



ARTÍCULO:

DESCRIPTION OF SIX NEW SPECIES OF *KALCERRYTUS* GALIANO FROM THE BRAZILIAN AMAZON (ARANEAE: SALTICIDAE)

Gustavo R. S. Ruiz & Antonio D. Brescovit

Abstract:

Six new species of *Kalcerytus* Galiano, 1999 from the Brazilian Amazon are described: *Kalcerytus edwardsi* sp. n. and *K. mberuguarus* sp. n. from Rio Branco, Acre; *K. falcatus* sp. n., *K. odontophorus* sp. n. and *K. rosamariae* sp. n. from Serra do Divisor National Park, Acre; and *K. salsicha* sp. n. from Manaus, Amazonas. New records of *K. merretti* Galiano, 1999 for the states of Amazonas and Pará are presented.

Key words: Araneae, Salticidae, spiders, Amazon, Brazil.

Taxonomy:

Kalcerytus edwardsi sp. n.
Kalcerytus falcatus sp. n.
Kalcerytus mberuguarus sp. n.
Kalcerytus odontophorus sp. n.
Kalcerytus rosamariae sp. n.
Kalcerytus salsicha sp. n.

Descripción de seis nuevas especies de *Kalcerytus* Galiano de la Amazonía brasileña (Araneae: Salticidae)

Resumen:

Se describen seis especies nuevas de *Kalcerytus* Galiano, 1999 de la Amazonía brasileña: *Kalcerytus edwardsi* sp. n. y *K. mberuguarus* sp. n. de Rio Branco, Acre; *K. falcatus* sp. n., *K. odontophorus* sp. n. y *K. rosamariae* sp. n. del Parque Nacional de la Sierra del Divisor, Acre; y *K. salsicha* sp. n. de Manaus, Amazonas. Se presentan nuevos registros de *K. merretti* Galiano, 1999 para los estados de Amazonas y Pará.

Palabras clave: Araneae, Salticidae, arañas, Amazonía, Brasil.

Taxonomía:

Kalcerytus edwardsi sp. n.
Kalcerytus falcatus sp. n.
Kalcerytus mberuguarus sp. n.
Kalcerytus odontophorus sp. n.
Kalcerytus rosamariae sp. n.
Kalcerytus salsicha sp. n.

Introduction

The genus *Kalcerytus* was recently proposed by Galiano (1999) to include nine species found in areas covered by tropical forests in Brazil, Bolivia, Ecuador, French Guyana and Venezuela. Only five of those species were collected in Brazil, in the states of Amapá, Amazonas and Pará. In this paper we describe six new species of *Kalcerytus* from Northern Brazil, one from the state of Amazonas and five species from the state of Acre. We also present new records of *Kalcerytus merretti* Galiano, 1999 for the states of Amazonas and Pará.

Material and Methods

The measurements are given in millimeters. The coloration and leg spination are very uniform within the group. Here we present only the differences from the forms pointed out by Galiano (1999). The abbreviations used are d: dorsal; v: ventral; p: prolatateral; r: retrolateral; pr: proximal; di: distal; RTA: retrolateral tibial apophysis.

The material is deposited in the Instituto Butantan (IBSP, I. Knysak), in the Instituto Nacional de Pesquisas da Amazônia (INPA, J. A. Rafael) and in the Museu de Zoologia da Universidade de São Paulo (MZSP, R. Pinto-da-Rocha).

ARTÍCULO:

Description of six new species of *Kalcerytus* Galiano from the Brazilian Amazon (Araneae: Salticidae)

Gustavo R. S. Ruiz

Laboratório de Artrópodes,
Instituto Butantan,
Av. Vital Brasil, 1500,
CEP 05503-900, São Paulo, SP,
Brazil
gustavoruiz86@hotmail.com

Antonio D. Brescovit

Laboratório de Artrópodes,
Instituto Butantan,
Av. Vital Brasil, 1500,
CEP 05503-900, São Paulo, SP,
Brazil
adbresc@terra.com.br

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Grupo de trabajo en Aracnología de la Sociedad Entomológica Aragonesa (SEA)
Avda. Radio Juventud, 37
50012 Zaragoza (ESPAÑA)
Tef. 976 324415
Fax. 976 535697
C-elect.: amelic@telefonica.net
Director: A. Melic

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Results

Kalcerrytus merretti Galiano, 1999

Kalcerrytus merretti Galiano, 1999: 55, figs. 1-3, 12-13, 24, 27-28, 38, 43, 49-53, 56-59 (Holotype % and 8% 7& paratypes from Reserva Florestal Adolpho Ducke, Manaus, Amazonas, Brazil, Galiano coll., deposited in the Museu Nacional do Rio de Janeiro and in the Museo Argentino de Ciencias Naturales Bernardino Rivadavia, not examined); Platnick, 2003.

NEW RECORDS. Brazil. **Amazonas**: Presidente Figueiredo, Usina Hidrelétrica de Balbina, 1%, 1987-1988, IBSP staff coll. (IBSP 10858); Manaus, Lago Janauari, 1%, 1995-1996, J. Adis coll. (IBSP 15070); **Pará**: Tucuruí, Usina Hidrelétrica de Tucuruí, 2%, Aug. 1984, IBSP staff coll. (IBSP 5541; 5543).

Kalcerrytus edwardsi sp. n. (Fig. 1-5)

TYPES. Holotype % from Reserva Extrativista de Humaitá, Rio Branco, Acre, Brazil, 18 Jul. 1995, R. S. Vieira coll., deposited in the IBSP 15618. Paratypes: 3% 3& from Reserva Extrativista de Catuaba, Rio Branco, Acre, Brazil, Jun.-Nov. 2001, E. F. Morato coll., deposited in the IBSP 40218; 40221; 40228 and MZSP 21713; 21714.

ETYMOLOGY. The species is named in honour of the American arachnologist G. B. Edwards, who encouraged my work with Salticidae.

DIAGNOSIS. The male of *Kalcerrytus edwardsi* differs from those of other species by the curled tip of the embolus (Fig. 1). The female differs from others mainly by the W-shaped openings of the epigyne (Fig. 4).

DESCRIPTION. MALE. Total length: 6.20. Carapace 3.30 long, 2.30 wide, 1.75 high. Ocular quadrangle 1.50 long. Anterior eye row 2.44 wide and posterior 2.16 wide. Length of patella + tibia: I 2.60; II 2.30; III 2.60; IV 2.35. Leg formula: III IV=I II. Leg spination as in Galiano (1999). Palp (Fig. 1-3) brown, femur dorsal apical and patella dorsal and prolateral covered by white hairs, RTA short, with pointed tip and a median depression, femur with a sub-triangular distal ventral tubercle (Fig. 2).

FEMALE. Legs yellow, abdomen dorsal pattern inconspicuous. Total length: 7.10. Carapace 3.10 long, 2.50 wide, 1.95 high. Ocular quadrangle 1.60 long. Anterior eye row 2.30 wide and posterior 2.15 wide. Length of patella + tibia: I 2.35; II 2.20; III 2.55; IV 2.25. Leg formula: III IV I II. Leg spination: femur: right II d 1-1-1, p 2di, r 1-2; left II d 1-1-1, p 2di, r 1-1; right IV d 1-1-1, r 1di; left IV d 1-1-1, r 1di; tibia: left I v 1-2-2, p 1-1; right IV v 2-2, p 1-1-1, r 1-1-1; left IV v 1p-2, p 1di, r 1-1-1; metatarsus: right IV v 2-2, p 1-1-2, r 1-1-2; left IV v 1r2, d 1r, p 1-2, r 1-2. Epigyne as in the figures 4-

5, copulatory ducts short, oval spermathecae easily seen through the translucent integument (Fig. 4), fertilization ducts narrow and longitudinal (Fig. 5).

VARIATION. MALE. Total length: 5.90-6.60; length of carapace: 2.70-3.30. FEMALE. Total length: 5.70-8.20; length of carapace: 2.75-3.35.

OTHER MATERIAL EXAMINED. Brazil, **Acre**, Rio Branco, Reserva Extrativista de Catuaba, 1% 8&&, Jun.-Nov. 2001, E. F. Morato coll. (IBSP 40219; 40220; 40222; 40223; 40224; 40225; 40226; 40227; 40229).

DISTRIBUTION. Known only from Rio Branco, Acre, Brazil.

NATURAL HISTORY. Although the biology of these spiders is still unknown, more than 60% of the material studied was collected by pitfall traps, which suggests that they might live on the ground.

Kalcerrytus falcatus sp. n. (Fig. 6-7)

TYPES. Holotype % from Anil, Parque Nacional da Serra do Divisor, Acre, Brazil, 10 Nov. 1996, R. S. Vieira coll., deposited in the IBSP 37428. Paratype % from Taboquinha, Parque Nacional da Serra do Divisor, Acre, Brazil, 17 Nov. 1996, R. S. Vieira coll., deposited in the IBSP 9221.

ETYMOLOGY. The specific name is a Latin adjective (*falcatus*, sickle-shaped).

DIAGNOSIS. The male of *Kalcerrytus falcatus* differs from those of other species by the sickle-like RTA (Fig. 7).

DESCRIPTION. MALE. Lateral bands of white hairs on thoracic area. Total length: 7.20. Carapace 3.70 long, 2.60 wide, 2.20 high. Ocular quadrangle 1.70 long. Anterior eye row 2.50 wide and posterior 2.20 wide. Length of patella + tibia: I 2.87; II 2.40; III 2.75; IV 2.32. Leg formula: III IV I II. Leg spination: femur: left II d 1-1-1, p 2di, r 1-1; right IV d 1-1-1, p 0, r 1di; left IV d 1-1-1, p 1, r 1di. Palp (Fig. 6-7) brown, femur dorsal apical and patella dorsal and prolateral covered by white hairs, embolus thin, with two projections on the base (Fig. 6), femur with a round distal ventral tubercle (Fig. 7).

FEMALE. Unknown.

VARIATION: Paratype without lateral bands of hairs on thoracic area, abdomen dorsal pattern inconspicuous. Total length: 6.90; length of carapace: 3.40.

OTHER MATERIAL EXAMINED. None.

DISTRIBUTION. Known only from Serra do Divisor, Acre, Brazil.

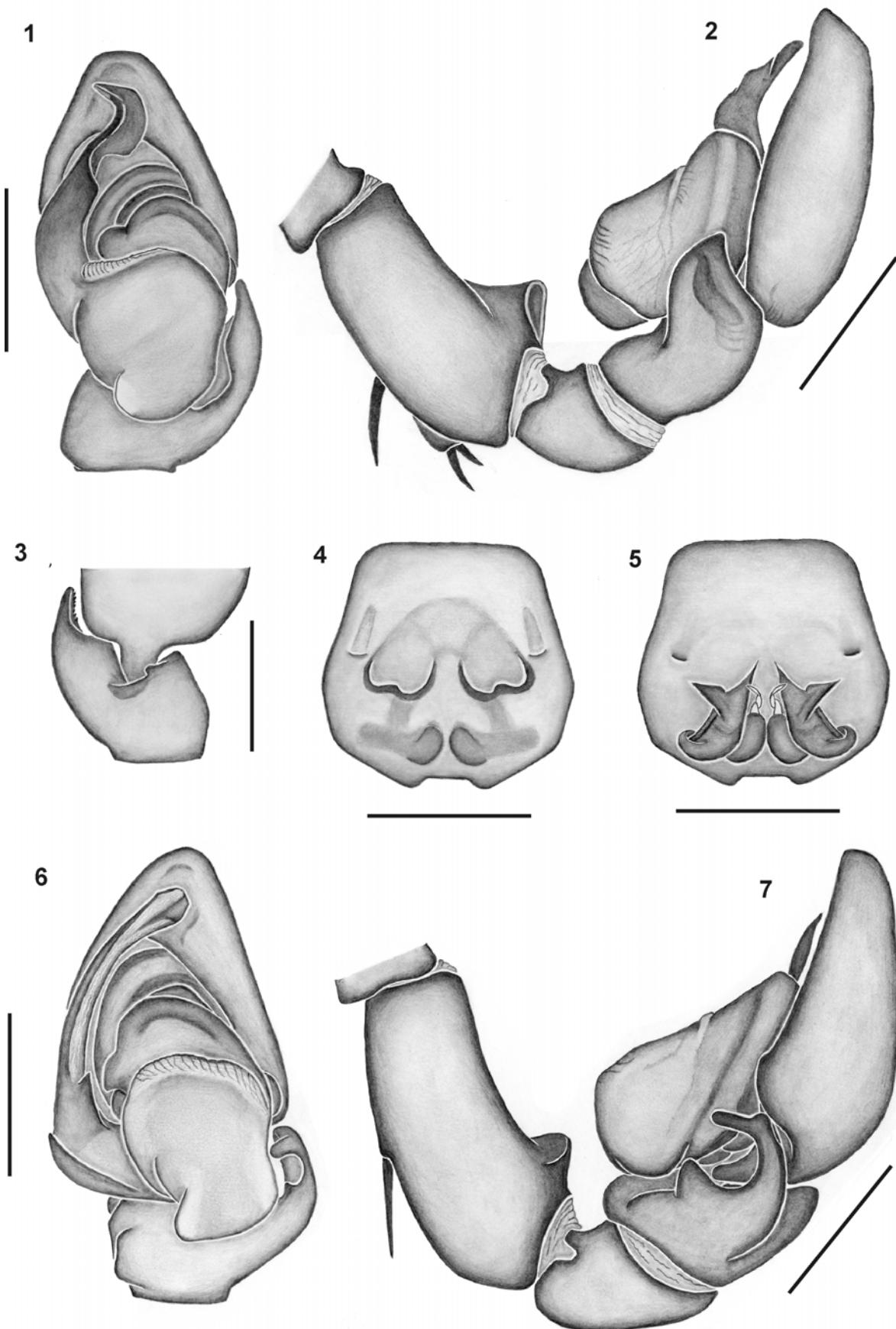


Fig. 1-5: *Kalcerytus edwardsi* sp. n. **1-3.** Holotype male palp. **1.** Ventral view; **2.** Retrolateral view; **3.** Dorsal view. **4-5.** Female epigyne. **4.** Ventral view; **5.** Dorsal view. **6-7:** *Kalcerytus falcatus* sp. n. Holotype male palp. **6.** Ventral view; **7.** Retrolateral view. Scale: 0.5 mm.

***Kalcerytus mberuguarius* sp. n. (Fig. 8-10)**

TYPE. Holotype % from Reserva Zoobotânica da Universidade Federal do Acre, Rio Branco, Acre, Brazil, 17 Jul. 1995, R. S. Vieira coll., deposited in the IBSP 10798.

ETYMOLOGY. The specific name is a substantive taken from the South American Tupi-guarani native language *mberu* (fly) and *-guara* (eater).

DIAGNOSIS. The male of *Kalcerytus mberuguarius* differs from those of other species by the arched form of the embolus, best seen in retrolateral view (Fig. 10) and by a internal round projection on the middle of the embolus (Fig. 8).

DESCRIPTION. MALE. Total length: 5.70. Carapace 2.90 long, 2.10 wide, 1.66 high. Ocular quadrangle 1.34 long. Anterior eye row 2.16 wide and posterior 1.94 wide. Right leg I missing. Length of patella + tibia: I 2.06; II 1.96; III 2.04; IV 1.64. Leg formula: III IV I II. Leg spination: femur: left III d 1-1, p 2di, r 1di; right IV d 1-1-1, p 1-1, r 2di; left IV d 1-1-1, p 0, r 0; patella: left IV p 0, r 0; tibia: both II v 2-2-2, p 1-1-1, r 1-1; left III d 1p di, v 2di, p 1-1-1, r 1-1-1; right IV d 1pr-2di, v 2-2, p 1-1-1, r 1-1-1; left IV d 0, v 0, p 1-1, r 1-1-1; metatarsus: left III v 2-2, p 1-2, r 1-2; left IV v 2di, p 2di, r 2di. The absence of macrosetae on the left legs III and IV suggest that they are probably newly regenerated. Palp (Fig. 8-10) brown, femur dorsal apical and patella dorsal and prolateral covered by white hairs, RTA short, with truncated tip and a suave depression, femur with a finger-like distal ventral tubercle (Fig. 10).

FEMALE. Unknown.

OTHER MATERIAL EXAMINED. None.

DISTRIBUTION. Known only from Rio Branco, Acre, Brazil.

***Kalcerytus rosamariae* sp. n. (Fig. 11-13)**

TYPE. Holotype % from Morro Queimado, Parque Nacional da Serra do Divisor, Acre, Brazil, 8 Nov. 1996, R. S. Vieira coll., deposited in the IBSP 9065.

ETYMOLOGY. The species is named in honour of Rosamary S. Vieira, who collected the holotype.

DIAGNOSIS. The male of *Kalcerytus rosamariae* differs from those of other species by the form of the RTA, which presents a dorsal small distal projection (Fig. 13).

DESCRIPTION. MALE. Abdomen dorsal pattern inconspicuous. Total length: 6.80. Carapace 3.60 long, 2.60 wide, 2.00 high. Ocular quadrangle 1.70 long. Anterior eye row 2.60 wide and posterior 2.30 wide. Length of patella + tibia: I 2.80; II 2.45; III 2.80; IV 2.40. Leg formula: III IV I II. Leg spination: femur: right IV d 1-1-1, p 1, r 1di; tibia: left III d 1pr-1p di, v 1p-2, p 1-1-1, r 1-1-1; right IV 1pr-2di, v 1p-2, p 1-1-1, r 1-1; metatarsus: right IV v 2-2, p 1-2, r 1-1-2. Palp (Fig. 11-13) brown, femur dorsal apical and patella dorsal and prolateral covered by white hairs, RTA curved, with

serrated tip, embolus thin, curved (Fig. 11), femur with a small triangular distal ventral tubercle (Fig. 13).

FEMALE. Unknown.

OTHER MATERIAL EXAMINED. None.

DISTRIBUTION. Known only from Serra do Divisor, Acre, Brazil.

***Kalcerytus odontophorus* sp. n. (Fig. 14-18)**

TYPES. Holotype % from Parque Nacional da Serra do Divisor, Acre, Brazil, 24 Mar. 1997, L. Resende & R. S. Vieira coll., deposited in the IBSP 12289. Paratypes: 2% from Parque Nacional da Serra do Divisor, Acre, Brazil, 23 Mar. 1997, L. Resende & R. S. Vieira, deposited in the IBSP 12410; 1% 2&& from Parque Nacional da Serra do Divisor, Acre, Brazil, 25 Mar. 1997, L. Resende & R. S. Vieira coll., deposited in the IBSP 12166 and MZSP 21441.

ETYMOLOGY. The specific name is an adjective from the Greek *odon* (tooth) and *phor-* (bearing).

DIAGNOSIS. The male of *Kalcerytus odontophorus* differs from those of other species by the presence of a small tooth on the base of the embolus (Fig. 14). The female differs from others by the presence of round structures on the openings of the epigyne (Fig. 17).

DESCRIPTION. MALE. Lateral bands of white hairs on thoracic area, abdomen dorsal pattern inconspicuous. Total length: 4.90. Carapace 3.20 long, 2.30 wide, 1.70 high. Ocular quadrangle 1.60 long. Anterior eye row 2.35 wide and posterior 2.05 wide. Length of patella + tibia: I 2.35; II 2.05; III 2.30; IV 2.15. Leg formula: III IV I II. Leg spination: left tibia II v 1r-2-2, p 1-1-1, r 1pr. Palp (Fig. 14-16) brown, femur dorsal apical and patella dorsal and prolateral covered by white hairs, RTA long, curved, with serrated tip, femur with a small round distal ventral tubercle (Fig. 15-16).

FEMALE. Legs yellow. Total length: 8.10. Carapace 3.40 long, 2.30 wide, 1.90 high. Ocular quadrangle 1.50 long. Anterior eye row 1.94 wide and posterior 1.76 wide. Length of patella + tibia: I 2.40; II 1.95; III 2.60; IV 2.25. Leg formula: III=IV I II. Leg spination as in Galiano (1999). Epigyne as in the figures 17-18, copulatory ducts sinuous, narrower near the spermathecae, spermathecae elongated, fertilization ducts narrow and oblique (Fig. 18).

VARIATION. MALE. The tooth on the base of the embolus might be reduced in some individuals in one or both palps. Total length: 4.90-7.00; length of carapace: 3.20-3.90. FEMALE. Total length: 6.30-8.10; length of carapace: 3.10-3.40.

OTHER MATERIAL EXAMINED. Brazil, **Acre**, Parque Nacional da Serra do Divisor, 2% 1&, Mar. 1997, L. Resende & R. S. Vieira (IBSP 12250; 38758; 38759).

DISTRIBUTION. Known only from Serra do Divisor, Acre, Brazil.

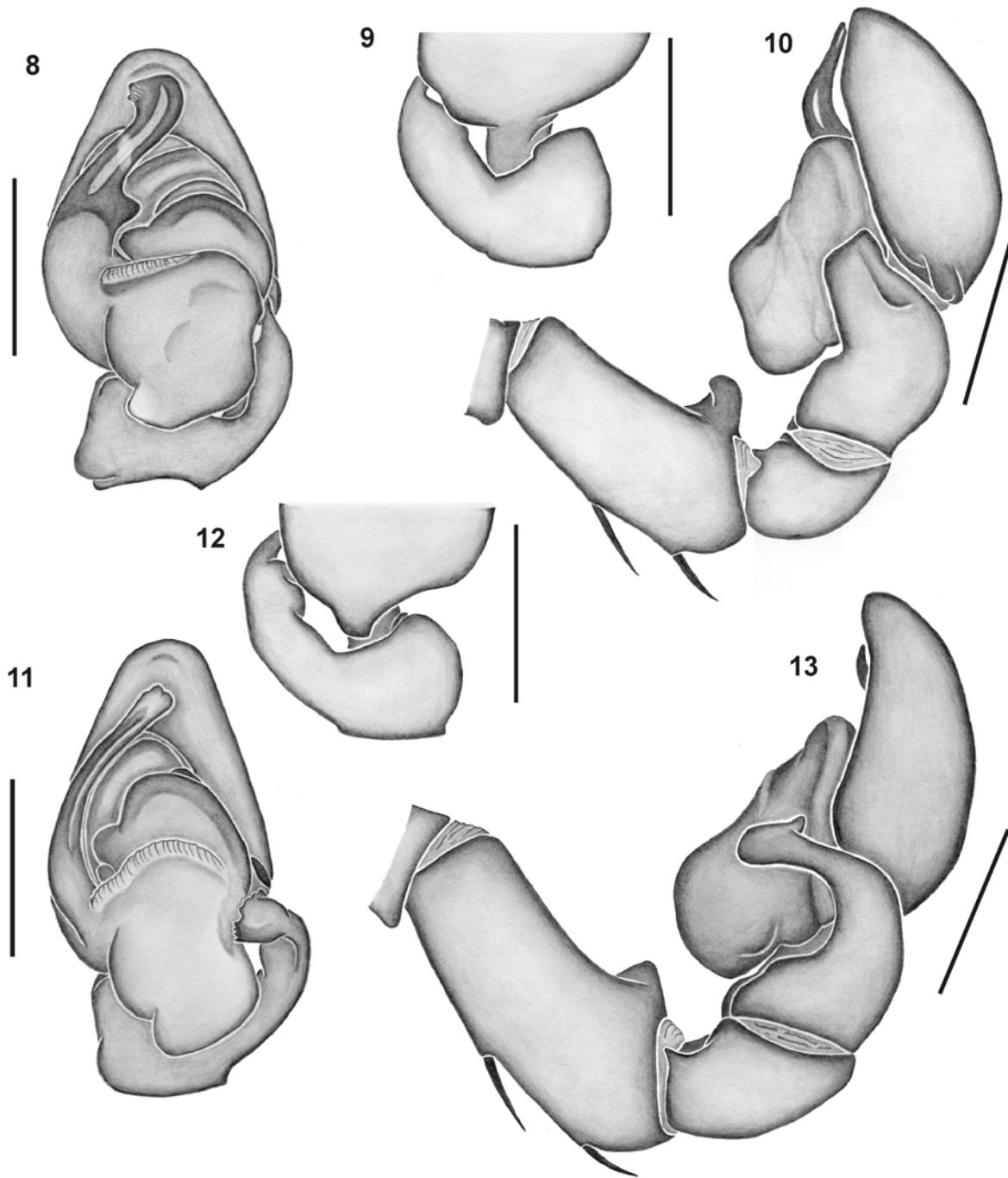


Fig. 8-10: *Kalcerytus mberuguarus* sp. n. Holotype male palp. **8.** Ventral view; **9.** Dorsal view; **10.** Retrolateral view. **11-13:** *Kalcerytus rosamariae* sp. n. Holotype male palp. **11.** Ventral view; **12.** Dorsal view; **13.** Retrolateral view. Scale: 0.5 mm.

Kalcerytus salsaicha sp. n. (Fig. 19-23)

TYPES. Holotype ♂ from Reserva do Florestal, Fazenda Esteio, Manaus, Amazonas, Brazil, 20 Feb. 2002, F. Rego coll., deposited in the INPA. Paratypes: 1♀ 1♂ from Reserva da Fazenda Dimona, Manaus, Amazonas, Brazil, 27-28 Feb. 2002, F. Rego coll., deposited in the INPA and IBSP 39000.

ETYMOLOGY. The species is named in honour of Felipe Rego (a.k.a. Salsicha), who collected the holotype. Substantive in apposition.

DIAGNOSIS. This species resembles *K. exultus* Simon, 1902 by the projected base of the embolus and copulatory epigynal openings (see Galiano, 1963, pl. XX, figs. 5-6 and Galiano, 1999, fig. 55) but differs from it by a less curved RTA in the male, which is serrated on the tip (Fig. 21) and by the transversal copulatory ducts seen through the translucent integument in the female (Fig. 22).

DESCRIPTION. MALE. Abdomen pattern inconspicuous.

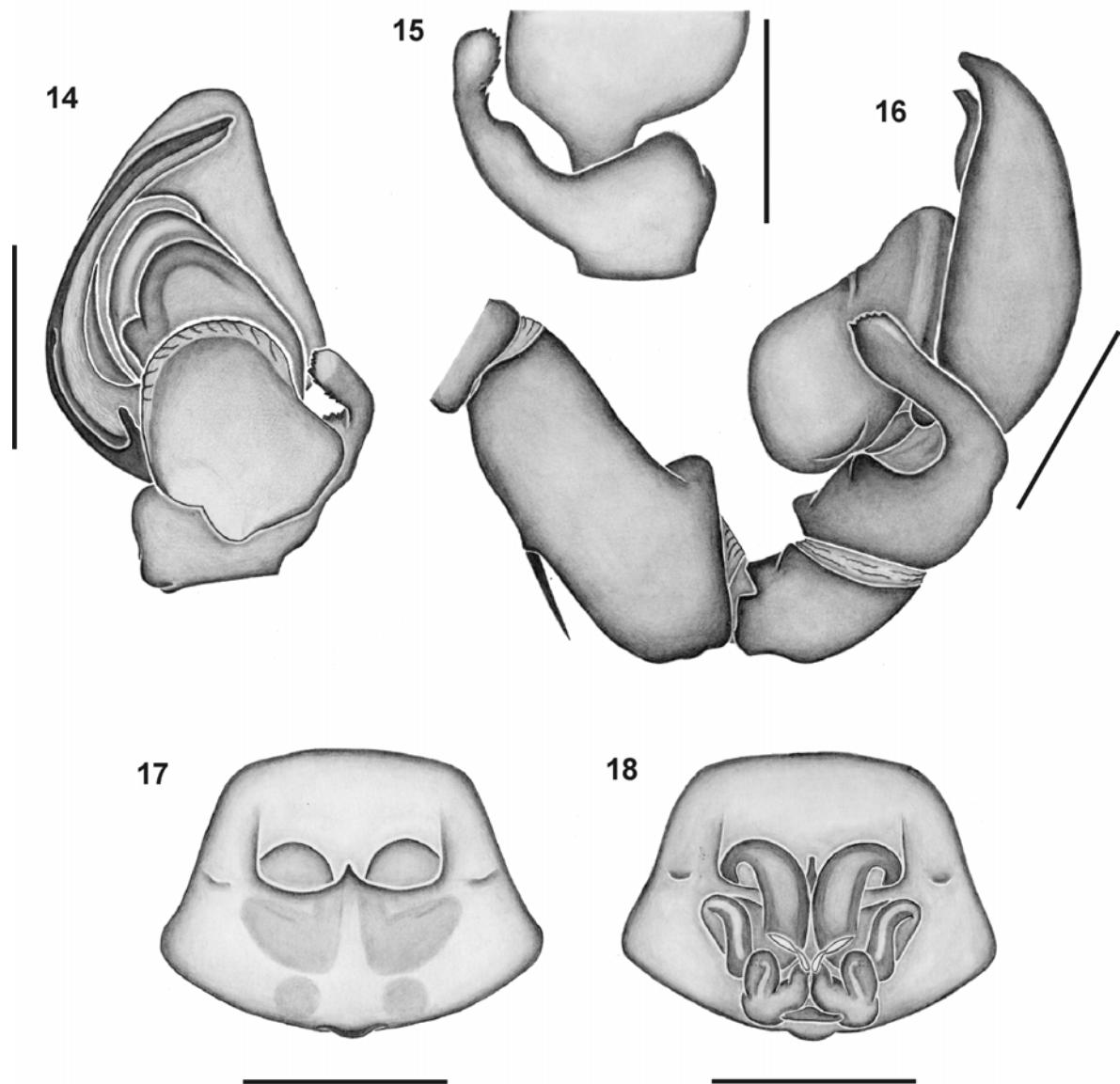


Fig. 14-18: *Kalcerytus odontophorus* sp. n. **14-16.** Holotype male palp. **14.** Ventral view; **15.** Dorsal view; **16.** Retrolateral view. **17-18.** Female epigyne. **17.** Ventral view; **18.** Dorsal view. Scale: 0.5 mm.

Total length: 5.76. Carapace 2.88 long, 2.25 wide, 1.70 high. Ocular quadrangle 1.55 long. Anterior eye row 2.30 wide and posterior 2.05 wide. Right leg III missing. Length of patella + tibia: I 2.30; II 2.15; III 2.40; IV 2.15. Leg formula: III IV I II. Leg spination: both femora IV d 1-1-1, p 1-1, r 2di. Palp (Fig. 19-21) brown, femur dorsal apical and patella dorsal and prolateral covered by white hairs, RTA elongated, with small distal projections and serrated tip (Figs. 19, 21), embolus thin, curved, with a projected base (Fig. 19), femur with a round small distal ventral tubercle (Fig. 21).

FEMALE. Legs yellow, femora ventrally brown. Total length: 7.30. Carapace 3.30 long, 2.50 wide, 1.85 high.

Ocular quadrangle 1.55 long. Anterior eye row 2.40 wide and posterior 2.15 wide. Length of patella + tibia: I 2.60; II 2.35; III 2.70; IV 2.40. Leg formula: III IV I=II. Leg spination: right metatarsus III v 2-2, p 1-2, r 1-2. Epigyne as in the figures 22-23, copulatory ducts sinuous, narrower near the spermathecae, spermathecae elongated, fertilization ducts almost transversal.

VARIATION. Paratype %: Total length: 6.10; carapace: 3.20 long.

OTHER MATERIAL EXAMINED. None.

DISTRIBUTION. Known only from Manaus, Amazonas, Brazil.

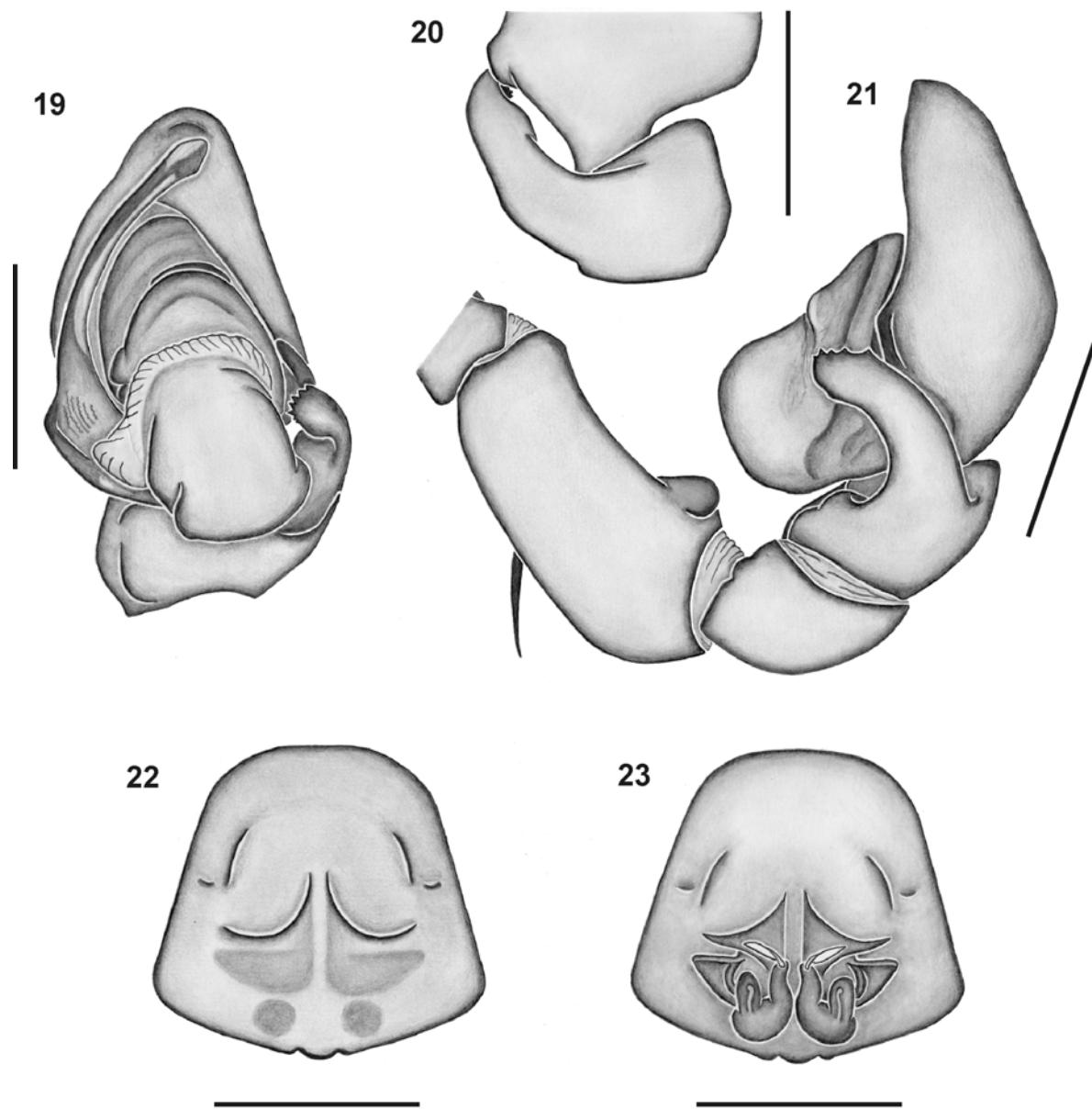


Fig. 19-23: *Kalcerytus salsa* sp. n. **19-21.** Holotype male palp. **19.** Ventral view; **20.** Dorsal view; **21.** Retrolateral view. **22-23.** Female epigyne. **22.** Ventral view; **23.** Dorsal view. Scale: 0.5 mm.

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