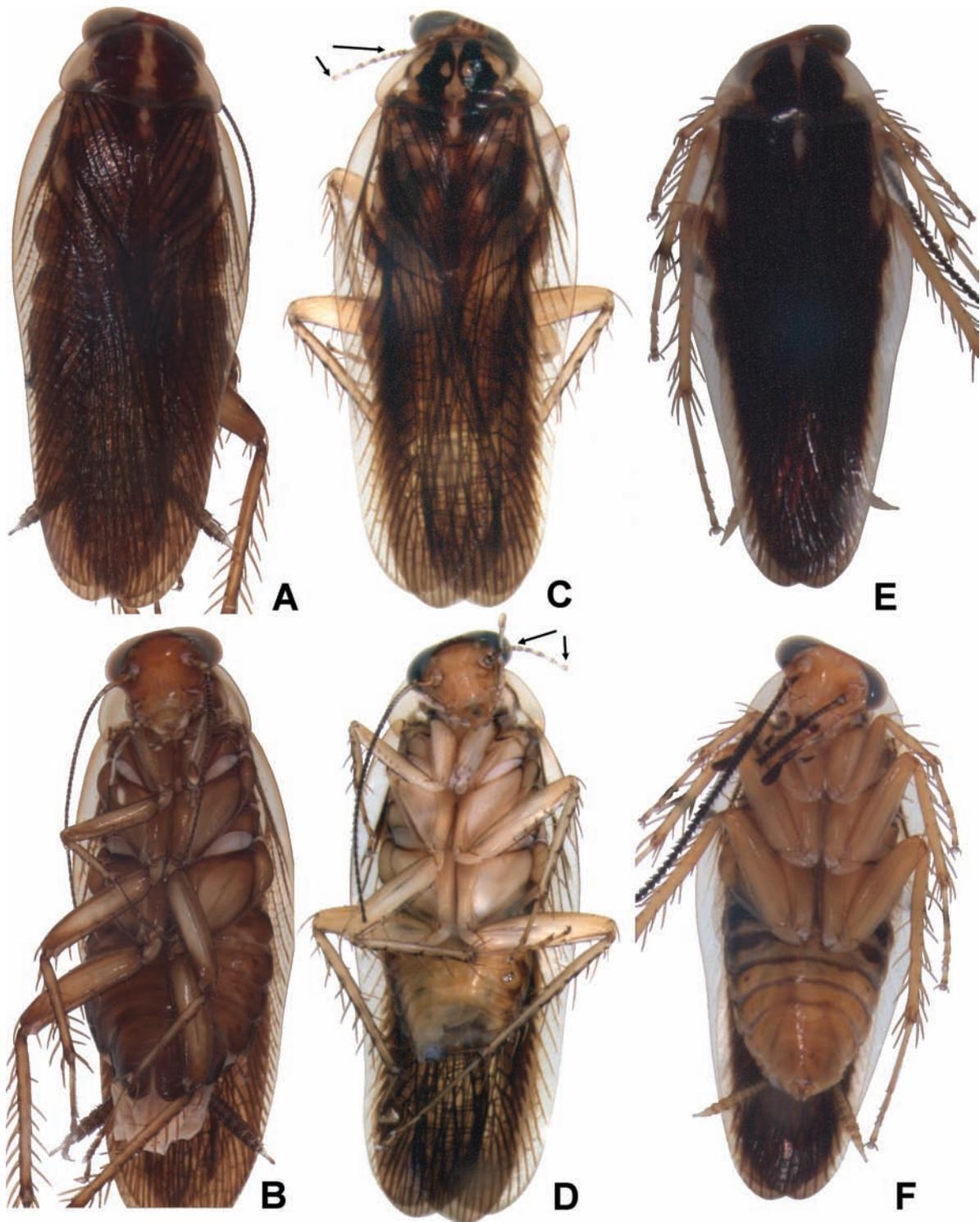


Fig. 4. *Euphyllodromia* spp.: A, B, *E. rasnitsyni* sp. nov. (female, paratype); C, D, *E. tingomariensis* sp. nov. (male, holotype); E, F, *E. nigrochlamys* (male, Rio Aguarico). General view from above (A, C, E) and below (B, D, F), abdominal apex removed (D). Arrows show abnormal antenna (see text).

ments (Fig. 8N). Anal plate completely covered with membranous everted structure (rectum or brood sac? – Fig. 8N, *e.s.*, compare with Figs. 4B and 15G).

Measurements (mm) (given approximately due to distortion of the include). Head length 2.5, head width 2.6, pronotum length 2.6, pronotum width 3.7, tegmen length 11.5, tegmen width (at the point where *CuP* is running into posterior margin of tegmen) 2.5.

Remarks. This specimen beyond doubt is closely related to the extant species, *E. angustata*, but differs from it in shape of the female genital plate (cf. Fig. 8N and Fig. 8L). An unusual character for the genus is the presence of 2 apical spines (usually 3 ones) on the anterior margin of fore femur. But the armament of legs is variable and it is impossible to take this character into consideration based on a unique specimen.

Yet, the most useful characters for species identification are now known to be those of males and descriptions based on females are as a rule insufficient. Besides, the extant fauna of Neotropical cockroaches is far from a complete inventory and the above described female could belong to an extant species. This is why we prefer to postpone a formal description of a new species based on a single female.

Euphyllodromia peruana (Saussure, 1864)

(Figs. 1C, D, 6C, 7E, 10A–T)

Material examined. 2 males – ECUADOR, prov. Sucumbíos: 80–85 km E of town Lago Agrio, vicinity of lake Lago Grande (Rio Cuyabeno), lowland forest, 2–9 November 2005, coll. A. Gorochoy, A. Ovtshinnikov; 1 female – same data, but 70 km SE of town Lago Agrio, vicinity of Vil. S.Pablo de Kantesiya on Rio Aguarico, lowland forest, 10–17 November 2005, coll. A. Gorochoy, A. Ovtshinnikov; 1 male, 1 female – prov. Morona-Santiago, bank of Rio Morona near border with Peru, vicinity of Vil. Puerto Morona, h=300 m, 5–15 January 2010, coll. A. Gorochoy. 1 female – PERU, prov. Loreto, bank of Rio Morona near its mouth, near town Puerto America, h=200 m, 20–23 January 2010, coll. A. Gorochoy.

At present, the most detailed description of this species belongs to Rocha e Silva (1956: 2–5). It can be supplemented with the following details.

Description. Male. Structure and coloration of head and pronotum as in Figs. 1C, D, 6C, 7E; distance between eyes about 0.4 times eye length; distance between antennal sockets about 1.4–1.5 times scape length; approximate length ratio of 3rd–5th

segments of maxillary palps 1.3 : 1.2 : 1. Antennae filiform, sparsely pilose. Abdominal apex as in Fig. 10A, B; anal plate (10th, ultimate tergite) transverse, well sclerotized, without membranous area (Fig. 10B); cerci with 12 segments, 7 apical ones with membranous areas dorsally. Hypandrium comparatively wide (Fig. 10C); with styli short and massive (Fig. 10C–E); “median triangle” with sparse denticles (Fig. 10C–E).

Male genitalia (Fig. 10H–T). Right phallomere as in Fig. 10H–K; “anterior protrusion” bifurcate (Fig. 10K), with “chaeta-bearing field” between its branches (Fig. 10H, I, J, L, *c.b.f.*); “chaeta-bearing sclerite” shaped as a curved rod, with fringe of bristles at one extremity (Fig. 10L, M, *c.b.s.*). Sclerite L2d long, with apex forked (Fig. 10H, N, O). Sclerite L4V absent. Sclerites L3 and L4U as in Fig. 10H, S, T. Additionally present 3 fusiform “fringed sclerites” densely covered with bristles (Fig. 10H): 1st one is located antero-ventrally (Fig. 10H, L, P, *1.f.s.*), 2nd one – ventrally (Fig. 10H, Q, *2.f.s.*) and 3rd one – postero-dorsally, further forming a folded structure (Fig. 10H, N, R, *3.f.s.*).

Female. Similar to the male, but slightly more robust. General colour darker, as compared to the male, elements of contrast colour are better expressed (Fig. 10G). Head with distance between eyes about 0.5 times of eye length; distance between antennal sockets about 1.6 times of scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1.1 : 1 : 1. Anal plate with a wide median incision on its caudal margin (Fig. 10F). Genital plate as in Fig. 10G.

Variations. Specimens from Rio Cuyabeno are darker, as compared to those from Rio Morona, with the facial part of head being brownish and light macula between eyes being weak. The shape of styli varies (cf. Fig. 10D and Fig. 10E).

Measurements (mm). Head length: male 2.7–2.9, female 2.8–3; head width: male 2.7–2.9, female 2.8–3; pronotum length: male 2.6–2.7, female 2.7; pronotum width: male 3.6–3.8, female 3.7–4.1; tegmen length: male 11, female 11.5; tegmen width (at the point where *CuP* is running into posterior margin of tegmen): male 2.6–2.9, female 2.8–3.

Euphyllodromia albomaculata (Shelford, 1909)

(Figs. 1E, F, 6D, 7F, 11A–L)

Material examined. 1 male – PERU, prov. Loreto, bank of Rio Morona near its mouth and near

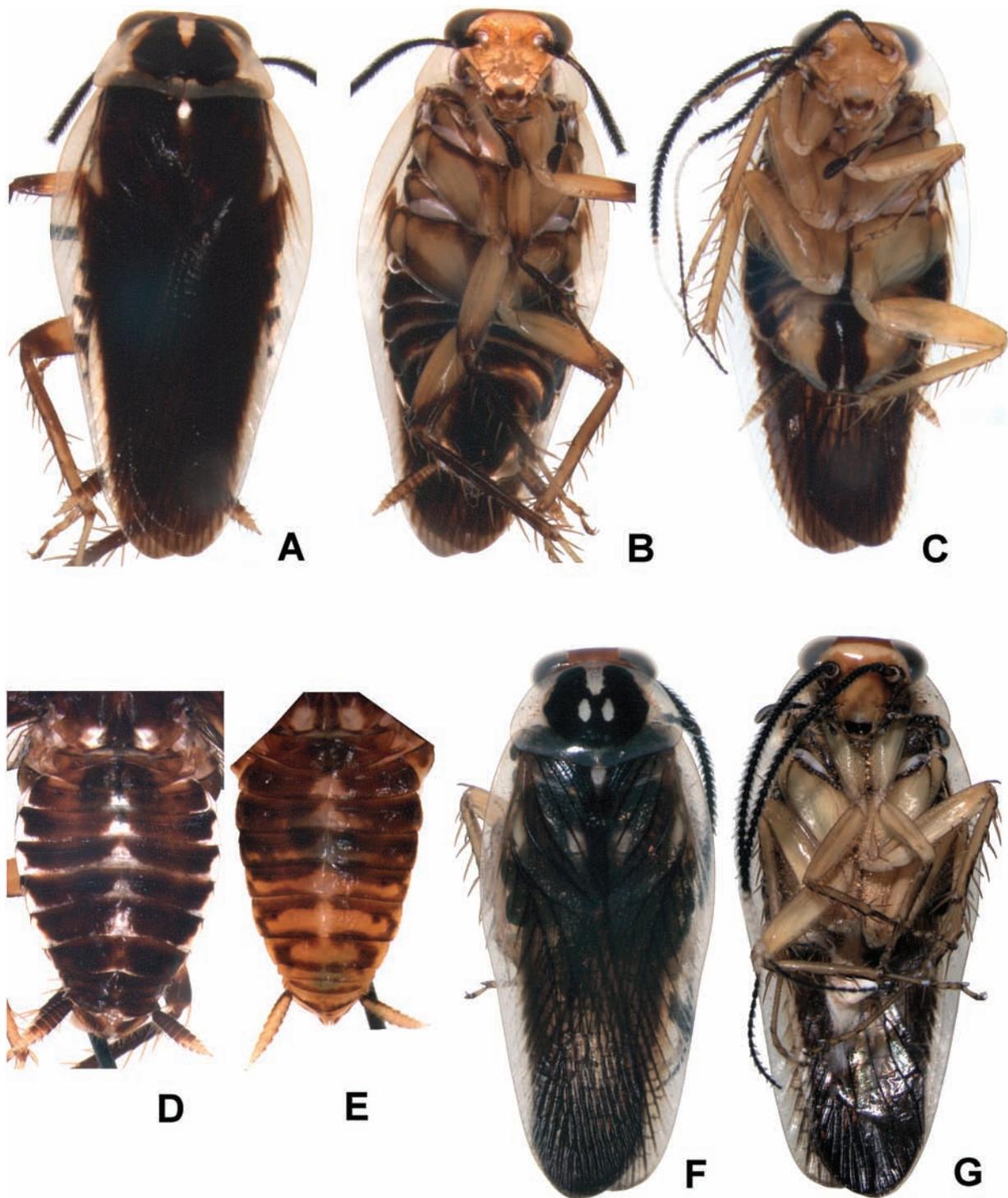


Fig. 5. *Euphyllodromia* spp.: A–E, *E. nigrochlamys* (male (E) and females: dark (A, B, D) and light (C) forms, Rio Aguarico); F, G, *E. boliviensis* (male). General view from above (A, F) and below (B, C, G), abdomen removed (G); abdomen from above (D, E).

town Puerto America, ~200 m, 20–23 January 2010, coll. A. Gorochov.

Description. Male. General coloration as in Fig. 1E, F. Head wide (Fig. 6D); distance between eyes about 0.75 times eye length; distance between antennal sockets about twice longer than scapus length; approximate length ratio of 3rd–5th segments of maxillary palps 1.4 : 1.4 : 1. Antennae filiform, sparsely pilose. Pronotum as in Fig. 7F. Abdominal apex and anal plate (10th, ultimate tergite) as in Fig. 11A, B; anal plate with central part and small area at middle of caudal margin membranous. Hypandrium as in Fig. 11C, D, with styli comparatively wide; “median triangle” with apex tapered, denticles sparse, located at apex (Fig. 11D).

Male genitalia (Fig. 11E–L). Right phallomere as in Fig. 11F, G; anterior protrusion bifurcate, “chaeta-bearing field” small (Fig. 11G, *c.b.f.*); “chaeta-bearing sclerite” absent. Sclerite L2d long, strongly incrassated proximally (Fig. 11E); apex tapered, associated with 2 sclerotized plates: subrectangular dorsal plate (Fig. 11E, H, I, *d.p.*), covered with tubercles, and elongated ventral plate (Fig. 11E, H, I, *v.p.*). Sclerite L4V with detached brush-like apex (Fig. 11H). Sclerite L3 as in Fig. 11E, L. Additionally present “elongated fringed sclerite” (Fig. 11E, H, K, *e.f.s.*) and 2 “fringed sclerites” densely covered with bristles (Fig. 11E, H, J, *f.s.*).

Measurements (mm). Head length 2.2, head width 2.9, pronotum length 2.7, pronotum width 3.6, tegmen length 9, tegmen width (at the point where *CuP* is running into posterior margin of tegmen) 2.5.

Remarks. This species was originally described in the genus *Pseudophyllodromia* Brunner von Wattenwyl, 1865 from Peru, Callanga (Shelford 1909). Later, it was also mentioned from Brazil, Amazonas (Rocha e Silva 1984). *E. travassosi* was described from Brazil, Amazonas (Rocha e Silva 1956), and was later synonymized with *E. albomaculata* by Rocha e Silva (1984).

It should be noted that there are some differences in the published descriptions and the one given above. The pattern of pronotum [cf. Fig. 7F and Fig. 9 in Rocha e Silva 1956 (under *E. travassosi*) and Figs. 4, 32 in Rocha e Silva 1984] and coloration of the facial part of head [cf. Fig. 6D and Fig. 7 in Rocha e Silva 1956] are somewhat different. The caudal margin of anal plate is emarginated (Fig. 45 in Rocha e Silva 1984) or entire (Fig. 11 in Rocha e Silva 1956 and Fig. 11B of present paper). The shape of styli also

varies (compare Fig. 11C, D and Figs. 57, 71 in Rocha e Silva 1984). These differences seem to reflect an intraspecific variation, however only a further investigation can resolve this matter.

***Euphyllodromia venezuelica* Princis, 1951**
(Figs. 2A, B, 6E, 7G, 11M–Z)

Material examined. 1 male – ECUADOR, Sucumbíos Prov., 70 km SE of town Lago Agrio, vicinity of Vil. S. Pablo de Kantesiya on Rio Aguarico, lowland forest, 10–17 November 2005, coll. A. Gorochov, A. Ovtshinnikov.

Description. Male. General coloration as in Fig. 2A, B. Head wide (Fig. 6E); distance between eyes about 0.5 times eye length; distance between antennal sockets about 1.5 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1.1 : 1 : 1. Antennae filiform, sparsely pilose. Pronotum as in Fig. 7G. Abdominal apex as in Fig. 11M; anal plate (10th, ultimate tergite) with membranous longitudinal strip. Left paraproct with a denticle directed downward (Fig. 11N, O). Hypandrium as in Fig. 11P–R; styli and “median triangle” (Fig. 11P–R) somewhat similar to *E. albomaculata*.

Male genitalia (Fig. 11R–Z). Right phallomere as in Fig. 11R–U; “anterior protrusion” not divided, enlarged (Fig. 11U); with small “chaeta-bearing field” and “chaeta-bearing sclerite” (Fig. 11R–T, *c.b.f.*, *c.b.s.*). Sclerite L2d long, incrassated proximally (Fig. 11R), with plate-shaped apex bordered with chaetae of different length (Fig. 11R, V, W). L4V absent. L3 and L4U as in Fig. 11R, Z. There are two additional, complicated “knot-like structures”: left one with dorsal long caudally directed spine and ventral lobe densely covered with small spines and bristles (Fig. 11R, X, *k.s.*); right one consist of membranous “chaeta-bearing fields” (Fig. 11R, Y, *k.s.*).

Measurements (mm). Head length 2.3, head width 2.7, pronotum length 2.6, pronotum width 3.4, tegmen length 10, tegmen width (at the point where *CuP* is running into posterior margin of tegmen) 3.

Remarks. This species was described on the basis of female from Venezuela, Puerto Cabello (Princis 1951); however, Rocha e Silva (1984: 83) mentioned male as its holotype. Puerto Cabello is a city situated in the north coast of Venezuela. The finding of *E. venezuelica* from Ecuador is unexpected. The studied specimen corresponds to the original description of *E. venezuelica*. Taking into consideration its insufficient

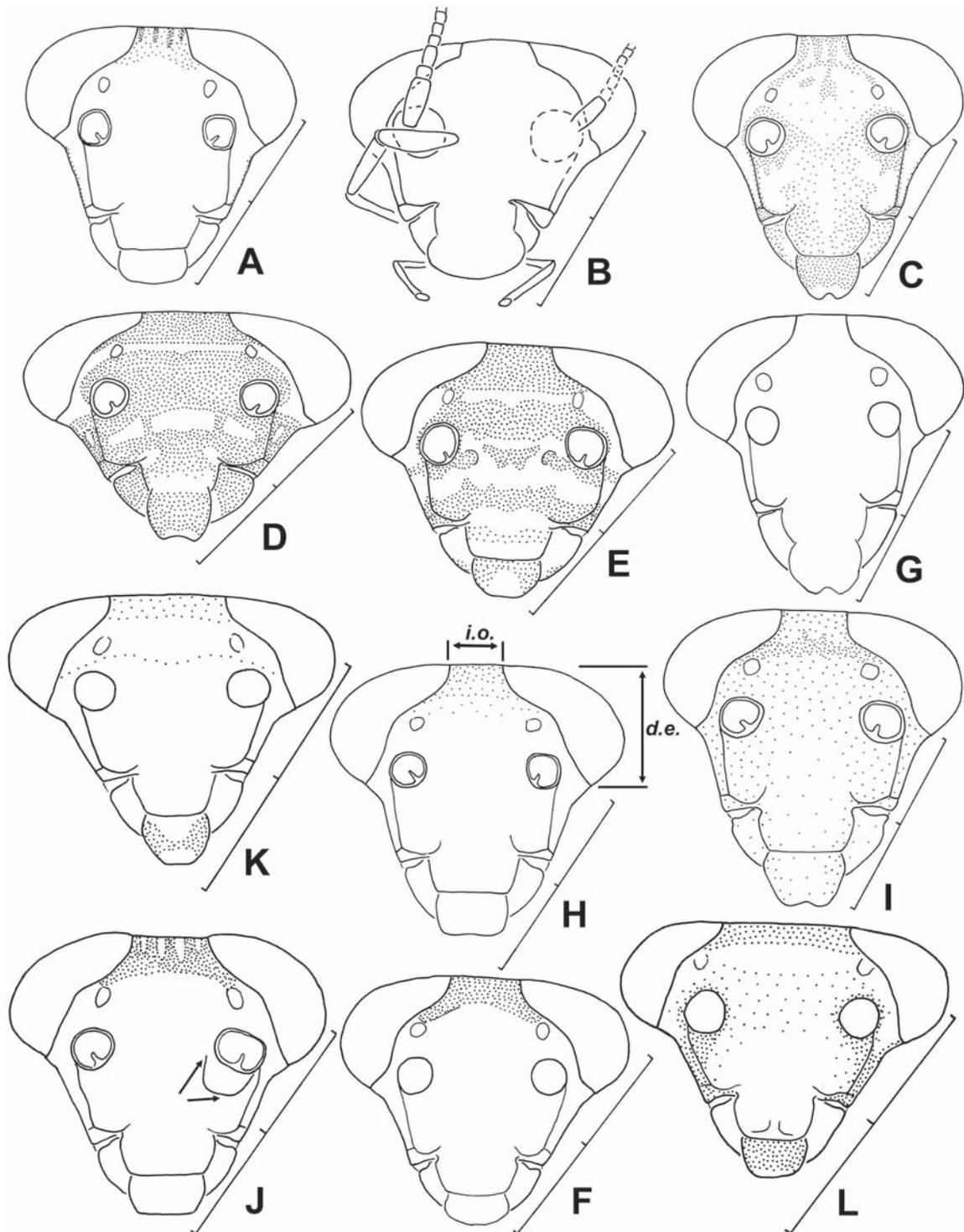


Fig. 6. *Euphyllodromia* spp., facial part of head (males (A, C–L) and female (B): A, *E. angustata* (El Triunfo); B, *E. cf. angustata* (Colombian Copal); C, *E. peruana*; D, *E. albomaculata*; E, *E. venezuelica*; F, *E. hystrix*; G, *E. erytromelas*; H, *E. propinqua* sp. nov. (holotype); I, *E. rasnitsyni* sp. nov. (holotype); J, *E. tingomariensis* sp. nov. (holotype); K, *E. nigrochlamys*; L, *E. boliviensis*.

Abbreviations: d.e., i.o. – see text. Arrows show damage of head. Dotted area shows dark colour. Scale bar 2 mm.

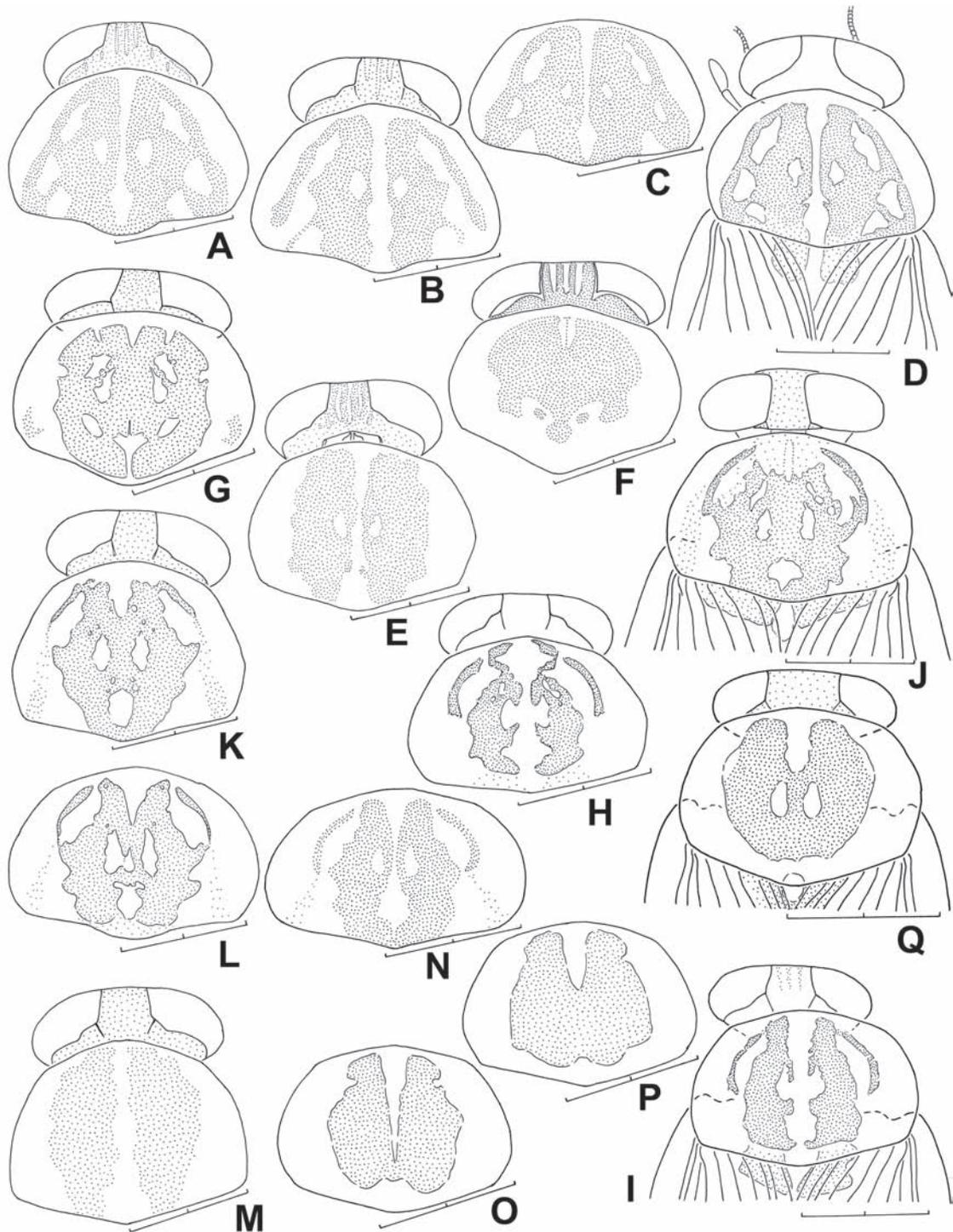


Fig. 7. *Euphyllodromia* spp., pronotum and head (A, B, E–H, K, M); pronotum (C, L, N–P); anterior part of body (D, I, J, Q) from above (males (A–C, E–Q) and female (D): A–C, *E. angustata* (A – El Triunfo, B – El Ocote, C – Palenque); D, *E. cf. angustata* (Colombian Copal); E, *E. peruana*; F, *E. albomaculata*; G, *E. venezuelica*; H, I, *E. hystrix* (H – Rio Cuyabeno, I – Rio Venado); J, *E. erytromelas*; K, L, *E. propinqua* sp. nov. (K – holotype, pronotum slightly compressed laterally, L – paratype, Rio Cuyabeno); M, *E. rasnitsyni* sp. nov. (holotype); N, *E. tingomariensis* sp. nov. (holotype); O, P, *E. nigrochlamys*; Q, *E. boliviensis*. Dotted area shows dark colour. Scale bar 2 mm.

description (e.g., the structures of the male genitalia and genital complex have remained undescribed until now), the current identification is to be confirmed upon reference to specimens collected from the type locality.

***Euphyllodromia hystrix* (Saussure, 1869)**

(Figs. 2C, D, 6F, 7H, I, 12A–T)

Material examined. 1 male – ECUADOR, prov. Sucumbíos, 80–85 km E of town Lago Agrio, vicinity of Lake Lago Grande (Rio Cuyabeno), lowland forest, 2–9 November 2005, coll. A. Gorochoy, A. Ovtshinnikov. 2 males, 1 female – PERU, department Junin, prov. Satipo, ~25 km SE of town Satipo, near Vil. Rio Venado, ~1200 m, forest, 20–23 October 2008, coll. A. Gorochoy, L. Anisyutkin, M. Berezin, E. Tkatsheva, V. Izersky.

Description. Male. General coloration as in Fig. 2C, D; head yellowish, vertex (above ocular spots) brown (Fig. 6F); antennae yellowish proximally (scapus and about 8–9 proximal segments), brown distally; maxillary palps with 1st and 2nd segments yellowish, 3rd–5th segments pale, with brown spots; pronotum colour as in Fig. 7H, I; tegmina yellowish and translucent, blackish along veins; legs yellowish, weakly darkened along upper (exterior) margins of femora and tibiae; abdomen yellow; anal plate at caudal margin and cerci, partly, slightly darkened. Head transverse (Fig. 6F); distance between eyes about 0.5–0.6 times eye length; distance between antennal sockets about 1.3–1.6 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1: 1: 0.8. Antennae not incrassate, sparsely pilose. Pronotum as in Fig. 7H, I. 7th abdominal tergite with medial tuft of bristles, without membranous area (Fig. 12A); 8th abdominal tergite completely sclerotized (Fig. 12A). Anal plate with paired lateral inflations at caudal margin (Fig. 12A, *l.i.*); cerci long, with 12 segments, membranous areas on 6 apical segments rather weakly marked. Hypandrium as in Fig. 12C, D; styli wide, left stylus fused with hypandrium (Fig. 12D, E); medial triangle wide (Fig. 12D, E).

Male genitalia (Fig. 12A, C, H–T). Right phallosome as in Fig. 12H, I, J; “anterior protrusion” bifurcated; “chaeta-bearing sclerite” large and lamellate, bordered with fringe of bristles (Fig. 12H, K, N, *c.b.s.*); “chaeta-bearing field” small, located at apex of “chaeta-bearing sclerite” (Fig. 12K, *c.b.f.*) (in one specimen, “chaeta-bearing field” is absent). L2D long

(Fig. 12H), apex bulge-like, with dorsally directed spine (Fig. 12H, O, P). L4V comparatively short, with narrow apex (Fig. 12H, L, M). L3 and L4U as in Fig. 12H, T. Additionally present “elongated fringed sclerite” (Fig. 12H, K, Q, R, *e.f.s.*) and intricate curved “chaetae-bearing membranous area” located near L3 (Fig. 12H, S, *c.b.m.a.*).

Female. Similar to the male, but darker: upper (exterior) margins of femora and tibiae, tarsi darkened; abdominal sternites laterally and genital plate medially brown. 7th abdominal tergite and anal plate caudally widely incised (Fig. 12F); genital plate as in Fig. 12G.

Measurements (mm). Head length: male 2.3–2.4, female 2.3; head width: male 2.4–2.5, female 2.6; pronotum length: male 2.3–2.4, female 2.5; pronotum width: male 3.6–3.7, female 3.9; tegmen length: male 9.8–11.8, female 10.7; tegmen width (at the point where *CuP* is running into posterior margin of tegmen): male 2.7–2.8, female 2.8.

Remarks. This species was originally described in the genus *Pseudophyllodromia* from Venezuela (Saussure 1869), and later also reported from Venezuela, Colombia, Ecuador, Peru and Costa Rica (Princis 1969; Rocha e Silva 1984).

***Euphyllodromia erytromelas* Rehn, 1932**

(Figs. 2E, F, 6G, 7J, 13A–U, 16P, Q)

Material examined. 1 male – ECUADOR, prov. Sucumbíos, 80–85 km E of town Lago Agrio, vicinity of Lake Lago Grande (Rio Cuyabeno), lowland forest, 2–9 November 2005, coll. A. Gorochoy, A. Ovtshinnikov; 7 males, 5 females – same data, but 70 km SE of town Lago Agrio, vicinity of Vil. S. Pablo de Kantesiya on Rio Aguarico, lowland forest, 10–17 November 2005, coll. A. Gorochoy, A. Ovtshinnikov. 1 male – PERU, department Ucayali, prov. Atalaya, ~35 km NWW of town Atalaya on river Ucayali, near Vil. Sapani, ~300m, forest, 26–31 October 2008, coll. A. Gorochoy, L. Anisyutkin, M. Berezin, E. Tkatsheva, V. Izersky.

A detailed original description (see Rehn 1932: 32–37) can be supplemented with the following details.

Description. Male. General coloration as in Fig. 2E, F. Head more or less uniformly reddish brown, vertex sometimes darkened, occiput sometimes with weak striation from above; maxillary palps with 3rd and 4th segments partly pale, other segments yellowish. Head elongated (Fig. 6G), with distance

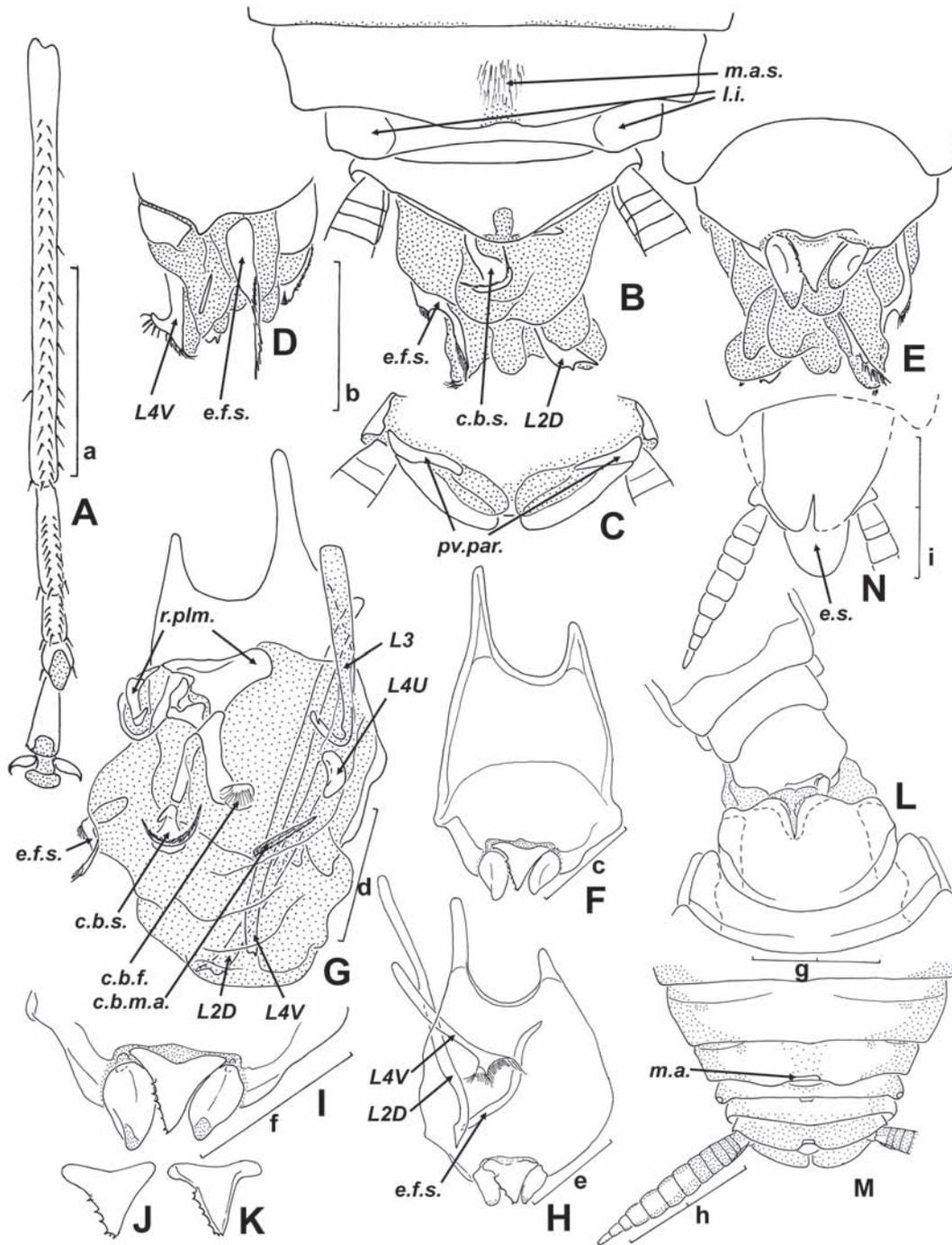


Fig. 8. *Euphyllodromia angustata*, (A–K – males, L – male and female, in copula, M – female), (A–G, J, L, M – El Triunfo, H – El Ocote, K – Palenque) and *E. cf. angustata*, female (N): A, left hind tarsus from below; B–E, M, N, abdominal apex from above (B, M), below (C, E, L, N) (C – hypandrium and genitalia removed, L – in copula), and from left (D), genitalia partly everted; F, H, hypandrium from below (H – shown as transparent, with some genital sclerites shown); G, genitalia and hypandrium from above (anal plate and paraprocts removed, genitalia partly everted); I, caudal margin of hypandrium from below; J, K, “median triangles” from below.

Abbreviations: c.b.f., c.b.m.a., c.b.s., e.f.s., e.s., L2D, L3, L4U, L4V, l.i., m.a., m.a.s., pv.par., r.plm. – see text. Dotted area shows membranous parts (A–I, L) or dark colour (M). Scale bar (1 mm = a–f; 2 mm = g–i): a = A; b = B–E; c = F; d = G; e = H; f = I–K; g = L; h = M; i = N.

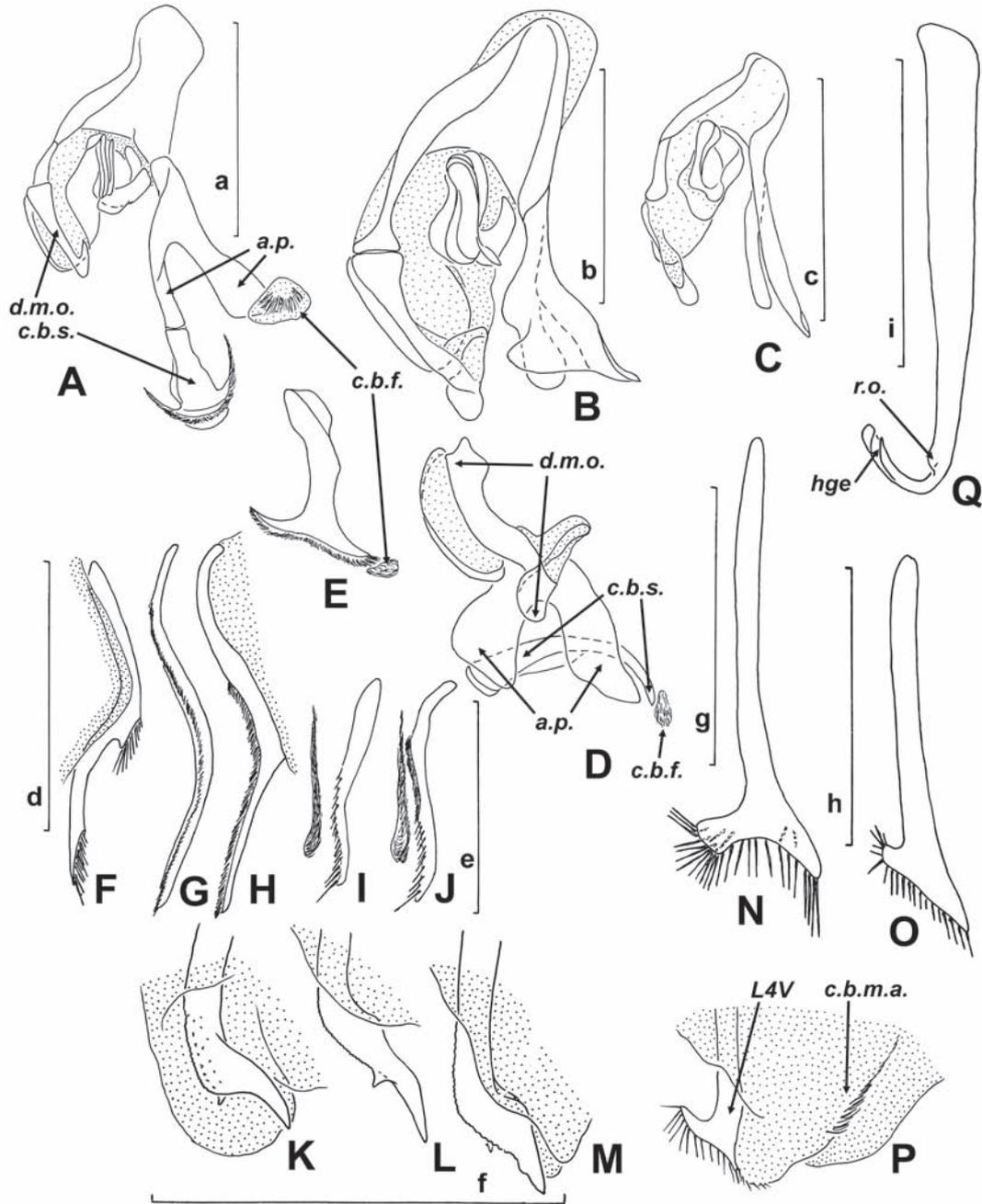


Fig. 9. *Euphyllodromia angustata*, male genitalia (A, F, K, P, Q – El Triunfo, B, D, E, G, H, M, N – El Ocote, C, I, J, L, O – Panama): A, right phallomere, “chaeta bearing sclerite” and “chaeta-bearing field” from above; B, C, right phallomere from above; D, “dorso-medial outgrowth” and “anterior protrusion” of right phallomere, “chaeta-bearing sclerite” and “chaeta-bearing field” from caudal; E, “chaeta bearing sclerite” and “chaeta-bearing field” from above; F–H, “elongated fringed sclerite” (F – from below, G – from side, H – from above); I, J, “elongated fringed sclerite” and adjacent “chaetae-bearing membranous area” from below (I), from side (J); K–M, apex of sclerite L2D from above; N, O, sclerite L4V from below; P, apex of sclerite L4V and “chaetae-bearing membranous area” from side; Q, hook hla.

Abbreviations: a.p., c.b.f., c.b.m.a., c.b.s., d.m.o., hge, L4V, r.o. – see text. Dotted area shows membranous parts. Scale bar (1 mm): a = A; b = B, D, E; c = C; d = F–H; e = I, J; f = K–M; g = N, P; h = O; i = Q.

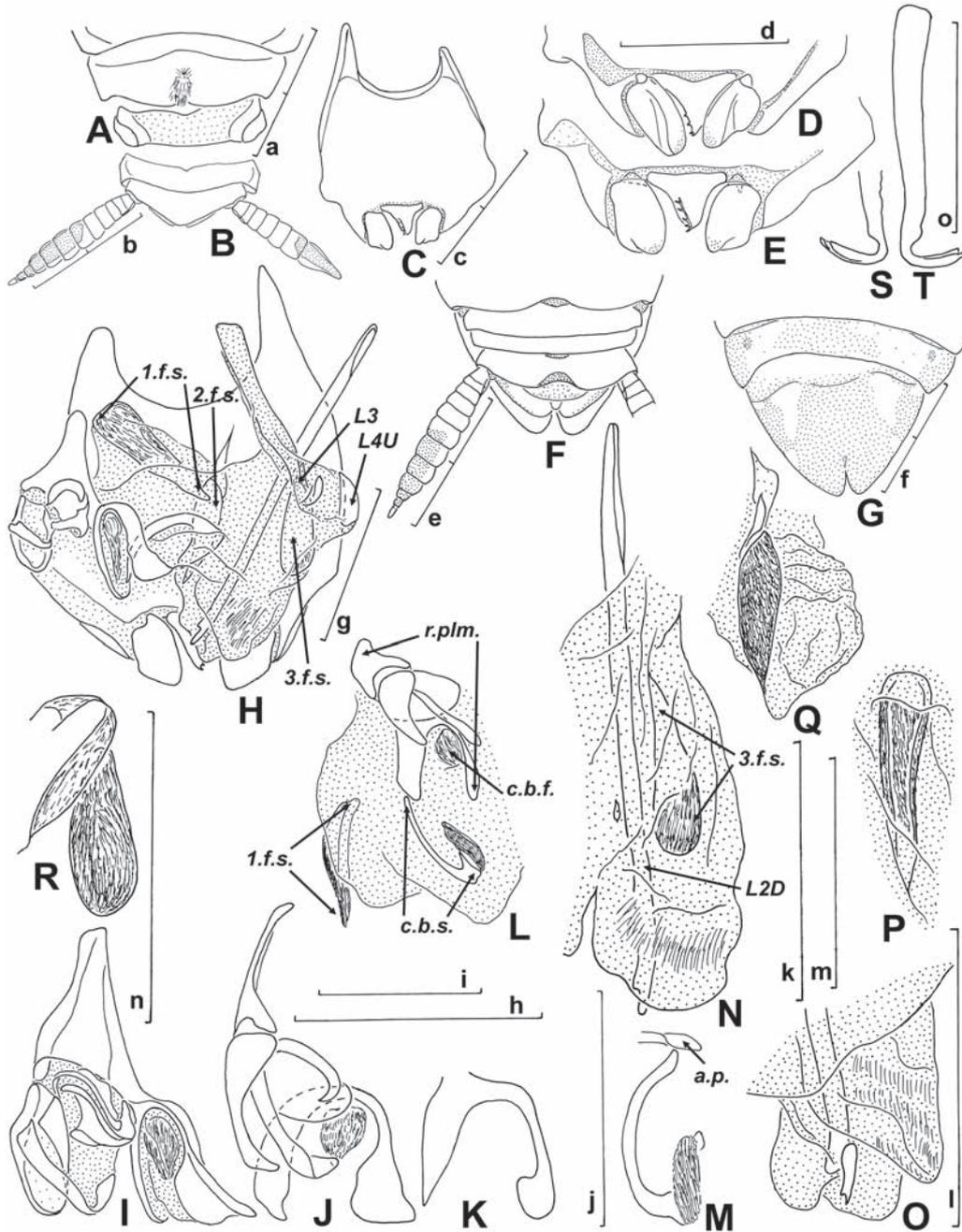


Fig. 10. *Euphyllodromia peruana* (A–E, H–T – males, F, G – female), (A, C, D, G–K, M–Q, S, T – Morona, B, E, F, L, R – Rio Cuyabeno): A, 8th and 7th abdominal tergites from above; B, F, G, abdominal apex from above (B, F) and below (G); C, hypandrium from below; D, E, caudal margin of hypandrium from below; H, genitalia and hypandrium from above (anal plate and paraprocts removed); I, J, right phallomere from above (I), from side (J); K, “anterior protrusion” of right phallomere from side; L, right phallomere, “chaeta-bearing field”, “chaeta-bearing sclerite” and 1st “fringed sclerite” from above in protruded station; M, “chaeta-bearing sclerite” from above; N, sclerite L2D and adjacent structures; O, apex of sclerite L2D from above; P–R, “fringed sclerites” (P – 1st, Q – 2nd, R – 3rd ones); S, T, hook hla. *Abbreviations:* 1.f.s., 2.f.s., 3.f.s., a.p., c.b.f., c.b.s., L2D, L3, L4U, r.plm. – see text. Dotted area shows membranous parts (A–F, H, I, L, N–Q) or dark colour (G). Scale bar (2 mm = a–c, e, f; 1 mm = d, g–o): a = A; b = B; c = C; d = D, E; e = F; f = G; g = H; h = I–K; i = L; j = M; k = N; l = O; m = P; n = R; o = S, T.

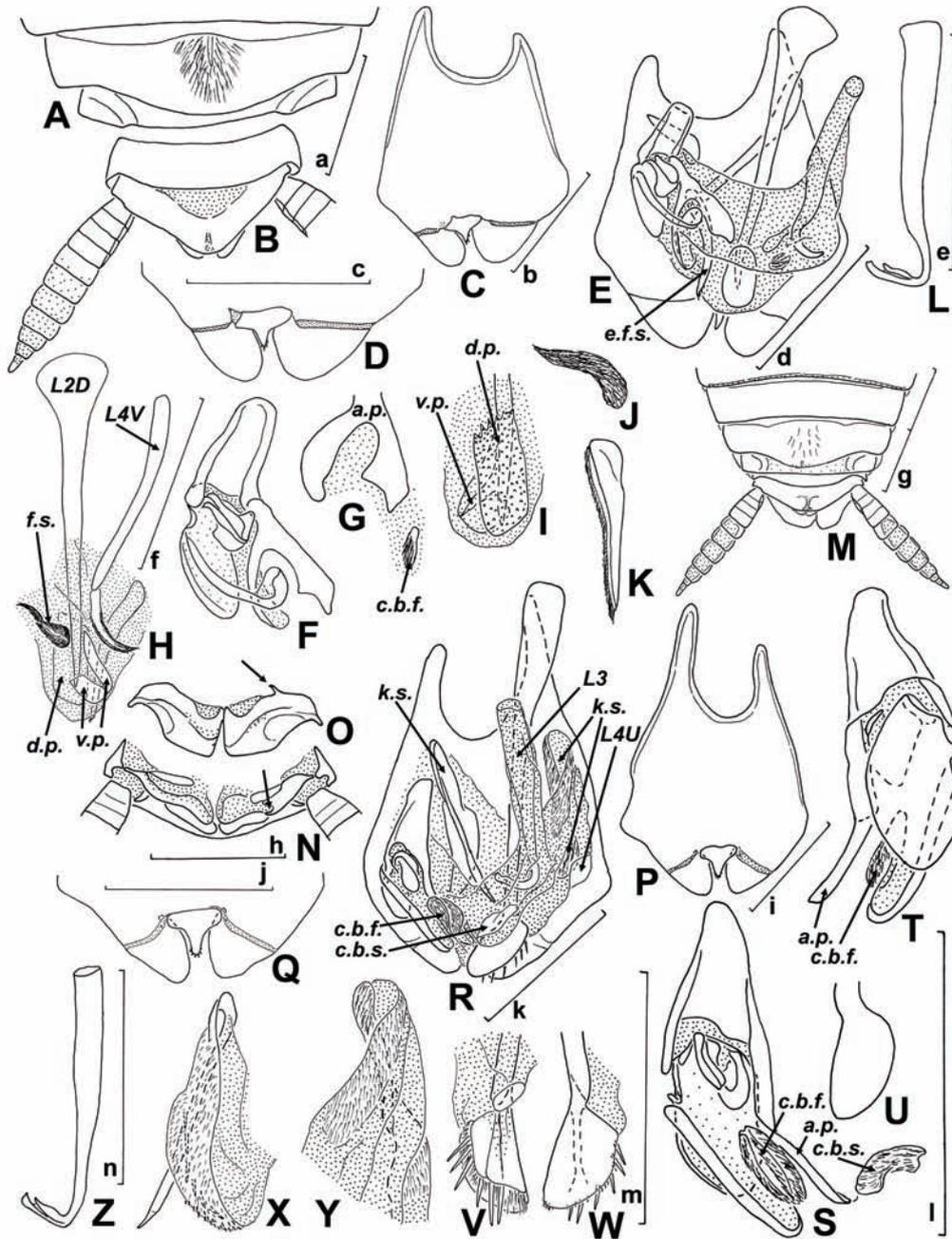


Fig. 11. *Euphyllodromia albomaculata* (A–L) and *E. venezuelica* (M–Z), males: A, 8th and 7th abdominal tergites from above; B, M, N, abdominal apex from above (B, M), below, hypandrium and genitalia removed (N); C, P, hypandrium from below; D, Q, caudal margin of hypandrium from below; E, R, genitalia and hypandrium from above (anal plate and paraprocts removed); F, T, right phallomere from above (F) and below (T); G, “anterior protrusion” of right phallomere and “chaeta-bearing field”; H, sclerites L2D and adjacent structures from below; I, V, W, apex of sclerite L2D from above (I, W) and below (V); J, “fringed sclerites”; K, “elongated fringed sclerite”; L, Z, hook hla; O, paraprocts from caudal; S, right phallomere, “chaeta-bearing field” and “chaeta-bearing sclerite” from above; U, anterior protrusion of right phallomere; X, Y, “knot-like structures”: left structure from below (X), right structure from above (Y). Arrows show denticle of right paraproct.

Abbreviations: a.p., c.b.f., c.b.s., d.p., e.f.s., f.s., k.s., L2D, L3, L4V, v.p. – see text. Dotted area shows membranous parts. Scale bar (1 mm = a–f, h–n; 2 mm = g): a = A, B; b = C; c = D; d = E; e = F, G, I–L; f = H; g = M; h = N, O; i = P; j = Q; k = R; l = S–U; m = V, W, Y; n = X, Z.

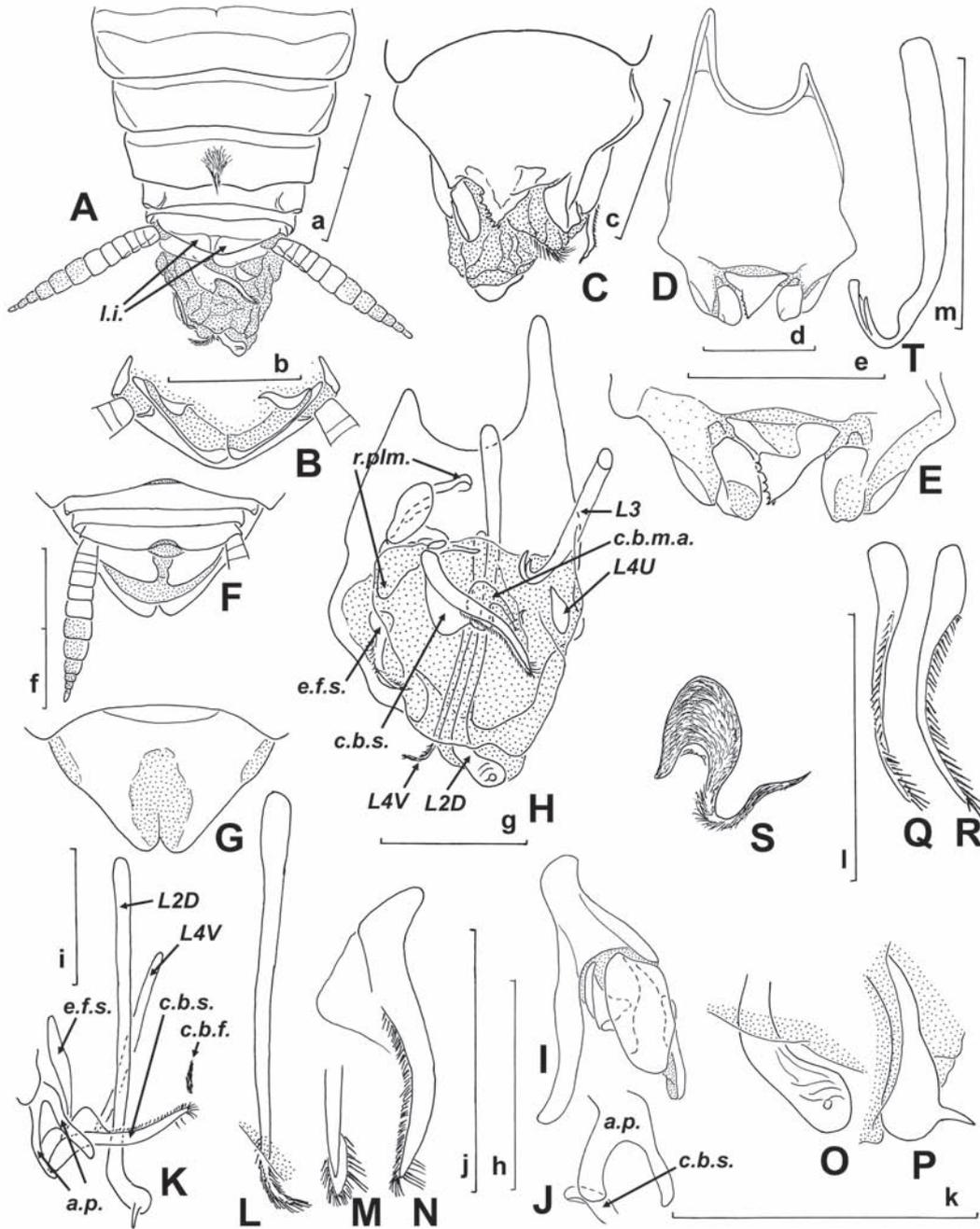


Fig. 12. *Euphyllodromia hystrix*, male (A–E, H–T) and female (F, G): A–C, E, abdominal apex from above (A, F), below (C), hyandrium and genitalia removed (B); D, hyandrium from below; E, caudal margin of hyandrium from below; G, anal plate from below; H, genitalia and hyandrium from above (anal plate and paraprocts removed); I, right phallomere from below; J, “anterior protrusion” of right phallomere; K, sclerites L2D and adjacent structures from above; L, M, sclerite L4V; N, “chaeta-bearing sclerite” from above; O, P, apex of sclerite L2D from above (O) and side (P); Q, R, “elongated fringed sclerite”; S, “chaetae-bearing membranous area”; T, hook hla.

Abbreviations: *c.b.m.a.*, *c.b.f.*, *c.b.s.*, *e.f.s.*, *L2D*, *L3*, *L4U*, *L4V*, *l.i.* – see text. Dotted area shows membranous parts (A–F, H, I, L, O, P) or dark colour (G). Scale bar (2 mm = a, f; 1 mm = b–e, g–m): a = A; b = B; c = C; d = D; e = E; f = F, G; g = H; h = I, J; i = K; j = L–N; k = O, P; l = Q–S; m = T.

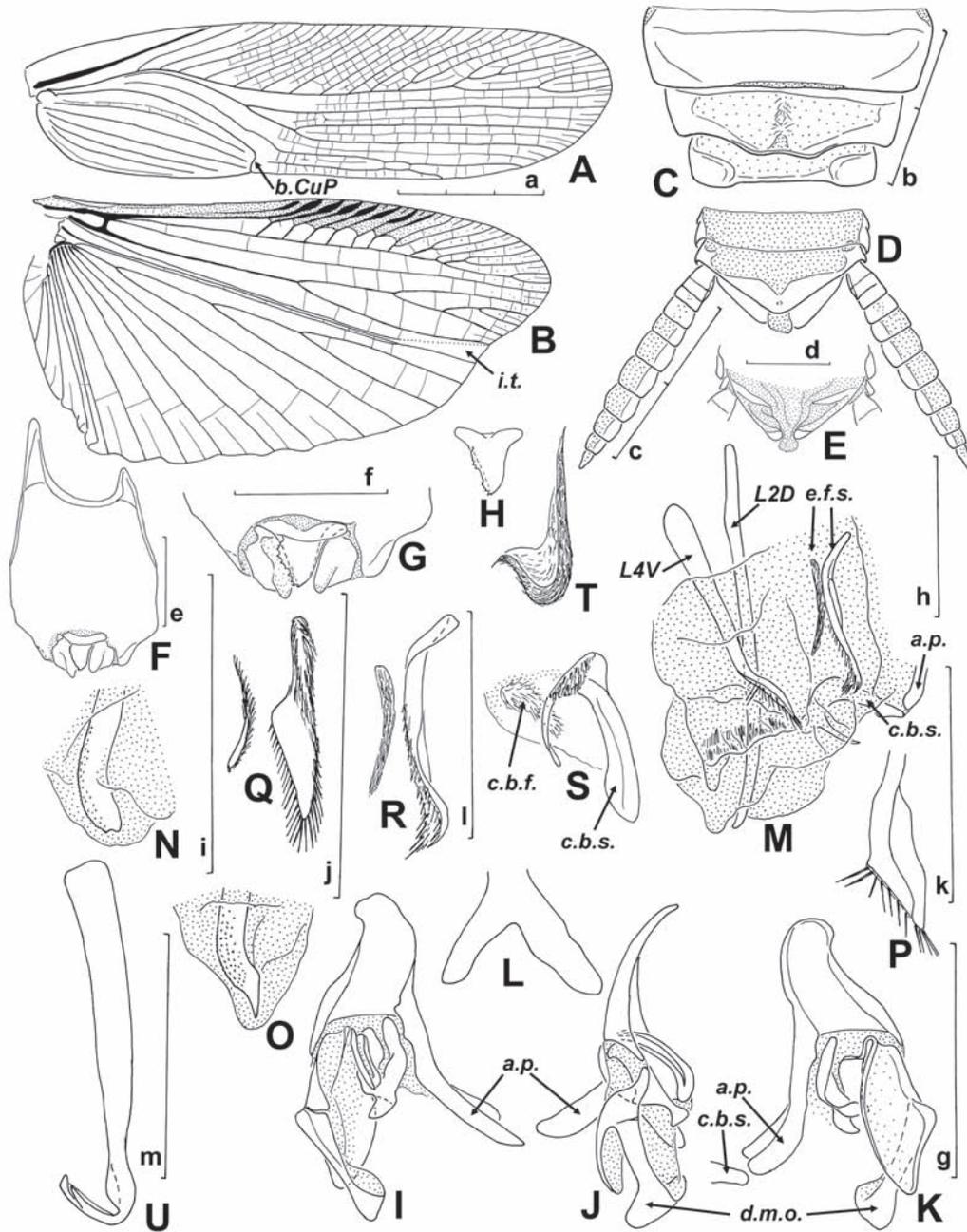


Fig. 13. *Euphyllodromia erytromelas*, male: tegmen (A) and wing (B) from above; C, 6th–8th abdominal tergites from above; D, E, abdominal apex from above (D), below, hypandrium and genitalia removed (E); F, hypandrium from below; G, caudal margin of hypandrium from below; H, “median triangle” from below; I–K, right phallomere from above (I), side (J), below (K); L, anterior protrusion of right phallomere; M, sclerites L2D and adjacent structures from below; N, O, apex of sclerite L2D from above; P, apex of sclerite L4V from below; Q, R, “elongated fringed sclerites” from below; S, “chaeta-bearing sclerite” and “chaeta-bearing field” from below; T, “chaetae-bearing membranous area” from below, U, hook hla.

Abbreviations: a.p., b.CuP, c.b.f., c.b.s., d.m.o., e.f.s., i.t., L2D, L4V – see text. Dotted area shows membranous parts (C–G, I–K, M–O, S) or dark colour (B). Scale bar (3 mm = a; 2 mm = b, c; 1 mm = d–m): a = A, B; b = C; c = D; d = E; e = F; f = G, H; g = I–L; h = M; i = N; j = O, Q; k = P; l = R–T; m = U.

between eyes about 0.4 times eye length; distance between antennal sockets about 1.3–1.5 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1 : 1 : 0.7–0.8. Antennae filiform, sparsely pilose. Pronotum as in Fig. 7J. Abdominal apex (Fig. 13C–E): 7th tergite with medial setal brush, caudal margin sinuate (in specimen from Sapani medial part of tergite weakly sclerotized – Fig. 13C); medial part of 8th tergite (between lateral inflations) weakly sclerotized in specimens from Cuyabeno and Sapani (Fig. 13C); 9th tergite mostly membranous (Fig. 13D). Anal plate as in Fig. 13D, with membranous proximal part. Hypandrium as in Fig. 13F, G; styli slightly asymmetrical; “median triangle” as in Fig. 13F–H.

Male genitalia (Fig. 13I–U). Right phallomere as in Fig. 13I–L; “anterior protrusion” bifurcated; “chaeta-bearing sclerite” hook-like, with setal brush (Fig. 13S, *c.b.s.*); “chaeta-bearing field” present (Fig. 13S, *c.b.f.*). L2D long, rod-like (Fig. 13M); apex curved, partly covered with very small denticles, apical spine more or less marked (Fig. N, O). L4V basally incrassated, apex of characteristic shape (Fig. 13M, P). L3 as in Fig. 13U. There are 2 additional, “elongated fringed sclerites” [the larger one is of variable shape, the smaller one is strongly elongated] located under right phallomere (Fig. 13M, Q, R, *e.f.s.*) and large curved “chaetae-bearing membranous area” located near L3 (Fig. 13T).

Female. Similar to the male, but general colour darker and elements of the contrast colour are better marked. Head with distance between antennal sockets about 1.6–1.8 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1 : 1 : 0.8–1. 7th tergite and anal plate with wide median incisions on caudal margin (Fig. 16P). Genital plate as in Fig. 16Q.

Measurements (mm). Head length: male 2.7–2.8, female 2.7–2.9; head width: male 2.7–2.8, female 2.8–2.9; pronotum length: male 2.5–2.7, female 2.5–2.7; pronotum width: male 3.5–3.7, female 3.6–3.8; tegmen length: male 11–11.5, female 10.5–11.5; tegmen width (at the point where *CuP* is running into posterior margin of tegmen): male 2.6–3, female 2.8–3.

Euphyllodromia propinqua sp. nov.

(Figs. 3A–D, 6H, 7K, L, 14A–Q)

Etymology. The name originates from Latin *propinqua* – similar.

Type material. Male (holotype) (ex. 270510/1), 3 males, 5 females (paratypes) – ECUADOR, prov. Sucumbíos, 70 km SE of town Lago Agrio, vicinity of Vil. S.Pablo de Kantesiya on Rio Aguarico, lowland forest, 10–17 November 2005, coll. A. Gorochoy, A. Ovtshinnikov; 1 male (paratype), same data, but 80–85 km E of town Lago Agrio, vicinity of lake Lago Grande (Rio Cuyabeno), lowland forest, 2–9 November 2005, coll. A. Gorochoy, A. Ovtshinnikov.

Description. Male (holotype). General coloration yellowish brown, as in Fig. 3A, B; head reddish brown, with vertex darkened (Fig. 6H); antennae with scapus, pedicellum and about 5 proximal segments of flagellum yellowish, more distal segments brown; maxillary palps with 3rd (partly yellowish), 4th and 5th segments pale; colour pattern of pronotum as in Fig. 7K; tegmina yellowish, nearly translucent laterally, blackish along veins; legs yellowish; abdominal tergites and sternites yellowish, darkened (brownish) laterally; cerci (except for pale membranous parts) brown. Head subtriangular (Fig. 6H); distance between eyes about 0.5 times eye length; distance between antennal sockets about 1.5 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1 : 1 : 0.8. Antennae with flagellum, which distad of about 10th segment densely covered with bristles, but not incrassate and plumose. Pronotum as in Fig. 7K. Abdominal apex as in Fig. 14A, B; 7th abdominal tergite with medial setal brush and small membranous area at caudal margin, caudal margin sinuate (Fig. 14A); 8th tergite with paired membranous areas medial from lateral inflations (Fig. 14A). Anal plate with proximal part and a small area at the middle of caudal margin with weakened sclerotization (Fig. 14B). Hypandrium as in Fig. 14C, D, with styli comparatively wide; “median triangle” with denticles not numerous and comparatively large (Fig. 14C–E).

Male genitalia (Fig. 14I–Q). Right phallomere as in Fig. 14I, J; “anterior protrusion” bifurcated; “chaeta-bearing sclerite” curved, with fringe of bristles on lower side, connected with extremity of “anterior protrusion” (Fig. 14J, K, *c.b.s.*); “chaeta-bearing field” small (Fig. 14K, *c.b.f.*). L2D long (Fig. 14L), with apex tapered, partly covered with very small denticles (Fig. 14M). L4V comparatively short, proximally widened (Fig. 14L), with apex asymmetrical, arrowhead-shaped (Fig. 14L, N); additional “membranous structure”, with proximal half densely covered with bristles, located between

L2D and L4V (Fig. 14L, *m.s.*). L3 and L4U as in Fig. 14P. Additionally present large “elongated fringed sclerite” (Fig. 14L, O, *ef.s.*) and curved “chaeta-bearing membranous area” located near L3 (Fig. 14P, *c.b.m.a.*).

Variations. Males (paratypes). Head with distance between eyes about 0.4–0.5 times eye length; distance between antennal sockets about 1.5–1.6 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1 : 1 : 0.8–0.9. The specimen from Rio Cuyabeno differs in the colour pattern of pronotum (Fig. 7L) from the specimens from Rio Aguarico and its median triangle possesses more numerous denticles (Fig. 14E). Membranous areas on 7th and 8th abdominal tergites sometimes weakly expressed or absent.

Females (paratypes). Similar to the male. Colour more contrast, dark elements, especially on abdomen, better marked; degree of dark elements expression varies (Fig. 3C, D, 14G, H). 7th abdominal tergite with small medial emargination on caudal margin; anal plate with caudal emargination wide (Fig. 14F). Genital plate as in Fig. 14G, H.

Measurements (mm). Head length: male 2.7–2.8 (2.7), female 2.8–2.9; head width: male 2.7–2.8 (2.7), female 2.8–2.9; pronotum length: male 2.6–2.7 (2.7), female 2.6–2.7; pronotum width: male 3.5–3.8 (3.5), female 3.6–3.8; tegmen length: male 10.5–11 (11), female 10.8–11; tegmen width (at the point where *CuP* is running into posterior margin of tegmen): male 2.8–3 (3), female 2.8–3. Measurements in parentheses are those of holotype.

Comparison. *E. propinqua* sp. nov. clearly differs in the coloration of pronotum and head from all the known congeners. By the male genitalic structures, the new species is similar to *E. erytromelas*, but can readily be distinguished from it by the pronotum coloration (cf. Fig. 7K, L and Fig. 7J), the conformation of anal plate (cf. Fig. 14B and Fig. 13D), “medial triangle” (cf. Fig. 14D, E and Fig. 13G, H), the shape of “chaeta-bearing sclerite” (cf. Fig. 14J, K and Fig. 13S) and the apex of L4V sclerite (cf. Fig. 14L, N and Fig. 13M, P).

***Euphyllodromia rasnitsyni* sp. nov.**

(Figs. 3E, F, 4A, B, 6I, 7M, 15A–E, G–T)

Etymology. This species is named in honour of the eminent palaeontologist and entomologist Alexandr P. Rasnitsyn.

Type material. Male (holotype), 2 females (paratypes) – E. ECUADOR, 95 km E of city Quito, vicinity of waterfall San Rafael on Rio Coca, forest, 1300 m, 23–26 November 2005, coll. A. Gorochoy, A. Ovtshinnikov.

Description. Male (holotype). General coloration yellowish brown (Fig. 3E, F); head brown, with fuzzy transverse band over ocellar spots (Fig. 6I); 2 proximal antennal segments yellowish, other segments brownish; maxillary palps yellowish brown (central parts of 3rd, 4th and apex of 5th segments – pale); colour pattern of pronotum as in Fig. 7M; tegmina yellowish brown, nearly translucent; legs yellowish, femora and tibiae along anterior and posterior margins and tarsi darker (brownish); abdomen yellowish brown, sternites darkened laterally, with fuzzy lateral dark spots; cerci more dark, with exception pale membranous parts. Head subtriangular (Fig. 6I); distance between eyes about 0.5 times eye length; distance between antennal sockets about 1.5 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1 : 1 : 0.8. Antennae not incrassate, sparsely pilose. Pronotum as in Fig. 7M. Abdominal apex as in Fig. 15A–C; 7th abdominal tergite medially with tuft of bristles and small membranous area at caudal margin (Fig. 15A); 8th tergite with weakened sclerotization between lateral inflations (Fig. 15A). Anal plate as in Fig. 15B, with small membranous area at middle of caudal margin; cerci 12 segmented. Paraprocts as in Fig. 15C. Hypandrium as in Fig. 15D, E, with styli wide; “median triangle” long and sinuate, with long row of denticles (Fig. 15E).

Male genitalia (Fig. 15I–T). Right phallomere as in Fig. 15I–K; “anterior protrusion” bifurcated; “chaeta-bearing sclerite” forked, with extremity, opposed to apex of “anterior protrusion”, spiral, densely covered with chaetae (Fig. 15I, O, P, *c.b.s.*); “chaeta-bearing field” absent. L2D long (Fig. 15I), apex curved, partly covered with very small denticles; apex with small tooth and small “membranous structure” (Fig. 15M, N, *m.s.*). L4V comparatively short, with apex not widened (Fig. 15I, L); long “chaeta-bearing membranous area” situated in parallel with L4V (Fig. 15L, *c.b.m.a.*). L3 as in Fig. 15I, T. There are 2 additional, “elongated fringed sclerites” located under right phallomere (Fig. 15I, Q, R, *ef.s.*) and folded “chaetae-bearing membranous area” near L3 (Fig. 15I, S, *c.b.m.a.*).

Female (paratype). Similar to the male. General colour darker than in male (Fig. 4A, B). Abdominal

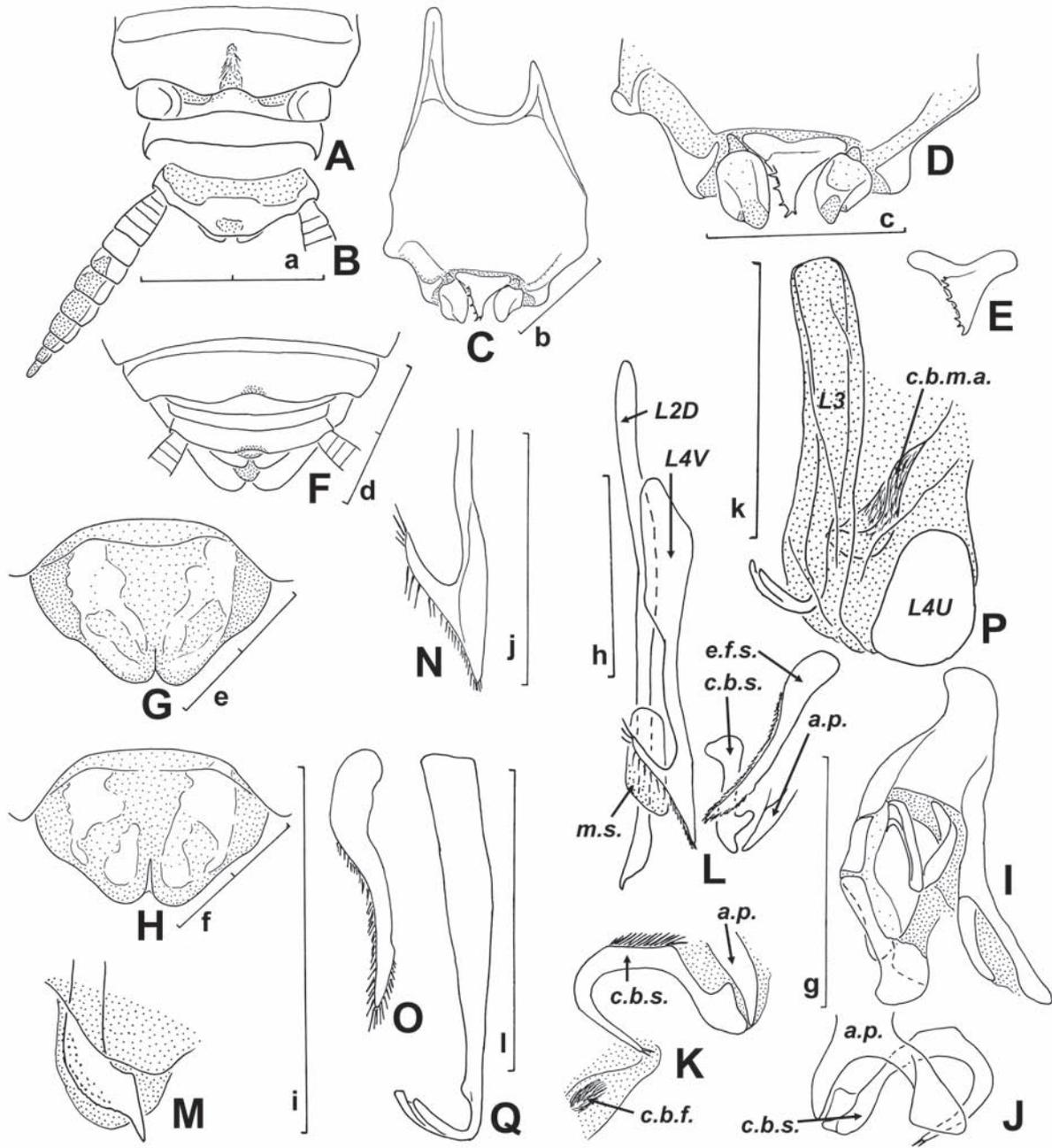


Fig. 14. *Euphyllodromia propinqua* sp. nov., male [holotype (A–D, I–Q), paratype (E)], female (paratypes (F–H)): A, 7th–9th abdominal tergites from above; B, F, abdominal apex from above; C, hypandrium from below; D, caudal margin of hypandrium from below; E, “median triangle” from below; G, H, anal plate from below; I, right phallomere from below; J, “anterior protrusion” of right phallomere and “chaeta-bearing sclerite” from below; K, “chaeta-bearing sclerite” and “chaeta-bearing field” from below; L, sclerites L2D and adjacent structures from below; M, apex of sclerite L2D from above; N, apex of sclerite L4V from below; O, “elongated fringed sclerite” from below; P, sclerites L4U, L3 and “chaetae-bearing membranous area” from above; Q, hook hla.

Abbreviations: a.p., c.b.m.a., c.b.f., c.b.s., e.f.s., L2D, L3, L4U, L4V, m.s. – see text. Dotted area shows membranous parts (A–D, F, I, K–M, P) or dark colour (G, H). Scale bar (2 mm = a, d–f; 1 mm = b, c, g–l): a = A, B; b = C; c = D, E; d = F; e = G; f = H; g = I–K; h = L; i = M; j = N, O; k = P; l = Q.

apex as in Fig. 15G; 7th tergite caudally emarginated, medially with very thin membranous border; anal plate caudally widely emarginated, bordered with membranous border. Genital plate medially deeply incised (Fig. 15H). Ootheca (not completely formed – Fig. 15G) with keel comparatively low and respiratory tubes widely straddled.

Measurements (mm). Head length: male 3, female 2.9–3; head width: male 2.9, female 2.9–3; pronotum length: male 2.9, female 2.7–2.9; pronotum width: male 3.7, female 3.9–4; tegmen length: male 13.5, female 12.5; tegmen width (at the point where *CuP* running into posterior margin of tegmen): male 3.3, female 3.2.

Comparison. The new species clearly differs in the shape of “median triangle” of hypandrium, pronotum and head coloration from the known congeners. By the strongly elongated shape of “median triangle”, *E. rasnitsyni* sp. nov. is similar to *E. amazonensis*, but can readily be distinguished from it by the presence of denticles along all “median triangle” [in *E. amazonensis*, apex of this structure thorn-shaped, without denticles; cf. Fig. 15 E and Fig. 15F], as well as by the pronotum coloration (cf. Fig. 7M and Figs. 17, 38 in Rocha e Silva (1984)].

***Euphyllodromia tingomariensis* sp. nov.**

(Figs. 4C, D, 6J, 7N, 16A–O)

Etymology. The name originates from Tingo Maria city.

Type material. Male (holotype) – PERU, department Huanuco, prov. Leoncio Prado, env. of city Tingo Maria, 13–24 January 2006, coll. N. Kluge.

Description. Male (holotype). General coloration yellowish, partly brown, markings on pronotum nearly black (Fig. 4C, D); head yellow, over ocellar spots dark brown, striate (Fig. 6J); some 7 proximal antennal segments yellowish brown, other segments – brown; maxillary palps pale yellowish; colour pattern of pronotum as in Fig. 7N; tegmina yellowish, nearly translucent, partly darkened with brown; legs yellow, with femora and tibiae along anterior and posterior margins slightly darker; abdomen yellowish-brown, tergites and sternites darkened laterally, sternites with fuzzy lateral dark spots; anal plate and cerci (with exception of pale membranous areas) more dark, brownish. Head transverse (Fig. 6J); distance between eyes about 0.6 times eye length; distance between antennal sockets about 1.4

times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 0.9 : 1 : 0.7. Antennae not incrassate, sparsely pilose. Pronotum as in Fig. 7N. Anterior margin of right fore femur (left broken off) with 6 spines, including 2 apical ones. Abdominal apex as in Fig. 16A, B; 7th abdominal tergite medially with bristles, without membranous area (Fig. 16A); 8th tergite well sclerotized (Fig. 16A); 9th tergite with membranous areas at proximal margin (Fig. 16B). Anal plate as in Fig. 16B, without membranous area; cerci 12 segmented. Hypandrium comparatively weakly sclerotized, as in Fig. 16C, D; “median triangle” with denticles shifted to apex (Fig. 16D).

Male genitalia (Fig. 16E–O). Right phallomere as in Fig. 16E–H; “anterior protrusion” bifurcated, weakly sclerotized; “chaeta-bearing sclerite” and “chaeta-bearing field” vestigial (Fig. 16G, H, *a.p., c.b.f.*). L2D long (Fig. 16E), with bulge-like apex, crowned with spine (Fig. 16I, J). L4V comparatively short, enlarged at middle, apex narrow (Fig. 16E, K, L). L3 and L4U as in Fig. 16E, O. Additionally present single large “elongated fringed sclerites” located under right phallomere (Fig. 16E, M, *e.f.s.*), small “chaeta-bearing membranous area” located under apical part of L2D (Fig. 16J, *c.b.m.a.*) and curved “chaetae-bearing membranous area” located near L3 (Fig. 16E, N, *c.b.m.a.*).

Female unknown.

Measurements (mm). Head length 2.3, head width 2.5, pronotum length 2.3, pronotum width 3.7, tegmen length 10.8, tegmen width (at the point where *CuP* is running into posterior margin of tegmen) 2.7.

Comparison. From most of the known congeners (except for *E. hystrix* and *E. boliviensis*), the new species clearly differs in the pronotum coloration. By the pronotum coloration, *E. tingomariensis* sp. nov. is similar to *E. hystrix* and *E. boliviensis*, but can readily be distinguished from them by the conformation of the male genitalia: the shape of “chaeta-bearing sclerite” (practically absent in *E. tingomariensis* sp. nov.), the shape of L2D (cf. Fig. 16I, J and Fig. 12O, P, 17K, L) and the L4V (cf. Fig. 16K, L and Fig. 12 L, M, 17M).

***Euphyllodromia nigrochlamys* Rehn, 1928**

(Figs. 4E, F, 5A–E, 6K, 7O, P, 17A–P)

Material examined. 9 males, 3 females – EC-UADOR, prov. Sucumbíos, 70 km SE of town Lago Agrio, vicinity of Vil. S.Pablo de Kantesiya on Rio

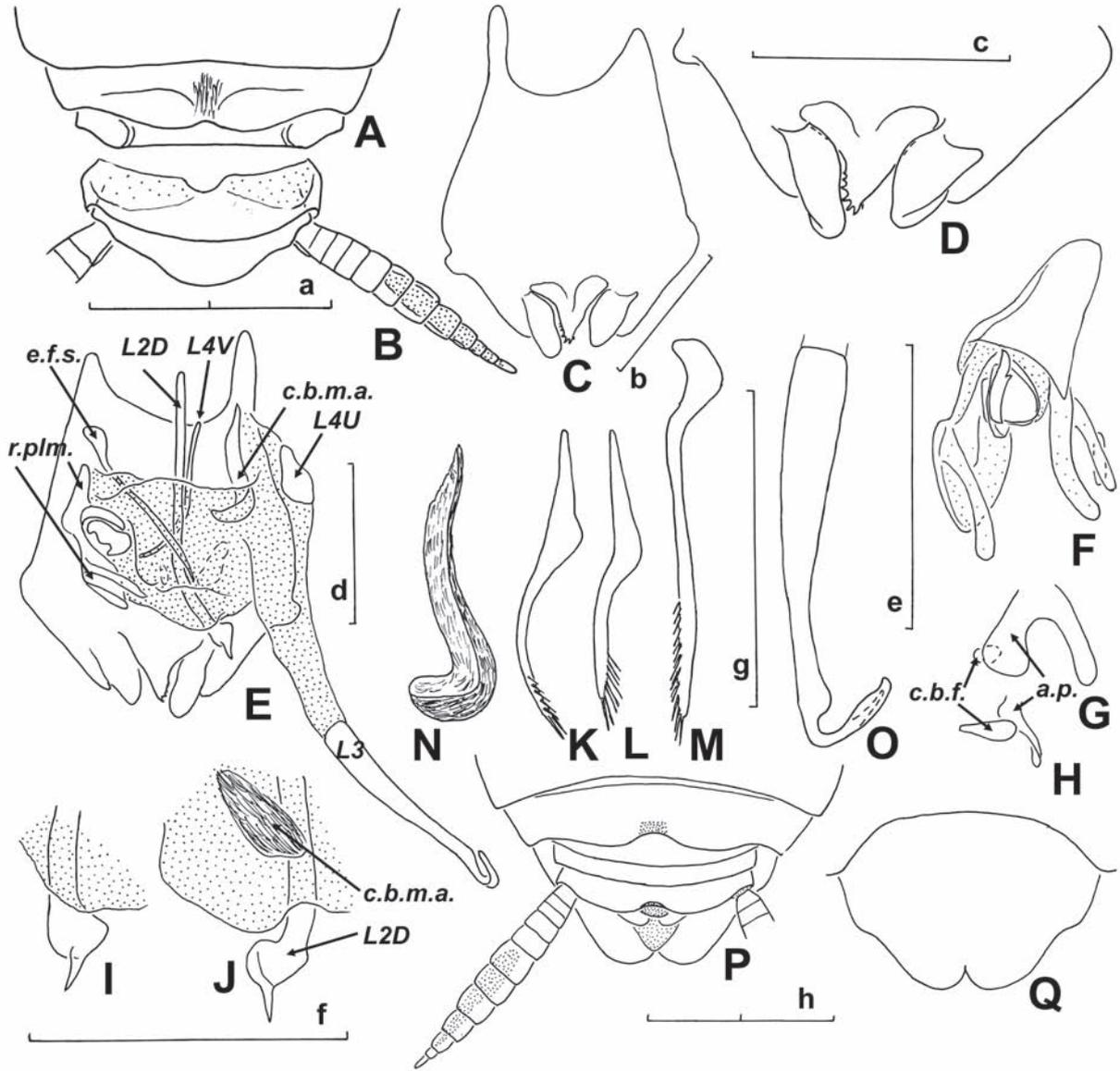


Fig. 16. *Euphyllodromia tingomariensis* sp. nov., male, holotype (A–O) and *E. erytromelas*, female (P, Q): A, 7th–8th abdominal tergites from above; B, P, abdominal apex from above; C, hypandrium from below; D, caudal margin of hypandrium from below; E, genitalia and hypandrium from above (anal plate and paraprocts removed); F, right phallomere from above; G, H, “anterior protrusion” of right phallomere and “chaeta-bearing field” from side (G), below (H); I, J, apex of sclerite L2D from above (I) and below, with “chaeta-bearing area” (J); K, L, sclerite L4V from below (K), side (L); M, “elongated fringed sclerite” from below; N, “chaetae-bearing membranous area” from above; O, hook hla; Q, anal plate from below.

Abbreviations: *a.p.*, *c.b.f.*, *c.b.m.a.*, *e.f.s.*, *L2D*, *L3*, *LAU*, *L4V* – see text. Dotted area shows membranous parts. Scale bar (2 mm = a, h; 1 mm = b–g): a = A, B; b = C; c = D; d = E; e = F–H; f = I, J; g = K–O; h = P, Q.

Aguarico, lowland forest, 10–17 November 2005, coll. A. Gorocho, A. Ovtshinnikov; 1 male – prov. Morona-Santiago, bank of Rio Morona near border with Peru, vicinity of Vil. Puerto Morona, h=300 m, 5–15 January 2010, coll. A. Gorocho.

The detailed original description (Rehn 1928: 146–150) can be supplemented with the following details.

Description. Male. General coloration as in Figs. 4E, F, 5E; head with pale transverse band over ocel-

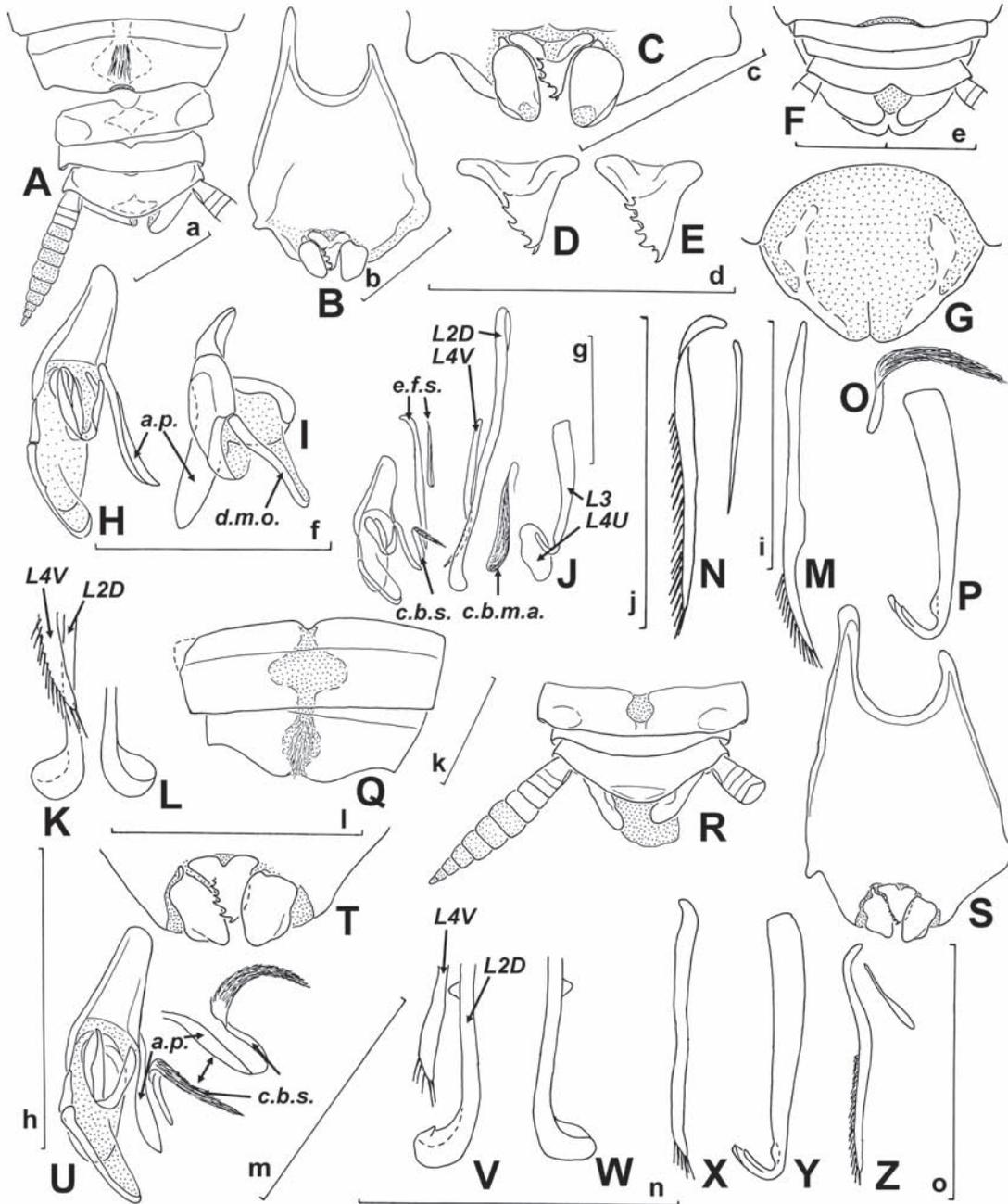


Fig. 17. *Euphyllodromia nigrochlamys*, male (A–E, H–P), female (F, G) and *E. boliviensis*, male (Q–Z): A, F, R, abdominal apex from above; B, S, hypandrium from below; C, T, caudal margin of hypandrium from below; D, E, “median triangles” from below; G, anal plate from below; H, I, right phallomere from above (H), from side (I); J, sclerites of male genitalia from above (membranous structures not shown); K, L, V, W, apex of sclerite L2D from above (L, W), from below, with apex of L4V (K, V); M, X, sclerite L4V; N, Z, “elongated fringed sclerites” from below; O, “chaeta-bearing sclerite”; P, Y, hook hla; Q, 6th–7th abdominal tergites from above; U, right phallomere and “chaeta-bearing sclerite” from above.

Abbreviations: *a.p.*, *c.b.m.a.*, *c.b.s.*, *d.m.o.*, *e.f.s.*, *L2D*, *L3*, *L4U*, *L4V* – see text. Dotted area shows membranous parts (A–C, F, H, I, Q–U) or dark colour (G). Scale bar (1 mm = a–d; 2 mm = e–o): a = A; b = B; c = C; d = D, E; e = F, G; f = H, I; g = J; h = K, L; i = M, O, P; j = N; k = Q–S; l = T; m = U; n = V, W; o = X–Z.

lar spots, brown vertex and darkened labrum (Fig. 6K); antennae blackish (except for their whitish apical thirds); maxillary palps with segments 4th and 5th blackish; colour pattern of pronotum variable as in Fig. 7O, P; tegmina darkened, translucent along costal margin; abdomen brown, tergites with medial yellow spots (Fig. 5E); caudal depression of anal plate with small yellow spot; cerci with 9 apical segments pale yellowish. Head as in Fig. 6K; distance between eyes about equal to eye length; distance between antennal sockets about 1.4–1.6 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 0.9–1 : 1–1.1 : 1. Antennae distinctly incrassate in medial part, plumose (Fig. 4E, F). Pronotum as in Fig. 7O, P. Abdominal apex as in Fig. 17A; 7th abdominal tergite medially with brush of bristles. Anal plate with weakly expressed caudal depression (Fig. 17A). Hypandrium and styli as in Fig. 17B, C; “median triangle” with variable armament (Fig. 17C–E).

Male genitalia (Fig. 17H–P). Right phallomere as in Fig. 17H, I; “anterior protrusion” not divided, enlarged (Fig. 17H, I, *a.p.*); “chaeta-bearing sclerite” sickle-like (Fig. 17J, O, *c.b.s.*), “chaeta-bearing field” absent. L2D long, rod-like (Fig. 17J), apex widened and dorsoventrally depressed (Fig. 17K, L). L4V long and slender, bordered with chaeta from one side (Fig. 17J, M). L3 and L4U as in Fig. 17J, P. There are 2 additional sclerites under right phallomere: large “elongated fringed sclerites” and vestigial sclerite shaped as a long and thin sclerotized strip (Fig. 17J, N, *e.f.s.*); large curved “chaetae-bearing membranous area” located between L2D and L3 (Fig. 17J, *c.b.m.a.*).

Female. Similar to the male, but darker (Fig. 5A–D). Head with distance between eyes about 1–1.1 times eye length; distance between antennal sockets about 1.3–1.5 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1 : 1–1.2 : 1. 7th abdominal tergite with thin membranous strip along caudal margin (Fig. 17F). Anal plate caudally widely emarginated (Fig. 17F). Genital plate wide, caudally rounded (Fig. 17G).

Measurements (mm). Head length: male 2–2.2, female 2–2.1; head width: male 2.4–2.5, female 2.4–2.5; pronotum length: male 2.1–2.4, female 2.3–2.4; pronotum width: male 3.1–3.5, female 3.2–3.5; tegmen length: male 8.6–10, female 8.5–9; tegmen width (at the point where *CuP* running into posterior margin of tegmen): male 2.2–2.5, female 2.5.

Remarks. This species was described from Iquitos (Loreto province, Peru) (Rehn 1928).

Euphyllodromia boliviensis (Shelford, 1909)

(Figs. 5F, G, 6L, 7Q, 17Q–Z)

Material examined. 1 male – PERU, department Junin, prov. Satipo, environs of town Satipo, forest near waterfall, ~800 m, 4–5 November 2008, coll. A. Gorochoy, L. Anisyutkin, M. Berezin, E. Tkatsheva, V. Izersky.

Description. Male. General coloration as in Fig. 5F, G; facial part of head yellowish, with pale transverse band over ocellar spots, vertex brown, genae partly darkened, labrum (with exception of apex) blackish (Fig. 6L); colour of antennae and maxillary palps similar to those of *E. nigrochlamys*; colour pattern of pronotum as in Fig. 7Q; tegmina nearly translucent, partly darkened; abdomen dark brown, 6–8th tergites with medial yellow spots (Fig. 17Q), sternites partly yellowish; cerci with 7 apical segments pale yellowish. Head transverse (Fig. 6L); distance between eyes about 1.6 times eye length; distance between antennal sockets about 1.4 times scape length; approximate length ratio of 3rd–5th segments of maxillary palps 1.1 : 1 : 1. Structure of antennae similar to those of *E. nigrochlamys*. Pronotum as in Fig. 7Q. Abdominal apex as in Fig. 17Q, R; 7th abdominal tergite with medial brush of bristles (Fig. 17Q); 8th tergite with small membranous area (Fig. 17R). Anal plate with weakly marked caudal depression (Fig. 17R). Hypandrium, styli and “median triangle” as in Fig. 17S, T.

Male genitalia (Fig. 17U–Z). Similar to those of *E. nigrochlamys*. Right phallomere as in Fig. 17U; “chaeta-bearing sclerite” as in Fig. 17U, *c.b.s.* L2D with triangular outgrowth in its apical part (Fig. 17V, W). L4V with short, apical fringe of chaetae (Fig. 17X). L3 as in Fig. 17Y. Large “elongated fringed sclerites” and additional vestigial sclerites as in Fig. 17Z; “chaetae-bearing membranous area” located between L2D and L3 smaller than those of *E. nigrochlamys*.

Measurements (mm). Head length 1.8, head width 2.3, pronotum length 2.3, pronotum width 3.2, tegmen length 8.5, tegmen width (in place where *CuP* running into posterior margin of tegmen) 2.4.

Remarks. This species was originally described from Mapiri (La Paz department, Bolivia) in the genus *Pseudophyllodromia* (Shelford 1909). Later it

was reported from Peru and Brazil (Rehn 1928; Rocha e Silva 1984).

CONCLUSIONS

The representatives of the genus *Euphyllodromia* are characterized by the complicated conformation of the male genitalia, of which characters are crucial for taxa identification and reconstruction of the phylogeny. Colour characters are less reliable due to an intraspecific variation.

The species studied have demonstrated a rather common groundplan in the conformation of male genitalia contrary to the genus *Nahublattella* Bruijning, 1959 (Ectobiidae) earlier studied by the author (Anisyutkin 2009).

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