



Redescription of subgenus *Persis* (*Eritalaena*) (Hemiptera: Fulgoromorpha: Derbidae), and new occurrence records from the Neotropical Region

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Abstract

Persis (*Eritalaena*) Fennah, 1952 is a monotypic subgenus comprising the species *Persis* (*Eritalaena*) *fuscinervis* Muir, 1918, originally described from Guyana (South America). In this study, we redescribe the genus and its sole species, incorporating additional diagnostic characters. We also provide, for the first time, photographs and detailed illustrations of the morphology of both males and females, and we expand the known distribution of the group with new records from Central America (Costa Rica) and South America (Brazil).

Keywords Cenchreini · Derbinae · Planthopper · Taxonomy

Introduction

Representatives of *Persis* Stål, 1862 (type species *Persis pugnax* Stål, 1862 from Brazil) (Derbidae: Derbinae: Cenchreini) are recognized by pale coloration, head projected anteriorly to a varying degree, frons bearing pustules, not strongly compressed, with lateral margins subparallel and raised, pronotum short, forewing with pustules along ScP + R and Pcu vein, clavus closed and pygofer with medioventral process (Stål 1862; Fennah 1952; O'Brien 1982).

Currently, the genus contains 13 valid species recorded in the New World, grouped into three subgenera: *Persis* (*Persis*) Stål, 1862 with five species, *Persis* (*Anapersis*)

Fennah, 1952 with seven species, and *Persis* (*Eritalaena*) Fennah, 1952 with one species. In the Neotropical region, 11 species are known (except Nearctic for *Persis* (*Anapersis*) *ferox* O'Brien, 1986 and *Persis* (*Anapersis*) *arizonensis* O'Brien, 1986) distributed among the three subgenera (Cantanhede et al. 2025).

There are no phylogenetic studies on *Persis*. Published work involving *Persis* are mainly checklists, catalogs, species descriptions, and diagnostic works (e.g., Fowler 1900; Metcalf 1938, 1945; Caldwell 1944; Fennah 1945, 1952; O'Brien 1982, 1986). The paucity of recent study creates several knowledge gaps. This includes incomplete alpha-level taxonomic diagnoses and the lack of phylogenetic hypotheses. The relationships among *Persis* species, among subgenera, and between *Persis* and other genera in the Cenchreini have not been investigated. The monophyly of the subgenera has not been tested with quantitative phylogenetics and may prove invalid or alternatively could support status as full genera (at least for *Eritalaena*, which is the most diagnostically different). It has been observed that the size of paradiscal region of the pronotum are not equal among subgenera. *Persis* (*Persis*) and *Persis* (*Anapersis*) have a deep paradiscal region of the pronotum indicating a possible close relationship between these subgenera. In *Persis* (*Eritalaena*), the paradiscal region of the pronotum is shallow, so that it has been characterized as 'not foliately

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raised' or absent (i.e., Metcalf 1938; Fennah 1952; O'Brien 1982).

Persis (*Eritalaena*) is a monotypic subgenus, with the type species *Persis* (*Eritalaena*) *fuscinervis* Muir, 1918 recorded from Guyana (type locality) and Panama (Muir 1918; Metcalf 1938; Bourgoïn 2025). The subgenus is characterized by the head projecting in front of the eyes for a distance similar to the width of the eye and the paradiscal region of the pronotum with a shallow antennal fovea (Fennah 1952).

In this paper, we provide the re-description of *Persis* (*Eritalaena*) *fuscinervis*, including the description of the female genitalia, provide the first record of *Persis* (*Eritalaena*) for Brazil, and an identification key for the subgenera of *Persis*.

Material and methods

The specimens studied in this work is deposited in the Invertebrate Collection Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, AM, BR; in the Padre Jesus Santiago Moure Entomological Collection (DZUP), in Curitiba, PR, BR; and in the Fort Lauderdale Research and Education Center (FLREC), Davie, FL, USA.

For examination of genital structures, the abdomen was detached from the thorax, macerated into 85% hot lactic acid, studied under a Leica M165C stereomicroscope, and illustrated immersed in glycerin jelly. Afterward, genitalia were stored in plastic microvials with glycerin and pinned with the specimen. The right forewing of the specimen was detached, cleaned by a short xylol bath, and mounted between coverslips with Euparal. After drying, the coverslips were glued to a small piece of cardboard and pinned with the specimen. Digital photographs were taken with a Leica MC 170 HD camera attached to a stereomicroscope and combined into expanded focus images by Leica Application Suite software.

Terminology of the head characters mostly follows O'Brien and Wilson (1985), for forewing venation follows Bourgoïn et al. (2015), for male genitalia mostly follows Bourgoïn (1988) and Bourgoïn and Huang (1990), and for female genitalia it follows Bourgoïn (1993).

The measurement were taken as follows: body length (from the tip of head to the tip of anal tube) and body length including forewings (from the tip of head to the tip of forewing), both measurements were taken in lateral view; head projection width (from the apex of the head to the nearest eye margin) and eyes width (in the medial region of the eye), both measurements were taken in lateral view; vertex length (from the base of the transverse

carina of the transition front to the vertex), this measurement was taken in dorsal view; frons length (close to the transverse carina to the epistomal suture) and width (in the lowest height region of the compound eyes), both measurements were taken in anterior view; clypeus length (from the epistomal suture to the apex of the clypeus) and width (near to suture epistomal), both measurements were taken in anterior view.

The distribution map was created with QGIS 3.20 (QGIS 2018), using geographical coordinates from specimen labels. We used Google Earth® to locate approximated collecting sites for specimens without coordinates. Label information of examined specimens is provided verbatim with square brackets indicating comments or extrapolated information.

Systematics

Family Derbidae Spinola, 1839

Subfamily Derbinae Spinola, 1839

Tribe Cenchreini Muir, 1918

Genus *Persis* Stål, 1862

Type species: *Persis pugnax* Stål, 1862; by original designation.

Persis Stål 1862: 7; 1866: 193 (key); 1869: 99 (citation); Muir 1913: 32 (key); 1918: 416 (notes); 1918: 231 (key): 243 (citation); Metcalf 1938: 326 (key, notes); 1945: 90 (catalogue); Caldwell 1944: 105 (notes), 106 (description), 108 Figs Plate I, 7A–C (genitalia); Fennah 1952: 127 (key), 138–142 (creation of subgenera); O'Brien, 1982: 319 (catalogue); Bartlett et al. 2014: 25 (key), 152 (citation); Cantanhede et al. 2025 (description, key).

Subgenus *Persis* Stål, 1862: 7 (as genus) (type species *Persis pugnax* Stål 1862, by original designation).

Subgenus *Anapersis* Fennah, 1952: 140 (type species *Neocenchrea gregaria* Fennah 1945 by original designation).

Subgenus *Eritalaena* Fennah, 1952: 142 (type species *Persis fuscinervis* Muir 1918 by original designation and monotypy)

Key to subgenera of *Persis* Stål, 1862.

- Paradiscal region of pronotum greatly foliate forming antennal foveae behind eyes (Fig. 1a)2
– Paradiscal region of pronotum not greatly foliate (Fig. 1b) .
..... *Persis* (*Eritalaena*) Fennah, 1952
- Head produced beyond the eyes for a distance greater than eye width, acutely angulate in profile (Fig. 1a)
..... *Persis* (*Persis*) Stål, 1862
– Head produced beyond the eyes for distance no greater than eye width, obtusely angular (Fig. 1c), or rounded in profile (Fig. 1..... *Persis* (*Anapersis*) Fennah, 1952

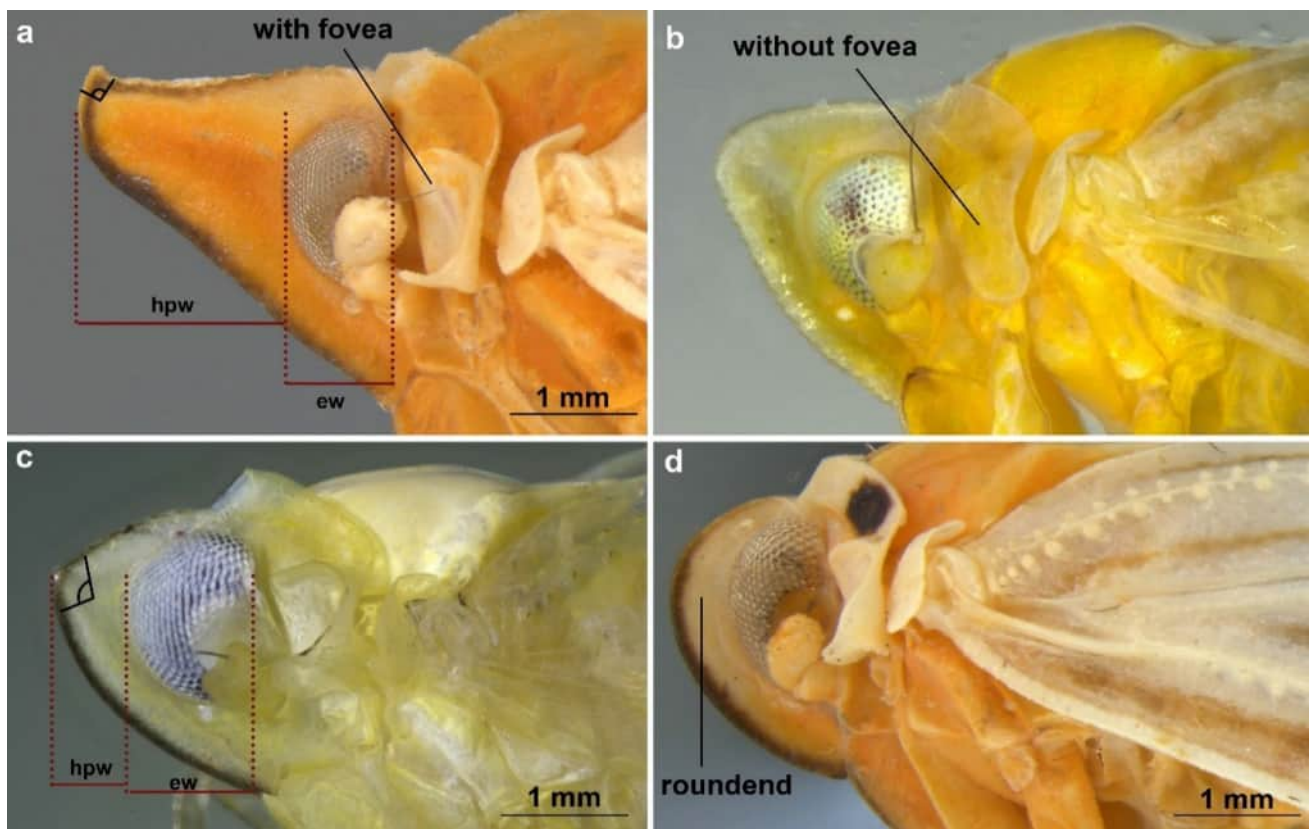


Fig. 1 Subgenera of *Persis*: **a** *Persis (Persis) pugnax* Stål, 1862 female, lateral view; **b** *Persis (Eritalaena) fuscinervis* Muir, 1918 female, lateral view; **c** *Persis (Anapersis) gregaria* (Fen-

nah, 1945) male, lateral view; **d** *Persis (Anapersis) takiyae* Cantanhede et al., 2025 male, lateral view. Abbreviations: ew—eye width; hpw—head projection width

Species checklist of *Persis*

Subgenus *Persis* Stål 1862: 7.

Persis (Persis) fabriciana Metcalf 1938: 326 (replacement name for preoccupied *Cicada lineata* Fabricius 1803: 66 nec Linné 1761: 241) – South America.

= *Cicada lineata* Fabricius 1803:66, original combination.

= *Persis lineata* (Fabricius 1803), combination by Stål 1869: 99 (St. Vincent).

= *Cenchrea lineata* (Fabricius 1803) combination by McAtee 1924: 178.

= *Persis fabriciana* Metcalf 1938: 326 (replacement name for preoccupied *Cicada lineata* Fabricius 1803: 66 nec Linné 1761: 241).

Persis (Persis) foveatis Caldwell 1944: 106 – Mexico (Veracruz, Chiapas, Oaxaca).

= *Persis foveatis* Caldwell 1944, original combination.

= *Persis foveata* O’Brien 1986: 70, 72 unjustified amendments.

Persis (Persis) novacula Fennah 1952: 140 – Trinidad.

Persis (Persis) pugnax Stål 1862: 8 – Brazil (Rio de Janeiro, Roraima).

Persis (Persis) stali Muir 1918: 417 – Guyana (Bartica), Suriname (Paramaribo).

Subgenus *Anapersis* Fennah 1952: 140.

Persis (Anapersis) arizonensis O’Brien 1986: 72 – United States (Arizona); Mexico (Sonora).

Persis (Anapersis) ferox O’Brien 1986: 70 – United States (Arizona); Mexico (Sonora).

Persis (Anapersis) gregaria (Fennah 1945) – Trinidad; Saint Vincent; Grenada; Saint Lucia.

= *Neocenchrea gregaria* Fennah 1945: 443, original combination.

= *Persis (Anapersis) gregaria* (Fennah 1945), combination by Fennah 1952: 141.

Persis (Anapersis) pallescens (Metcalf 1938: 332) – Panama.

Persis (Anapersis) pallidovenosa (Stål 1862) – Brazil (Rio de Janeiro).

= *Herpis pallido-venosa* Stål 1862: 8, original combination.

= *Lamelia pallidovenosa* (Stål 1862), combination by Kikarldy 1906: 403.

= *Phaciocephalus pallidovenosus* (Stål 1862), combination by Muir 1924: 16.

= *Persis (Anapersis) pallidovenosa* (Stål 1862), combination by Bahder et al. 2021: 128.

Persis (Anapersis) spreta (Fowler 1900) – Mexico (Tabasco).

= *Mysidia? spreta* Fowler 1900: 74, original combination.

= *Basileocephalus spreta* (Fowler 1900), combination by Muir 1918: 230.

= *Neocenchrea spreta* (Fowler 1900), combination by Metcalf 1938: 331.

= *Persis (Anapersis) spreta* (Fowler 1900), combination by Fennah 1952: 141.

Persis (Anapersis) takiyae Cantanhede et al. 2025: 84 – Brazil (Amazonas, Goiás, Maranhão, Mato Grosso do Sul, Minas Gerais, Paraná and São Paulo).

Subgenus *Eritalaena* Fennah 1952: 142.

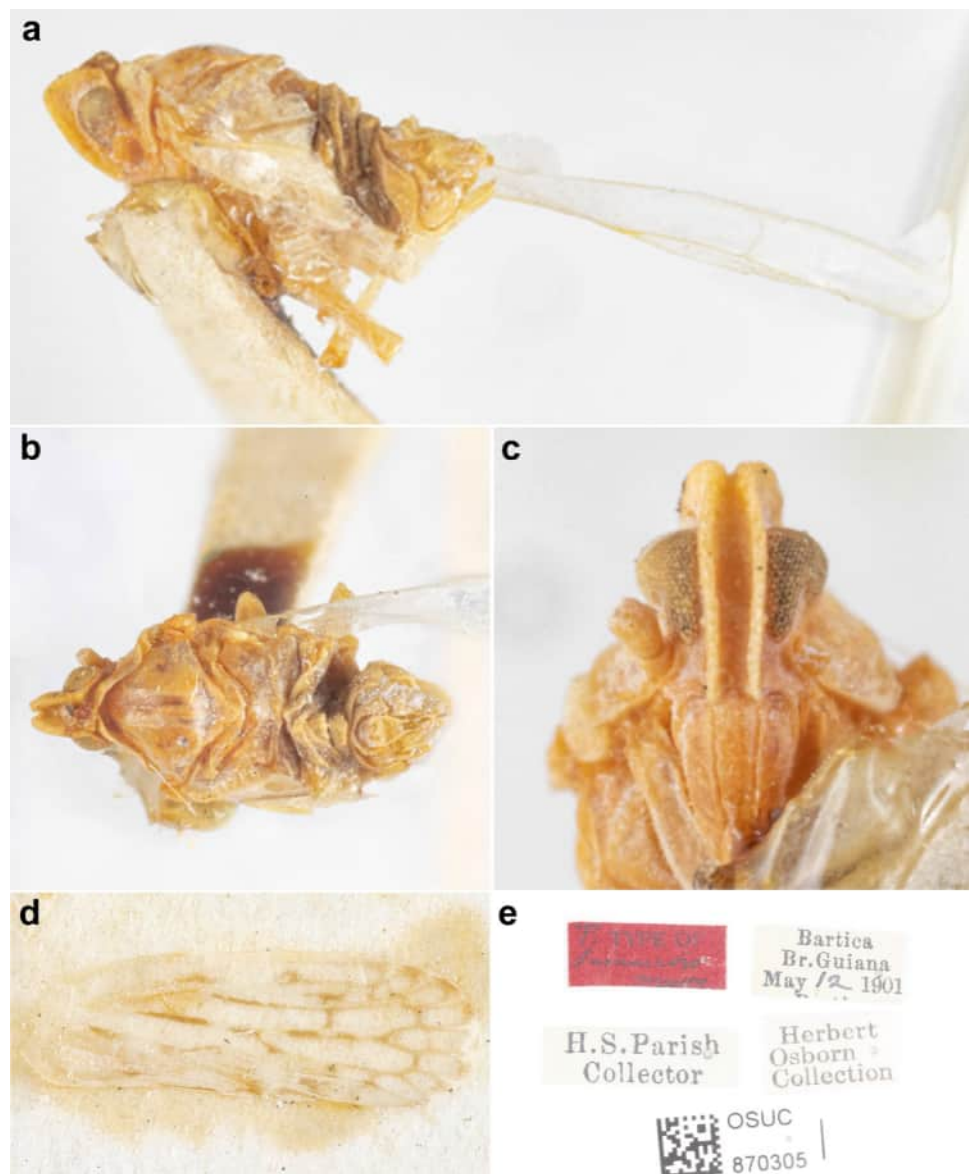
Persis (Eritalaena) fuscineris Muir 1918: 417 – Guyana (Bartica), Panama (Ancon), Brazil (Amazonas and Pará), Costa Rica (Osa Peninsula).

Redescription

Persis (Eritalaena) Fennah 1952: 142. Type species: *Persis fuscineris* Muir 1918: 417 (original designation).

Amended description. Medium-sized *Persis (Eritalaena)*: body length 3.9 mm (without wings) and 5.8 mm (with wings) in males, 2.8 mm in females (without wings). Head projected beyond at a distance similar to

Fig. 2 *Persis (Eritalaena) fuscineris* Muir, 1918 holotype female. **a** Habitus, lateral view; **b** habitus, dorsal view; **c** head, anterior view. **d** forewing; **e** labels. Photographs: Solomon Hendrix



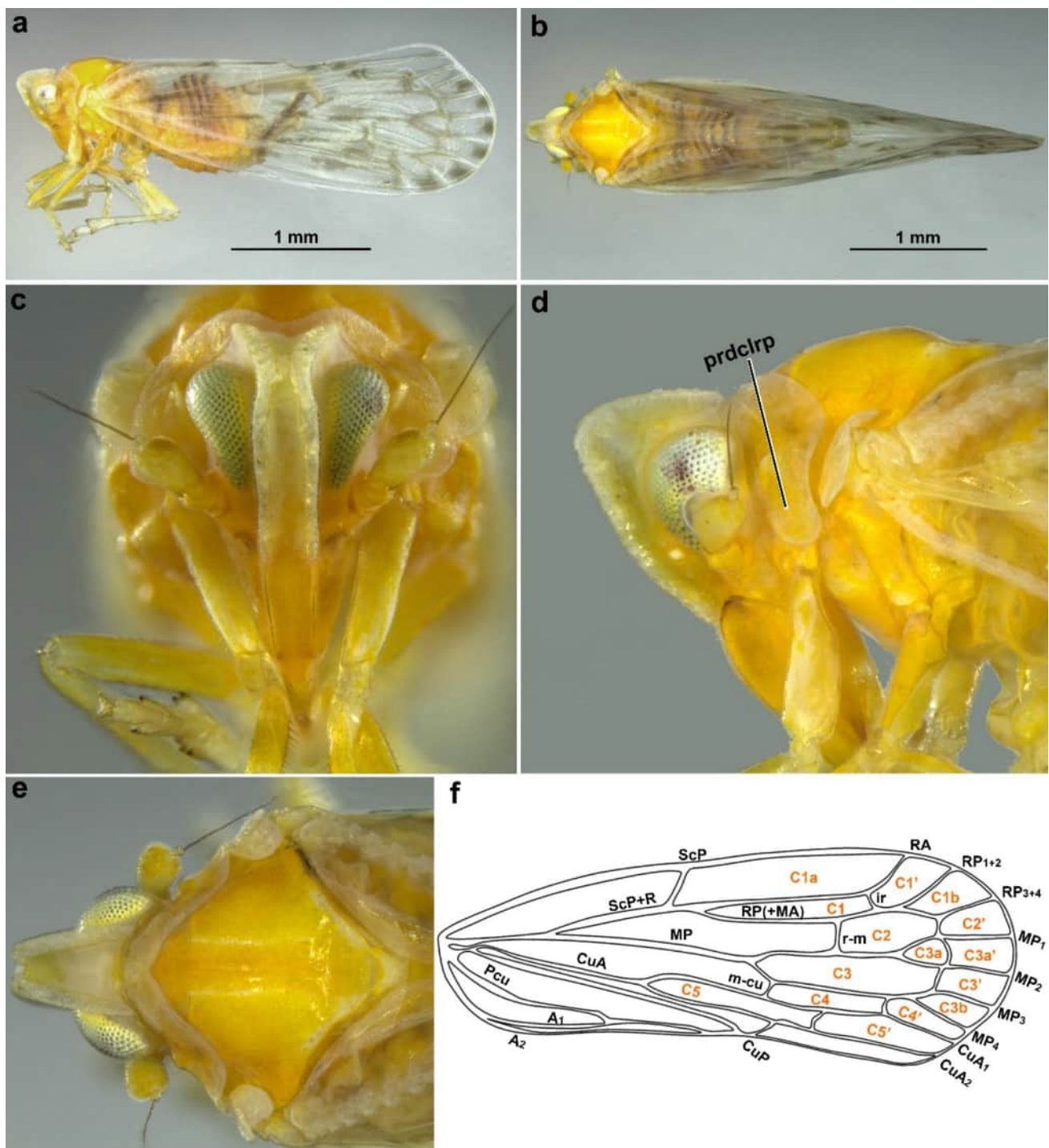


Fig. 3 *Persis (Eritalaena) fuscinervis* Muir, 1918 male. **a** Habitus, lateral view; **b** habitus, dorsal view; **c** head, anterior view; **d** head and thorax, lateral view; **e** head and thorax, dorsal view; **f** forewing venation, black (vein) and orange (cells). Abbreviations: Thorax: prdclr—paradiscal region of pronotum. Forewings: *Horizontal venation*. A1, A2—first and second branches of the anal vein, respectively; CuA—anterior cubitus vein; CuP—posterior cubitus vein; MP—media posterior vein; MP1+2, first branch of the posterior medial vein;

MP3+4—second branch of the posterior medial vein; MP1, MP2, MP3, MP4, MP5—first, second, third, fourth and fifth branch of the posterior medial vein, respectively; Pcu—postcubitus; RA—radius anterior branch; RP (+ MA)—posterior radial vein (+ anterior medial vein); ScP + R vein—subcostal vein + radial vein; RP—radius posterior branch and ScP—subcosta posterior vein. *Transverse venation*. ir, inter-radial vein; r-m—radio-medial vein and m-cu—mediocubital vein

the width of eye (Figs. 2a, 3d, 6a); vertex trapezoidal in dorsal view (Figs. 2b, 3e, 6e). Pronotum with paradiscal pronotal regions shallow, not forming a cup-shaped foliated fossa that partially circumscribe the antenna (Figs. 2c, 3d, 6d); posterior margin concave (Figs. 2b, 3e,

6e). Mesonotum with median and lateral carina present, but sometimes weakly marked (Figs. 2b, 3e, 6e). Forewings with ScP + R vein short, finishing at the bifurcation of the CuA vein; RA vein with the apex strongly curved anteriorly; RP vein arising after ScP + RA vein; RP vein

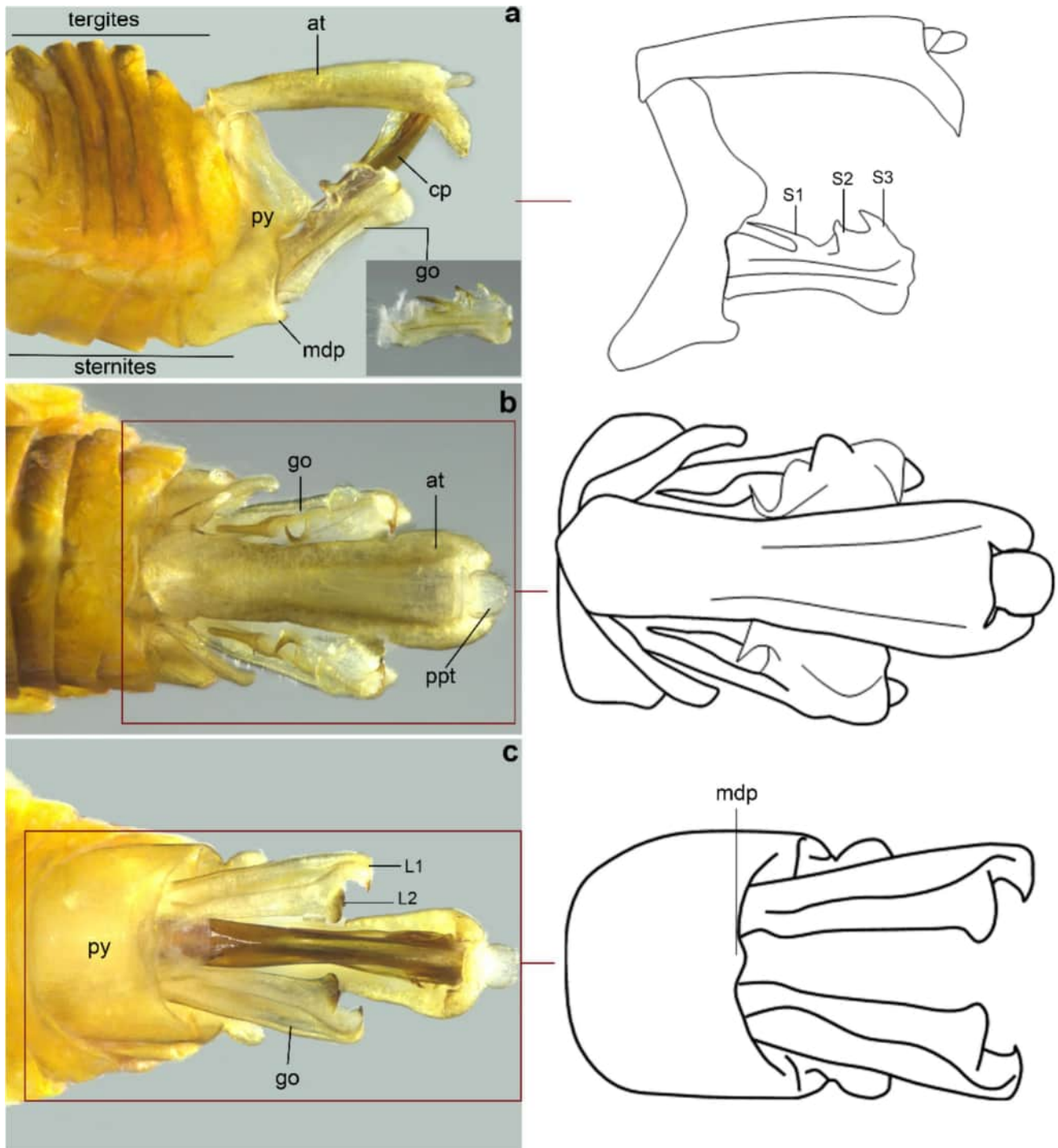


Fig. 4 *Persis (Eritalaena) fuscinervis* Muir, 1918 male terminalia. **a** Lateral view; **b** dorsal view; **c** ventral view. Abbreviations: at—anal tube; cp—phallic complex; go—gonostylus; l—lobe; mdp—medio-

ventral process; p—process; pe—periandrium; ppt—paraproct; py—pygofer and s, spines

with four cells (C1, C1', C1a, C1b); MP_{1+2} vein arising at the level of the cross-vein (Figs. 3f, 6f). Metatibia with lateral spines (Fig. 3a). Male terminalia: pygofer with medioventral process slightly produced (Fig. 4c). Phallic complex: perianthrium without spiniform projections (Fig. 5a, b). Female terminalia: Pregenital sternite (sternite VII) with medioventral process (Fig. 7a, b).

Remarks. *Persis (Eritalaena)* is easily distinguished from the others subgenera of *Persis*, by the head projecting beyond the eyes for a distance similar to the eye width (in *Persis (Persis)* the projection of the head is 2.7 times wider than the compound eye, and 2.0 times smaller than the width of the compound eye in *Persis (Anaparsis)*); median carina of clypeus absent (present in *Persis (Persis)* and *Persis (Anaparsis)*); pronotum with paradiscal regions shallow, not forming cup-shaped foliated fossa that partially circumscribe the antenna (in *Persis (Persis)* the paradiscal region forms a shallow fossa and the fossa of the paradiscal region is deep in *Persis (Anaparsis)*); forewing with short ScP+R vein, ending at the bifurcation of the CuA vein (forewing with long ScP+R vein, ending at the level of the apex of the clavus, in *Persis (Persis)* and *Persis (Anaparsis)*).

In the original description of *Persis (Eritalaena) fuscinervis*, the author reports the presence of an opaque white waxy impression on the wings of the specimen. Coincidentally the material we analyzed here also presents this waxy substance throughout the body, perhaps a characteristic of these specimens.

Records. Guyana (Bartica), Panama (Ancon) (Bourgoin 2025).

*New records.

South America (Brazil: Amazonas, Pará), Central America (Costa Rica: Puntarenas).

Persis (Eritalaena) fuscinervis Muir, 1918.

(Figs. 2–8).

Persis fuscinervis Muir 1918:417; Metcalf 1938: 327 (description, illustration), Pls. I, V, XVIII, XIX (habitus, head, male terminalia and female pregenital sternite).

Persis (Eritalaena) fuscinervis Fennah 1952: 142 (subgeneric combination).

Type material. Holotype female (OSUC): British Guiana, Bartica, May 1901, H. S. Parish collector, Herbert Osborn Collection (examined through photographs).

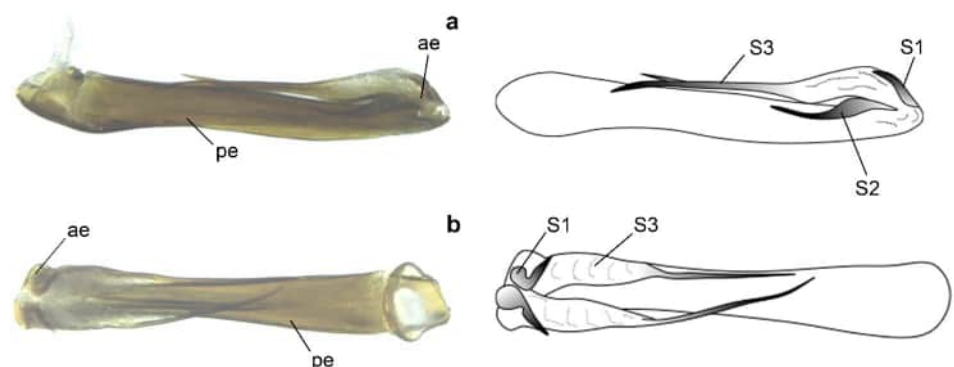
Condition of the holotype. Left antenna with pedicel and flagellum lost; left tegula lost; only a remnant of the left hind wing present. All tibiae missing (Fig. 2a–e).

Measurements. Body length: male 3.9 mm (5.8 mm including wings) ($n = 6$); female: 2.77 mm (5.6 mm including wings) ($n = 1$).

Diagnosis. Clypeus without median carina (Figs. 2c, 3c); scutellum with two laterobasal spines (Fig. 3e); metatibiae with four lateral spines (Fig. 3a).

Redescription. *Coloration.* General body yellow to orange, with pale yellow regions (Figs. 2a, b, 3a, b, 6a, b). Vertex and lateral carina of the frons, scape, pedicel, first segment of the rostrum, median region of the pronotum, paranotal process, tegula, epimeron, and episternum pale yellow (Figs. 3c–e, 6d, e). Orange mesonotum, with a yellow stripe covering the lateral carina (Figs. 3e, 6e). Scutellum with pale yellow apex (Figs. 3e, 6e). Forewing hyaline with brown regions: small brown rectangular band in the apical portion of the postcostal cell extending to the base of the C1a cell; diffuse brown spot in the medial portion of cell C1a; subrectangular brown spot in the apical portion of cell C1; rectangular brown spot in the apical portion of cell C5; small brown quadrangular spots in the apical region

Fig. 5 *Persis (Eritalaena) fuscinervis* Muir, 1918 aedeagus male. **a** Left lateral view; **b** dorsal view. Abbreviations: ae—aedeagus; pe—perianthrium; and s—spines



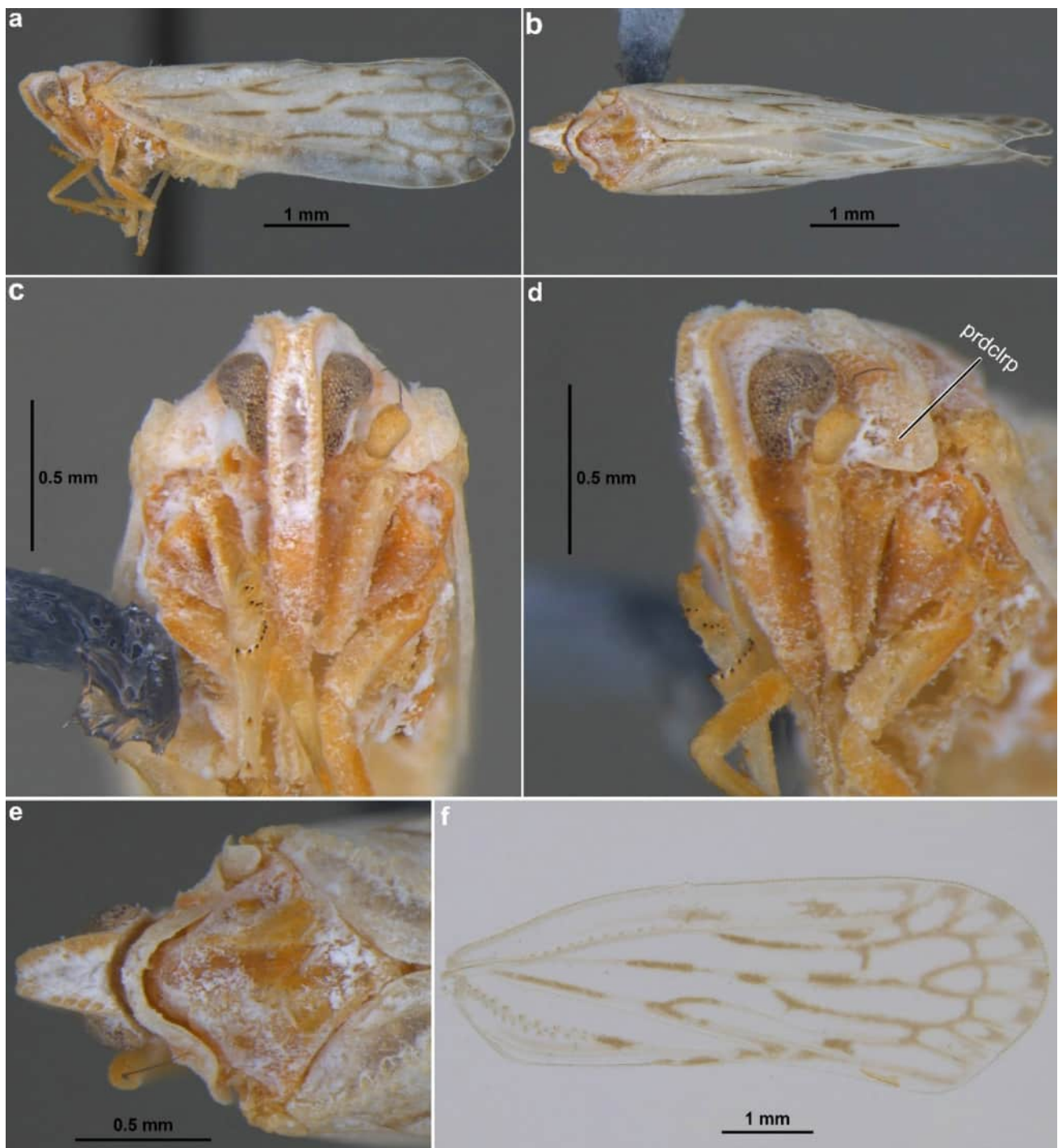


Fig. 6 *Persis (Eritalaena) fuscinervis* Muir, 1918 female. **a** Habitus, lateral view; **b** habitus, dorsal view; **c** head, anterior view; **d** head, parafrontal view; **e** head and thorax, dorsal view and **f** right forewing. Abbreviations: Thorax: prdc/rp—paradisical region of pronotum

of cells C1a, C1', C2', C3a, C3', C3b; diffuse brown spot at the apex of the clavus (Fig. 6f). Yellow veins with brown-tinted regions: RP and MP predominantly brown; basal third and initial portion of the CuA vein bifurcation; apical portion of the Pcu vein; and transverse veins ir, r–m, im, m–cu,

icua, icu (Fig. 6f). Hind wing white. Prothoracic leg orange, except for medial region of the coxa and protrochanter, basal and medial portion of profemur, protibia and first segment of protarsus pale yellow; mesothoracic leg orange, except for medial region of coxa and mesotrochanter, basal and

medial portion of mesofemur, mesotibia and first segment of mesotarsus pale yellow; metathoracic leg predominantly pale yellow (Figs. 3a, 6a). Abdomen yellow, except brown tergites; anal tube and pygofer yellow (Figs. 2a, 4a–c).

Head: Frons approximately 2.5 times as long as broad (Figs. 2c, 3c). Scape short, pedicel subcylindrical, as long as wide (Figs. 2c, 3c, d). Clypeus approximately 4 times as long as broad; median carina absent (Figs. 2c, 3c).

Thorax: Pronotum with anterior margin rounded; posterior margin roundly concave (Figs. 2e, 3e). Mesonotum with median and lateral carina present, but sometimes weakly marked (Figs. 2b, 3e); scutellum with a laterobasal spine on each side (Fig. 3e). Forewing with ScP+R vein short, finishing at bifurcation of CuA vein; RA vein with apex strongly curved anteriorly; RP vein arising after ScP+RA vein; RP vein with three cells (C1, C1', C1b); MP₁₊₂ vein arising at the level of ir cross-vein. (Figs. 3f, 6f). Legs: metatibia with four lateral spines (Fig. 3a).

Male terminalia (Figs. 4a–c, 5a, b): Pygofer symmetrical, subrectangular, narrowest dorsally, with subtriangular projection with rounded apex on posterodorsal margin in lateral view (Fig. 4a); medioventral process small, slightly produced in lateral view (Fig. 4a) and subtriangular, forming an obtuse angle at the apex in ventral view (Fig. 4c). Gonostyli symmetrical, subrectangular, short, approximately 1.5 times shorter than anal tube, with apex convergent and indentation, forming two lobes: outer dorsoapical lobe with pointed apex curved inward in ventral view (L1), and inner ventroapical lobe with rounded apex in ventral view (L2) (Fig. 4c); dorsal margin with three spiniform projections in the apical 2/3: one subbasal elongated, slender and straight spine (S1); one shorter, robust spine, with a divergent sickle-shaped apex in the middle (S2); and one apical, shorter, robust, and anteriorly curved spine (S3) (Fig. 4a). Phallic complex symmetrical (anteriorly curved); perianthrium sclerotized, without spiniform projections (Fig. 5a, b). Aedeagus with one dorsobasal spine, short, slender and sinuous, with divergent apex (S1); one long, slender, and sinuous laterobasal spine (S2); and one long, almost straight, laterodorsal spine, with wide and membranous basal half, and sclerotized and pointed apical half (S3) (Fig. 5a, b). Anal tube (segment X) elongate, with dorsal margin almost straight and ventral sinuous; ventral margin with a short indentation at the apex, occupying less than 1/4 apical of the total length of the anal tube, forming two lobes (Fig. 4a); lobes ventrally curved, with pointed apex in lateral view (Fig. 4a). Paraproct subcircular (Fig. 4b).

Female similar to male.

Female terminalia (Fig. 7a–g): Pre genital sternite (sternite VII) ring-shaped with apex of the medioventral process triangular in ventral view, and curved dorsally in lateral view (Fig. 7a, b). Gonapophysis VIII (first valvula) with a long

and slender projection on the dorsoapical margin bearing elevated irregular teeth, forming a concavity, and with a row of small spines in the apical 1/3 to the base of the projection (Fig. 7c); a shorter, upwardly curved lateroapical projection with toothed dorsal margin in lateral view (Fig. 7c). Bursa copulatrix slightly filamentous at the apex, apex pointed and straight, in lateral view (Fig. 7c). Gonapophysis IX (second valvula) robust, wider basally, bifid at apical 3/4 with lobes slender apically and with convergent pointed apexes (Fig. 7d); ventral region of lobes with fine and small setae on apical 3/4 (Fig. 7d); basal half of the gonapophysis IX with spiniform projections in ventral region (Fig. 7d); basal plate of the gonapophysis IX elongated and semicircular (Fig. 7d). Gonoplac (third valvula) subrectangular in lateral view, apex truncated, with smooth indentation, and bearing numerous setae apically in lateral view (Fig. 7e). Anal tube (segment X) short, cylindrical; ventral margin of the anal tube reentrant, with elongated slender digitiform lobe, bearing three long apical spiniform setae, approximately half the length of the lobe (Fig. 7f). Paraproct concave, subcircular, with small indentation on the median apical margin in dorsal view (Fig. 7g).

Distribution. Costa Rica, Panama (Ancon), Guyana (Bartica), Brazil (Amazonas, Pará) (Fig. 8).

Additional material examined. **Brasil**, AM[azonas], Manaus, Reserva Ducke, Ig[arapé] Tinga, ii. 2004, Arm[adilha] Suspensa, 25 m, A. Henriques et al. (1 female, INPA); *idem*, PA [rá], Canaã dos Carajás, 03.iii.2004, Wanzeller leg. (4 males, DZUP). **Costa Rica**, Puntarenas Pr., La Palma, Cotinga Biological Station, sweeping grasses, 07-VII-2021, 8.621825N, –83.478819W, Coll.: B.W.Bahder (2 males, FLREC).

Discussion

Persis is a New World genus in the Neotropical region, except for *Persis (Anaparsis) arizonensis* O'Brien, 1986 and *Persis (Anaparsis) ferox* O'Brien, 1986, which have records from Arizona in the Nearctic (O'Brien 1986). The species are otherwise recorded from Neotropics, especially from Central America (Bourgoin 2025), including the species that is the focus of this work (Fig. 8).

Although the occurrence of *Persis (Eritalaena) fuscineris* in Brazil is a new record, it was expected given its short distribution history. Initially, *Persis (Eritalaena) fuscineris* was recorded for Guyana (formerly British Guiana), a country with 97% of its territory occupied by the Amazon biome (Pereira et al. 2024), and which shares borders Brazil, through the states of Roraima and Pará, territories that are also covered by the Amazon biome. The Amazonas, the state where we are recording *Persis (Eritalaena) fuscineris* for the first time in Brazil, borders Roraima, one of the Brazilian

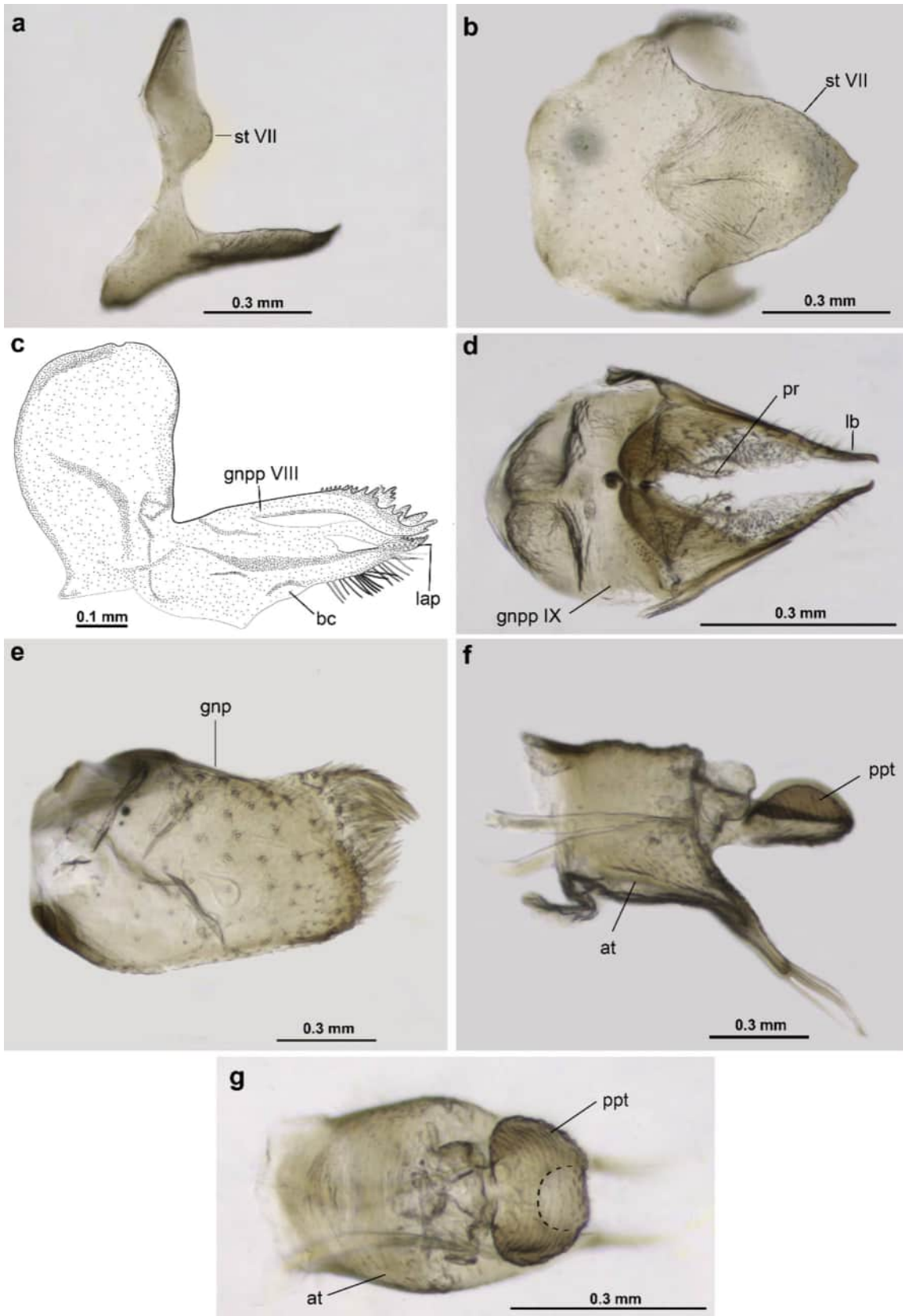


Fig. 7 *Persis (Eritalaena) fuscineris* Muir, 1918 female genitalia. **a** Sternite VII, lateral view; **b** sternite VII, ventral view; **c** gonapophysis VIII (first valvula) and bursa copulatrix, lateral view; **d** gonapophysis IX (second valvula), dorsal view; **e** gonoplac (third valvula), lateral view; **f** anal tube (segment X), lateral view; **g** paraproct, dorsal view. Abbreviations: Gonapophysis VIII (first valvula): bc—bursa copulatrix; bp—basal plate; gnpp, gonapophysis. lap—lateroapical projection; rs—row of spines; gonapophysis IX (second valvula): pr—processes. Gonoplac (third valvula): gnp—gonoplac; anal tube (segment X): at—anal tube; ppt—paraproct

states where *Persis (Persis) pugnax* Stål, 1862 was recently found (Dollet et al. 2020). From this point of view, this species is possibly associated with the Amazon Rainforest and is probably distributed in other countries in South America (International Amazon), as well as in other Brazilian states (Legal Amazon).

Although its occurrence was expected, since two of the three subgenera of *Persis* already have records for Brazil, providing this record 84 year after the last one (Metcalf 1938), highlights how much Cenchreini (Derbidae) is undersampled in the country. Of the 60 species and 11 genera that occur in the Neotropical Region (Dmitriev et al. 2022), only ten species and five genera are recorded in Brazil: *Agoo* Bahder & Bartlett, 2019 (*Agoo argutiola* Bahder & Bartlett, 2020, *Agoo spina* Bahder & Bartlett, 2020 and *Agoo galbina* Cantanhede et al., 2024; *Herpis* Stål, 1862 (*Herpis fuscovittata* Stål, 1862 and *Herpis vittata* (Fabricius, 1803)), *Persis* Stål, 1862 (*Persis (Anapersis) pallidovenosa* (Stål, 1862), *Persis (Anapersis) takiyae* Cantanhede et al., 2025 and *Persis (Persis) pugnax* Stål, 1862), *Phaciocephalus* Kikarldy, 1906 (*Phaciocephalus fimbriolata* (Stål, 1862)) and *Oropuna* Fennah, 1952 (*Oropuna orba* (Stål, 1862) (Bourgoin 2025).

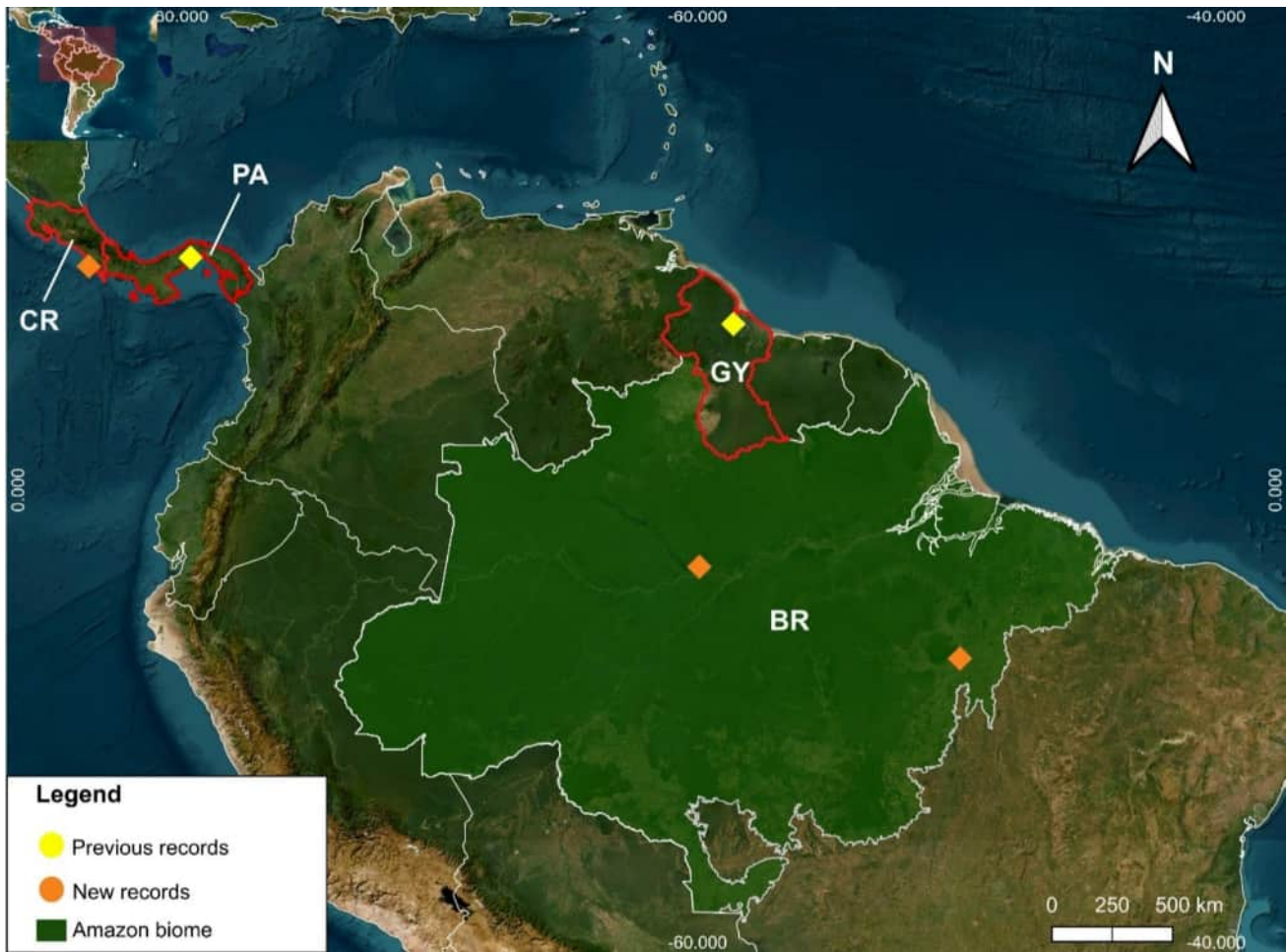


Fig. 8 Map of the *Persis (Eritalaena)* Fennah of the Neotropical region

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Author contributions IC conception, taxonomic identification, redescription of the species, photographs, plates and writing—original draft and edition; EFGV redescription of the species, photographs, writing—original draft, writing—review and edition; BWB taxonomic identification, data collecting at field, photos and drawings; CRB data collecting at field, writing—original draft, writing—review and edition; EABB data collecting at field; MAZE data collecting at field; RAR writing—original draft, writing—review and edition.

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Declarations

Data availability No extra datasets other than the existing data mentioned in the manuscript were generated or analysed during the current study.

Ethical approval Not applicable.

Informed consent Not applicable.

Conflict of interest The authors declare no conflict of interest.

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