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Revision of the Neotropical spider genus *Stethorrhagus* (Araneae, Corinnidae)

Abstract

The genus *Stethorrhagus* SIMON, 1896 is characterized and described. Seven previously known species are redescribed: *S. chalybeius* (L. KOCH, 1866) n. comb.; *S. duidae* GERTSCH, 1942; *S. limbatus* SIMON, 1896, the type species; *S. lupulus* SIMON, 1896; *S. nigrinus* (BERLAND, 1913) n. comb.; *S. roraimae* GERTSCH, 1942 and *S. tridentatus* CAPORIACCO, 1955. Seven new species are described: *S. oxossi* and *S. archangelus* from Brazil; *S. latoma* from Venezuela; *S. penai* from Ecuador; *S. planada*, *S. peckorum* and *S. hyula* from Colombia. The male of *S. lupulus*, the female of *S. tridentatus* and the actual female of *S. chalybeius* are described for the first time. *S. abrahami* MELLO-LEITÃO, 1948 is synonymized with *S. limbatus* SIMON. The genus *Parachemmis* is newly transferred from Liocranidae to Corinnidae. *Stethorrhagus hassleri* GERTSCH, 1942 is synonymized with *Stethorrhagus mastigostylus* MELLO-LEITÃO, 1948 and transferred to *Parachemmis*.

Resumo

Revisão do gênero *Stethorrhagus* (Araneae, Corinnidae) da região neotropical

O gênero *Stethorrhagus* SIMON, 1896 é caracterizado e descrito. Sete espécies conhecidas são redescritas: *S. chalybeius* (L. KOCH, 1866) n. comb.; *S. duidae* GERTSCH, 1942; *S. limbatus* SIMON, 1896, a espécie-tipo; *S. lupulus* SIMON, 1896; *S. nigrinus* (BERLAND, 1913) n. comb.; *S. roraimae* GERTSCH, 1942 e *S. tridentatus* CAPORIACCO, 1955. Sete espécies novas são descritas: *S. oxossi* e *S. archangelus* do Brasil; *S. latoma* da Venezuela; *S. penai* do Ecuador; *S. planada*, *S. peckorum* e *S. hyula* da Colombia. O macho de *S. lupulus*, a fêmea de *S. tridentatus* e a atual fêmea de *S. chalybeius* são descritas pela primeira vez. *S. abrahami* MELLO-LEITÃO, 1948 é sinonimizado com *S. limbatus* SIMON. O gênero *Parachemmis* é transferido de Liocranidae para Corinnidae. *Stethorrhagus hassleri* GERTSCH, 1942 é sinonimizado com *Stethorrhagus mastigostylus* MELLO-LEITÃO, 1948 e transferido para *Parachemmis*.

Kurzfassung

Revision der neotropischen Spinnengattung *Stethorrhagus* (Araneae, Corinnidae)

Die Gattung *Stethorrhagus* SIMON, 1896 wird charakterisiert und beschrieben. Sieben bereits bekannte Arten werden wiederbeschrieben: *S. chalybeius* (L. KOCH, 1866) n. comb.; *S. duidae* GERTSCH, 1942; *S. limbatus* SIMON, 1896, die Typusart; *S. lupulus* SIMON, 1896; *S. nigrinus* (BERLAND, 1913) n. comb.; *S. roraimae* GERTSCH, 1942 und *S. tridentatus* CAPORIACCO, 1955. Sieben neue Arten werden beschrieben: *S. oxossi* und *S. archangelus* aus Brasilien; *S. latoma* aus Venezuela; *S. penai* aus Ecuador; *S. planada*, *S. peckorum* und *S. hyula* aus Kolumbien. Das Männchen von *S. lupulus*, das Weibchen von *S. tridentatus* und das eigentliche Weibchen von *S. chalybeius* werden erstmals beschrieben. *S. abrahami* MELLO-LEITÃO, 1948 wird synonymisiert mit *S. limbatus* SIMON. Die Gattung *Parachemmis* wird von den Liocranidae zu den

Corinnidae transferiert. *Stethorrhagus hassleri* GERTSCH, 1942 wird mit *Stethorrhagus mastigostylus* MELLO-LEITÃO, 1948 synonymisiert und zu *Parachemmis* gestellt.

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1. Introduction

The spider genus *Stethorrhagus* was erected by SIMON (1896) for two Amazonian species. Since this time the genus was recognized by the presence of one pair of excavations on anterior margin of the sternum, regarded as a relative of *Megalostrata* KARSCH and *Corinna* C. L. KOCH and listed under Corinninae (Clubionidae or Corinnidae). The genus is exclusively neotropical and includes up to date ten species (SIMON, 1896; FRANGANILLO, 1926, 1930; GERTSCH, 1942; MELLO-LEITÃO, 1948; CAPORIACCO, 1955).

In addition to the sternal excavations, all known species of *Stethorrhagus* have a ventral, apical articulated apophysis on the male palpal tibia. These two characters, however, are not restricted to *Stethorrhagus* and may define a group of genera in Corinninae.

Another representative of this group is *Parachemmis*, described by CHICKERING (1937), who judged it as a relative of *Chemmis* SIMON and *Anachemmis* CHAMBERLIN, both at that time included in Micariinae (Clubionidae). REISKIND (1969) in his reclassification of Micariinae, considered *Parachemmis* a possible Liocraninae (Clubionidae), mainly by the presence of four to six pairs of long ventral spines on the tibiae of the first pair of legs and only simple hairs on abdomen. In our opinion, however, *Parachemmis* is not a Liocranidae, as listed by recent catalogers. Several pairs of ventral spines on anterior tibiae are common among Corinninae and scanning electron micrographs of *Parachemmis hassleri* (GERTSCH) showed feathery setae on abdomen and legs (fig. 3 a-c), a character present in both Corinnidae and Liocranidae. Also, in *Parachemmis* no ventral rows of bristles or modified setae on anterior metatarsi and tarsi do occur, as in some Liocranidae (UBICK & PLATNICK 1991, PLATNICK & DI FRANCO 1992). On the other hand, males of the genus have no median apophysis on the palpal bulb, which was suggested to be a synapomorphic loss for Corinnidae by PENNIMAN (1985). The presence of ster-

nal excavations in both sexes and an articulated apophysis on male palpal tibiae are strong indications that *Parachemmis* is a close relative of *Stethorrhagus*. Thus, *Parachemmis* is newly transferred to Corinninae, Corinnidae.

Stethorrhagus is herein characterized by the presence of a bifid embolic apex with the ejaculatory duct opening on the bifurcation in males and in females by a single median copulatory opening and a sclerotized dorsal plate covering the posterior half of the epigynum.

2. Material and Methods

The material examined belongs to the following collections: AMNH, American Museum of Natural History, New York (N. I. PLATNICK); BMNH, The Natural History Museum, London (P. D. HILLYARD); CAS, Californian Academy of Sciences, San Francisco (C. E. GRISWOLD); CPDC, Centro de Pesquisas do Cacau -Cepac, Itabuna (P. S. TERRA); CLP, Aracnological collection from Reserva Natural La Planada, La Planada (C. VALDERRAMA A.); INPA, Instituto Nacional de Pesquisas da Amazônia, Manaus (C. MAGALHÃES); MCN, Museu de Ciências Naturais, Fundação Zoológica do Rio Grande do Sul, Porto Alegre (E. H. BUCKUP); MCNC, Museo de Ciencias Naturales de Caracas, Caracas (J. E. LATTKE); MCP, Museu de Ciências, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre (A. A. LISE); MCZ, Museum of Comparative Zoology, Cambridge, Mass. (H. W. LEVI); MNHN, Museum National d'Histoire Naturelle, Paris (C. ROLLARD); MNRJ, Museu Nacional, Universidade Federal do Rio de Janeiro (A. TIMOTHEO DA COSTA); MUCV, Museo de Biología, Universidad Central de Venezuela, Caracas (G. A. PEREIRA); SMNK, Staatliches Museum für Naturkunde, Karlsruhe (H. HÖFER); USNM, National Museum of Natural History, Smithsonian Institution, Washington D.C. (J. CODDINGTON).

All measurements are in millimeters. The epigynes were submerged in clove oil to study internal structures. Micrographs were obtained with scanning electron microscopes in „Laboratorium für Elektronenmikroskopie“ of the university of Karlsruhe, Germany (Cambridge Stereoscan type 73654) and in „Museu de Ciências Naturais, Fundação Zoológica do Rio Grande do Sul“, Brazil (Jeol JSM-5200). Because the micrographs have been reduced for publication, the magnification figures supplied in the legends provide only relative scale information.

3. Systematics

Genus *Stethorrhagus* SIMON

Stethorrhagus SIMON, 1896: 421; 1898: 200, figs 198, 199, 202 (type species by subsequent designation, *S. limbatus* SIMON); ROEWER (1954: 604); BONNET (1958: 4167); BRIGNOLI (1983: 557); PLATNICK (1989: 446, 1993: 617).

Diagnosis: *Stethorrhagus* is closely related to *Parachemmis* (see CHICKERING 1937: figs 33, 48 and GERTSCH 1942: fig. 35) through the paired excavations on anterior margin of the sternum and the presence of

a ventral, apical articulated apophysis on male palpal tibia. It differs in the bifid embolic apex on the male palp, with the ejaculatory duct opening on the bifurcation (figs 5 c,d, 6 a, 9 a,c, 14 a) and in females by possessing a single central copulatory opening (figs 9 d, 12 d, 18 a) and a sclerotized internal dorsal plate covering the posterior half of the epigynum (figs 9 e, 12 e, 18 b).

Description: Total length (males and females) 5.10 -12.40. Carapace almost oval in dorsal view, widest between coxae II and III; narrowing of cephalic area hardly notable, anterior margin wide and truncated. Generally, cephalic area gradually elevated and not well delimited (fig. 8 a); only in *Stethorrhagus chalybeius* is cephalic area abruptly elevated and well delimited (fig. 1 a). Thoracic groove short, deep. Clypeal height approximately equal to AME diameter. Anterior eye row procurved in frontal view, posterior eye row procurved in dorsal view. Ocular quadrangle longer than wide in dorsal view, front width slightly larger than back width. AME largest, remainders with subequal length; median eyes circular, lateral eyes oval. Interdistances: AME-AME separated by less their diameter; AME-ALE almost contiguous; PME-PME separated by less than twice their diameter; PME-PLA separated at maximum by twice the diameter of PME; ALE-PLA contiguous. Chilum generally entire or bipartite, haired or not; in the female of *S. archangelus* chilum semibipartite. Chelicerae smaller than half the carapace length, slightly longer and more slender in males; generally, slightly geniculate, with a conspicuous lateral boss and a retrolateral proximal field of serrate setae with tubercular insertions (fig. 2 a,c,d). Promargin and retromargin of fang furrow with 3 to 5 teeth (fig. 2 b); in *S. chalybeius* chelicerae geniculate. Endites convergent, promargin slightly concave, retromargin excavated. Labium longer than wide, with marginal, proximal constrictions (fig. 1 d). Sternum slightly longer than wide, with a pair of deep (figs 1 c, 15 a, 18 c) or shallow (figs 10 c, 12 a) lateral anterior excavations; pre-coxal triangles present.

Leg formula 4, 1, 2, 3. Legs moderately long and thin, covered by feathery and simple hairs. Tarsi and metatarsi with sparse scopulae (fig. 4 a,b); metatarsi III and IV with ventral distal clusters of black setae. Leg tarsi with two pectinate claws and dense claw tufts (fig. 3 f); tarsal trichobothria (fig. 4 c-e) in two rows; tarsal organ (fig. 4 c,d,f) with a subapical, circular aperture. Female palpal tarsus clavate, with one pectinate claw; trochanters notched; in *S. chalybeius*, femora I expanded proximally, with a retrolateral field of thin setae with grooved insertions (fig. 3 d,e).

Typical spination: I -femur d1-1-0, p0-0-1, r0, v0; tibia d0, p0, r0, v2-2-2-2; metatarsus d0, p0, r0, v2-2-0. II -femur d1-1-0, p1-1-1, r0, v0; tibia d0, p0, r0, v2-2-2-2-2; metatarsus d0, p0, r0, v2-2-0. III -femur d1-1-1, p0-1-1, r0-1-1, v0; tibia d0, p1-1-0, r1-1-0,

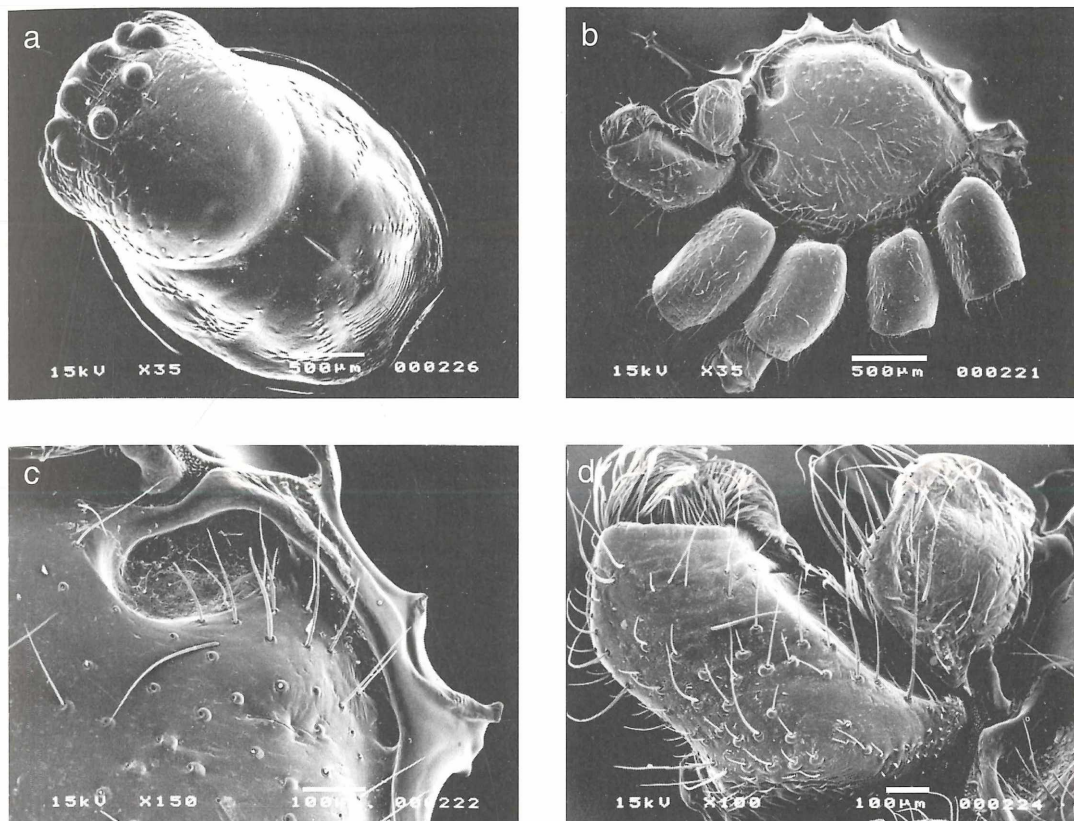


Figure 1. *Stethorrhagus chalybeius* (L. KOCH), male: a) carapace, dorsal; b) sternum, coxae, endite and labium, ventral; c) sternal excavation, ventral; d) endite and labium, ventral.

v2-2-2; metatarsus d0, p1-1-1, r1-1-1, v2-2-1. IV-femur d1-1-1, p0-1-1, r0-0-1, v0; tibia d0, p1-1-0, r1-1-0, v2-2-2; metatarsus d0, p1-1-1, r1-1-1, v2-2-1. Abdomen oval, covered by feathery hairs (fig. 2 e,f), with a dorsal anterior scutum or none. Tracheal tubercle large, sclerotized and without hairs. Colulus a semicircular, long plate, covered by few feathery setae (fig. 6 e). Six spinnerets (fig. 6 f). Anterior lateral spinnerets (fig. 7 c,f) convergent, conical, contiguous at base, two-segmented, distal segment short, truncate, with two large major ampullate gland spigots on mesal margin and 40-50 small piriform gland spigots. Posterior median spinnerets (fig. 7 b,e) parallel, tubular, contiguous, one-segmented; apices with few aciniform gland spigots and, at least, two minor ampullate gland spigots; in females, three large cylindrical gland spigots with conic bases and enlarged shafts (fig. 7 e). Posterior lateral spinnerets (fig. 7 a,d) convergent, tubular, separated by, at least, twice their diameter; two-segmented, distal segment short, truncated, with about 15 aciniform gland spigots; in females, two

large cylindrical gland spigots (fig. 7 d). Males without cylindrical gland spigots in both posterior spinnerets (fig. 7 a,b). Anal tubercle not prominent.

Male palp: Apices of femora, patellae and tibiae often with a retrolateral cluster of modified setae (fig. 5 a,b). Tibiae with an entire or bifurcated retrolateral apophysis (fig. 6 b) and often with a dorsal process; tibial ventral distal articulated apophysis always present (figs 6 c, 9 b,c, 10 a,b). Subtegulum visible distally, in the not expanded bulb. Tegulum generally with prolateral or ventral helicoidal duct, often with one or two laminar extensions. Conductor always present, hyaline, arising distally from the tegulum (figs 5 c, 6 a). Embolus normally narrowed and long, arising prolaterally or medially from the tegulum; embolic apex bifid, with long or short prongs and with the ejaculatory duct opening on the bifurcation (figs 5 d, 10 a, 14 a, 16 a); in *S. duidae* and *S. peckorum*, prongs strongly reduced (figs 19 b, 20 b).

Epigynum: Anterior margin not delimited, except in *S. archangelus* and *S. tridentatus* (figs 12 d, 14 d).

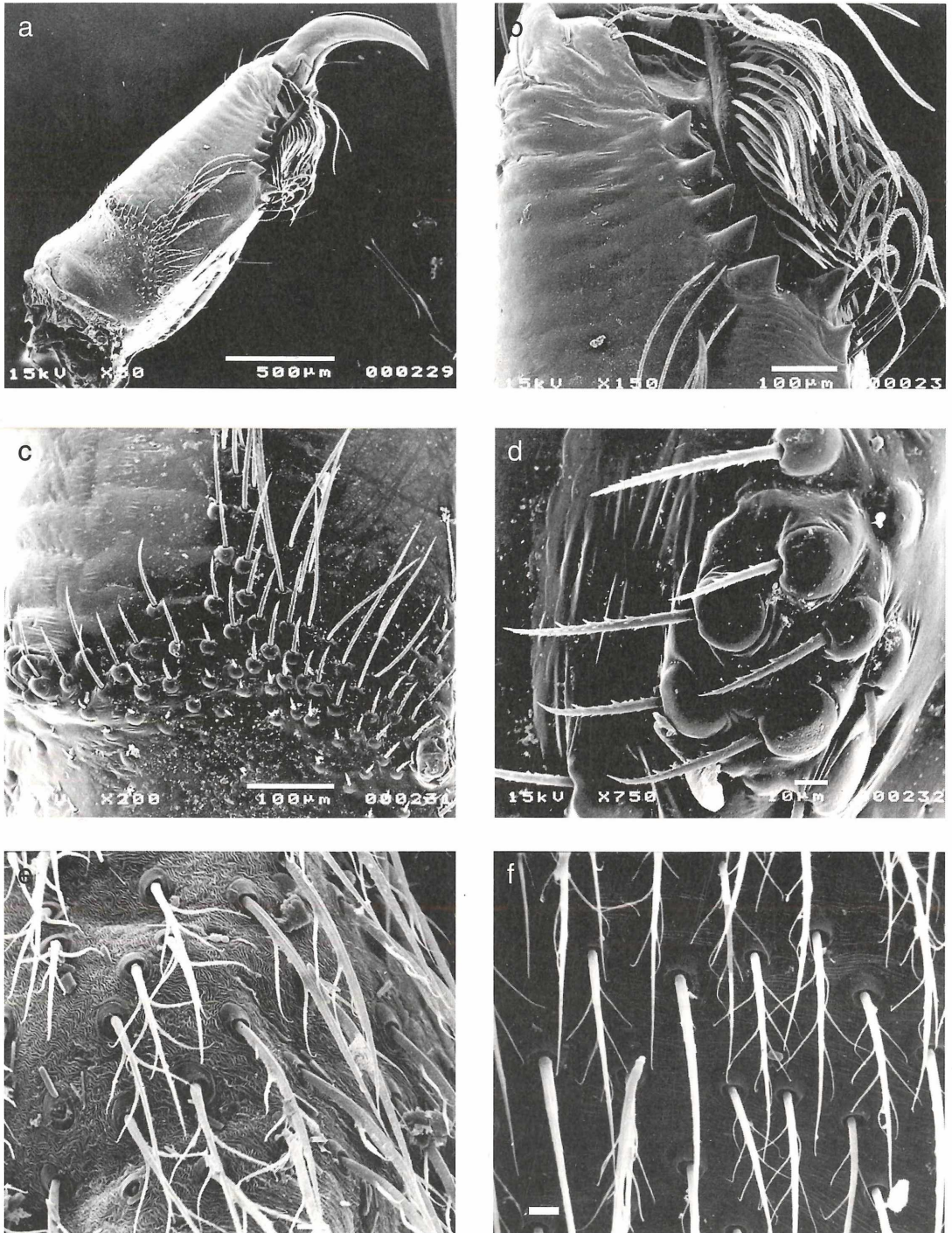


Figure 2. *Stethorrhagus chalybeius* (L. KOCH), male: a-d) chelicera, retrolateral; e) abdomen, dorsal; f) *Stethorrhagus oxossi* new species, male: abdomen, dorsal (700 x).

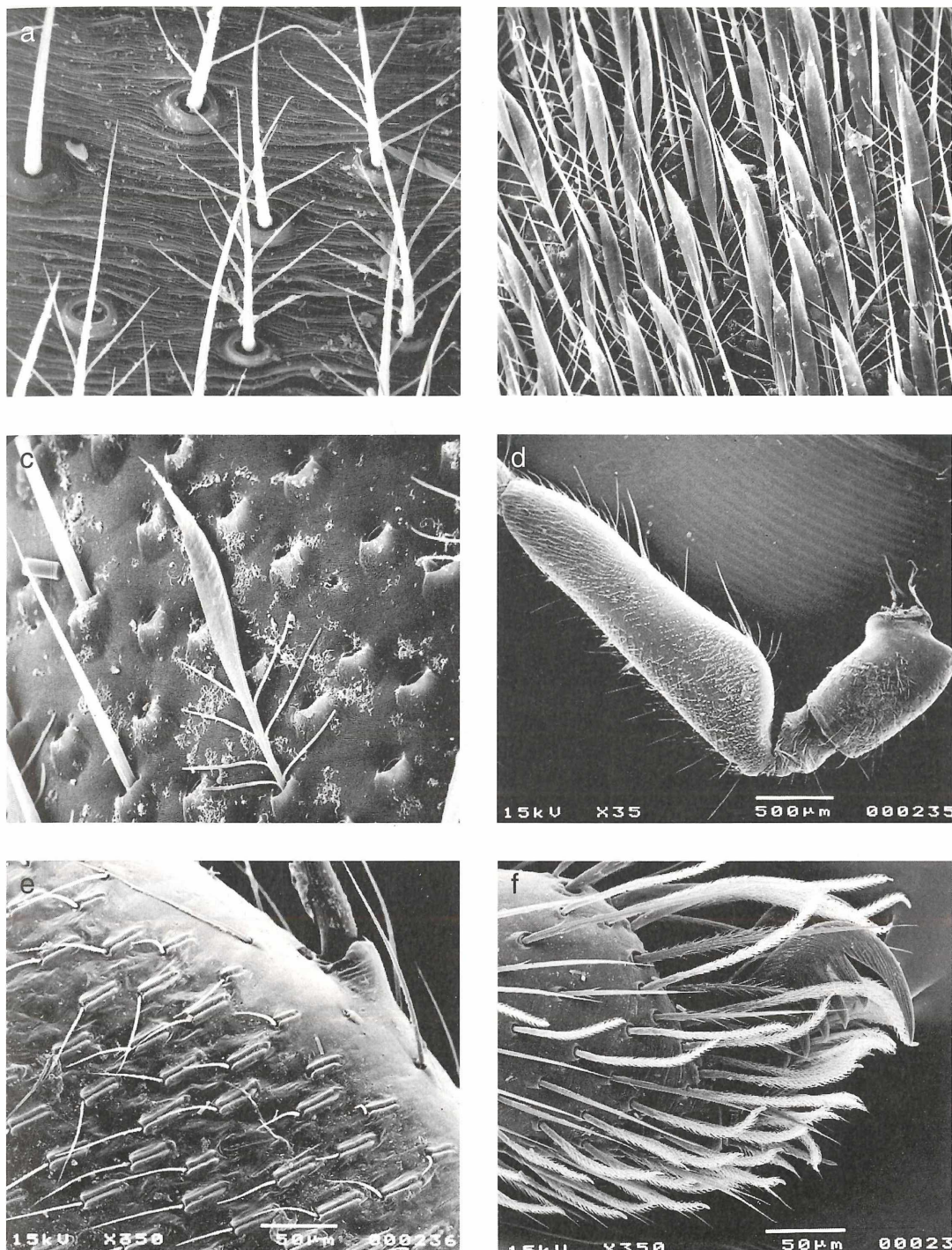


Figure 3. *Parachemmis hassleri* (GERTSCH), male: a) abdomen, dorsal (1000 x) b, c), femur I, lateral (400 x, 800 x); *Stethorrhagus chalybeius* (L. KOCH), male: d, e) femur I, retrolateral; f) apex of tarsus II, lateral.

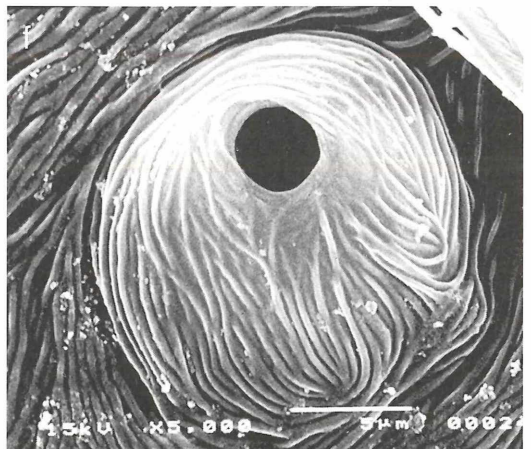
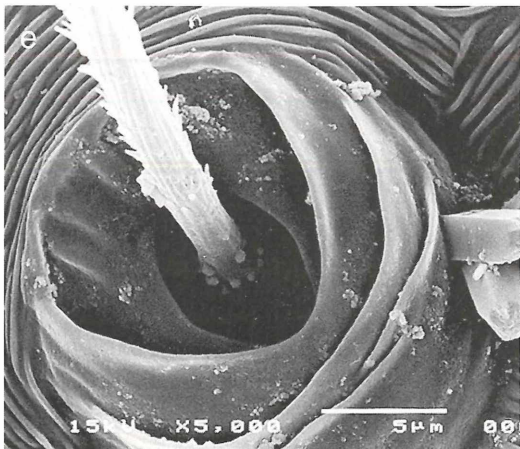
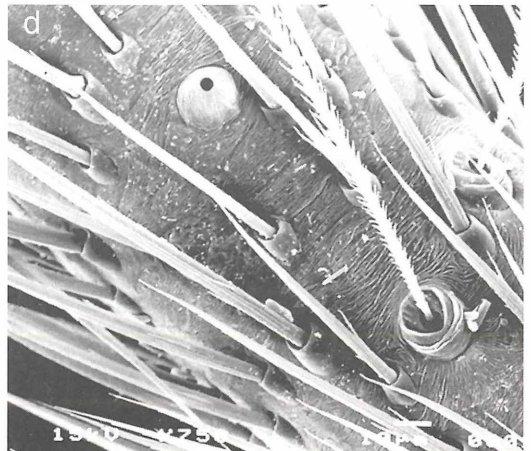
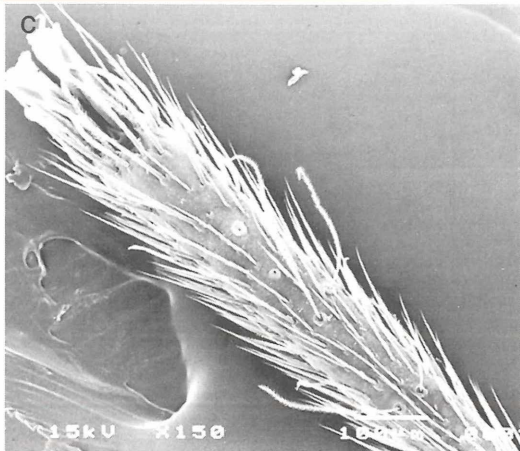
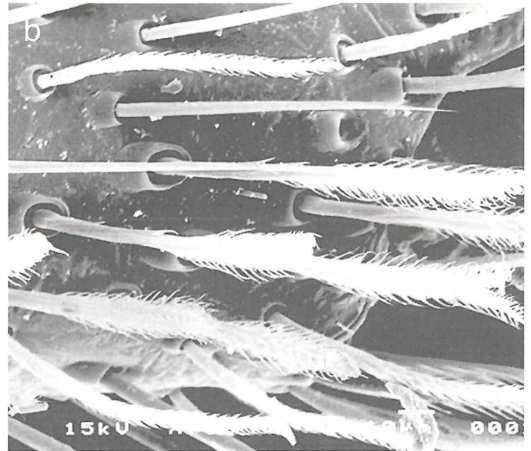
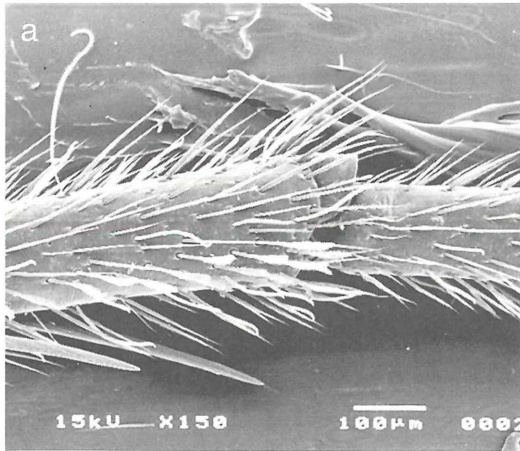


Figure 4. *Stethorrhagus chalybeius* (L. KOCH), male: a, b) leg II, lateral; c-f) tarsus IV, dorsal; e) trichobothrial base; f) tarsal organ.

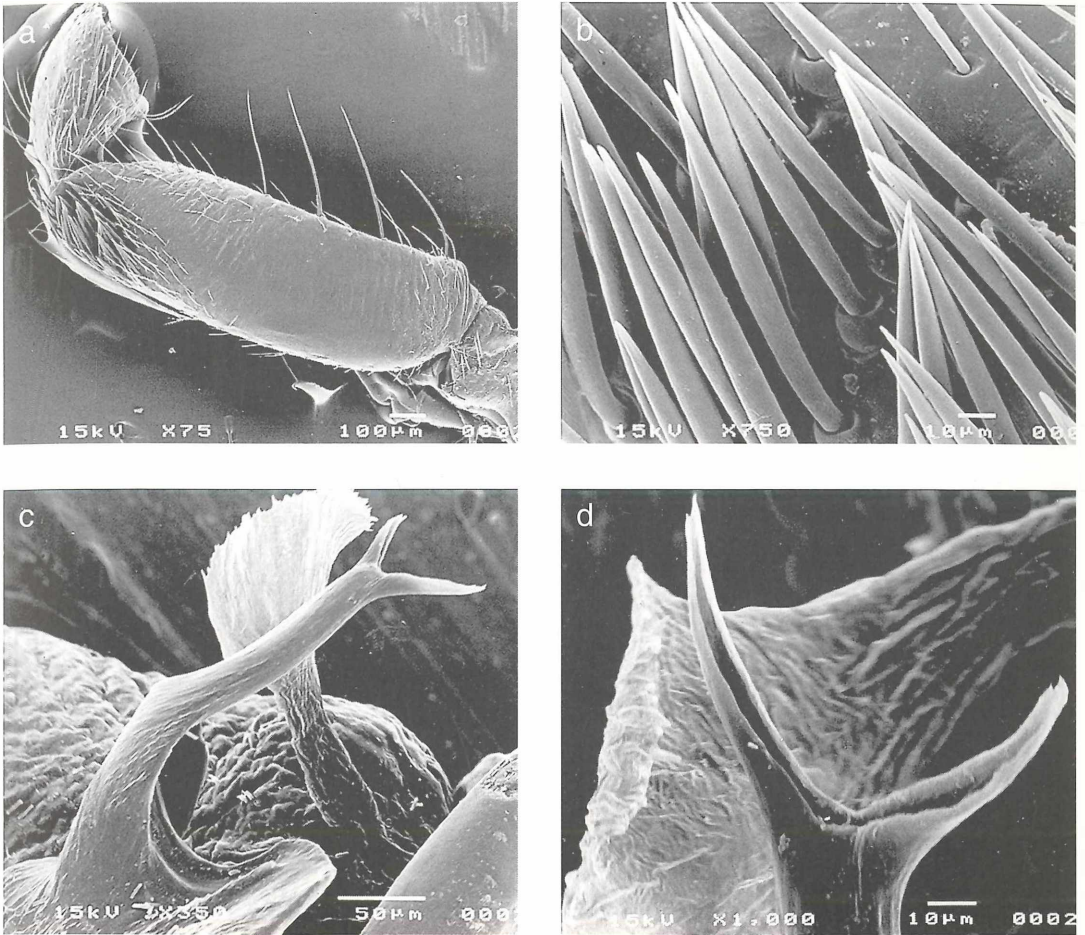


Figure 5. *Stethorrhagus chalybeius* (L. KOCH), male: a, b) palpal femur, retrolateral; c) embolus, prolateral; d) apex of embolus, prolateral.

Unpaired copulatory opening generally small and rounded (figs 11 c, 12 d), except in *S. limbatus*, where it is large and wide (fig. 9 d). Median plate, if present, large (fig. 6 d), except in *S. planada*, where it is small (fig. 18 a). Spermathecae disposed posteriorly in relation to the copulatory opening (figs 9 d, 10 f, 18 a, 23 a), except in *S. chalybeius*, where it is disposed anteriorly (fig. 16 d). Copulatory ducts independent (*S. limbatus*, fig. 9 e) or fused anteriorly, connected at basis of a pair of oval or spherical spermathecae (figs 10 g, 19 d). Fertilization ducts connected basally to the spermathecae. Bursae copulatrix apparently always present, not visible in some species due to the presence of a strongly sclerotized dorsal plate, which can bear a median invagination (figs 9 e, 11 d, 14 e, 16 e). Composition. Fourteen species.

Unrecognizable species: *Stethorrhagus striatus* FRANGANILLO, 1926 and *S. mandibulatus* FRANGANILLO, 1930, both from Cuba (not examined, may be in Cuban Academy of Sciences, Habana) are unrecognizable without examination of the types. Misplaced species: *Stethorrhagus hassleri* GERTSCH, 1942: 12, fig. 35 (male MCZ, examined) = *Parachemmis hassleri* (GERTSCH, 1942). New combination. *Stethorrhagus mastigostylus* MELLO-LEITÃO, 1948: 185, fig. 25 (male and female BMNH, examined) = *Parachemmis hassleri* (GERTSCH, 1942). New synonymy.

***Stethorrhagus limbatus* SIMON**

Figures 8, 9

Stethorrhagus limbatus SIMON, 1896: 421 (three male and two female syntypes from Tefé and São Paulo de Olivença, Amazonas and Le Para (= Belém), Pará, Brazil, NATHAN, in MNHN

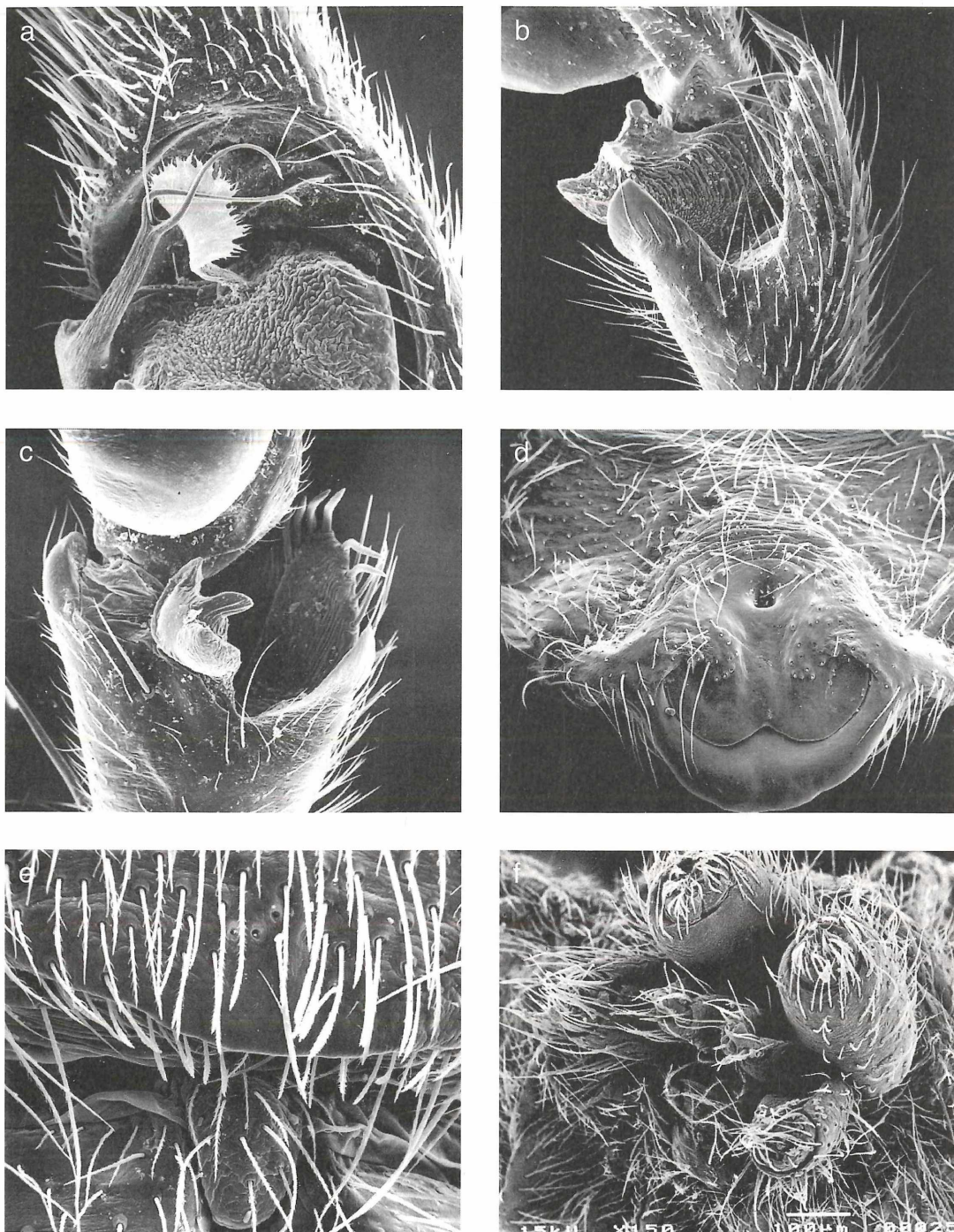


Figure 6. *Stethorrhagus oxossi* new species, male: a) apex of bulb, ventral (160 x); b) palpal tibia, retrolateral (100 x); c) palpal tibia, ventral (110 x); female: d) epigynum, ventral (100 x); e) tracheal tubercle and colulus, ventral (360 x); f) *Stethorrhagus chalybeius* (L. KOCH), male: spinnerets, anterior laterals above.

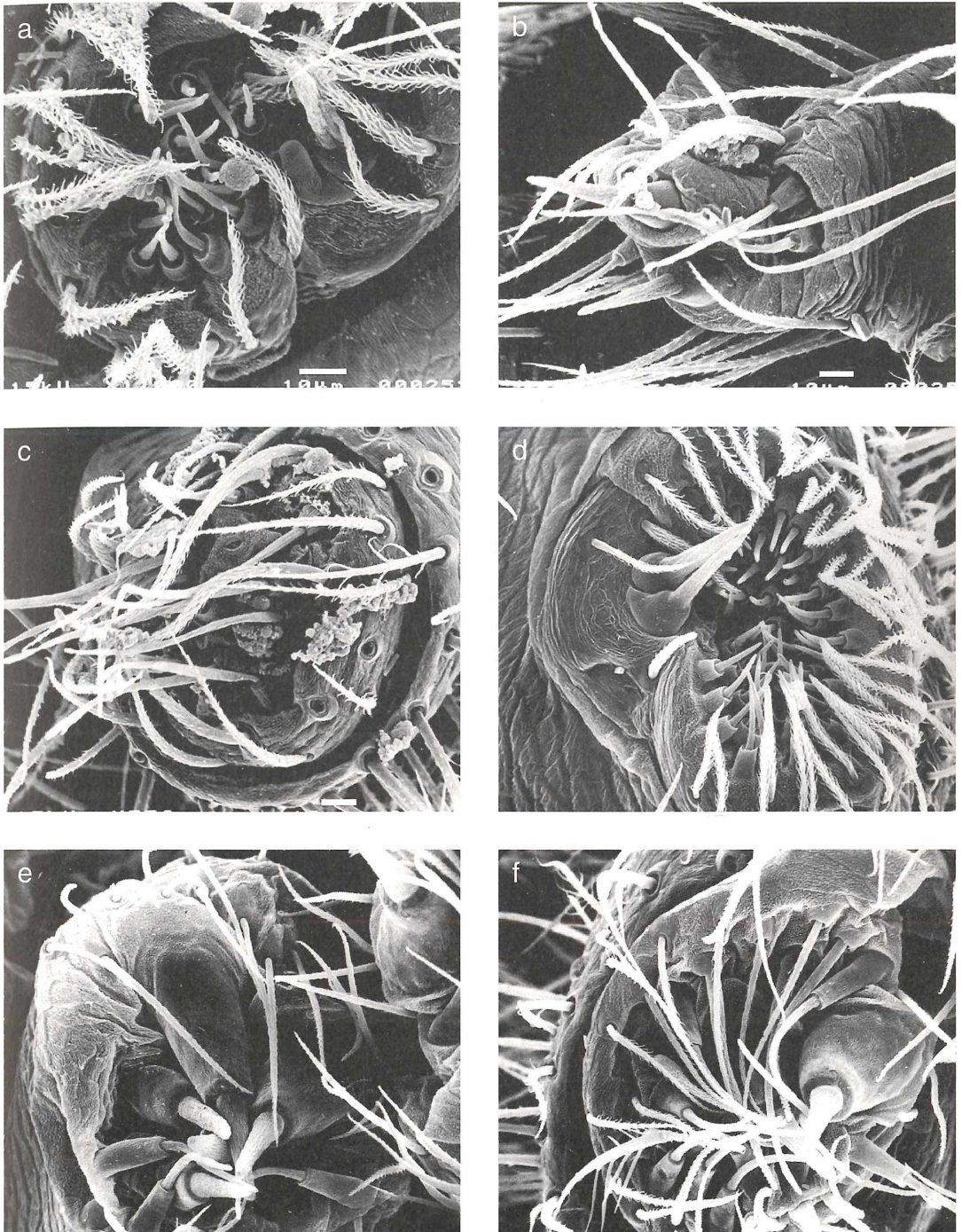


Figure 7. *Stethorrhagus chalybeius* (L. KOCH), male: a) posterior lateral spinnerets; b) posterior median spinnerets; c) anterior lateral spinnerets; *Stethorrhagus oxossi* new species, female: d) posterior lateral spinnerets (800 x); e) posterior median spinnerets (800 x); f) anterior lateral spinnerets (800 x).

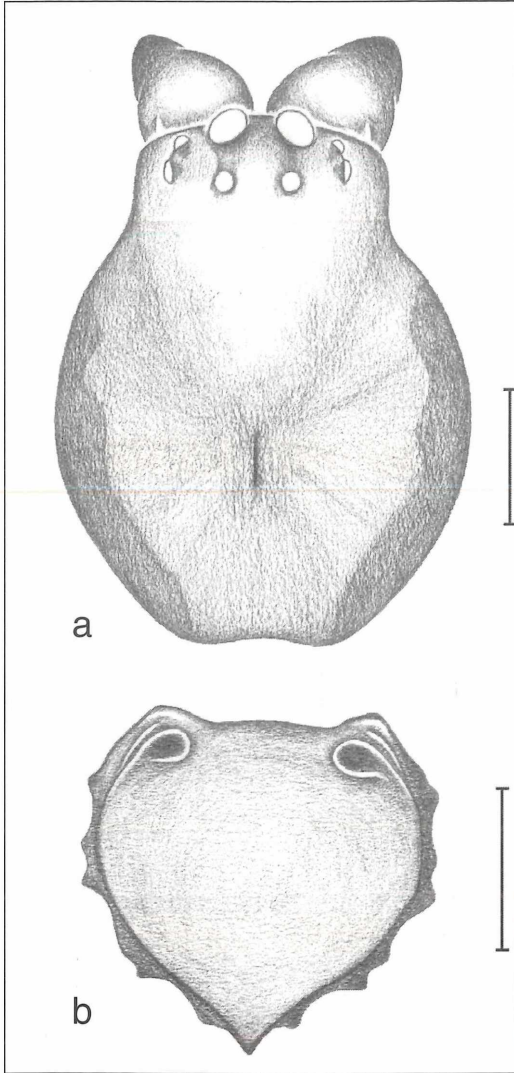


Figure 8. *Stethorrhagus limbatus* SIMON, male: a) carapace, dorsal; b) sternum, ventral; scale lines: 1.0 mm.

3616, examined; male lectotype MNHN 3616 and two male and two female paralectotypes MNHN ex 3616, here designated); 1898: 200, figs 198, 199, 202; ROEWER (1954: 605); BONNET (1958: 4167).

Stethorrhagus abrahami MELLO-LEITÃO, 1948: 183, fig. 24 (male holotype from Guest, Moraballi River, Essequibo River, 15 miles above Bartica, British Guiana, Aug. 20, 1929, R. W. G. HINGSTON, in BMNH 1930.4.15.1A, examined); ROEWER (1954: 604). New synonymy.

Diagnosis: *Stethorrhagus limbatus* is a distinct species, easily recognized by the entire and pointed retro-

lateral tibial apophysis, without modified hairs, an uncoiled tegular duct on the male palp (fig. 9 a-c) and the large, wide copulatory opening (fig. 9 d) and the separated copulatory ducts (fig. 9 e) on the female epigynum.

Male (lectotype): Carapace yellow, with two darker lateral stripes on the edges of thoracic region (fig. 8 a); chelicerae, endites and labium lighter reddish brown; sternum, legs and abdomen yellowish.

Total length 8.20. Carapace 3.95 long, 3.00 wide, 1.10 high. Clypeus 0.40. Chilum poorly delimited, bipartite, without hairs. Anterior eye row 1.35 long, posterior eye row 1.47 long. Eye diameters and interdistances: AME 0.37, ALE 0.27, PME 0.22, PLE 0.25; AME-AME 0.17, AME-ALE 0.05, PME-PME 0.35, PME-PL 0.30, ALE-PL 0.05. MOQ length 0.70, front width 0.85, back width 0.75. Chelicerae 2.30 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 1.75 long, 1.70 wide, deep sternal excavations, with delimited internal margin (fig. 8 b). Abdomen 4.20 long, 2.00 wide; dorsal scutum long.

Leg measurements: I -femur 4.90 / patella 1.50 / tibia 4.90 / metatarsus 4.80 / tarsus 2.45 / total 18.55 / II -4.70 / 1.40 / 4.60 / 4.80 / 2.40 / 17.90 / III -4.40 / 1.40 / 4.00 / 2.10 / 16.30 / IV -5.20 / 1.40 / 4.70 / 6.20 / 2.40 / 19.90. Leg spination: conforming with the typical pattern.

Palp: retrolateral tibial apophysis not bifid, arising medianly, with pointed tip directed ventrally; dorsal tibial process present, small; articulated apophysis rounded. Tegulum with basal, prolateral, curved duct, laminar extensions lacking; embolus gently curved, moderately enlarged at basis; apical prongs of the embolic tip long, equally wide (fig. 9 a-c).

Female (paralectotype MNHN ex 3616): Coloration as in male.

Total length 9.60. Carapace 3.90 long, 3.10 wide, 1.60 high. Clypeus 0.37 high. Chilum as in male. Anterior eye row 1.35 long, posterior eye row 1.47 long. Eye diameters and interdistances: AME 0.40, ALE 0.22, PME 0.25, PLE 0.25; AME-AME 0.20, AME-ALE 0.07, PME-PME 0.27, PME-PL 0.32, ALE-PL 0.05. MOQ length 0.75, front width 0.85, back width 0.75. Chelicerae 2.15 long, with teeth as in male. Sternum 1.75 long, 1.75 wide, excavations as in male. Abdomen 5.70 long, 3.50 wide, without dorsal scutum.

Leg measurements: I -femur 4.70 / patella 1.50 / tibia 4.80 / metatarsus 4.60 / tarsus 2.30 / total 18.00 / II -4.70 / 1.50 / 4.60 / 4.60 / 2.20 / 17.60 / III -4.30 / 1.40 / 4.00 / 4.30 / 2.00 / 16.00 / IV -5.30 / 1.40 / 4.80 / 6.20 / 2.30 / 20.00. Leg spination: IV femur p0-0-1, r0-1-1.

Epigynum: copulatory opening large, wide, recurved; without median plate (fig. 9 d). Internally with two separated copulatory ducts; two spherical spermathecae connected to hook-shaped fertilization ducts; bursa copulatrix present, small, arising ventrally from spermathecae (fig. 9 e).

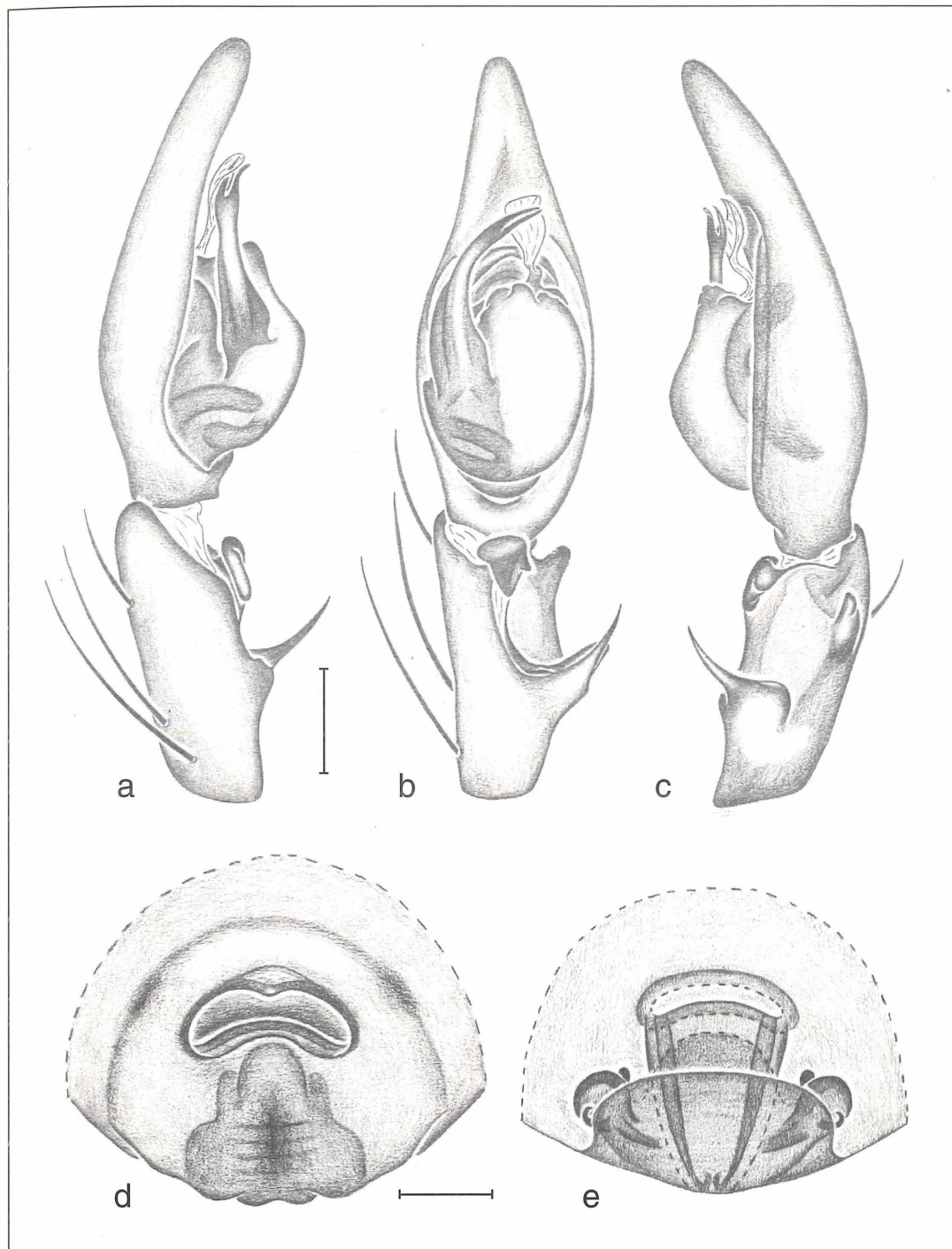


Figure 9. *Stethorrhagus limbatus* SIMON, male: a) palp, prolateral; b) ventral; c) retrolateral; female: d) epigynum, ventral; e) dorsal; scale lines: a-c, 0.5 mm; d, e, 0.25 mm.

Variation: Three males: total length 7.30-9.90; carapace 3.30-4.40; femora I 4.20-5.30; two females: total length 8.20-9.10; carapace 3.70-3.80; femora I 4.60-4.90.

Distribution: Brazilian Amazon and British Guiana.

Material examined: Only the types.

***Stethorrhagus lupulus* SIMON**

Figure 10

Stethorrhagus lupulus SIMON, 1898: 422 (female holotype from São Paulo de Olivença, Amazonas, Brazil, MATHAN, in MNHN 8131, examined); ROEWER (1954: 605); BONNET (1958: 4167).

Diagnosis: *Stethorrhagus lupulus* is closest to *S. oxosii*. Males may be distinguished by palpal tibiae with a rounded dorsal process, an articulated tibial apophysis without retrolateral projection and a prolateral median extension on tegulum (fig. 10 a,b); females by „V“-shaped copulatory opening, with delimited anterior margin and a median plate close to posterior margin of the epigynum (fig. 10 f).

Male (Smithsonian Reserve, Fazenda Esteio, Manaus, Amazonas): Carapace reddish brown, darker on margins; chelicerae reddish brown; endites, labium and sternum orange; abdomen pale yellow, scutum orange, dorsum with posterior black spots.

Total length 6.30. Carapace 2.70 long, 2.10 wide, 0.75 high. Clypeus 0.25. Chilum entire, sclerotized and without hairs. Anterior eye row 0.91 long, posterior eye row 1.01 long. Eye diameters and interdistances: AME 0.26, ALE 0.18, PME 0.18, PLE 0.17; AME-AME 0.10, AME-ALE 0.05, PME-PME 0.17, PME-PLE 0.18, AME-PLE 0.03. MOQ length 0.55, front width 0.56, back width 0.51. Chelicerae 1.25 long, with 3 promarginal teeth and 5 retromarginal denticles. Sternum 1.30 long, 1.20 wide, shallow sternal excavations, without delimited internal margin (fig. 10 c). Abdomen 3.50 long, 1.25 wide, with dorsal, elongated scutum.

Leg measurements: I -femur 3.05 / patella 1.10 / tibia 2.90 / metatarsus 2.50 / tarsus 1.25 / total 10.80 / II -3.00 / 1.00 / 2.60 / 2.55 / 1.20 / 10.35 / III -2.40 / 0.70 / 2.10 / 2.20 / 1.15 / 8.55 / IV -3.60 / 1.00 / 3.00 / 4.10 / 1.40 / 13.10. Leg spination: I tibiae v1p-2-2-2-2-0; II tibiae v2-2-2-2-2-0. Palp: retrolateral tibial apophysis bifurcated at basis, ventral extension laminar distally, with two projections, dorsal extension strong, with a basal process and modified setae on the apex; dorsal process present, large and rounded; articulated apophysis longer than wide, hammer-like in ventral view. Tegulum with basal, prolateral, coiled duct, with two median laminar extensions, one prolateral and one sub-apical; embolus curved, enlarged prolaterally at basis; distal prong longer than proximal prong (fig. 10 a,b).

Female (Reserva Florestal Adolfo Ducke, Manaus, Amazonas): Coloration as in male except abdomen pale brown, dorsum with transversal white stripes and a large black posterior spot.

Total length 6.00. Carapace 2.50 long, 2.00 wide, 0.75 high. Clypeus 0.22 high. Chilum as in male. Anterior eye row 0.82 long, posterior eye row 0.87 long. Eye diameters and interdistances: AME 0.22, ALE 0.16, PME 0.16, PLE 0.15; AME-AME 0.11, AME-ALE 0.03, PME-PME 0.10, PME-PLE 0.14, ALE-PLE 0.05. MOQ length 0.50, front width 0.50, back width 0.47. Chelicerae 1.10 long, dentation as in male. Sternum 1.30 long, 1.15 wide, sternal excavations as in male. Abdomen 3.30 long, 1.60 wide, with reduced, circular dorsal scutum.

Leg measurements: I -femur 2.50 / patella 1.00 / tibia 2.40 / metatarsus 2.10 / tarsus 1.10 / total 9.10 / II -2.50 / 0.85 / 2.25 / 2.10 / 1.10 / 8.80 / III -2.40 / 0.80 / 2.05 / 2.30 / 1.10 / 8.65 / IV -3.10 / 0.85 / 2.50 / 3.50 / 1.30 / 11.25. Leg spination: I femur p0-1-1, v2-2-2-2-2; II femur p0-1-1, tibia v2-1p-2-2-2; III femur p0-1-1, r1-1-1, metatarsus v2-2-1p; III tibia v2-2-0; IV femur p0-1-1, r0-0-1.

Epigynum: copulatory opening „V“-shaped, with delimited anterior margin; median plate large; posterior margin of the epigynum projected posteriorly (fig. 10 f). Internally with long, median copulatory ducts; spermathecae oval, connected distally with long and gently curved fertilization ducts; bursae copulatrix not visible (fig. 10 g).

Variation: Three males: total length 6.30 -6.50; carapace 2.70 -2.80; femora I 2.90 -3.10. Five females: total length 6.00-6.20; carapace 2.50-2.80; femora I 2.50-2.80. The male from Peru has the basal process of the dorsal extension of the retrolateral tibial apophysis deslocated (fig. 10 d) and the male from Venezuela lacks the basal process (fig. 10 e). The sub-apical median extension on tegulum of the male from Colombia is very reduced.

Distribution: Venezuela, Colombia, Peru and north of Brazil.

Material examined: Venezuela, Upper Yaciba River (igarapé forest), 1 male, 7.XII.1953, W. M. BEEBE (AMNH). Colombia, Meta, Puerto Lleras, Lomalinda (70° 22'W, 3° 18'N, elev. 300), 1 male, S. T. CARROLL (CAS).

Peru, Panguana, confluence of Yuyapichis and Pachitea rivers (9° 37' S 74° 56' W, elev. 260 m.), 1 male, 11.II.1985, M. VERHAAGH (SMNK 1160).

Brazil, Roraima, Ariquemes, Ji-Paraná river, 1 female, 28.X.1986, J. A. RAFAEL (INPA); Amazonas: São Paulo de Olivença, 1 female, MATHAN (MNHN 8131, type); Manaus, Fazenda Esteio (Smithsonian Reserve at km 41), 1 male, 25.III.1986, B. C. KLEIN (INPA); Reserva Florestal Adolfo Ducke, 1 female, 14-22.VIII.1991, A. D. BRESOVIT (MCN 21428); 1 female, 18-25.II.1992, A. D. BRESOVIT (MCN 24052); 1 female, 21.X.1991, H. HÖFER (collected with arboreal funnel trap) (SMNK 1161).

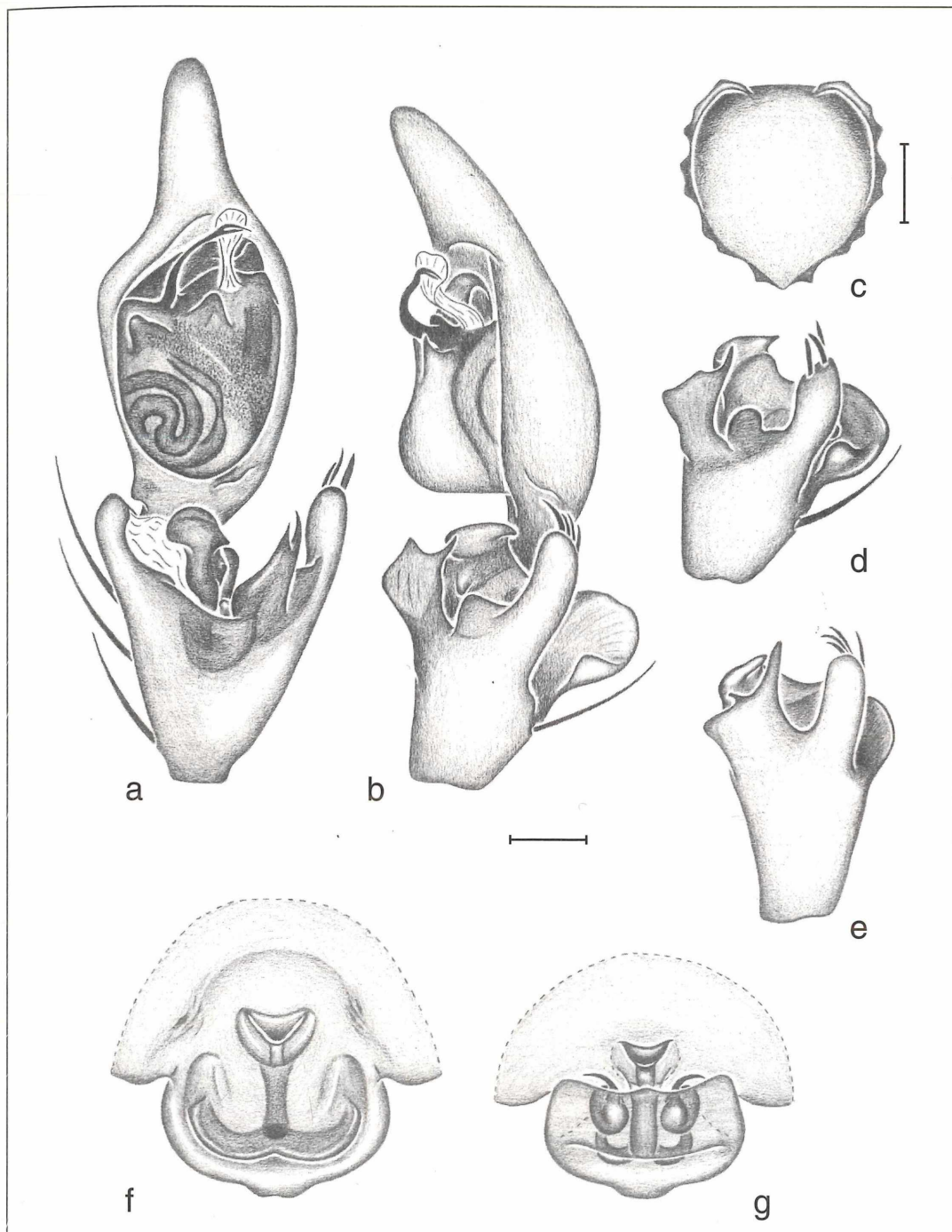


Figure 10. *Stethorrhagus lupulus* SIMON, male: a) palp, ventral; b) retrolateral; c) sternum, ventral (specimen from Amazonas, Brazil); d) palpal tibiae, retrolateral, male from Panguana, Peru; e) same, male from Upper Yaciba River, Venezuela; female from Amazonas, Brazil, epigynum: f) ventral; g) dorsal; scale lines: a, b, d-g, 0.25 mm; c, 0.5 mm.

***Stethorrhagus oxossi*, new species**

Figures 2 f, 6 a-e, 7 d-f, 11

Types: Male holotype and female paratype from Itamarajú, Bahia, Brazil, deposited in MCN 24053; paratypes: one male and one female from Fazenda Nossa Senhora da Conceição, Porto Seguro, Bahia, Brazil, deposited in SMNK (1162); one male and one female with same data of the holotype and one male and one female from Fazenda São José, Porto Seguro, Bahia, Brazil, both deposited in MNRJ.

Etymology: From the African language „ioruba“, Oxossi is an Afro-Brazilian divinity, protector of the hunters and forests.

Diagnosis: *Stethorrhagus oxossi* is closest to *S. lupulus* but may be distinguished by the absence of the tibial dorsal process, an articulated tibial apophysis with a retrolateral laminar projection and only one tegular laminar projection on the male palp (fig. 11 a,b); in female, copulatory opening „U“-shaped, without delimited anterior margin and median plate distant from posterior margin of the epigynum (fig. 11 c).

Male (holotype): Coloration as in *S. lupulus*.

Total length 6.00. Carapace 2.55 long, 2.20 wide, 0.80 high. Clypeus 0.22. Chilum entire, sclerotized and without hairs. Anterior eye row 0.97 long, posterior eye row 1.03 long. Eye diameters and interdistances: AME 0.26, ALE 0.23, PME 0.19, PLE 0.21; AME-AME 0.11, AME-ALE 0.03, PME-PME 0.16, PME-PLE 0.17, ALE-PLE 0.05. MOQ length 0.52, front width 0.57, back width 0.52. Chelicerae 1.25 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 1.10 long, 1.20 wide, shallow sternal excavations, without delimited internal margins. Abdomen 3.30 long, 1.90 wide, with poorly delimited dorsal scutum.

Leg measurements: I -femur 2.60/ patella 0.85/ tibia 2.30/ metatarsus 2.20/ tarsus 1.10/ total 9.05/ II -2.55/ 0.80/ 2.20/ 2.10/ 1.10/ 8.75/ III -2.40/ 0.80/ 2.00/ 2.20/ 1.10/ 8.50/ IV -3.00/ 0.90/ 2.50/ 3.40/ 1.25/ 11.05. Leg spination: I femur r1-0-1, tibia v2-2-2-2-0; II -tibia v2-2-2-2-0; III -femur p0-1-1, tibia v2-2-1.

Palp: retrolateral tibial apophysis bifurcated at the basis, ventral extension laminar distally, rounded; dorsal extension strong, with modified setae on the apex; dorsal process absent; articulated apophysis longer than wide, with a retrolateral lamellar projection. Tegulum with basal, ventral, coiled duct, with only one sub-apical laminar extension near the embolic basis; embolus enlarged prolaterally at basis; apical prongs long, equal (fig. 11 a,b).

Female (paratype): Coloration as in male.

Total length 5.75. Carapace 2.80 long, 2.20 wide, 1.10 high. Clypeus 0.25 high. Chilum as in male. Anterior eye row 0.87 long, posterior eye row 0.96 long. Eye diameters and interdistances: AME 0.22, ALE 0.17, PME 0.17, PLE 0.15; AME-AME 0.11, AME-ALE 0.04, PME-PME 0.17, PME-PLE 0.16, ALE-PLE 0.05. MOQ length 0.50, front width 0.52, back width 0.50. Chelicerae 1.20 long, dentation as in male. Sternum 1.30

long, 1.30 wide, excavations as in male. Abdomen 3.00 long, 1.60 wide, without dorsal scutum.

Leg measurements: I -femur 2.55/ patella 1.05/ tibia 2.30/ metatarsus 2.00/ tarsus 1.05/ total 8.95/ II -2.50/ 0.90/ 2.10/ 2.00/ 1.00/ 8.50/ III -2.40/ 0.90/ 2.00/ 2.10/ 1.00/ 8.40/ IV -3.00/ 1.00/ 2.50/ 3.10/ 1.20/ 10.80. Leg spination: I femur p0-1-1, d1-1-1, tibia v2-2-2-2-0; II -femur p0-1-1, d1-1-1, tibia v2-2-2-2-0; III -femur p0-1-1, tibia v2-2-0. Epigynum: copulatory opening „U“-shaped, with anterior margin not delimited; median plate large; posterior margin of the epigynum projected posteriorly (fig. 11 c); internally with long copulatory duct; spermathecae spherical, connected laterally with short and strongly curved fertilization ducts; bursa copulatrix small, arising ventrally from spermathecae (fig. 11 d).

Variation: ten males: total length 5.70-6.60; carapace 2.55-3.10; femora I 2.60-3.00; ten females: total length 5.75-6.60; carapace 2.30-2.80; femora I 2.20-2.70.

Distribution: Bahia, Brazil.

Material examined: Brazil, Bahia, 1 female (MNRJ); Itamarajú, 2 females (MNRJ); Fazenda Boa Esperança, 3 females (MNRJ 3193); Fazenda Nossa Senhora das Neves, 1 male, 9.X.1987, J. S. SANTOS (CPDC 4021); Uruçuca, Fazenda Santa Tereza, 3 males (MNRJ 3109); Fazenda Almada, 3 females, 26-27.XI.1977, J. S. SANTOS (MCN 20251; CPDC 3793; 3779); Gandu, Fazenda Pedra Branca, 2 males, 1 female, 22.X.1979 (MNRJ 2956); Camacan, Fazenda Santa Maria, 1 female (MNRJ 2928); Porto Seguro, Fazenda Nossa Senhora da Conceição, 1 male, 6 females (MNRJ 3044; MCN 24054); Fazenda São José, 6 males, 7 females (MCN 24055; MNRJ 3104; 3203; 3225; 3243).

***Stethorrhagus archangelus*, new species**

Figure 12

Types: Male holotype and female paratype from Pico da Neblina, São Gabriel da Cachoeira, Amazonas, Brazil, Nov. 08, 1990, A. A. LISE, deposited in MCP 1210; one male paratype, with same data, deposited in MCN 25461.

Etymology: The specific name is the latin form of archangel, taking pattern from the type locality.

Diagnosis: *Stethorrhagus archangelus* differs from *S. latoma* by the rounded tibial dorsal projection and the short, sculptured tegular projection in the male palp (fig. 12 b, c); females differ from *S. lupulus* and *S. oxossi* by the circular copulatory opening and the large and medianly not invaginated median plate of the epigynum (fig. 12 d).

Male (holotype): Carapace, mouth parts, sternum and legs orange; abdomen gray, with a dark posterior stain. Total length 9.20. Carapace 4.40 long, 3.50 wide, 1.20 high. Clypeus 0.38. Chilum bipartite, sclerotized and without hairs. Anterior eye row 1.45 long, posterior eye row 1.61 long. Eye diameters and interdistances: AME 0.30, ALE 0.25, PME 0.26, PLE 0.23; AME-AME 0.16, AME-ALE 0.06, PME-PME 0.26, PME-PLE 0.32,

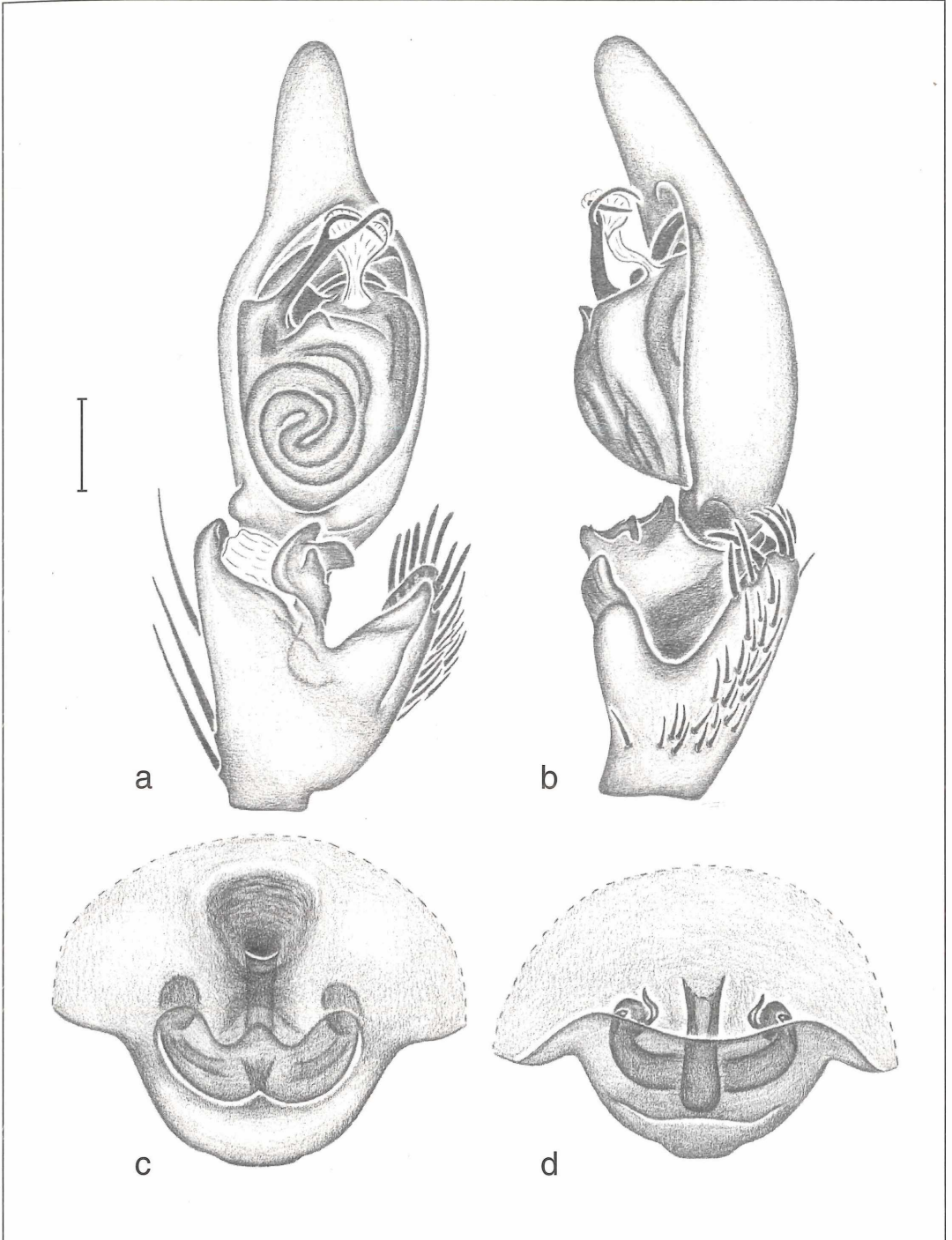


Figure 11. *Stethorrhagus oxossi* new species, male: a) palp, ventral; b) retrolateral; female: c) epigynum, ventral, d) dorsal; scale line: 0.25 mm.

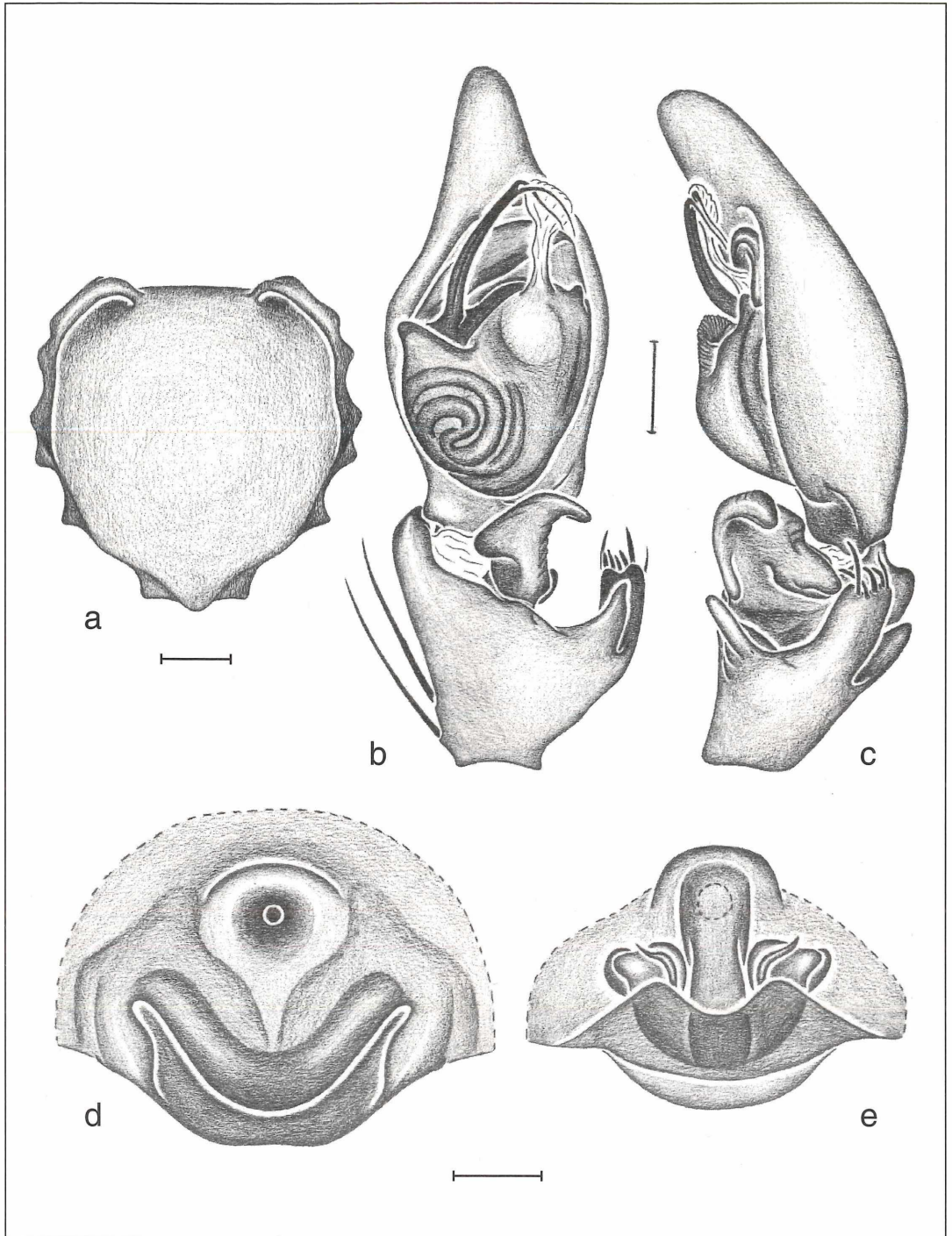


Figure 12. *Stethorrhagus archangelus* new species, male: a) sternum, ventral; b) palp, ventral; c) palp, retrolateral; female: d) epigynum, ventral; e) dorsal; scale lines: a-c, 0.5 mm; d, e, 0.25 mm.

ALE-PLE 0.11. MOQ length 0.75, front width 0.85, back width 0.77. Chelicerae 2.35 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 2.00 long, 2.00 wide, shallow sternal excavations, without delimited internal margin (fig. 12 a). Abdomen 4.90 long, 2.30 wide, without scutum.

Leg measurements: I -femur 4.50/ patella 1.70/ tibia 4.30/ metatarsus 4.10/ tarsus 2.00/ total 16.60/ II -4.40/ 1.60/ 4.25/ 4.00/ 2.00/ 16.25/ III -4.40/ 1.50/ 3.80/ 4.00/ 1.90/ 15.60/ IV -5.40/ 1.65/ 4.50/ 5.90/ 2.00/ 19.45. Leg spination: I tibia v2-2-2-2-0; III tibia v2-2-1p.

Palp: retrolateral tibial apophysis bifurcated at the basis, ventral extension finger-shaped, dorsal extension stronger, with obtuse apex covered by modified setae; dorsal process present, rounded; articulated apophysis longer than wide, with an apical, retrolateral projection. Tegulum with prolateral, coiled duct and a short sculptured projection near the embolic basis; embolus arising prolaterally; apical prongs of the embolus long, bent, equally wide and long (fig. 12 b,c). Female (paratype): Coloration as in male.

Total length 10.00. Carapace 3.90 long, 3.20 wide, 1.20 high. Clypeus 0.22 high. Chilum semibipartite, sclerotized and without hairs. Anterior eye row 1.25 long, posterior eye row 1.41 long. Eye diameters and interdistances: AME 0.30, ALE 0.25, PME 0.19, PLE 0.25; AME-AME 0.16, AME-ALE 0.05, PME-PME 0.27, PME-PLE 0.22, ALE-PLE 0.08. MOQ length 0.62, front width 0.70, back width 0.65. Chelicerae 1.77 long, dentation as in male. Sternum 1.85 long, 1.80 wide, excavations as in male. Abdomen 5.70 long, 3.50 wide, without dorsal scutum.

Leg measurements: I -femur 4.00/ patella 1.50/ tibia 3.70/ metatarsus 3.40/ tarsus 1.70/ total 14.30/ II -4.00/ 1.50/ 3.60/ 3.30/ 1.70/ 14.10/ III -3.80/ 1.50/ 3.30/ 3.55/ 1.60/ 13.75/ IV -4.70/ 1.50/ 4.00/ 5.20/ 1.75/ 17.15. Leg spination: I tibia v2-2-2-2-0; II tibia v2-2-2-2-0; III tibia v2-2-1p.

Epigynum: anterior margin of the epigynal area delimited; copulatory opening circular; median plate large and prominent; posterior margin of the epigynum projected posteriorly (fig. 12 d); internally with a large, wide copulatory duct; spermathecae subquadrangular, projected laterally, connected basally with elongated and curved fertilization ducts; bursa copulatrix not visible; dorsal plate with a median, „U“-shaped notch (fig. 12 e).

Variation: Two males: total length 8.50-9.20; carapace 4.00-4.40; femur I 4.20-4.50.

Distribution: Known only from the type locality.

Material examined: Only the types.

Stethorrhagus latoma, new species

Figure 13

Types: Male holotype from La Montana Cable Car Station, Merida, Venezuela, elev. 2442 m, Feb. 23-25, 1968, P. & B.

WIGODZINSKY & M. CORMONS, deposited in AMNH; male paratype from a house, between Macuchies and Apartaderos, La Toma, Merida, Venezuela, elev. 3200 m, Oct. 9, 1983, C. SOBREVILA, deposited in USNM.

Etymology: Specific name derived from the locality where the paratype was collected.

Diagnosis: *Stethorrhagus latoma* is easily distinguished by the large tegular projection in the male palp (fig. 13 a).

Male (holotype): Carapace, endites, labium, sternum and legs orange; chelicerae reddish brown; abdomen yellow, with a dark posterior stain.

Total length 11.50. Carapace 5.40 long, 4.10 wide, 2.00 high. Clypeus 0.37. Chilum bipartite, sclerotized and without hairs. Anterior eye row 1.58 long, posterior eye row 1.83 long. Eye diameters and interdistances: AME 0.41, ALE 0.31, PME 0.30, PLE 0.27; AME-AME 0.18, AME-ALE 0.04, PME-PME 0.31, PME-PLE 0.30, ALE-PLE 0.05. MOQ length 0.67, front width 0.93, back width 0.90. Chelicerae 2.25 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 2.20 long, 2.50 wide, shallow sternal excavations, without delimited internal margin (fig. 13 c). Abdomen 6.40 long, 1.50 wide, without scutum. Leg measurements: I -femur 5.20/ patella 2.30/ tibia 5.30/ metatarsus 4.90/ tarsus 2.30/ total 20.00/ II -5.10/ 2.20/ 4.70/ 4.60/ 2.30/ 18.90/ III -5.00/ 2.10/ 4.00/ 4.30/ 2.10/ 17.50/ IV -6.00/ 2.15/ 5.00/ 6.50/ 2.40/ 22.05. Leg spination: conforming with the typical pattern.

Palp: retrolateral distal end of femora and retrolateral surface of patellae with a cluster of modified setae; retrolateral tibial apophysis bifurcated at the basis, ventral extension pointed, distal half laminar; dorsal extension smaller, with modified setae on the dorsal surface; dorsal process present, small and pointed; articulated apophysis almost as long as wide, with an apical, retrolateral projection. Tegulum with ventral, coiled duct and a conspicuous projection, pointed at tip; embolus arising prolaterally, in ventral view partially covered by the tegular projection; apical prongs of the embolus, subequal, curved (fig. 13 a,b).

Female: Unknown.

Variation: Two males: total length 9.20-11.50; carapace 4.40-5.40; femora I 4.00-5.20.

Distribution: Merida, Venezuela.

Material examined: Only the types.

Stethorrhagus tridentatus CAPORACCIO

Figure 14

Stethorrhagus tridentatus CAPORACCIO, 1955: 379, figs 47a,b (male holotype from El Junquito, Distrito Federal, Venezuela, 1948, MARCUZZI, in MUCV 703, examined); BRIGNOLI (1983: 557).

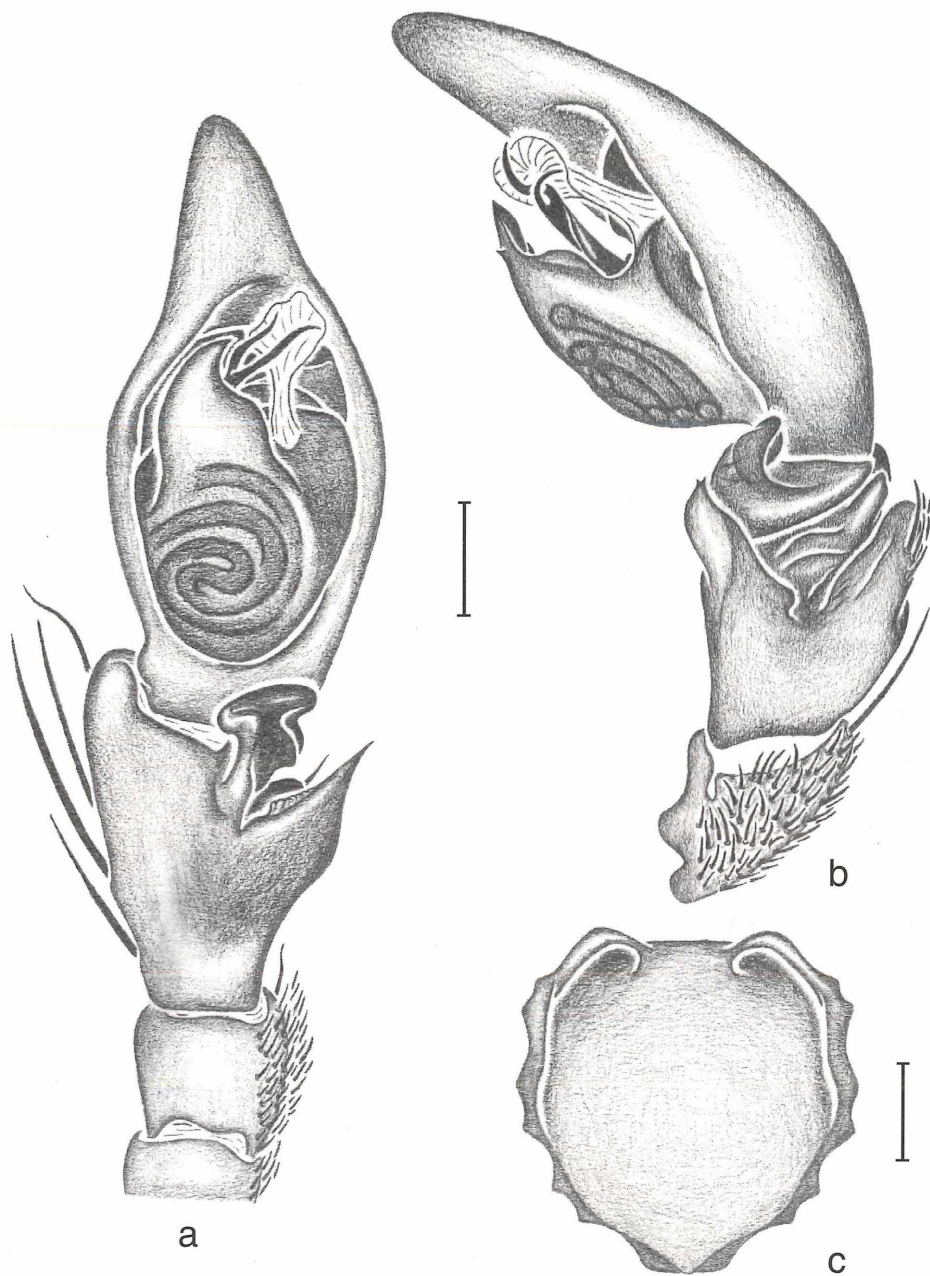


Figure 13. *Stethorrhagus latoma* new species, male: a) palp, ventral; b) retrolateral; c) sternum, ventral; scale lines: a, b, 0.5 mm; c, 1.0 mm.

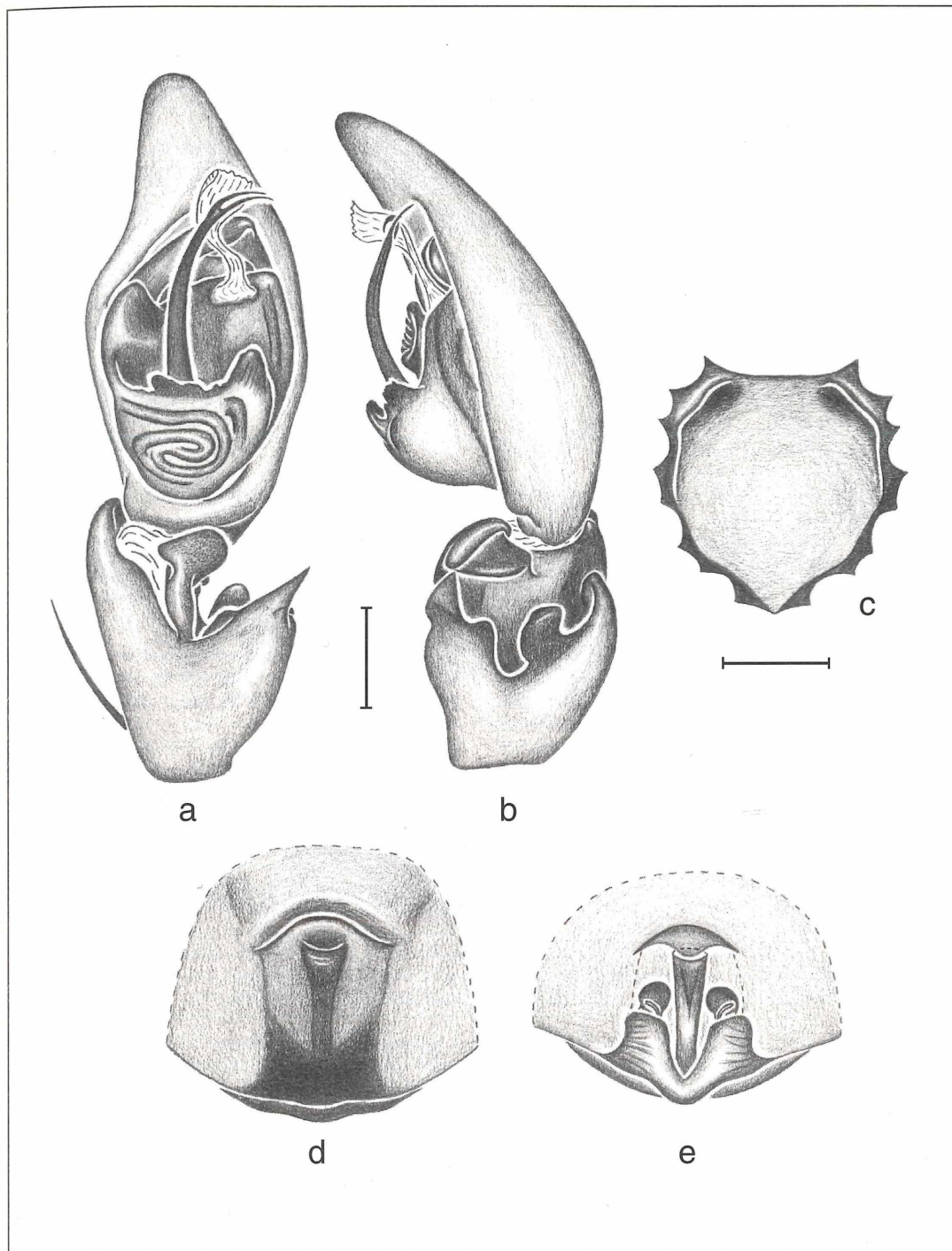


Figure 14. *Stethorrhagus tridentatus* CAPORACCO, male: a) palp, ventral; b) retrolateral; c) sternum, ventral; female: d) epigynum, ventral; e) dorsal; scale lines: a, b, d, e, 0.5 mm; c, 1.0 mm.

Diagnosis: Males of *Stethorrhagus tridentatus* differ from *S. lupulus* and *S. oxossi* by the embolus arising medianly from the tegulum, which has a large transversal laminar extension (fig. 14 a,b); females differ by the clearly delimited anterior epigynal margin and the absence of a median plate on the epigyne (fig. 14 d).

Male (Vargas, El Limón, Venezuela): Carapace, mouth parts, sternum and legs orange; abdomen brown, dorsum with lighter transversal stripes.

Total length 8.80. Carapace 4.50 long, 3.50 wide, 1.30 high. Clypeus 0.25. Chilum bipartite, with one hair on each part. Anterior eye row 1.37 long, posterior eye row 1.53 long. Eye diameters and interdistances: AME 0.33, ALE 0.25, PME 0.25, PLE 0.26; AME-AME 0.12, AME-ALE 0.06, PME-PME 0.27, PME-PLE 0.26, AME-PLE 0.06. MOQ length 0.77, front width 0.77, back width 0.72. Chelicerae 2.30 long, with 5 promarginal teeth and 3 retromarginal denticles. Sternum 1.85 long, 2.00 wide, shallow sternal excavations, without delimited internal margin (fig. 14 c). Abdomen 4.30 long, 2.20 wide, without scutum.

Leg measurements: I -femur 4.70 / patella 1.90 / tibia 4.60 / metatarsus 4.10 / tarsus 1.90 / total 17.20 II -4.70 / 1.80 / 4.30 / 4.00 / 1.85 / 16.65 / III -4.10 / 1.70 / 3.40 / 3.90 / 1.70 / 14.80 / IV -5.30 / 1.80 / 4.30 / 5.70 / 1.90 / 19.00. Leg spination: conforming with the typical pattern. Palp: retrolateral tibial apophysis bifurcated; ventral extension large, with the distal third laminar; dorsal extension reduced, with a rounded basal process; dorsal apophysis absent; articulated apophysis hammer-like in ventral view. Tegulum with coiled ventral duct and a median, large transversal laminar extension, covering the basis of the embolus; embolus arising medianly; apical prongs of the embolus equally long (fig. 14 a).

Female (between El Junquito and Carayaca, Venezuela): Coloration as in male, except abdomen pale gray, dorsum with a dark, longitudinal anterior stripe.

Total length 12.40. Carapace 4.50 long, 3.50 wide, 1.20 high. Clypeus 0.22 high. Chilum as in male. Anterior eye row 1.35 long, posterior eye row 1.50 long. Eye diameters and interdistances: AME 0.32, ALE 0.26, PME 0.22, PLE 0.24; AME-AME 0.20, AME-ALE 0.05, PME-PME 0.22, PME-PLE 0.23, ALE-PLE 0.05. MOQ length 0.67, front width 0.77, back width 0.71. Chelicerae 2.07 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 2.15 long, 2.10 wide, excavations as in male. Abdomen 7.20 long, 4.40 wide, without dorsal scutum.

Leg measurements: I -femur 4.10 / patella 1.90 / tibia 3.90 / metatarsus 3.60 / tarsus 1.90 / total 15.40 / II -4.10 / 1.70 / 3.60 / 3.50 / 1.80 / 14.70 / III -3.80 / 1.70 / 3.10 / 3.55 / 1.65 / 13.80 / IV -4.70 / 1.80 / 4.10 / 5.30 / 1.80 / 17.70. Leg spination: I femur p1-1-0; II femur p1-1-0; III tibia v2-2-0.

Epigynum: anterior margin of the epigynum delimited; copulatory opening „U“-shaped; median plate absent;

basal half of the epigynal area strongly sclerotized (fig. 14 d). Internally with a large copulatory duct; spermathecae spherical, connected basally with short and curved fertilization ducts; bursae copulatrix not visible; dorsal plate sclerotized, with a median „V“-shaped notch (fig. 14 e).

Variation: Three males: total length 8.50-9.00; carapace 4.30-4.70; femora I 4.50-5.70; two females: total length 12.20-12.40; carapace 4.40-4.50; femora I 4.10-4.20.

Distribution: Venezuela.

Material examined: Venezuela, Distrito Federal, El Junquito, 1 male, 1948, MARCUZZI (MUCV 703, type); between El Junquito and Carayaca, 1 male, 1 female, 2.V.1981, A. R. DELGADO & M. A. GONZALES-SPONGA (MCN 24051); Vargas, El Limón, between El Portachuelo and La Hacienda (elev. 1200 m), 1 male, 24.X.1981, A. R. DELGADO (MCNC); Alto de N. León (elev. 2000 m), 1 female, 14.II.1981, A. R. DELGADO & M. A. GONZALES (MCNC).

Stethorrhagus penai, new species

Figure 15

Type: Male holotype from north of Ecuador, without specific locality, Sept. 1977, L. E. PEÑA, deposited in AMNH.

Etymology: The specific name is a patronym in honor of the collector of the type specimen.

Diagnosis: Males of *Stethorrhagus penai* differ from *S. lupulus* by having palps with a short retrolateral tibial apophysis and only one tegular projection, directed retrolaterally (fig. 15 b,c).

Male (holotype): Coloration as in *S. latoma*.

Total length 8.00. Carapace 4.00 long, 3.10 wide, 1.50 high. Clypeus 0.37. Chilum entire, sclerotized and without hairs. Anterior eye row 1.15 long, posterior eye row 1.37 long. Eye diameters and interdistances: AME 0.22, ALE 0.22, PME 0.21, PLE 0.22; AME-AME 0.10, AME-ALE 0.05, PME-PME 0.21, PME-PLE 0.25, ALE-PLE 0.05. MOQ length 0.56, front width 0.56, back width 0.63. Chelicerae 2.20 long, with 3 promarginal teeth and 5 retromarginal denticles. Sternum 2.00 long, 2.00 wide, deep sternal excavations, with well delimited internal margins (fig. 15 a). Abdomen 4.20 long, 2.50 wide, with elongated dorsal scutum.

Leg measurements: I -femur 3.40/ patella 1.55/ tibia 2.90/ metatarsus 2.80/ tarsus 1.80/ total 12.45/ II -3.20/ 1.50/ 2.70/ 2.60/ 1.90/ 11.90/ III -2.90/ 1.30/ 2.30/ 2.70/ 1.50/ 10.70/ IV -3.00/ 1.50/ 3.10/ 4.00/ 1.90/ 13.50. Leg spination: I femur p0-0-1, tibia v1p-2-2-0; II femur p0-0-1, tibia v1r-2-0; III femur p1-1-1, d1-1-0, tibia v2-2-1p; IV femur p0-0-1, d1-1-0, r0.

Palp: retrolateral distal end of femora and retrolateral surface of patellae with a cluster of modified setae; retrolateral tibial apophysis bifurcated, ventral extension sub-quadrangular, dorsal extension smaller, con-

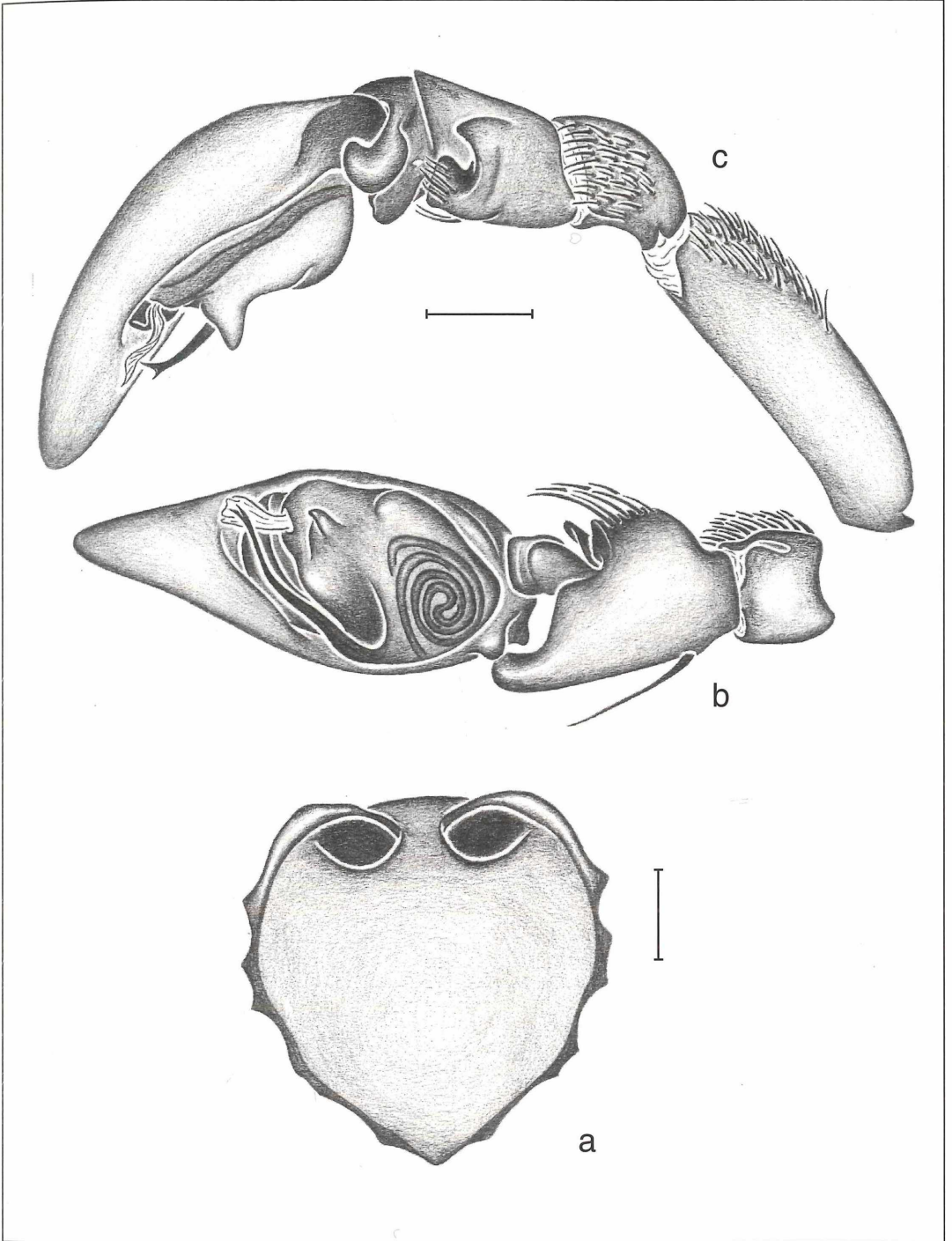


Figure 15. *Stethorrhagus penai* new species, male: a) sternum, ventral; b) palp, ventral; c) retrolateral; scale lines: 0.5 mm.

cal; dorsal process present, large, triangular; articulated apophysis almost as long as wide, apex sub-quadrangular in ventral view. Tegulum with ventral, coiled duct and a projection directed retrolaterally; embolus thin and long, slightly sinuous, arising prolaterally; apical prongs of the embolic tip short (fig. 15 b,c).

Female: Unknown.

Distribution: Known only from the type locality.

Material examined: Only the type.

***Stethorrhagus chalybeius* (L. KOCH), new comb.**

Figures 1, 2 a-e, 3 d-f, 4, 5, 6 f, 7 a-c, 16

Hypsinothus chalybeius L. KOCH, 1866: 280 (male and female syntypes from New Granada (probably Colombia), in BMNH 1890.7.1.1241-1242, examined; male lectotype and female paralectotype here designated; female does not belong to *Stethorrhagus*).

Hypsinothus chalybeus BERTKAU, 1880: 50 (lapsus).

Corinna chalybeia PETRUNKEVITCH, 1911: 465; ROEWER (1954: 596); BONNET (1956: 210).

Note: Because the female paralectotype has no paired sternal excavations, L. KOCH's hypothesis of co-specificity is rejected. The females herein presented were collected together with males in Cauca Valley, Colombia.

Diagnosis: *Stethorrhagus chalybeius* is a distinct species recognized by the presence of modified setae on the ventral extension of the retrolateral tibial apophysis, an articulated apophysis rounded at tip and an elongated prolateral prong on the embolar base on the male palp (fig. 16 a,b); the female epigynum has the anterior margin bilobed and spermathecae disposed anteriorly in relation to the copulatory opening (fig. 16 d,e).

Male (lectotype): Carapace and chelicerae reddish brown; endites, labium and legs dark yellow; sternum orange; abdomen gray.

Total length 7.20. Carapace 3.40 long, 2.70 wide, 1.55 high. Clypeus 0.32. Chilum entire, without hairs, with a basal median notch. Anterior eye row 1.05 long, posterior eye row 1.22 long. Eye diameters and interdistances: AME 0.25, ALE 0.22, PME 0.20, PLE 0.17; AME-AME 0.15, AME-ALE 0.07, PME-PME 0.17, PME-PLE 0.27, ALE-PLE 0.10. MOQ length 0.60, front width 0.60, back width 0.57. Chelicerae 0.77 long, with 3 promarginal teeth and 5 retromarginal denticles. Sternum 1.80 long, 1.67 wide, deep sternal excavations, with delimited internal margin (fig. 1 b,c). Abdomen 3.70 long, 2.30 wide; dorsal scutum present.

Leg measurements: I -femur 2.95 / patella 1.30 / tibia 2.40 / metatarsus 2.25 / tarsus 1.45 / total 10.35 / II -2.70 / 1.25 / 2.15 / 2.20 / 1.35 / 9.65. III -2.35 / 1.15 / 1.55 / 2.10 / 1.25 / 8.40. IV -3.00 / 1.25 / 2.50 / 3.15 / 1.35 / 11.25. Leg spination: I -tibia v2-2-2. II -tibia v0-1p-1p.

Palp: retrolateral distal end of femora and retrolateral surface of patellae with a cluster of modified setae;

retrolateral tibial apophysis bifurcated at basis; ventral extension subtriangular, with a row of strong modified setae on the ventral surface; dorsal extension wide, laminar with a very small, conical basal process; dorsal process absent; articulated apophysis elongated (fig. 16 a-c). Tegulum with a basal, prolateral coiled duct and a median subtriangular laminar extension; embolus relatively short, with an accentuated, pointed prolateral prong (fig. 73 a) and short apical prongs (figs 5 c,d, 16 a,b).

Female (Valle del Cauca): Coloration as in male.

Total length 6.50. Carapace 2.40 long, 1.80 wide, 1.05 high. Clypeus 0.18. Chilum bipartite, without hairs. Anterior eye row 0.81 long, posterior eye row 0.88 long. Eye diameters and interdistances: AME 0.17, ALE 0.13, PME 0.13, PLE 0.15; AME-AME 0.09, AME-ALE 0.06, PME-PME 0.16, PME-PLE 0.14, ALE-PLE 0.06. MOQ length 0.38, front width 0.45, back width 0.41. Chelicerae 1.25 long, with 3 promarginal teeth and 5 retromarginal denticles. Sternum 1.25 long, 1.20 wide, sternal excavations as in male. Abdomen 4.00 long, 2.60 wide; dorsal scutum present, small, circular.

Leg measurements: I -femur 2.00 / patella 0.80 / tibia 1.70 / metatarsus 1.40 / tarsus 1.00 / total 6.90. II -1.80 / 0.70 / 1.50 / 1.40 / 0.90 / 6.30. III -1.50 / 0.55 / 1.25 / 1.40 / 0.80 / 5.50. IV -2.00 / 0.70 / 1.90 / 2.20 / 1.00 / 7.80. Leg spination: I -tibia v1p-2-2-2. II -tibia v2-2-2-2. III -tibia p0-1-0; metatarsus p0-1-1, r0-1-1. IV -tibia v1r-2-2.

Epigynum: anterior margin of the epigynum bilobed; copulatory opening small and rounded; median plate absent; posterior half of epigynal area grooved; spermathecae disposed anteriorly in relation to copulatory opening (fig. 16 d,e). Internally, with short copulatory ducts, spherical spermathecae connected basally with curved fertilization ducts; bursae copulatrix long and narrow, arising basally from spermathecae; dorsal plate sclerotized and grooved (fig. 16 e).

Variation: Five males: total length 5.10 -6.50; carapace 2.40 -2.80; femora I 2.00 -2.20; two females: total length 6.50 -6.70; carapace 2.40 -2.60; femora I 2.00 -2.05. The male from Cauca valley has an additional tegular projection near the base of the embolus and an obtuse prolateral prong on the embolar base (fig. 5 c).

Distribution: Colombia.

Material examined: Colombia, Cundinamarca, Bogota (Paramo de Montserrat), 1 male, 1968-1969, H. STURM (AMNH); Valle del Cauca: Quindio (1 km S. Calarca), 2 males, 2 females, 8-10.III.1974, S. & J. PECK (MCZ); Cali (El Silencio, elev. 1900 m), 1 male, VII.1973, EBERHARD (MCZ).

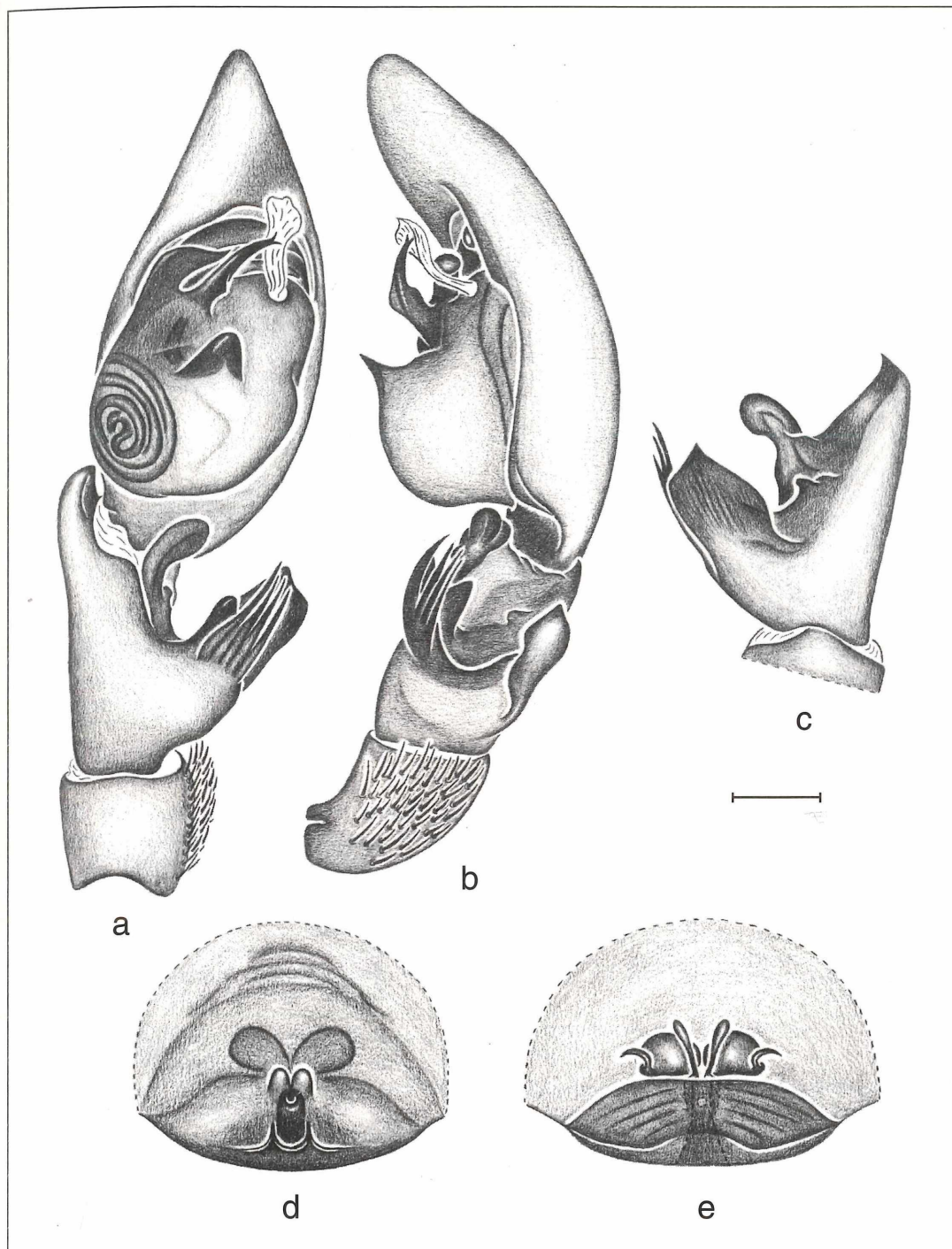


Figure 16. *Stethorrhagus chalybeius* (L. KOCH), male: a) palp, ventral; b) retrolateral; c) palpal tibiae, dorsal; female: d) epigynum, ventral; e) dorsal; scale line: 0.25 mm.

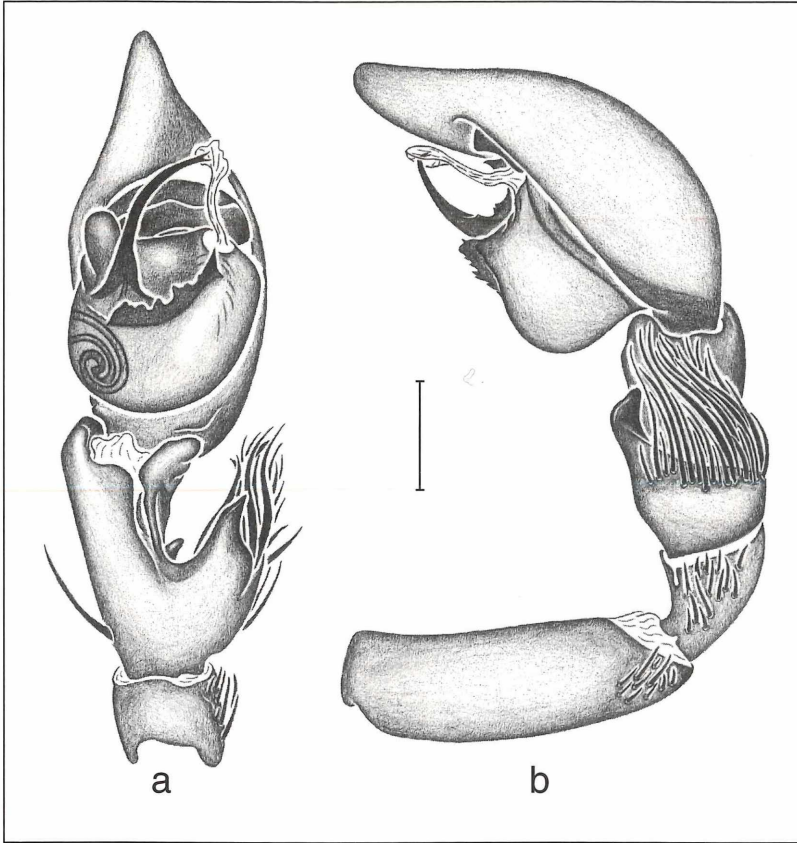


Figure 17. *Stethorrhagus planada* new species, male: a) palp, ventral; b) retrolateral; scale line: 0.5 mm.

Stethorrhagus planada, new species

Figures 17, 18

Types: Male holotype and female paratype from Reserva Natural de La Planada, Ricaurte, Nariño, elev. 1850 m, Colombia, Dec. 06, 1991, C. VALDERRAMA A., deposited in MCN 24050; paratypes: one male and one female with same data of the holotype, deposited in CLP; one male paratype from Saladito, Valle, Colombia, Mar., 1976, W. EBERHARD, deposited in MCZ.

Etymology: The specific name is a noun in apposition from the type locality.

Diagnosis: *Stethorrhagus planada* is closest to *S. hyula* but may be distinguished by the transversal median serrated laminar extension on the tegulum and the large and rounded prong on the basis of the embolus of the male palp (fig. 17 a); female epigynum with a small subrectangular median plate and internally with sclerotized dorsal plate, medianly convex and with a straight anterior rim (fig. 18 a,b).

Male (holotype): Carapace and chelicerae dark brown, endites, labium and sternum brown, legs orange, with

the distal tip of segments black, dorsum of the abdomen black, with two median white spots, venter yellowish, with a longitudinal, median brown stripe.

Total length 8.60. Carapace 4.40 long, 3.20 wide, 1.85 high. Clypeus 0.43. Chilum bipartite, with one hair on each part. Anterior eye row 1.35 long, posterior eye row 1.53 long. Eye diameters and interdistances: AME 0.33, ALE 0.27, PME 0.27, PLE 0.23; AME-AME 0.17, AME-ALE 0.05, PME-PME 0.30, PME-PLA 0.20, ALE-PLA 0.04. MOQ length 0.63, front width 1.35, back width 1.53. Chelicerae 2.07 long, with 3 promarginal teeth and 5 retromarginal denticles. Sternum 2.00 long, 1.80 wide, deep sternal excavations, internal margins delimited (fig. 18 c). Abdomen 3.80 long, 2.40 wide, with dorsal scutum.

Leg measurements: I -femur 3.85/ patella 1.60/ tibia 3.40/ metatarsus 3.30/ tarsus 2.10/ total 14.25/ II -3.75/ 1.50/ 3.20/ 3.40/ 1.90/ 13.75/ III -3.40/ 1.40/ 2.70/ 3.10/ 1.60/ 12.20/ IV -4.30/ 1.55/ 3.60/ 4.70/ 1.90/ 16.05. Leg spination: I -femur p0-0-1; tibia 1p-2-2-0. II -tibia v2-2-2-0. III -femur r0-0-1.

Palp: retrolateral distal end of femur and retrolateral

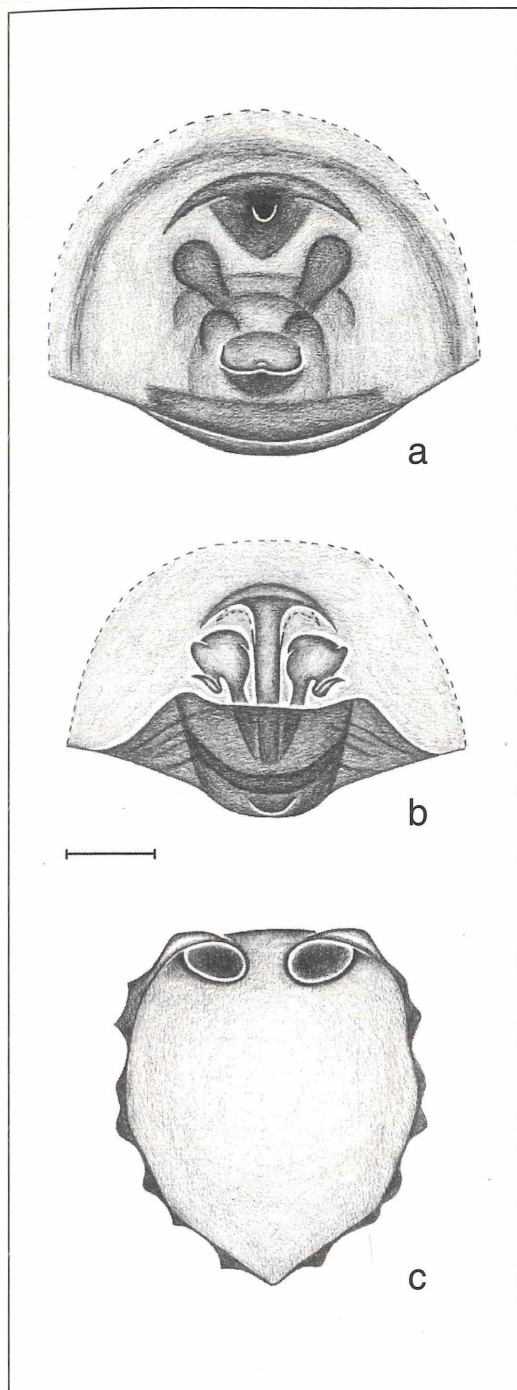


Figure 18. *Stethorrhagus planada* new species, female: a) epigynum, ventral; b) dorsal; male: c) sternum; scale lines: a, b, 0.25 mm; c, 0.5 mm.

surface of patella, with a cluster of modified setae (fig. 17 b); retrolateral tibial apophysis entire, with conical tip and retrolaterally covered by modified setae; dorsal process small; articulated apophysis elongated, rounded at tip; tegulum with prolateral, coiled duct and a long serrated median laminar extension; embolus long and curved with rounded prolateral prong; apical prongs short (fig. 17 a,b).

Female (paratype): Coloration as in male, except carapace reddish brown with a black median dorsal spot and paramedian black spots; sternum orange; abdomen with two additional small dorsal white spots.

Total length 8.20. Carapace 4.20 long, 1.60 wide, 1.60 high. Clypeus 0.35 high. Chilum as in male. Anterior eye row 1.27 long, posterior eye row 1.42 long. Eye diameters and interdistances: AME 0.30, ALE 0.27, PME 0.26, PLE 0.25; AME-AME 0.15, AME-ALE 0.04, PME-PME 0.22, PME-PL 0.28, ALE-PL 0.05. MOQ length 0.70, front width 0.71, back width 0.70. Chelicerae 1.90 long, dentation as in male. Sternum 1.90 long, 2.10 wide, excavations as in male. Abdomen 4.20 long, 1.30 wide, without dorsal scutum.

Leg measurements: I -femur 3.70/ patella 1.55/ tibia 3.30/ metatarsus 3.10/ tarsus 1.70/ total 13.35/ II -3.60/ 1.50/ 3.10/ 3.10/ 1.70/ 13.00/ III -3.35/ 1.45/ 2.60/ 3.00/ 1.60/ 12.00/ IV -4.20/ 1.55/ 3.40/ 4.40/ 1.70/ 15.25. Leg spination: I -femur p0-0-1; tibia v2-2-2-0. II -femur p0-0-1; tibia v1p-2-2-0. III -femur p0-1-0, r0-0-1.

Epigynum: Copulatory opening „U“-shaped, without delimited anterior margin; median plate small and subrectangular (fig. 18 a); internally with long median copulatory ducts; spermathecae oval, with a small subdistal projection, connected posteriorly by short and sinuous fertilization ducts; bursae copulatrix not visible; sclerotized dorsal plate medianly convex (fig. 18 b).

Variation: Three males: total length 7.60-8.60; carapace 3.60-4.40; femora I 3.10-3.85; two females: total length 8.20-9.50; carapace 4.20-4.30; femora I 3.00-3.70.

Distribution: Colombia.

Material examined: Only the types.

Stethorrhagus hyula, new species

Figure 19

Types: Male holotype and female paratype from Resina (01° 55' N, 75° 42' W), elev. 1600 m, Departamento Huila, Colombia, Jun. 08, 1956, H. STURM (litter, mountain forest), deposited in MCZ.

Etymology: The specific name is an arbitrary combination of letters.

Diagnosis: *Stethorrhagus hyula* is closest to *S. planada*, but may be distinguished by the large tooth-like tegular laminar extension and the triangular basal prong of the embolar base on the male palp (fig. 19 a);

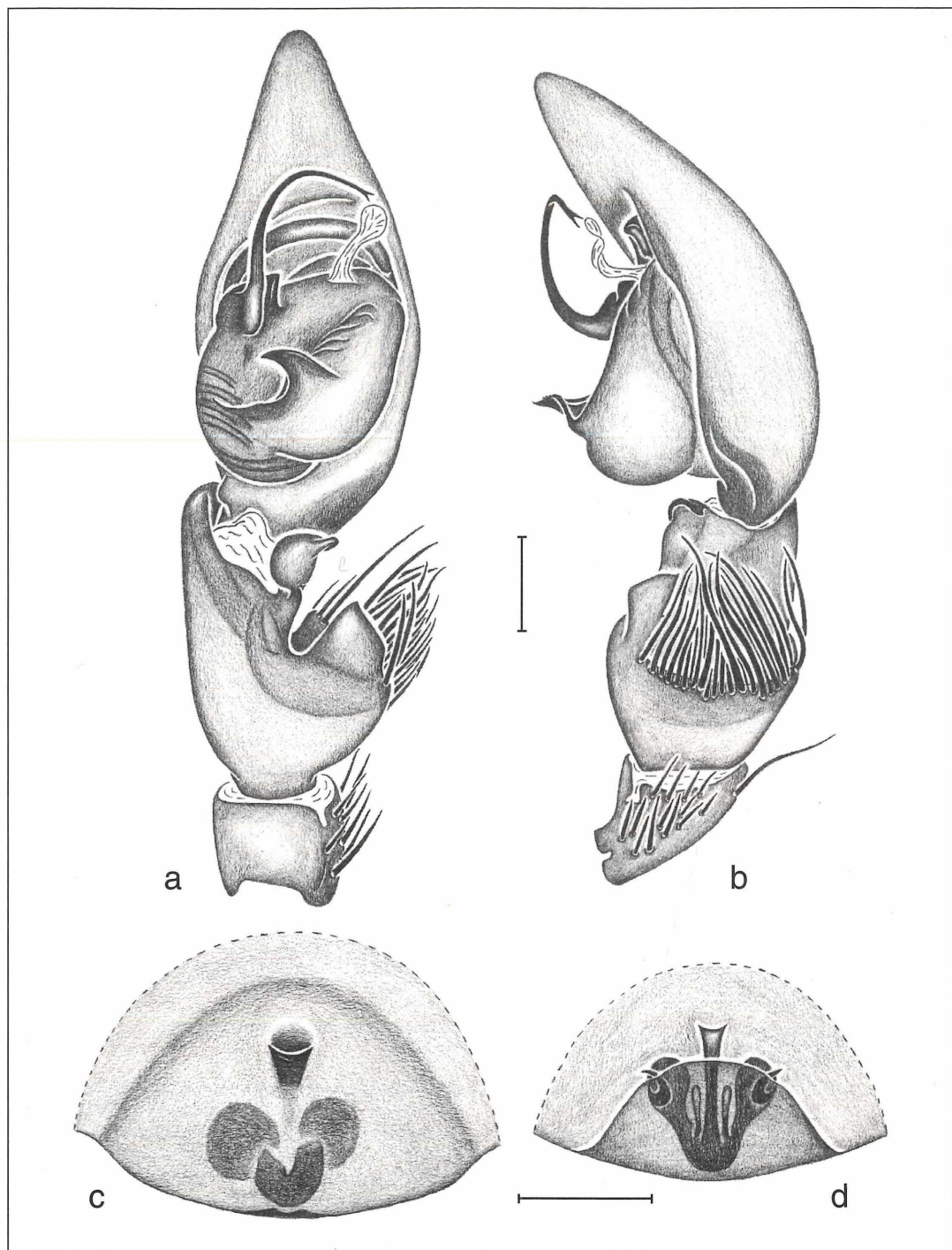


Figure 19. *Stethorrhagus hyula* new species, male: a) palp, ventral; b) retrolateral; female: c) epigynum, ventral; d) dorsal; scale lines: 0.25 mm.

in females by an epigynum without median plate, and with a median luniform sclerotization; internally with a weakly sclerotized dorsal plate (fig. 19 c,d).

Male (holotype): Coloration as in *S. chalybeius*, except dorsum of abdomen with two median white spots.

Total length 5.60. Carapace 2.90 long, 2.20 wide, 1.20 high. Clypeus 0.32. Chilum entire, without hairs, basis notched. Anterior eye row 0.85 long, posterior eye row 0.95 long. Eye diameters and interdistances: AME 0.20, ALE 0.18, PME 0.17, PLE 0.17; AME-AME 0.11, AME-ALE 0.04, PME-PME 0.16, PME-PLE 0.16, ALE-PLE 0.05. MOQ length 0.45, front width 0.47, back width 0.46. Chelicerae 1.27 long, with 3 promarginal teeth and retromarginal 5 denticles. Sternum 1.50 long, 1.30 wide, deep sternal excavations, with delimited internal margins. Abdomen 2.80 long, 1.60 wide; dorsal scutum present, long.

Leg measurements: I -femur 2.30 / patella 1.00 / tibia 2.05 / metatarsus 2.05 / tarsus 1.30 / total 8.70. II -2.30 / 1.00 / 1.90 / 1.90 / 1.20 / 8.30. III -2.00 / 0.90 / 1.60 / 1.90 / 1.00 / 7.40. IV -2.60 / 0.95 / 2.15 / 2.70 / 1.10 / 9.50. Leg spination: I -tibia v1p-2-2-0. II -femur p0-0-1; tibia v1r-2-1p. IV -femur r0-0-1.

Palp: retrolateral surface of patellae with a cluster of modified setae; retrolateral tibial apophysis entire, triangular and retrolaterally covered by modified setae; dorsal process absent; articulated apophysis elongated, projected at tip; tegulum with prolateral coiled duct and a large median tooth-like laminar extension; embolus long and strongly curved with triangular, pointed prolateral prong; apical prongs short (fig. 19 a,b).

Female (paratype): Coloration as in *S. chalybeius*.

Total length 5.20. Carapace 2.20 long, 1.90 wide, 1.00 high. Clypeus 0.20. Chilum as in male. Anterior eye row 0.75 long, posterior eye row 0.90 long. Eye diameters and interdistances: AME 0.18, ALE 0.16, PME 0.16, PLE 0.15; AME-AME 0.06, AME-ALE 0.05, PME-PME 0.11, PME-PLE 0.15, ALE-PLE 0.04. MOQ length 0.40, front width 0.38, back width 0.40. Chelicerae 1.05 long, with 3 promarginal teeth and 5 retromarginal denticles. Sternum 1.30 long, 1.20 wide, excavations as in male. Abdomen 3.00 long, 1.90 wide; dorsal scutum present, small, circular.

Leg measurements: I -femur 1.80 / patella 0.80 / tibia 1.60 / metatarsus 1.40 / tarsus 0.90 / total 6.50. II -1.75 / 0.70 / 1.50 / 1.40 / 0.85 / 6.20. III -1.50 / 0.55 / 1.20 / 1.40 / 0.75 / 5.40. IV -2.05 / 0.80 / 1.70 / 2.00 / 0.90 / 7.45. Leg spination: I -femur d1-0-0; tibia v2-2-2-0. II -femur d1-0-0, p0; tibia 2-2-2-0. III -femur d1-1-0, p0, r0. IV -femur d1-1-0, p0; tibia 1p-2-2.

Epigynum: Copulatory opening „U“-shaped, without delimited anterior margin; median plate absent; medianly with a luniform sclerotization (fig. 19 c); internally with long median copulatory ducts; spermathecae oval, connected posteriorly with short and curved fertilization ducts; bursae copulatrix elongated, arising

from the basal third of the copulatory ducts; dorsal plate weakly sclerotized (fig. 19 d).

Distribution: Known only from the type locality.

Material examined: Only the types.

Stethorrhagus duidae GERTSCH

Figures 20, 21 a

Stethorrhagus duidae GERTSCH, 1942:12 (male holotype from the summit of Mt. Duida, Amazonas, Venezuela, TATE, deposited in AMNH, examined); ROEWER (1954: 605).

Diagnosis: Males of *Stethorrhagus duidae* differ from *S. peckorum* by the ventral extension of the retrolateral tibial apophysis which is bifid in the distal third and the presence of a finger-like tegular projection (fig. 20 a,b). Male (holotype): Carapace pale yellow, ocular area darker; mouth parts, sternum and legs pale yellow; abdomen yellowish gray.

Total length 8.90. Carapace 4.20 long, 3.50 wide. Clypeus 0.45. Chilum entire, without hairs. Anterior eye row 1.32 long, posterior eye row 1.45 long. Eye diameters and interdistances: AME 0.30, ALE 0.27, PME 0.22, PLE 0.25; AME-AME 0.22, AME-ALE 0.12, PME-PME 0.27, PME-PLE 0.35, ALE-PLE 0.10. MOQ length 0.70, front width 0.77, back width 0.70. Chelicerae 2.40 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 2.05 long, 1.90 wide, deep sternal excavations, with delimited internal margins (fig. 21 a). Abdomen 4.60 long, 2.60 wide; dorsal scutum present.

Leg measurements: I -femur 5.05 / patella 1.95 / tibia 5.00 / metatarsus 4.45 / tarsus 2.05 / total 18.50. II -5.00 / 1.85 / 4.85 / 4.40 / 1.95 / 18.05. III and IV, missing. Leg spination: I -femur p0-1-1-1; tibia v2-2-2-0; II -femur d1-1-1, p0-1-1-1; tibia v2-2-2-0; III -tibia v2-2-0.

Palp: retrolateral tibial apophysis bifurcated at basis, ventral extension bifid in the distal third, dorsal extension short and rounded; with a small sculptured process; dorsal process absent; articulated apophysis wider than long in ventral view; tegulum with prolateral, coiled duct, one submedian laminar extension and a finger-like prolateral projection; embolus short and very wide at basis, with a prolateral prong; apical prongs strongly reduced, inconspicuous (fig. 20 a,b).

Female: Unknown.

Distribution: Known only from the type locality.

Material examined: Only the holotype.

Stethorrhagus nigrinus (BERLAND), new combination

Figure 21 b,c

Corinna nigrina BERLAND, 1913: 99 (female holotype from El Angel, Carchi, Ecuador, elev. 3000-3200 m, 1903, G. RIVET, in MNHN, examined); ROEWER (1954: 598); BONNET (1956: 1214).

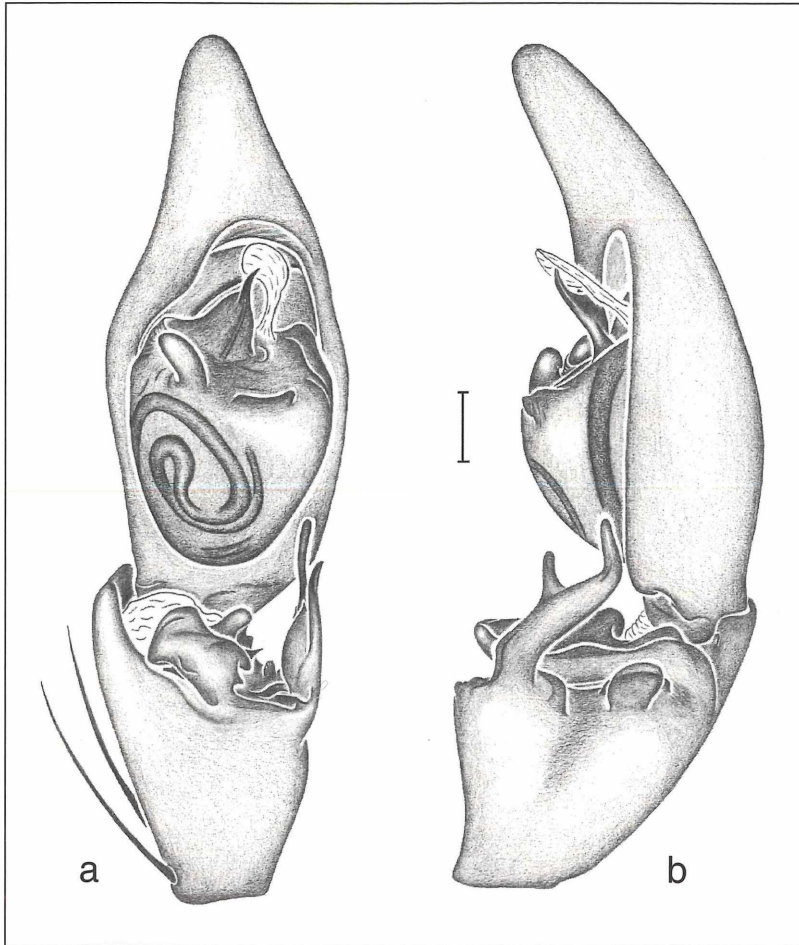


Figure 20. *Stethorrhagus duidae* GERTSCH, male: a) palp, ventral; b) retrolateral; scale line: 0.25 mm.

Diagnosis: Females of *Stethorrhagus nigrinus* differ from *S. roraimae* by the large copulatory opening with sinuous posterior margin and the small spermathecae (fig. 21 b).

Male: Unknown.

Female (holotype). Carapace reddish brown, darker in cephalic region; chelicerae reddish brown; endites, labium, sternum and legs brown; abdomen brownish gray.

Total length 6.90. Carapace 2.60 long, 2.10 wide, 1.10 high. Clypeus 0.22. Chilum bipartite, without hairs. Anterior eye row 0.87 long, posterior eye row 1.00 long. Eye diameters and interdistances: AME 0.18, ALE 0.16, PME 0.16, PLE 0.17; AME-AME 0.10, AME-ALE 0.03, PME-PME 0.14, PME-PL 0.16, ALE-PL 0.05. MOQ length 0.45, front width 0.46, back width 0.47. Chelicerae 1.30 long, with 3 promarginal teeth and 5 retromarginal denticles. Sternum

1.40 long, 1.35 wide, deep sternal excavations, with delimited internal margin (fig. 21 c). Abdomen 4.20 long, 3.00 wide; dorsal scutum absent.

Leg measurements: I -femur 2.10 / patella 1.00 / tibia 1.60 / metatarsus 1.50 / tarsus 1.00 / total 7.20. II -2.00 / 0.90 / 1.60 / 1.50 / 1.00 / 7.00. III -1.75 / 0.80 / 1.30 / 1.50 / 0.80 / 6.15. IV -2.20 / 0.80 / 1.90 / 2.25 / 1.05 / 8.20. Leg spination: I -femur p0, r0-0-1; tibia v1p-2-2-2-0. II -femur p0, r0-0-1; tibia v1r-2-2-0. III -femur d1-1-0, p0-1-0, r0; metatarsus p0-1-1, r0-1-1; IV -femur d1-1-0, p0; tibia p0-1-0, r0-1-0, v1r-2-2.

Epigynum: copulatory opening large; median plate absent; long median copulatory ducts and small spermathecae, visible by transparency (fig. 21 b).

Distribution: Known only from the type locality.

Material examined: Only the holotype.

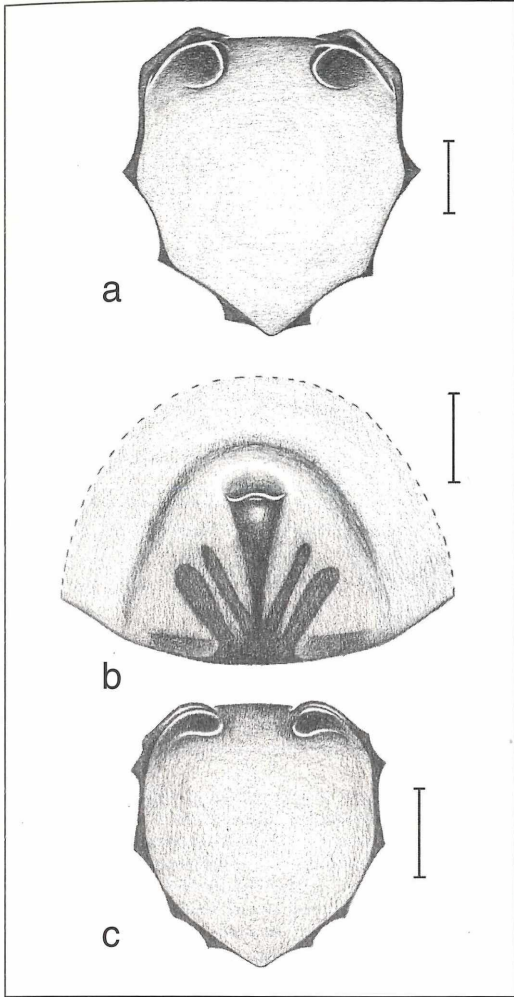


Figure 21. *Stethorrhagus duidae* GERTSCH, male: a) sternum, ventral; *Stethorrhagus nigrinus* (BERLAND), female: b) epigynum, ventral; c) sternum, ventral; scale lines: b, 0.25 mm; a, c, 0.5 mm.

Stethorrhagus peckorum, new species

Figure 22

Types: Male holotype and male paratype from Gran Sabana, 10 km north of Luepa, Bolivar, Venezuela, June 26 -July 11, 1987, S. & J. PECK, deposited in AMNH.

Etymology: The specific name is a patronym in honor of the collectors of the types.

Diagnosis: Males of *Stethorrhagus peckorum* differ from *S. duidae* by the ventral extension of the retrolateral tibial apophysis bifid at basis, the long and large, straight embolus and the absence of a finger-like tegular projection (fig. 22 a, b) on the palpus.

Male (holotype): Coloration as in *S. duidae*, except reddish brown chelicerae; endites, labium and sternum orange.

Total length 7.80. Carapace 3.40 long, 2.60 wide, 1.10 high. Clypeus 0.31. Chilum entire, without hairs, basis notched. Anterior eye row 1.12 long, posterior eye row 1.22 long. Eye diameters and interdistances: AME 0.24, ALE 0.22, PME 0.21, PLE 0.22; AME-AME 0.12, AME-ALE 0.03, PME-PME 0.17, PME-PLA 0.18, ALE-PLA 0.05. MOQ length 0.63, front width 0.71, back width 0.62. Chelicerae 1.82 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 1.50 long, 1.60 wide, shallow sternal excavations, without delimited internal margin. Abdomen 4.20 long, 2.00 wide; dorsal scutum present, long.

Leg measurements: I -femur 3.70 / patella 1.40 / tibia 3.60 / metatarsus 3.55 / tarsus 1.90 / total 14.15. II -3.60 / 1.30 / 3.50 / 3.50 / 1.80 / 13.70. III -3.50 / 1.30 / 3.10 / 3.40 / 1.70 / 13.00. IV -4.40 / 1.30 / 4.00 / 5.00 / 1.80 / 16.50. Leg spination: I -tibia v2-2-2-0. II -tibia v2-2-2-0. III -tibia v2-2-1r; metatarsus p1-1-0, r1-1-0. Palp: retrolateral tibial apophysis bifurcated at basis, ventral extension bifid at basis, dorsal extension subquadrangular; dorsal process absent; articulated apophysis longer than wide, subtriangular in ventral view; tegulum with ventral and wide coiled duct, with a small retrolateral apical projection; embolus long and wide, straight, with a long, rounded prolateral prong, covered by the embolus in ventral view; apical prongs strongly reduced, inconspicuous (fig. 22 a,b).

Female: Unknown.

Variation: Two males: total length 7.40 -7.80; carapace 3.40 -3.50; femora I 3.70 -4.10.

Distribution: Known only from the type locality.

Material examined: Only the types.

Stethorrhagus roraimae GERTSCH

Figure 23

Stethorrhagus roraimae GERTSCH, 1942: 13, fig. 36 (female holotype from Ireng River in Roraima, Brazil, Aug. 15, 1911, in AMNH, examined); ROEWER (1954: 605).

Diagnosis: Females of *Stethorrhagus roraimae* differ from *S. nigrinus* by the small copulatory opening, with straight posterior margin and the large and spherical spermathecae (fig. 23 a).

Male: Unknown.

Female (holotype): Carapace, endites, labium, sternum and legs pale reddish brown; chelicerae reddish brown; distal third of the labium yellow; abdomen pale yellow.

Total length 9.90. Carapace 4.50 long, 3.30 wide. Clypeus 0.45. Chilum entire, without hairs. Anterior eye row 1.25 long, posterior eye row 1.40 long. Eye dia-

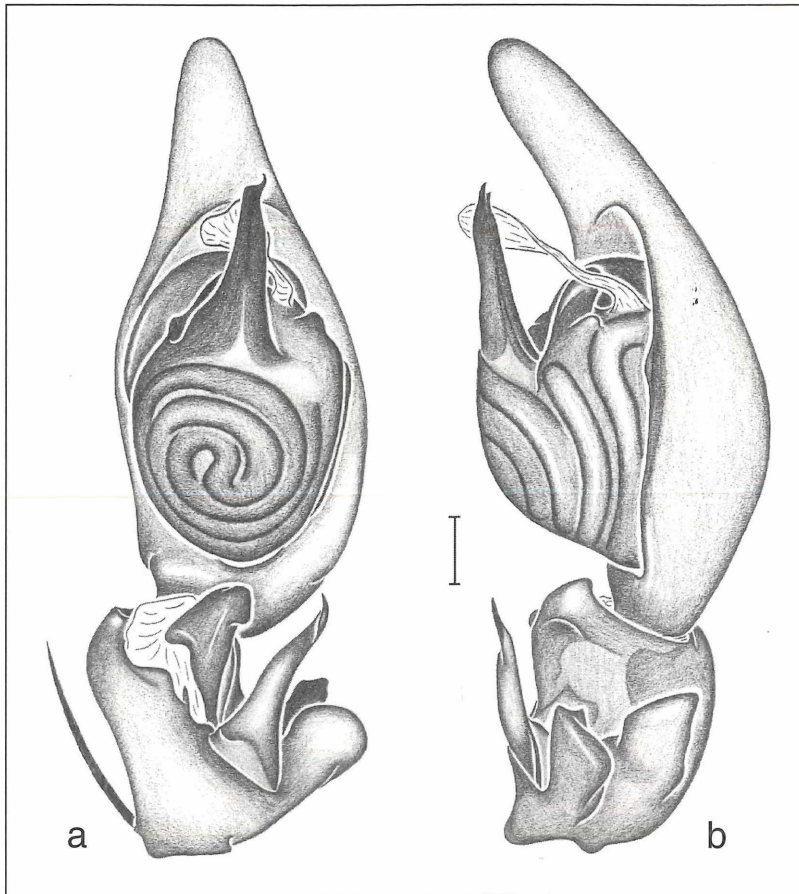


Figure 22. *Stethorrhagus peckorum* new species, male: a) palp, ventral; b) retrolateral; scale line: 0.25 mm.

meters and interdistances: AME 0.32, ALE 0.25, PME 0.20, PLE 0.22; AME-AME 0.22, AME-ALE 0.07, PME-PME 0.32, PME-PLE 0.35, ALE-PLE 0.02. MOQ length 0.62, front width 0.80, back width 0.75. Chelicerae 1.60 long, with 3 promarginal teeth and 4 retromarginal denticles. Sternum 2.00 long, 1.80 wide, deep sternal excavations, with delimited internal margins (fig. 23 b). Abdomen 5.40 long, 3.30 wide; dorsal scutum present.

Leg measurements: I -femur 4.20 / patella 1.60 / tibia 3.90 / metatarsus 3.50 / tarsus 1.90 / total 15.10 / II -4.20 / 1.60 / 3.80 / 3.50 / 1.80 / 14.90 / III -4.10 / 1.40 / 3.40 / 3.40 / 1.60 / 13.90 / IV -5.10 / 1.50 / 4.50 / 5.40 / 1.90 / 18.40. Leg spination: I -femur p0-1-1, tibia v2-2-2-2-0; II -femur 1-1-1, tibia v2-2-2-2-0; III tibia v2-2-0.

Epigynum: copulatory opening small; median plate absent; with long median copulatory ducts and large and spherical spermathecae, visible by transparency (fig. 23 a).

Distribution: Known only from the type locality.

Material examined: Only the holotype.

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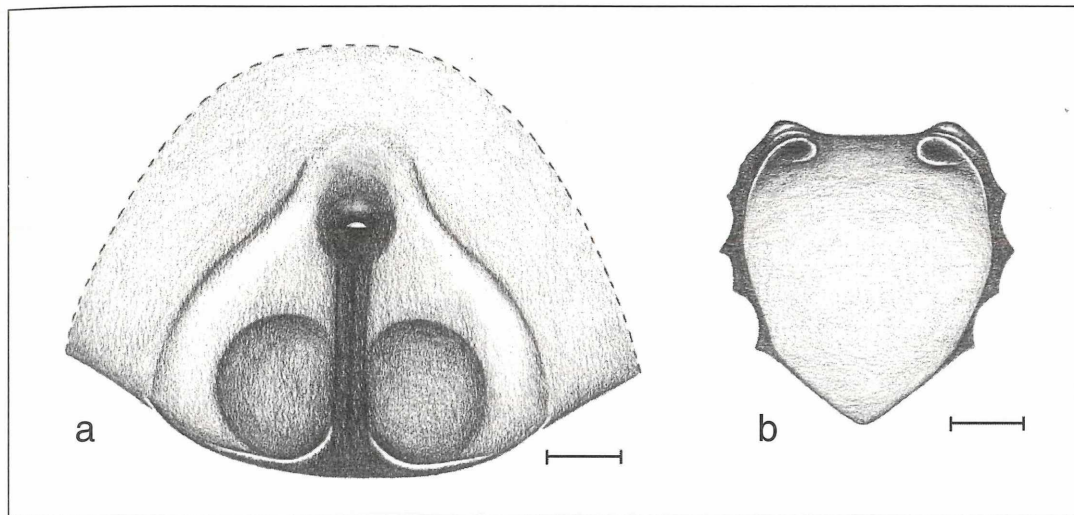


Figure 23. *Stethorrhagus roraimae* GERTSCH, female: a) epigynum, ventral; b) sternum, ventral; scale lines: a, 0.25 mm; b, 0.5 mm.

4. Literature

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Key to species of *Stethorrhagus*

1. Males (those of <i>S. roraimae</i> and <i>S. nigrinus</i> unknown)	.2
Females (those of <i>S. duidae</i> , <i>S. latoma</i> , <i>S. peckorum</i> and <i>S. penai</i> unknown)	.13
2. Deep sternal excavations with delimited internal margin	.3
Shallow sternal excavations without delimited internal margin	.8
3. Bifid tibial retrolateral apophysis	.4
Entire tibial retrolateral apophysis	.6
4. Ventral extension of tibial retrolateral apophysis bifid in the distal third (fig. 20 b)	.duidae
Ventral extension of tibial retrolateral apophysis entire	.5
5. Base of embolus with an elongated prolateral prong; embolus short (fig. 16 a)	.chalybeius
Base of embolus without a prolateral prong; embolus long (fig. 15 b)	.penai
6. Tegulum without laminar extensions; embolus with long apical prongs (fig. 9 b)	.limbatus
Tegulum with laminar extensions; embolus with short apical prongs (figs 17 a, 19 a)	.7
7. Tegular laminar extension transversal, median and serrated;	
embolus with a rounded prolateral prong (fig. 17 a)	.planada
Tegular laminar extension large and tooth-like;	
embolus with a triangular basal prong (fig. 19 a)	.hyula
8. Tibial retrolateral apophysis with dorsal process (figs 10 b, 13 b)	.9
Tibial retrolateral apophysis without dorsal process (figs 11 b, 14 b)	.11
9. Dorsal process small and pointed; tegular projection large (fig. 13 a,b)	.latoma
Dorsal process large and rounded; tegular projection otherwise (figs 10 b, 12 c)	10
10. Ventral extension of the tibial retrolateral apophysis wide and laminar distally;	
two extensions on the tegulum (fig. 10 a,b)	.lupulus
Ventral extension of the tibial retrolateral apophysis finger-shaped;	
one extension on the tegulum (fig. 12 b,c)	.archangelus
11. Ventral extension of retrolateral tibial apophysis bifid at basis;	
embolus widened, with reduced apical prongs (fig. 22 a,b)	.peckorum
Ventral extension of retrolateral tibial apophysis entire;	
embolus narrow, with long apical prongs (figs 11 a,b, 14 a,b)	.12
12. Dorsal extension of the retrolateral tibial apophysis with a basal process;	
embolus arising medianly from the tegulum (fig. 14 a,b)	.tridentatus
Dorsal extension of the retrolateral tibial apophysis without basal process;	
embolus arising prolaterally from the tegulum (fig. 11 a,b)	.oxossi
13. Deep sternal excavations with delimited internal margin	14
Shallow sternal excavation without delimited internal margin	19
14. Copulatory opening large and wide (fig. 9 d)	.limbatus
Copulatory opening small and rounded (figs 18 a, 23 a)	15
15. Spermathecae disposed anteriorly in relation to copulatory opening (fig. 16 d)	.chalybeius
Spermathecae disposed posteriorly in relation to copulatory opening (figs 19 c, 21 b)	.16
16. Median plate present, subrectangular (fig. 18 a)	.planada
Median plate absent (figs 19 c, 21 b)	17
17. Epigynum with a median luniform sclerotization (fig. 19 c)	.hyula
Epigynum without such a sclerotization (figs 21 b, 23 a)	.18
18. Small copulatory opening, with straight posterior margin (fig. 23 a)	.roraimae
Large copulatory opening, with sinuous posterior margin (fig. 21 b)	.nigrinus
19. Median plate absent;	
dorsal plate with an accentuated „V“-shaped notch (fig. 14 d,e)	.tridentatus
Median plate present; dorsal plate otherwise	.20
20. Copulatory opening circular; median plate not invaginated medianly (fig. 12 d)	.archangelus
Copulatory opening otherwise; median plate invaginated medianly (figs 10 f, 11 c)	.21
21. Copulatory opening „V“-shaped, with a clearly delimited anterior margin (fig. 10 f)	.lupulus
Copulatory opening „U“-shaped, without a clearly delimited anterior margin (fig. 11 c)	.oxossi

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