

## *Pratigi aristeu*, a new Neotropical genus and species of Stenopodainae (Hemiptera: Heteroptera: Reduviidae)

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**Abstract.** *Pratigi aristeu* gen. & sp. nov. (Hemiptera: Heteroptera: Reduviidae: Stenopodainae) is described based on a male from the state of Bahia, Brazil. *Pratigi* gen. nov. differs from all other New World genera by the conspicuously elongated clypeus and the subpentagonal shape of the head. Other diagnostic features of *Pratigi* gen. nov. include: body somewhat broad, about three times as long as maximum width, flattened dorsoventrally; postocular part of head with a ramose setigerous process posterolaterally; prosternum elongated behind fore coxae; fore femora strongly incrassate, fusiform; fore tibiae curved; all tibiae without fossula spongiosa; fore tarsi three-segmented. A revised key to New World Stenopodainae genera is presented.

**Key words.** Heteroptera, Reduviidae, Stenopodainae, assassin bugs, *Attalea fumifera*, Brazil, Neotropical Region

### Introduction

Approximately 113 genera belonging to the assassin bug subfamily Stenopodainae (Hemiptera: Heteroptera: Reduviidae) are currently considered as valid, with the majority of them inhabiting the tropics (MALDONADO 1990, SCHUH & SLATER 1995), where the species diversity is greatest in Africa and America (GIACCHI 1987), particularly in the Amazon basin of South America (BÉRENGER 2001). Currently eighteen genera are recognized as valid in the Neotropical Region, which are separated in the key by WYGODZINSKY & GIACCHI (1994), recently modified by GIL-SANTANA et al. (2015). With the recent description of the North American genus *Arenaeocoris* Blinn, 2012 (BLINN 2012), the New World currently consists of nineteen genera of Stenopodainae.

The taxonomy, general morphology and the scarcely available biological data for American Stenopodainae were reviewed by GIACCHI (1987).

BARBER (1930) and FORERO (2004) compiled descriptions or diagnoses for the American genera of Stenopodainae. Several other papers, mostly authored by J. C. Giacchi, have separately provided redescriptions or taxonomical treatments of a few genera or species groups, all of which were summarized by GIL-SANTANA et al. (2015).

Many Stenopodainae appear to be closely associated with the soil, often being covered with soil, sand or various types of debris. Most species are known from collections made at lights, with males being collected more frequently than females, and little is known regarding their biology (GIACCHI 1987, SCHUH & SLATER 1995, BÉRENGER 2001).

In this study, *Pratigi aristeui* gen. & sp. nov. is described based on a male from the state of Bahia, Brazil. A revised key to New World Stenopodainae genera is presented.

### Material and methods

The holotype described here will be deposited in the Entomological Collection of the National Museum of the Federal University of Rio de Janeiro (Museu Nacional da Universidade Federal do Rio de Janeiro), Rio de Janeiro, Brazil (MNRJ). All measurements are in millimeters.

The photograph in Figure 5 was taken with a Leica DMC 2900 camera attached to a Leica M205C stereomicroscope, by Ms. Leticia Nery Alves Sant'ana of the Entomological Collection of the Oswaldo Cruz Institute (CEIOC), Rio de Janeiro, Brazil. The other figures were produced by the first author (HRG-S). Dissection of male genitalia was made by removing the pygophore from the abdomen with a pair of forceps and then clearing it in 20% NaOH solution for 24 hours. The dissected structures were studied and photographed in glycerol. Drawings were made using a camera lucida. Images of the external and genital structures were produced using digital cameras (Nikon D5200® with a Nikon® Macro Lens 105 mm, Sony DSC-W830®). For clarity, the vestiture (setation) was omitted in the ink drawings of Figures 4 and 10. The general morphological terminology used here mainly follows GIACCHI (1987) and SCHUH & SLATER (1995). However, the [visible] segments of the labium are numbered as II to IV, given that the first segment is lost or fused to the head capsule in most Reduviidae (WEIRAUCH 2008, SCHUH et al. 2009).

The terminology applied to the male genital characteristics mainly follows LENT & WYGODZINSKY (1979), GIL-SANTANA (2012) and GIL-SANTANA & GALVÃO (2013).

When describing the examined material, symbol ♂ is used for male. Additional remarks (such as the currently valid scientific name of a host plant) are placed in [square brackets].

### Taxonomy

#### *Pratigi* gen. nov.

**Type species.** *Pratigi aristeui* sp. nov., by present designation.

**Diagnosis. Male.** Body somewhat broad, about three times as long as maximum width, flattened dorsoventrally. Integument largely covered with short setigerous tubercles.

*Head* subpentagonal in shape; clypeus conspicuously elongated; antenna inserted close to eye; first antennal segment a little shorter than head but much longer than anteocular part. Eyes with sparse and very short setae. Labial segment II [first visible] shorter than the others

combined, slightly less than twice as long as each of the subsequent segments, which are of equal length to each other. Postocular part converging behind eyes to neck, with a ramose setigerous process posterolaterally.

*Thorax:* pronotum slightly wider than long, with anterolateral angles shortly and acutely produced and humeral angles protruding posterolaterally; disc of pronotum without spines. Anterior prosternal processes short; prosternum distinctly elongated behind fore coxae, the latter short. Fore femora strongly incrassate, fusiform. All tibiae without fossula spongiosa; fore tibiae curved; fore tarsi three-segmented.

*Abdomen* subrectangular, sides slightly curved; distal connexival angles very shortly and obtusely prominent; last segment truncated, with somewhat curved posterior margin.

**Description. Male.** Body somewhat broad, about three times as long as maximum width, flattened dorsoventrally. Integument dull, mostly covered with short, rounded tubercles, each tubercle with a short, pale, apical, scale-like seta (setigerous tubercles); with glabrous and moderately shiny areas, which form lines on femora, anterior lobe of pronotum and mesosternum; and with fusiform, subcircular or subtriangular small spots on both sides of sternites III–VII, laterally.

*Head* subpentagonal in shape; clypeus conspicuously elongated; mandibular plates (juga *sensu* GIACCHI 1987) short, divergent. Antenniferous tubercles with a small, lateral, acute protuberance. Antenna inserted close to eye; first antennal segment a little shorter than head but much longer than anteocular part; somewhat curved in basal and distal thirds, thickened, gradually becoming thicker towards apex; second segment somewhat longer and more slender than previous segment, straight in basal two-thirds, curved and thinner in distal third; third and fourth segments much thinner and shorter. Postocular part much wider than the anteocular. Eyes globose, semicircular in dorsal view, with sparse and very short (almost imperceptible) setae among facets. Transverse sulcus deep, sinuous, reaching inner posterior angle of eye. Ocelli moderately large. Labial segment II [first visible] thicker and shorter than the others combined, reaching approximately level of midportion of eye; segment III thinner toward apex. Segment IV slender, tapering, its apex reaching distal half of stridulatory sulcus. Postocular part of head converging behind eyes to neck, with a ramose setigerous process posterolaterally.

*Thorax:* pronotum somewhat wider than long, without spines, slightly marginated laterally, where a regular row of setigerous tubercles is present; anterolateral angles shortly and acutely produced; a lateral, small, rounded tubercle is present near transverse furrow of fore lobe; humeral angles protruding posterolaterally, with a rounded, sublateral prominence; a shallow furrow present between fore and hind lobes of pronotum, interrupted by a pair of submedian ridges; the ridges running on approximately proximal third of hind lobe. Fore lobe with a median, thin, somewhat deep longitudinal sulcus on approximately distal two-thirds. Scutellum subtriangular, with a median, shallow depression on basal portion, process elongated, tapering. Propleura moderately declivous, ventrally reaching posterior side of fore coxae. Meso- and metapleura vertical, with a thin carina on superior border, just below which a longitudinal sulcus is present, which is deeper on basal portion of mesopleura and on metapleura. Supracoxal lobes not prominent. Anterior prosternal processes short, pointed. Prosternum distinctly elongated behind fore coxae, where it forms a narrow, depressed, subrectangular sclerite. Stridulitrum long. Meso- and metasternum flat, large. Mesosternum with a somewhat large, glabrous, shiny stripe on lateral border, which is somewhat wider towards posterior portion.

*Legs*: fore coxae close, separated from each other by stridulitrum, which ends a little after hind margin of fore coxae; mid and hind coxae very distant from each other, inserted posterior and half externally to lateral margin of meso- and metasternum, respectively. Fore femora strongly incrassate, fusiform, armed with a few short, spiny, rounded tubercles on midline, ventrally. Mid and hind femora slender, straight, somewhat thickened subdistally. Hind femora far from reaching apex of abdomen. All tibiae compressed anteroposteriorly, except at base; with a median, narrow furrow on each lateral surface, except at base; without fossula spongiosa. Fore tibiae curved; mid and hind tibiae somewhat curved in distal third. Fore and hind tarsi three-segmented (mid tarsi absent).

*Hemelytra* with discal cell closed.

*Abdomen* subrectangular, flattened; sides slightly curved; distal connexival angles very shortly and obtusely prominent. Sternite II (first visible) approximately half as long as the others.

**Etymology.** The name of the new genus was given in reference to the name of the type locality. The name “Pratigi” is of uncertain origin. It may be derived from a native American language in an already misspelled form of a previous unknown word. According to the International Code of Zoological Nomenclature (ICZN 1999), because of the uncertainty of the meaning of this word as well as its gender, the latter must be treated as masculine (Art. 30.2.4). Therefore, following recommendation 30A of the Code, we expressly state the gender of *Pratigi* gen. nov. as masculine for the purpose of using this word as a genus name here.

***Pratigi aristelui* sp. nov.**

(Figs 1–14)

**Type locality.** Brazil, state of Bahia, municipality of Ituberá, locality of Pratigi.

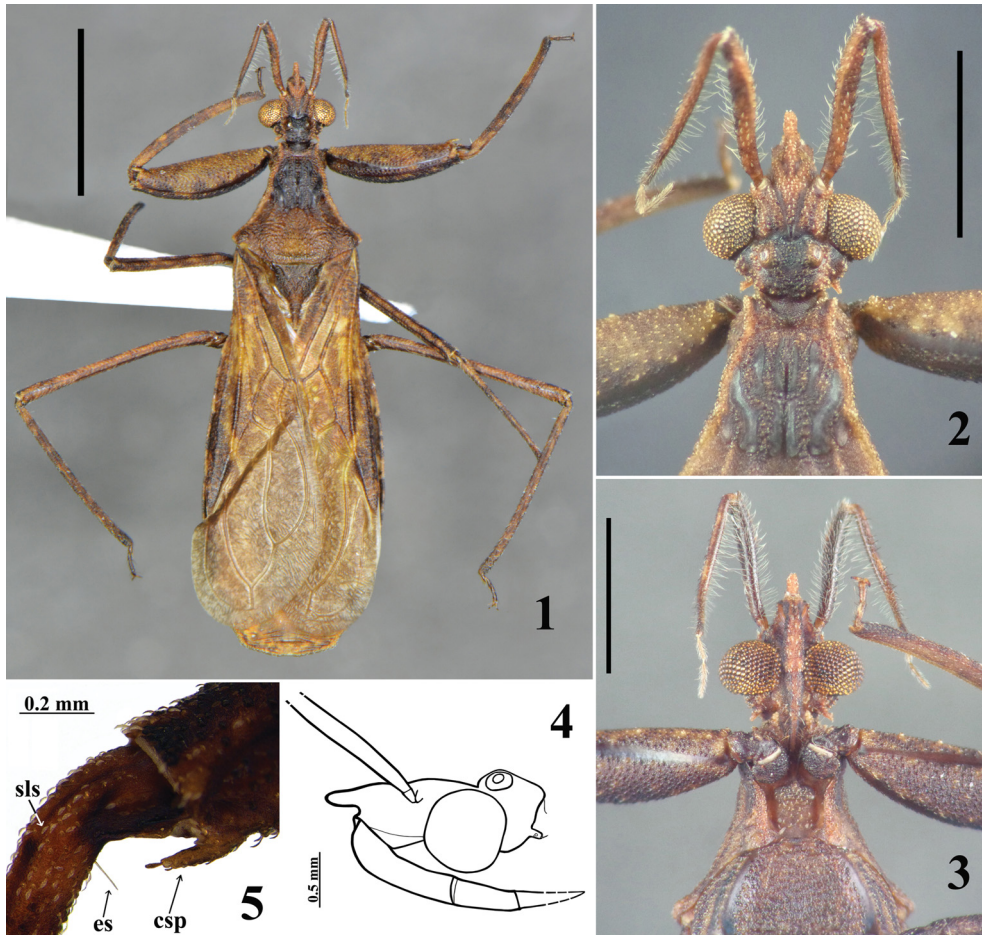
**Type material.** HOLOTYPE: ♂, BRAZIL: BAHIA state: ITUBERÁ municipality, Pratigi locality / 05.vi.2011 // light trap around “piaçava” [= *Attalea funifera* Martius] trees // *Pratigi aristelui* Gil-Santana & Oliveira // Holotype [red label] (MNRJ).

**Diagnosis.** General coloration brownish to black or reddish brown, with pale, stramineous markings (Fig. 1); other features as in generic diagnosis.

**Description. Male** (Figs 1–14). *Measurements* (mm): Total length 14.2; head: total length (excluding collum) 2.0; maximum width across eyes 1.9; anteocular length 0.8; postocular length 0.5; interocular space 0.8; length of antennal segments: I – 1.8; II – 2.1; III – 0.3; IV – 0.5; length of labial segments: II [first visible] – 1.0; III – 0.6; IV – 0.6. Thorax: pronotum: length 2.9; width at posterior margin 3.2; scutellum: length 1.5; width at base 1.3. Legs: fore femur: length 3.4; maximum width 1.0; fore tibia 4.0; fore tarsus (without claws) 0.6; mid femur: length 3.1; maximum width 0.3; mid tibia 3.5; mid tarsus: absent; hind femur: length 5.0; maximum width 0.3; hind tibia 5.0; hind tarsus (without claws) 0.8. Abdomen: length 8.2; maximum width 4.5.

*Coloration.* General coloration brownish to black or reddish brown, with pale, stramineous markings (Fig. 1).

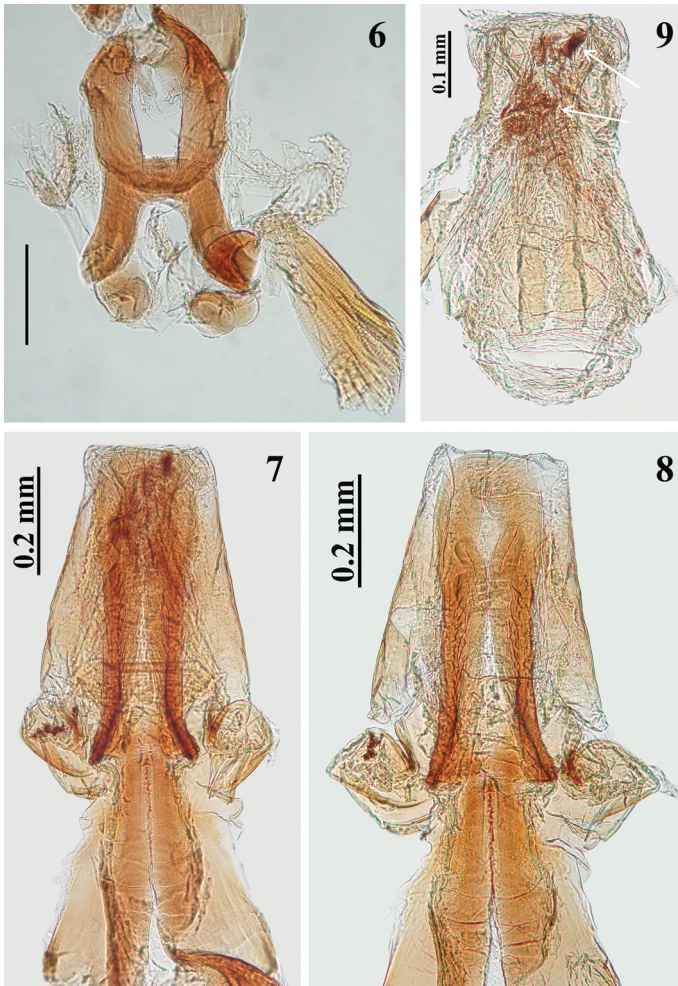
Head (Figs 1–3) blackish dorsally, with reddish to red-brownish portions: clypeus, mandibular plates and a small triangular area posterior to them; two pairs of longitudinal stripes, the longer pair running laterally to ocelli from lateral acute protuberance to posterior margin of head, and the shorter pair beginning at antennal insertion and convergent to meet transverse sulcus, which is blackish. Antennal segments I and II mostly reddish-brown dorsally, with apices and



Figs 1–5. *Pratiği aristei* gen. & sp. nov., male holotype. 1 – dorsal view (scale bar = 4.0 mm); 2 – head and anterior lobe of pronotum, dorsal view (scale bar = 2.0 mm); 3 – head, prothorax and part of mesosternum, ventral view. (scale bar = 2.0 mm); 4 – head (schematic), lateral view; 5 – fore leg, apex of femur and basal portion of tibia, lateral view. Abbreviations: csp – conspicuous setigerous process, es – erect seta, sls – scale-like seta.

small irregular markings on segment I darkened; segment I blackish ventrally, with extreme base clearer, reddish; segment II brownish black ventrally, with irregular pale markings in subbasal and submedian portions; segments III and IV brownish. Gula brownish. Labium brownish, with ventral midline reddish to reddish brown. Collum blackish.

Thorax (Figs 1–3) mostly brownish. Pronotum with lateral margins paler and stramineous; fore lobe mostly blackish, anterior collar red-brownish. Scutellum brownish to brownish black, with apex of process somewhat paler. Propleura with three longitudinal, moderately thin, weakly dark stripes; meso- and metapleura with three longitudinal, parallel, faint,



Figs 6–9. *Pratiagi aristeui* gen. & sp. nov., male genitalia, dorsal view. 6 – artillary apparatus; 7–8 – pedicel and apical portion of phallus (7 – apical portion of phallus including dorsal phallosheath sclerite, struts and endosoma); 8 – the same without endosoma); 9 – endosoma, the arrows point to the sclerotized irregular thickenings.

blackish stripes. Mesosternum with a pair of lateral, blackish, shiny stripes somewhat larger towards posterior border.

Legs: coxae blackish; trochanters blackish, with apices and lateral portions of mid and hind pairs brownish. Femora and tibiae brownish, with blackish, scattered markings. Fore femora with lateral surfaces mostly brownish, while dorsal and ventral surfaces being predominantly blackish; three longitudinal, subparallel, glabrous, blackish, shiny lines on dorsal surface, the lateral lines much wider at base, becoming as thin as the median line toward apical portion; on ventral surface, a blackish glabrous line, somewhat wider in midportion; these dorsal and ventral lines ending near apex of femur; conspicuous apiciventral processes blackish in inferior portion and testaceous in superior portion. Mid and hind femora with longitudinal, blackish, glabrous

lines, which are variably interrupted, but somewhat wider in apical portion; each femur possesses a line on its dorsal surface; two on posterolateral surface, one on mid-anterolateral surface, and an incomplete line at ventral midline, the latter present in distal portion of the segment. All femora blackish in apicomedial portion, dorsally, and on ventral margin between the setigerous tubercles. Apicoventral setigerous processes of mid and hind femora completely blackish. Apices of all tibiae darkened to blackish. Tarsi brownish; claws red-brownish.

Hemelytra brownish to brownish black, with many stramineous spots or irregular markings, including a larger marking over median portion of M vein and its adjacent portion on corium and more numerous, regularly subrounded spots on membrane (Fig. 1).

Abdomen brownish, with ill-defined, scattered, minute, stramineous spots; somewhat darker areas present on approximately lateral midportion of each sternite. Connexivum brownish with subdistal pale marking on each segment; last segment somewhat pale in midportion of posterior margin. Spiracles pale.

*Vestiture.* Integument mostly covered with short, rounded tubercles, each tubercle with a short, pale, apical, scale-like seta (setigerous tubercles) (Fig. 5). Setigerous tubercles on head and legs with a somewhat larger base.

Head mostly covered with setigerous tubercles, which have a somewhat even larger base in postocular part, ventrolaterally, where a ramose setigerous process is present (Figs 2–4). Glabrous areas on head: transverse sulcus, a pair of divergent thin stripes (similar to a “V”) from midpoint of interocular sulcus to space between antennal insertion and mandibular plates (Fig. 2), ocelli, gula and collum. Antennal segment I covered with setigerous tubercles dorsally and laterally; ventrally with very numerous, erect, whitish setae, forming a somewhat dense pubescence (Figs 2–3); similar pubescence covering basal three-quarters of segment II ventrally and on one side, laterally; on the opposite side, laterally, a longitudinal row of about fifteen stiff, stouter, darkened to blackish setae similar in length to those of thin whitish setae in each portion (i.e. longer in proximal two-thirds and shorter in distal third); dorsal surface of basal three-quarters of segment II covered with setigerous tubercles; segment II distally (where it is curved and thinner) covered with whitish pubescence, in which, however, thin setae are half to a third shorter. Antennal segments III and IV covered with a pubescence of thin, whitish, short, decumbent setae (Figs 2–3) and with a few scattered, longer and darker, erect setae. Labial segments II and III with several setigerous tubercles ventrally; a pair of stiff, erect setae present near apex of segment III, ventrally; segment IV with several erect, moderately short to somewhat longer setae.

Thorax covered by setigerous tubercles. Pronotum (Figs 1–2): a regular row of setigerous tubercles laterally; glabrous and shiny areas on fore lobe: small area on median portion of anterolateral angles; glabrous, somewhat straight to curved linear areas among sinuate linear ridges of setigerous tubercles and between the more external ridges and lateral margin of fore lobe. Longitudinal sulcus on meso- and metapleura glabrous on anterior two-thirds of the former and almost completely on the latter. Mesosternum with a somewhat large, glabrous, shiny stripe on lateral border.

Legs, except tarsi, covered with setigerous tubercles. Trochanters with a pair of small glabrous areas, ventrally. All femora with an apical pair of conspicuous setigerous processes, ventrally, which are conspicuously larger on fore femora (Fig. 5) and short and progressively

smaller in mid and hind femora; terminal seta longer and somewhat narrower in the processes of mid and hind femora. Two or three simple, erect, whitish, thin setae on base of all tibiae, ventrally (Fig. 5). Distal two-thirds of ventral surface of fore tibiae with very short, curved, thin, simple setae; mid and hind tibiae with somewhat longer setae on distal half, which become more numerous towards apex ventrally. All tibiae with an apical cluster of golden-reddish stiff setae ventrally. Blackish lines on femora and lateral longitudinal furrows on tibiae, glabrous. Fore and hind tarsi (mid tarsi absent) without setigerous tubercles, covered with moderately long and stiff darkened setae, more numerous on ventral surface of first tarsomere, forming a cluster similar to those of the apices of the tibiae.

Hemelytra: corium with scattered, sparse setigerous tubercles, somewhat more numerous over costal, radial and median veins; inner portion of distal half of corium and all the membrane glabrous.

Abdomen: setigerous tubercles somewhat more numerous on posterolateral angles of connexivum. Fusiform, subcircular or subtriangular, small glabrous, somewhat shiny spots present on sternites III–VII, laterally; at each side of sternite, a pair of them lying just posterior to the intersegmental suture and the other spot lies near the median portion of each side (Fig. 10).

*Structure.* Integument mostly dull and rugose in the portions in which there are setigerous tubercles; it is smooth with minute punctures in the glabrous areas of the head, thorax and sternites.

Head as long as wide, shorter than pronotum; anteocular portion approximately 1.5 times longer than postocular. Eyes very large (Figs 1–4), laterally prominent (Figs 1–2); on ventral surface of head the eyes are very close to each other (Fig. 3). Interocellar distance slightly shorter than twice the width of each ocellus. Length of labial segment II slightly less than twice as long as each of the subsequent segments, which are the same in length to each other.

Thorax (Figs 1–3): fore lobe of pronotum with sinuate linear ridges of setigerous tubercles and narrow and somewhat shiny and glabrous linear areas among them.

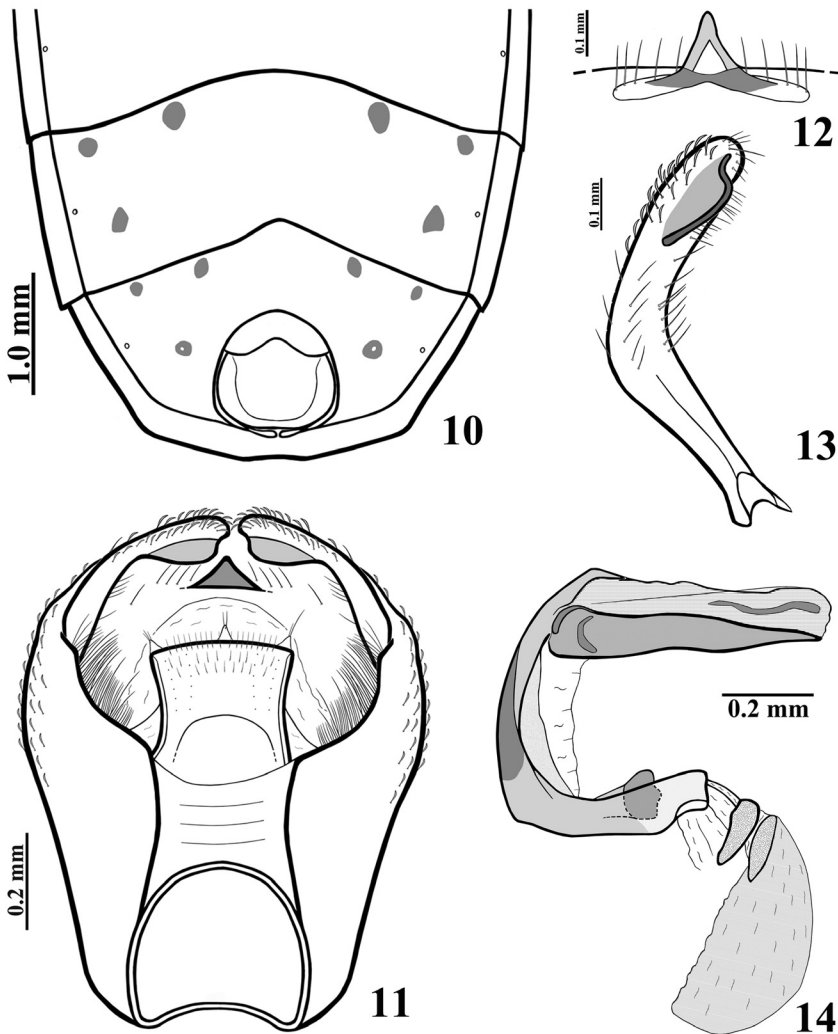
Legs: fore trochanters with a pair of small shallow elevations ventrally. Fore femora more than thrice as thick as mid and hind femora; in lateral view, the dorsal rim is semicircular and the ventral rim is somewhat straight; the latter medially armed with four spiny rounded tubercles; three of the latter situated at about the basal half and the fourth approximately in mid portion of distal half. All femora armed ventrally with an apical pair of curved, conspicuous, setigerous processes, which are conspicuously larger on fore femora (Fig. 5), these are succeeded by processes of decreasing length in mid and hind femora.

Hemelytra not reaching tip of abdomen (Fig. 1), ending approximately 0.5 mm from posterior margin.

Abdomen: integument of the exposed portion of last tergite with some transverse and somewhat undulating subparallel furrows. Intersegmental furrows between sternites III–VII with very shallow canaliculae in median half of each furrow. Last segment truncated and somewhat curved at posterior margin and notched in middle posteriorly (Fig. 10). Genital capsule at a distance from posterior margin of abdomen, situated somewhat parallel to the connexival border (Fig. 10). Posterior margin of sternite VIII sinuous medially (Fig. 10).

External genitalia (Figs 6–14). Pygophore and parameres brownish. Exposed portion of pygophore concave (Fig. 10), covered with setigerous tubercles with scale-like setae; integument





Figs 10–14. *Pratiği aristewi* gen. & sp. nov., male holotype. 10 – apical portion of abdomen, ventral view; 11 – pygophore and parameres, dorsal view; 12 – median process of pygophore, anterior view; 13 – right paramere; 14 – phallus, lateral view.

dull, with very thin, shallow, subparallel, transverse furrows; posterior margin with a very small, median, rounded notch. Anterior and posterior apertures of pygophore separated by a membranous bridge (Fig. 11). Dorsolateral margin of pygophore, between the membranous bridge and insertions of parameres, with numerous, variably long, erect setae (Fig. 11). Median process of pygophore (Figs 11–12) only visible in dorsal view, directed upwards, situated just below paramere apices, subtriangular, with adjacent sparse erect setae. Paramere apices close

in resting position (Fig. 11); in ventral view only the posterior margins of their apices are visible (Fig. 10); parameres (Figs 11, 13) symmetrical, strongly curved in midportion, with a sclerotized blunt process on internal surface; covered with scale-like setae on the exposed surface and apical half, which are somewhat more numerous in apical third; on inner surface, scattered, straight, moderately short to moderately long, erect, thin setae present in apical two-thirds, which are somewhat more numerous below the subapical prominence. Phallus (Figs 6–9, 14): articular apparatus short, longer than wide, with very short basal bridge and basal arms (Fig. 6). Pedicel slightly longer than articular apparatus, moderately curved in lateral view, enlarged in basal portion (Figs 7–8, 14). Dorsal phallosomal plate trapezoid, somewhat sclerotized, with a pair of suboval basal expansions, laterally (Figs 7–8). Struts consisting of a pair of elongated arms, more widely separated at base, joined subdistally and distally; subcylindrical in approximately basal two-thirds and somewhat enlarged towards apices, which are rounded (Figs 7–8). Endosoma wall smooth and very wrinkled (Fig. 9). Endosoma somewhat more sclerotized in middle portion, with a median pair of very feebly sclerotized, straight, parallel processes not reaching apex; another sclerotized, irregular thickenings, without forming a clear process, in approximately distal half (Fig. 9).

**Etymology.** The new species is named after the entomologist João Aristeu da Rosa, to honour his significant contributions to the study of Triatominae, the notorious vectors of Chagas' disease.

**Distribution.** Brazil (Bahia).

## Discussion

**Habitat.** As in many species of Stenopodainae which are known primarily from males collected in light traps (GIACCHI 1987, SCHUH & SLATER 1995, BÉRENGER 2001), the male holotype of *Pratigi aristeui* gen. & sp. nov. was collected with the same technique.

Unfortunately, data concerning the biology of the Stenopodainae are generally very scarce. A better understanding of the ecology of this subfamily might be gained by using several collecting methods, in addition to light traps. For instance, the discovery of *Rhyparoclopius aokiae* Gil-Santana, 2012, a species in which both males and females are brachypterous, would not have been possible without the use of pitfall traps (GIL-SANTANA 2012).

It therefore seems worthwhile to highlight the finding of *Pratigi aristeui* around the piassava palm *Attalea funifera* Martius (Arecaceae). This palm tree species is endemic to the nearly extirpated Atlantic coastal rain forests of eastern Bahia, Brazil and is the most economically important native palm in the region (VOEKS 2002).

Many insects have been found in association with palms (LEPESME 1947, HOWARD et al. 2001). VOEKS (2002) reported occurrences of several species related with *Attalea funifera* in the state of Bahia, Brazil, including species belonging to the following orders and families: Coleoptera (Chrysomelidae, Curculionidae, Scarabaeidae: Dynastinae, Nitidulidae and Staphylinidae), Hemiptera (Anthocoridae), Hymenoptera (Apidae and Vespidae) and Diptera (Drosophilidae).

Among Reduviidae, species of Emesinae, Harpactorinae, Phymatinae, Physoderinae, Saincinae and Triatominae have been recorded from palms (LEPESME 1947, CARAYON et al. 1958, WYGODZINSKY 1966, SCHUH & SLATER 1995, HOWARD et al. 2001, GIL-SANTANA et al. 2010, ABAD-

FRANCH et al. 2015). The latter authors listed numerous species of Triatominae associated with or infesting several species of palms, including *Attalea* species. However, although palms are ubiquitous across Neotropical landscapes (ABAD-FRANCH et al. 2015), we could not find any previous records, at least from the New World, of Stenopodainae collected from them.

Thus, taking in account the great number of species of other insects already collected from palms, including reduviids, future collecting efforts in search of Stenopodainae should also consider palm trees as possible natural habitats for them.

**Systematic position.** *Pratigi aristelui* gen. & sp. nov. exhibits a set of features which distinguish it from all other genera of Neotropical Stenopodainae (BARBER 1930, WYGODZINSKY & GIACCHI 1994, FORERO 2004, BLINN 2012, GIL-SANTANA et al. 2015).

The primary distinguishing feature is the conspicuously elongated clypeus. The subpentagonal shape of the head is also unique, since Stenopodainae in general and particularly in genera from the Western Hemisphere, the shape of the head is cylindrical or subcylindrical (WYGODZINSKY & GIACCHI 1994, FORERO 2004, BLINN 2012).

*Pratigi* gen. nov., *Achillas* Torre Bueno, 1914, *Ctenotrachelus* Stål, 1868, *Ocrioessa* Bergroth, 1918 and *Seridentus* Osborn, 1904 share the prosternum elongated behind the fore coxae, being as long or longer than the latter (WYGODZINSKY & GIACCHI 1994, GIL-SANTANA et al. 2015). However, the other genera can be distinguished by the following features that are either absent or modified in *Pratigi* gen. nov. (BARBER 1930, GIACCHI 1985, GIL-SANTANA et al. 2015): in *Achillas*, the posterior angles of connexival segments II–V have spined foliaceous lobes and the angles of the seventh male abdominal segment are long and acutely produced; *Ctenotrachelus* has a pronotum at least twice as long as its width and the last abdominal segment ends in two moderately developed lobes; *Ocrioessa* has a pair of spine-like tubercles on the disc of the fore lobe of pronotum, humeri that are acutely spinous, a scutellum with long and erect spine and fore coxae that are cylindrical, elongated and about twice as long as their width; in *Seridentus*, the anterior prosternal processes are strongly produced and curved apically, and the sides of the abdomen diverge towards the apex, with the last segment of male ending in two flaring, widely developed, acute lobes. Additionally, in all these four genera, the fore tibiae have fossula spongiosa at the apex, which are absent in *Pratigi aristelui*.

In addition to *Pratigi*, several other New World genera of Stenopodainae have also fore femora that are moderately to strongly incrassate (at least twice as thick as the mid and hind femora), such as *Apronius* Stål, 1865, *Kodormus* Barber, 1930, *Ocrioessa*, *Oncocephalus* Klug, 1830, *Otiodyctylus* Pinto, 1927 and *Rhyparoclopius* Stål, 1868 (BARBER 1930, FORERO 2004, GIL-SANTANA et al. 2015). However, with the exception of *Ocrioessa*, whose main differences in relation to *Pratigi* have already been discussed above, in none of the others is the prosternum distinctly elongated behind the fore coxae. Other features found in each of these genera, but not seen or differently presented in *Pratigi*, allow further separation. *Apronius* has four or five keeled abdominal sterna and a conspicuous fossula spongiosa on the fore tibiae, which, although less developed, are also present on the fore tibiae of *Otiodyctylus*. *Kodormus* has a pair of tubercles on the disc of the fore lobe of the pronotum and connexival segments that are acutely expanded laterally in one or more segments. *Oncocephalus* does not have ramose setigerous processes posterolaterally behind the eyes; the latter are glabrous

and the fore tibiae are almost straight, not curved. The first antennal segment is short, being less than the length of the anteocular part in *Kodormus*, *Otiodactylus* and *Rhyparoclopius*. The connexival margins are lobulated in *Otiodactylus* and expanded in *Rhyparoclopius*; the latter has an integument presenting a dense, adpressed pubescence and numerous tiny, erect setae, and the fore tarsi have two segments (BARBER 1930, FORERO 2004, MALDONADO 1986, GIL-SANTANA 2012, GIL-SANTANA et al. 2015).

Several papers, mostly authored by J. C. Giacchi, summarized by GIL-SANTANA et al. (2015), included descriptions of the male genitalia of many species of American Stenopodainae, but no characters indicative of generic differences have been established so far. On the other hand, well-defined differences between or among species in the same genus, involving mostly the parameres, the shape of the dorsal phallosomal plate, struts and the processes or sclerotizations of the endosoma, have been recorded (e.g. GIACCHI 1969, GIL-SANTANA 2012). Likewise, the structures of the male genitalia of *Pratigi aristewi* are similar to those found in other American genera of Stenopodainae, as well as in Reduviidae in general (GIACCHI 1987). However, the characters described here may prove useful in future comparative taxonomical and systematic studies of Stenopodainae.

A revised key to the New World genera of Stenopodainae is presented below.

### Key to New World genera of Stenopodainae

(Based on WYGODZINSKY & GIACCHI 1994, GIL-SANTANA et al. 2015 and BLINN 2012)

- 1 First antennal segment produced beyond insertion of the second segment; distinct hemelytral cell present anteriorly to the basal cell. .... 2
- First antennal segment not produced beyond insertion of the second segment; distinct hemelytral cell anteriorly to basal cell absent. .... 3
- 2 Antennifer armed with a distinct, nearly erect spine; first segment of mid- and hind tarsi as long as the second; posterior angles of connexival segments salient or strongly salient. .... *Pnirontis* (*Pnirontis* Stål, 1859)
- Antennifer unarmed or provided with minute spines; first segment of mid and hind tarsi shorter than the second; posterior angles of connexival segments varied. ....  
..... *Pnirontis* (*Centromelus* Fieber, 1860)
- 3 First (visible) labial segment approximately twice as long as the second and third combined. .... *Pygolampis* Germar, 1817
- First (visible) labial segment subequal to, or shorter than, the second and third combined. .... 4
- 4 Prosternum distinctly elongate behind the fore coxae, elongated portion as long as, or longer than coxae. .... 5
- Prosternum behind coxae shorter than length of coxae, or coxae inserted at the hind margin of prosternum. .... 9
- 5 Head subpentagonal in shape; clypeus conspicuously elongated anteriorly; tibiae lacking fossula spongiosa. .... *Pratigi* gen. nov.

- Head cylindrical or subcylindrical in shape; clypeus not elongated anteriorly; fore tibiae with fossula spongiosa. .... 6
- 6 First (visible) labial segment about as long as second; anterolateral angles of collar and humeri acutely spinous; disc of anterior pronotal lobe with paired distinct spine-like tubercles; scutellum with long, erect spine; fore coxae elongate cylindrical, about twice as long as wide; hemelytral apical cu-pcu cross-vein obsolete. .... *Ocrioessa* Bergroth, 1918
- First (visible) labial segment much longer than second; anterolateral angles of collar and humeri bluntly rounded; disc of anterior pronotal lobe lacking spine-like tubercles; scutellum with short, blunt process; fore coxae shorter, less than twice as long as wide; apical cu-pcu cross-vein normally developed. .... 7
- 7 Posterior angles of connexival segments II–V with spined foliaceous lobes; angles of seventh male abdominal segment long, acutely produced. . *Achillas* Torre Bueno, 1914
- Posterior angles of connexivum shortly produced; angles of seventh male abdominal segment not as above. .... 8
- 8 Pronotum at least twice longer than wide; anterior prosternal processes short; abdomen not enlarged towards apex; last abdominal segment ending in two moderately developed apical lobes. .... *Ctenotrachelus* Stål, 1868
- Pronotum a little longer than wide; anterior prosternal processes strongly produced, curved apically; abdomen enlarged towards apex; last male abdominal segment ending in two flaring, widely developed, apical lobes. .... *Seridentus* Osborn, 1904
- 9 Body and appendages with dense, adpressed pubescence and numerous tiny, erect bristles; basal discal cell of the hemelytra fused to M, in many cases only for a comparatively short distance. .... 10
- Body glabrous or variously pubescent but not as above; basal cell fused to M for a considerable distance or not in direct contact with M at all. .... 12
- 10 Fore tarsi two segmented; fore femora strongly incrassate, fusiform; humeri rounded; first antennal segment much shorter than head. .... *Rhyparoclopius* Stål, 1868
- Fore tarsi three segmented; fore femora only feebly incrassate, subcylindrical; humeri pointed; first antennal segment about as long as the head or longer than the head. .... 11
- 11 Anterior tibiae with elongate fossula spongiosa; postocular region of the head nearly parallel-sided in dorsal view, abruptly constricted at neck. .... *Stenopoda* Laporte, 1833
- Anterior tibiae lacking fossula spongiosa; postocular region of the head gently converging behind eyes to neck. .... *Stenopodessa* Barber, 1930
- 12 Body elongate fusiform, often five times (or more) as long as the maximum width; antecular and postocular regions with equal length; antennae long and slender, first segment always longer than the antecular region; pronotum narrow, its length along midline at least equal to width across humeri; male genitalia, when in situ, with cup-like posterior extension of pygophore completely covering parameres; female genital area narrowly pointed posteriorly. .... 13
- Body not elongate fusiform, broader, always less than five times as long as maximum width; antecular region longer than postocular; antennae with first segment generally

- shorter than, only rarely as long as or even longer than anteoocular region; pronotum wider across humeri than along midline; male genitalia, when in situ, with parameres not covered, clearly visible; female genital area not narrowly pointed posteriorly. .... 14
- 13 Head with distinct, often branched, setigerous processes ventrolaterally behind eyes; maxillary plates shortly produced as rounded lobes, or strongly produced as acute lobes, on either side of base of labium. .... *Gnathobleda* (*Gnathobleda* Stål, 1859)
- Head with or without distinct setigerous processes ventrolaterally behind eyes; maxillary plates not produced as described above. .... *Gnathobleda* (*Pnohirmus* Stål, 1859)
- 14 Fore femora strongly incrassate, at least twice as thick as mid- and hind femora. .... 19
- Fore femora slender, less than twice as thick as mid and hind femora. .... 15
- 15 Mandibular plates produced anteriorly between antennae, subcylindrical, parallel, rounded apically, projecting well beyond the apex of the head; apex of antennifer attaining the apex of the head; second (visible) labial segment only about half as long as the first one. .... *Diaditus* Stål, 1859
- Mandibular plates not as above; apex of antennifer considerably short, not attaining the apex of the head; second (visible) labial segment not, or only very slightly shorter than the first segment. .... 16
- 16 Head, thorax, abdomen ventrally, legs and base of hemelytra with very numerous uniformly dense, small setigerous tubercles, metapleura with conspicuous sooty black evaporatory area. .... *Podormus* Stål, 1859
- Setigerous tubercles when present not as above; metapleura with or without sooty black evaporatory area. .... 17
- 17 Postocular region shorter than eyes; humeral angles not acutely produced; setae on hind tibiae four to five times longer than its diameter. .... *Narvesus* Stål, 1859
- Postocular region longer than eyes; humeral angles acutely produced; setae on hind tibiae generally shorter, or slightly longer than its diameter. .... 18
- 18 Prosternal processes well developed, extending towards hind margin of the eye; fore femora covered with small setigerous tubercles, with ill-defined row of larger setigerous tubercles on lower surface; connexivum border entire, not denticulate. .... *Arenaeocoris* Blinn, 2012
- Prosternal processes short or inconspicuous; fore femora conspicuously tuberculate on ventral and dorsal surfaces; connexivum margin denticulate. .... *Nitornus* Stål, 1859
- 19 Fore tibiae with conspicuous fossula spongiosa, approximately twice as long as the diameter of the tibia. .... *Apronius* Stål, 1865
- Fore tibiae without fossula spongiosa, with fossula spongiosa as long as or shorter than diameter of tibia. .... 20
- 20 Head posterolaterally behind eyes with ramose setigerous processes; eyes distinctly though shortly pilose; fore and hind tibiae distinctly curved; connexival margins lobulate or denticulate. .... 21
- Head posterolaterally behind eyes at most with simple setiferous spines; eyes not pilose; fore and hind tibiae almost straight; connexival margins entire. .... *Oncocephalus* Klug, 1830

- 21 Disc of anterior pronotal lobe with paired conspicuous tubercles; evaporatory area of metapleuron large, sooty black. .... *Kodormus* Barber, 1930  
 – Disc of anterior pronotal lobe without conspicuous tubercles; evaporatory area of metapleuron reduced in size, stramineous. .... *Otiodactylus* Pinto, 1927

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