

TAXONOMY AND NEW RECORDS IN THE NEOTROPICAL SPIDER GENUS *Paratrechalea* (ARANEAE, LYCOSOIDEA, TRECHALEIDAE)

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ABSTRACT

The males of *Paratrechalea azul* Carico, 2005, *P. galianoae* Carico, 2005 and the female of *P. wygodzinskyi* (Soares & Camargo, 1948), are described for the first time. *Trechalea langei* Mello-Leitão, 1947 is transferred to *Paratrechalea* and synonymized with *P. ornata* (Mello-Leitão, 1943). *Paratrechalea julyae* Silva & Lise n. sp., is described and illustrated based on a male from Mucuri, Bahia, Brazil. New records are given for *Paratrechalea azul*, *P. galianoae*, *P. longigaster*, *P. ornata* and *P. saopaulo* in southeastern and southern Brazil and eastern Uruguay.

Key words: *Paratrechalea*, taxonomy, distribution, Neotropical region.

RESUMO

Taxonomia e registros novos da região Neotropical do gênero *Paratrechalea* (Araneae, Lycosoidea, Trechaleidae)

Os machos de *Paratrechalea azul* Carico, 2005, *P. galianoae* Carico, 2005 e fêmea de *P. wygodzinskyi* (Soares & Soares, 1948), são descritos pela primeira vez. *Trechalea langei* Mello-Leitão, 1947 é transferida para *Paratrechalea*, como sinônimo júnior de *P. ornata* (Mello-Leitão, 1943). *Paratrechalea julyae* Silva & Lise sp. nov., é descrita e ilustrada com base em um macho de Mucuri, Bahia, Brasil. Registros novos de distribuição nas regiões sudeste e sul do Brasil e leste do Uruguai são incluídos para: *Paratrechalea azul*, *P. galianoae*, *P. longigaster*, *P. ornata* e *P. saopaulo*.

Palavras-chave: *Paratrechalea*, taxonomia, distribuição, região Neotropical.

INTRODUCTION

The genus *Paratrechalea* was proposed by CARICO (2005) to include those trechaleids with flexible tarsi but non-flexible metatarsi in combination with specific distinguishing characteristics of the genitalia. The ventral division of the median apophysis of the male palpus is flattened, rounded in outline, and greatly expanded, thus covering most of the dorsal division, including its guide. In the female, the epigynum has a clearly distinguishable external pos-

terior-median scape (CARICO, 2005). This genus includes six species, of which four are recorded from Rio Grande do Sul, *P. azul* Carico, 2005, *P. longigaster* Carico, 2005, *P. galianoae* Carico, 2005 and *P. ornata* (Mello-Leitão, 1943). The remaining two, *P. saopaulo* Carico, 2005 and *P. wygodzinskyi* (Soares & Camargo, 1948), occur in São Paulo and Mato Grosso respectively (CARICO, 2005).

In this work we describe a new species of *Paratrechalea* from Mucuri, Bahia, Brazil, the males of *Paratrechalea azul* and *P. galianoae*, originally

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described from Água Azul, Caxias do Sul, Rio Grande do Sul, Brazil and General M. Belgrano, Argentina, respectively and the female of *P. wygodzinskyi*, only known by the male described from Chavantina, Mato Grosso, Brazil. New records of *P. azul*, *P. galianoae*, *P. longigaster*, *P. ornata*, *P. saopaulo* and *P. wygodzinskyi* are presented, based on additional specimens collected from areas in Brazil and Uruguay.

MATERIAL AND METHODS

The material examined is deposited in the following institutions: Facultad de Ciencias, Entomología, Montevideo, Uruguay (FCE, M. Simó), Instituto Butantan, São Paulo (IBSP, A. D. Brescovit), Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre (MCN, E. H. Buckup), Museu de Ciências e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre (MCTP, A. A. Lise), Museu de História Natural “Capão da Imbuia” and Paraná (MHCI, J. de Moura Leite).

The nomenclature of the male palpus and female epigynum structures follows CARICO (1993, 2005). To study the excised epigyna, the soft tissue was removed by a combination of dissection with a small surgical blade and immersion in 10% KOH for 12 hours at 25°C. The scanning electron micrographs (SEM) were made in Centro de Microscopia e Microanálises of Pontifícia Universidade Católica do Rio Grande do Sul. All the measurements are in millimeters. The abbreviations related to eyes measurements, including diameter, interdistances and median ocular quadrangle are those routinely used in spider descriptions. The nomenclature of spinnerets gland spigots follows PLATNICK (1990).

Paratrechalea julyae Silva & Lise sp. nov.

(Figs. 1-6)

Type. Male holotype from Fazenda Paissandu, Mucuri, Bahia, Brazil, 15.IV.1979, A. C. Niella col., deposited in the MCN 10851.

Etymology. The name is in honor of the first author wife's nickname, “July”, short for Juliane.

Diagnosis. The male palp of *Paratrechalea julyae* (Figs. 4-6) resembles that of *P. wygodzinskyi* (CARICO, 2005, figs. 22, 23) by the elongate shape of the distal lobe of the ectal division of retrolateral tibial apophysis (Fig. 6), but can be distinguished by

the long, slender and prolaterally projected ventral division of median apophysis (Fig. 5).

Description, holotype. Carapace low, 3.16 long, 2.75 wide, yellowish, with two longitudinal paramedian narrow bands on the dorsum; yellowish at the ocular region (Fig. 1). Fovea longitudinal on the posterior third. Clypeus, yellowish, 0.22 high. Anterior eye row straight, 0.71 wide, posterior recurved 1.39 (Figs. 1, 3). Eye diameters, interdistances and ocular quadrangle: AME 0.13, ALE 0.12, PME 0.24, PLE 0.18, AME-AME 0.09, AME-ALE 0.04, PME-PME 0.25, PME-PLE 0.40, MOQ 0.43 long, dorsal view, frontal view 0.52, anterior width 0.40, posterior width 0.58. Chelicerae wider at base (Fig. 3), glabrous, orange, lateral carina present near the fang, with three promarginal and four retromarginal teeth, subequal in size. Sternum yellowish, 1.48 long, 1.24 wide, with brownish bristles (Fig. 2). Labium yellowish, 0.31 long, 0.37 wide. Legs yellowish ventrally, light brown dorsally. Relative length of legs: I-IV-II-III. Measurements: I – femur 4.15/ tibia-patella 5.39/ metatarsus 4.31/ tarsus 2.07/ total 15.92; II – 3.56/ 5.22/ 4.07/ 1.90/ 14.75; III – 2.82/ 3.56/ 3.07/ 1.32/ 10.77; IV – 4.31/ 4.56/ 5.06/ 1.92/ 15.85. Ventral macrosetae pairs on tibiae: I-4, II-4, III-3, IV-3. Abdomen length 3.25, grayish, dorsum with a medial, irregularly, longitudinal light brown band extending to the posterior region (Fig. 1); brownish ventrally. Palpus with tibia approximately half the length of cymbium (Figs. 4-6), tegulum and subtegulum prominent, guide with terminal portion of median apophysis not conspicuous ventrally (Fig. 5). Retro-lateral tibial apophysis with distal lobe of ectal division elongated and acute; ental division short, subtriangular (Fig. 6). Ventral protuberance of male palpal tibia prominent (Fig. 4).

Distribution. Brazil, in the state of Bahia.

Material examined. Only the holotype.

Paratrechalea azul Carico, 2005

(Figs. 7-9, 13-18, 21, 22, 25-36)

Paratrechalea azul CARICO, 2005: 809, figs. 28, 29, female holotype from Água Azul, Vila Oliva, Caxias do Sul, Rio Grande do Sul, Brazil, A. A. Lise col., 15.I.1975, deposited in MCN 2551 (examined).

Diagnosis. The male palp of *Paratrechalea azul* (Figs. 7-9, 21, 22, 25) resembles those of *P. galianoae* (Figs. 10-12) by the shape of distal lobe of ectal division of retrolateral tibial apophysis, but differs by

the basal lobe of ectal division of retrolateral tibial apophysis narrower at the apex (Figs. 9, 22) and ventral division of median apophysis with the upper margin slightly straight (Fig. 8).

Description. Male (São Francisco de Paula, Rio Grande do Sul, MCTP 17168). Carapace low, 7.00 long, 4.60 wide, cephalic region not elevated, brownish laterally with white narrow bands (Figs. 17, 18), ocular region dark brown. Clypeus orange brown, 0.25 high. Anterior eye row moderately recurved, 1.11 wide, posterior row 1.95, strongly recurved. Eye diameters, interdistances and ocular quadrangle: AME 0.21, ALE 0.15, PME 0.34, PLE 0.34, AME-AME 0.15, AME-ALE 0.09, PME-PME 0.31, PME-PLE 0.33, MOQ 0.62 long, dorsal view, frontal view 0.86, anterior width 0.65, posterior width 1.09. Chelicerae wider at base, glabrous, reddish brown, lateral carina present near fang (Fig. 30), with three promarginal and four retromarginal teeth, subequal in size (Fig. 29). Sternum light brown, 2.50 long, 3.10 wide, with dark brown bristles, labium orange, with small bristles at distal portion, 0.90 long, 0.89 wide. Legs brownish, femora yellowish with brownish spots dorsally. Relative length of legs: IV-II-I-III, I – femur 7.30/ tibia-patella 10.10/ metatarsus 7.80/ tarsus 4.50/ total 29.70; II – 7.80/ 10.30/ 7.90/ 4.40/ 30.40; III – 6.30/ 7.20/ 5.60/ 2.60/ 21.70; IV – 7.90/ 9.90/ 9.60/ 4.60/ 32.00. Tarsal claws with 12 teeth, curved at the tip (Fig. 32). Ventral macrosetae pairs on tibiae: I-4, II-4, III-3, IV-3. Abdomen length 5.3, dorsum with a transverse dark brown band extending to the posterior region; brownish ventrally. Spinnerets (Fig. 33): ALS (Fig. 34) fulvous, with numerous aciniform gland spigots (AC) and two large major ampullate gland spigots (Ma); PMS (Fig. 35) fuscous brown, with numerous cylindrical glands spigots (CY); PLS (Fig. 36) whitish, with numerous aciniform glands spigots (AC). Trichobothria of metatarsus of leg I disposed in two rows, bothrium with distinct hood (Figs. 27, 28). Tarsal organ (Fig. 31) angled laterally. Retrolateral tibial apophysis prominent (Figs. 9, 22, 26) with ectal division of retrolateral tibial apophysis large and ental division of retrolateral tibial apophysis small and rounded (Figs. 9, 22, 26). Tegulum (T) and subtegulum (ST) prominent (Figs. 8, 21), ventral division of median apophysis flat; dorsal division of median apophysis wide and guide not conspicuous ventrally (Figs. 8, 21, 25). Ventral protuberance of male palpal tibia prominent (Fig. 7).

Variation. Ten males, carapace length 7.00-7.60; 4.31-4.72 wide.

Note. Specimens of both sexes were collected together at the same area in several localities in the states of Rio Grande do Sul and São Paulo. They share the same body length and coloration. *Paratrechalea azul* occurs together in the same habitats of *P. ornata* and *P. galianoae*, i.e., along the margins of rivers and small streams with small rocks (Figs. 13-15). The juveniles of *P. azul* were observed to inhabit the lower vegetation, about 30 meters away from the streams (Fig. 16).

Distribution. Brazil, states of Rio de Janeiro, São Paulo, Paraná, Santa Catarina and Rio Grande do Sul.

Material examined. BRAZIL, **Rio de Janeiro:** Volta Redonda, Floresta da Cicuta, ♀, 18.VI.2001, Equipe Biota col. (IBSP 52624); **São Paulo:** Cunha, Parque Estadual da Serra do Mar, Núcleo Santa Virgínia, 2 ♂, 2 ♀, XI.1996, L. S. Rocha col. (IBSP 7677); Pindamonhangaba, ♂, 1-2.IV.1995, R. Martins col. (IBSP 728); Itirapina, Estação Ecológica de Itirapina, 12 ♂, 4 ♀, 2001, A. A. Nogueira et al. col. (IBSP 52847); **Paraná:** São José dos Pinhais, ♂, 14.V.1967, Pilotto col. (MHCI 4466); Candói/Mangueirinha, Usina Hidrelétrica de Segredo, Reservatório do Rio Jordão, 2 ♂, 2 ♀, IV.1996, R. Bertani col. (IBSP 11697); Dois Vizinhos, Cruzeiro do Iguaçu, Usina Hidrelétrica de Salto Caxias, Foz do Rio Chopin, ♂, 30.IV.1996, J. C. Moura-Leite col. (IBSP 11586); 4 ♂, 2 ♀, 8-15.X.1998, Equipe IBSP col. (IBSP 11668, 21049, 21176, 21250); **Santa Catarina:** Serra da Pedra, Parque Nacional da Serra Geral, Arroio Fortaleza, 6 ♀, 20-23.I.2005, E. L. C. Silva col. (MCTP 16567); **Rio Grande do Sul:** Derrubadas, Parque Estadual do Turvo, ♂, 3 ♀, 11-18.I.2002, Equipe Biota col. (IBSP 52638; 52647); Santa Maria, Barragem Saturnino de Brito, ♀, 14.VII.1982, A. A. Lise col. (MCN 10574); Caxias do Sul, Água Azul, ♀, 15.I.1975, A. A. Lise col. (MCN 2554); São Francisco de Paula, Barragem Passo do Inferno, ♀, 21.II.2001, R. Ott col. (MCN 33725); São Francisco de Paula, ♀, 09.VI.2000, A. Barcellos col. (MCN 33436); Cambará do Sul, Parque Nacional da Serra Geral, Arroio Fortaleza, ♂, 2 ♀, 20-23.I.2005, E. L. C. Silva col. (MCTP 16567); São Francisco de Paula, Nascente do Rio Maquiné, 5 ♂, 2 ♀; 23.IV.2005, E. L. C. Silva col. (MCTP 16727, 17168); Canela, Barragem dos Bugres, ♀, 04.XI.1998, L. A. Moura col. (MCN 30637), ♀, 20.II.2001, R. Ott col. (MCN 33733); Riozinho, Cascata do Chuvisqueiro, ♂, ♀, 19.VI.2004, J. B. Picanço, E. L. C. Silva col. (MCN 37535); Maquiné, (Rio Forqueta), 2 ♂, 04.VIII.2004, E. L. C. Silva et al. col. (MCN 37555; 37554); (Rio Garapiá), 3 ♂, 5 ♀, 04.VIII.2004, (MCN 37561; MCTP 16990, 16991); Terra de Areia, ♂, 08.IV.2003, E. L. C. Silva col. (MCN 36229), 3 ♂, 24.V.2003, (MCN 36941); (Itati), 4 ♂, 10 ♀, 28.VI.2003, L. E. C. Schmidt col. (MCN 36955); Arroio dos Pintos, ♂, 27.XII.2002, J. B. Picanço col. (MCN 36946); 2 ♂, 7 ♀, 24.V.2003-28.VI.2003, (MCN 36950; 36954; 36942), all collected by E. L. C. Silva.

Paratrechalea galianoae Carico, 2005

(Figs. 10-12, 14, 23, 24)

Paratrechalea galianoae CARICO 2005: 808, figs. 16, 26, 27, female holotype from General Ma-

nel Belgrano, Misiones, Argentina, I.1966, M. E. Galiano col., deposited in Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", n° 15690 (not examined).

Diagnosis. Males of *Paratrechalea galianoae* (Figs. 10-12, 23, 24) differ from *P. azul* (Figs. 7-9, 21, 22) by the rounded tip of basal lobe of ectal division of retrolateral tibial apophysis and ventral division of median apophysis with the upper margin sinuous (Fig. 11).

Description. Male (São Francisco de Paula, Rio Grande do Sul, MCTP, 17167). Carapace 4.10 long, 3.65 wide, moderately high, brownish white with wide white lateral band, dark brown at ocular region. Clypeus, 0.89 high. Anterior eye row 0.99 wide, posterior 1.79. Eye diameters, interdistances and ocular quadrangle: AME 0.18, ALE 0.15, PME 0.27, PLE 0.28, AME-AME 0.12, AME-ALE 0.08, PME-PME 0.27, PME-PLE 0.32, MOQ 0.54 long, dorsal view, frontal view 0.77, anterior width 0.56, posterior width 0.93. Chelicerae wide at base, lateral longitudinal carina present, glabrous, brownish, with three pro-marginal and four retromarginal teeth. Sternum brownish, with small dark brown bristles, 1.90 long, 1.60 wide; labium orange, dark at base, with dark brown bristles at distal portion, 0.60 long, 0.70 wide. Legs brownish orange, femora with brown dorsal spots and yellowish ventrally, relative length: I-II-IV-III, I – femur 5.20/ tibia-patella 6.80/ metatarsus 5.32/ tarsus 3.50/ total 20.82; II – 4.90/ 6.20/ 5.70/ 2.91/ 19.71; III – 4.10/ 4.20/ 3.31/ 2.90/ 18.91; IV – 5.50/ 6.23/ 5.40/ 2.90/ 20.03. Ventral macrosetae pairs on tibiae: I-4, II-4, III-3, IV-3. Abdomen length 4.70, brownish at dorsum with white anterior longitudinal median band, yellowish ventrally.

Palpal tibiae half of length of cymbium (Figs. 10-12, 23), retrolateral tibial apophysis prominent, distal lobe of ectal division of median apophysis large with a pointed tip (Figs. 12, 24). Tegulum and subtegulum prominent, ventral division of median apophysis rounded at lateral margins, not covering dorsal division median apophysis, guide not conspicuous ventrally (Figs. 11, 24). Ventral protuberance of male palpal tibia prominent (Fig. 10).

Variation. Ten males, carapace length 3.40-4.15; 3.21-3.65 wide.

Note. Specimens of both sexes share the similar body length and coloration, and have been collected together along the rocky margins of rivers and small

streams in São Francisco de Paula, Rio Grande do Sul (Fig. 14), and other localities.

Distribution. Brazil, in the states of Minas Gerais, Rio de Janeiro, São Paulo, Paraná, Santa Catarina and Rio Grande do Sul, and in the province of Misiones, Argentina.

Material examined. BRAZIL, **Minas Gerais:** Sapucaí Mirim, Fazenda Karacy, ♀, 22-27.IX.2003, A. V. da Costa col. (IBSP 42559); Alto Caparaó, Parque Nacional do Caparaó, ♂, ♀, 02.V.2002, A. J. Santos col. (IBSP 35144); 9 ♂, 14 ♀, 01-07.V.2002, Equipe Biota col. (IBSP 55744); Itamonte, ♂, 08.IX.2000, D.M. Tariya col. (IBSP 35123); **Rio de Janeiro:** Teresópolis, Serrinha, ♀, 31.III.1996, E. F. Ramos col. (IBSP 27194); Muriqui, Rio Muriqui, 3 ♂, ♀, 23.VII.2005, E. L. C. Silva et al. col. (MCTP 17141); **São Paulo:** Salesópolis, Estação Ecológica de Boracéia, 3 ♀, 18-24.V.2001, Alunos USP col. (IBSP 52840); São José do Barreiro, Parque Nacional da Serra da Bocaina, 2 ♀, 28.IV.-03.V.2002, Equipe Biota col. (IBSP 52854-52855); Peruíbe, Estação Ecológica de Juréia/Itatins, ♀, 30.IX.-03.X.1997, A. D. Brescovit col. (IBSP 13579); Tapiraí, 2 ♀, 11-13.IX.1997, C. Rheims, V. Onofrio col. (IBSP 13280); Iporanga, PETAR, Cachoeira das Andorinhas, ♂, 22.IX.2002, R. P. Indicatti col. (IBSP 36586); Miracatu, Fazenda Iteiré, 2 ♂, 2 ♀, 20-26.IX.2001, Equipe Biota col. (IBSP 52857); **Paraná:** Morretes, Pico do Marumbi, ♂, 28.IV.1996, J. A. Caetano col. (IBSP 7312); Telêmaco Borba, ♂, ♀, XII.1995, E. Ramirez col. (IBSP 6583); Tijucas do Sul, Lagoa, ♀, 26.VIII.2000, J. Ricetti col. (IBSP 39012); Pinhão, Usina Hidrelétrica de Segredo, ♂, 15.VII.1992, Wosiacki & Jankowsky col. (MHCI 7), ♀, 13.XI.1993, R. Pinto da Rocha col. (MCN 22215); **Santa Catarina:** Blumenau, Parque Natural Municipal "Nascentes do Rio Garcia", 3 ♂, 16 ♀, 21-28.I.2003, Equipe Biota col. (IBSP 52713-52716; 52718-52721; 52723-52724; 52727); Blumenau, Morro Spitzkopf, ♀, 02.II.1996, A. B. Bonaldo et al. col. (MCN 27197), Paulo Lopes, Parque Estadual da Serra do Tabuleiro, ♂, 2 ♀, 10-20.I.2003, Equipe Biota col. (IBSP 52697); Rancho Queimado, 3 ♀, 15-18.X.1995, A. B. Bonaldo col. (MCN 26936), ♂, 3 ♀, 8-12.X.1994, A. B. Bonaldo, L. A. Moura col. (IBSP 51167); Serra da Pedra, Parque Nacional da Serra Geral, Arroio Fortaleza, ♂, 20-23.I.2005, E. L. C. col. (MCTP 16569); **Rio Grande do Sul:** Campestre da Serra, ♂, 12.X.1994 W. R. Koch col. (IBSP 51169); Vacaria, Fazenda Cabanha Rio Branco, ♀, 21.VIII.2004, L. E. C. Schmidt et al. col. (MCN 37607), ♂, 21.VIII.2004, L. E. C. Schmidt et al. col. (MCN 37612); Cambará do Sul, Parque Nacional da Serra Geral, Arroio Fortaleza, ♀, 20-23.I.2005, E. L. C. Silva col. (MCTP 16570), ♀, 20-23.I.2005, E. L. C. Silva col. (MCN 38708); Canela, ♀, 19.X.1993, M. P. Baner col. (MCTP 4305); Barragem Canastra, ♀, 21.II.2001, R. Ott col. (MCN 33728); São Francisco de Paula, 3 ♂, 6 ♀, 04.V.1974, A. A. Lise col. (MCN 2090), (Fazenda Três Cachoeiras) 2 ♀, 05.XI.1998, A. B. Bonaldo col. (MCN 30696), ♀, 02.III.1956, T. de Lema col. (MCN 1890), (nascente do Rio Maquiné) ♀, 05.VIII.2004, E. L. C. Silva et al. col. (MCN 37563), ♂, 05.VIII.2004, E. L. C. Silva et al. col. (MCN 37564), ♂, ♀, 23.IV.2005, E. L. C. Silva col. (MCTP 16732), (Arroio Bananeiras), 4 ♂, 2 ♀, 23.IV.2005, E. L. C. Silva col. (MCTP 16728, 17167), ♀, 23.IV.2005, A. A. Lise col. (MCTP 16731), (Floresta Nacional do IBAMA, Rio Bolo de Noiva, 3 ♀, 02.X.2004, E. L. C. Silva col. (MCN 37932); Maquiné, Parque Estadual da Serra Geral, ♀, A. Carvalho col. (MCN 37031); Arroio dos Ratos, Fazenda Recanto da Figueira, ♂, ♀, 01.VIII.1986, M. A. L. Marques col. (MCN 15533).

***Paratrechalea wygodzinskyi* (Soares & Camargo, 1948)**

(Figs. 19, 20)

Trechalea wygodzinskyi SOARES & CAMARGO, 1948: 358, figs. 6, 7, male holotype from Chavantina, Mato Grosso, Brazil, 1946, H. Sick col. (MZSP 1293) (not examined). ROEWER, 1954: 143; CARICO, 1993: 237; PLATNICK, 2006.

Paratrechalea wygodzinskyi; CARICO, 2005: 807, figs. 24, 25.

Diagnosis. Females of *Paratrechalea wygodzinskyi* (Fig. 19) differ from *P. ornata* and *P. galianoae* (CARICO, 2005, figs. 20, 26, respectively) by the presence of a median and wide projection of middle field of epigynum extending to the posterior margin of epigynum (Fig. 19).

Description. Female (Bonito, Mato Grosso do Sul, IBSP 52863). Carapace 4.10 long, 3.65 wide, moderately high, light brown with wide white lateral band, ocular region dark brown. Anterior eye row 1.24 wide, posterior 2.07. Eye diameters, interdistances and ocular quadrangle: AME 0.24, ALE 0.16, PME 0.41, PLE 0.25, AME-AME 0.16, AME-ALE 0.09, PME-PME 0.24, PME-PLE 0.34, MOQ 0.63 long, dorsal view, frontal view 0.88, anterior width 0.58, posterior width 0.89. Clypeus light brown with two lateral brown bands on each side, 0.89 high. Chelicerae light brown, with conspicuous light bristles, three promarginal teeth, four retromarginal teeth. Sternum yellowish, with small brown spots and brown bristles, 1.90 long, 1.60 wide; labium dark brown, 0.60 long, 0.70 wide. Legs brownish, femora with dorsal dark spots and yellowish ventrally, relative lengths: I-IV-II-III, I – femur 5.20/ tibia-patella 6.80/ metatarsus 5.30/ tarsus 3.50/ total 20.8; II – 4.90/ 6.20/ 5.70/ 2.90/ 19.7; III – 4.10/ 4.20/ 3.30/ 2.90/ 14.3; IV – 5.50/ 6.20/ 5.40/ 2.90/ 20.00. Ventral macrosetae pairs on tibiae: I-4, II-4, III-3, IV-3. Abdomen 4.70 long, brownish at dorsum, oval, narrow at posterior region, yellowish ventrally. Scape of epigynum rectangular and middle field of epigynum with two lateral excavations (Fig. 19), spermathecae elongated with head rounded (Fig. 20).

Note. Specimens of both sexes share the same dorsal color pattern, and were collected together in Bonito, Mato Grosso do Sul, Brazil along the rocky margins of small streams.

Distribution. Brazil in the states of Mato Grosso, Goiás and Mato Grosso do Sul.

Material examined. BRAZIL, Goiás: Niquelândia, Usina Hidrelétrica Serra da Mesa, Rio Bagagem, 3 ♂, 24-30.IX.1995, G. Skuk col. (IBSP 6274); Mato Grosso do Sul: Bonito (Abismo Anhumas), ♂, 14-23.X.2002, Equipe Biota col. (IBSP 52864); (Fazenda Pitangueiras), ♀, 14-23.X.2002, Equipe Biota col. (IBSP 52863).

***Paratrechalea longigaster* Carico, 2005**

Paratrechalea longigaster CARICO, 2005: 808, figs. 15, 24, 25, female holotype, Santa Maria, Misiones, Argentina, 1956, M. J. Viana col., deposited in Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” (not examined).

Distribution. Argentina (Misiones) and Brazil (Santa Catarina and Rio Grande do Sul).

New records. BRAZIL, Santa Catarina: Porto Belo, ♀, 27.VIII.1984, F. Z. da Cruz col. (MCN 12575); Rio Grande do Sul: Bom Jesus, Fazenda Santa Cruz, ♀, 28-30.III.1998, A. B. Bonaldo col. (MCN 29265).

***Paratrechalea ornata* (Mello-Leitão, 1943)**

Trechalea ornata MELLO-LEITÃO, 1943: 107, fig. 7, female holotype from Bosque Alegre, Cordoba, Argentina, I-III.1940, M. Birabén col., deposited in Museo de La Plata, n° 15690 (not examined); ROEWER, 1954: 143; PLATNICK, 2006.

Trechalea langei MELLO-LEITÃO, 1947: 252, fig. 16, male holotype from Xaxim, Curitiba, Paraná, Brazil, 1947, R. B. Lange col., deposited in MHCI 2503 (examined). ROEWER, 1954: 142; CARICO, 1993: 237; PLATNICK, 1998: 593. **New synonymy.**

Paratrechalea ornata; CARICO, 2005: 805, figs. 13, 14, 18-21.

Note. Males and females of *P. ornata* (Mello-Leitão, 1943) were collected together in several regions of southern Brazil and eastern Uruguay. Comparing these specimens with the male holotype of *T. langei* described by MELLO-LEITÃO (1947) we determined that this species is a junior synonym of *P. ornata*. This species is easily found under rocks at the shores of rivers and small streams. It occurs in sympatry with two other species, *P. azul* and *P. galianoae*.

Distribution. Brazil, in the states of Goiás, Paraná, Santa Catarina, Rio Grande do Sul; Uruguay, in the province of Treinta y Tres, and Argentina, in the province of Cordoba.

New records. BRAZIL, Goiás: Minaçu, Usina Hidrelétrica Serra da Mesa, ♂, ♀, 18-30.XI.1996, A. B. Bonaldo, L. A. Moura col. (MCN 28050); Paraná: Pinhão, Usina Hidrelétrica de Segredo, Rio Iguazu, Bacia do Rio Piqueri, ♂, 15.IV.1980, Equipe IBSP col.

(IBSP 10510); Curitiba, Xaxim, ♂, R. Lange col. (MHCI 2503); Candói, Fazenda Santa Clara, ♀, 24.XII.1991, R. Pinto da Rocha; A. Barreto col. (MCN 22210); **Santa Catarina**: São Domingos, 09-12.VIII.2001, ♀, M. Kammers (MCTP 13003); **Rio Grande do Sul**: Barracão, Rio Uruguai, 2 ♀, IX.1988, Equipe Itá-Machadinho col. (MCTP 863, 3047); Jacutinga (BR-153), 2 ♀, IX.1988, Equipe Itá-Machadinho col. (MCTP 1290); Vacaria, ♀, 25.III.1975, M. I. Vieira col. (MCN 02567); Fazenda Cabanha Rio Branco, ♀, 21.VIII.2004, L. E. C. Schmidt et al. col. (MCN 37611); Caxias do Sul, Fazenda Souza, ♀, 18-21.X.1993, A. A. Lise col. (MCTP 4182); Itaimbezinho, 2 ♀, 04.XI.1962, L. Buckup col. (MCN 1765); Mata, Cascata Boa Esperança, ♀, 17.IV.2005, J. B. Picanço col. (MCTP 16781); Muçum, ♀, 02.III.1984, A. D. Brescovit col. (MCN 12076); São Francisco de Paula, ♀, 12.IV.1963, J. W. Thomé col. (MCN 2061); ♀, 07.VI.2000, A. Barcellos col. (MCN 33496); (Usina Hidrelétrica do Passo do Inferno) 2 ♂, 2 ♀, 16.XII.1999, A. Franceschini col. (MCN 32024); (leito do Rio Santa Cruz, Barragem do Passo do Inferno), ♂, 2 ♀, 03.XI.1998, A. B. Bonaldo col. (MCN 30692); (Floresta Nacional do IBAMA, Rio Bolo de Noiva), ♂, 02.X.2004, E. L. C. Silva col. (MCN 37933); Canela, ♂, 03.II.1967, A. A. Lise col. (MCN 8170); (Barragem dos Bugres), 2 ♂, 13-14.XII.1999, A. B. Bonaldo col. (MCN 32062), ♀, 04.XI.1998, L. A. Moura col. (MCN 30638); (Usina Hidrelétrica de Canastra) ♂, 4 ♀, 15.XII.1999, A. B. Bonaldo col. (MCN 32022); (Barragem Canastra) ♂, ♀, 21.II.2001, R. Ott col. (MCN 33726); Rolante (Arroio Rolante), ♂, ♀, 19.VI.2004, J. B. Picanço, E. L. C. Silva col. (MCN 37533); Riozinho (Cascata do Chuvisqueiro), ♂, ♀, 19.VI.2004, J. B. Picanço, E. L. C. Silva col. (MCN 37534); Sapiroanga (Picada Verão), ♀, 13.XI.1993, Z. E. Alvarenga col. (MCN 24811); (Arroio Feitoria), 6 ♀, 01.II.2004, J. B. Picanço, E. L. C. Silva col. (MCN 36951), 3 ♂, 2 ♀, 27.XII.2003, E. L. C. Silva col. (MCN 36943), 4 ♂, 10 ♀, 31.I.2004, J. B. Picanço, E. L. C. Silva col. (MCN 36953); Campo Bom, ♀, 30.IX.1985, C. J. Becker col. (MCN 13471); Dois Irmãos, ♂, 14.XII.1983, J. E. Henning col. (MCN 11878); Três Forquilhas, ♀, 28.III.1993, G. L. Fiorentim col. (MCTP 4314); Maquiné, Rio Forqueta, ♂, 04.VIII.2004, E. L. C. Silva et al. col. (MCN 37552), ♀, 04.VII.2004, E. L. C. Silva col. (MCN 37553); Terra de Areia, ♀, 28.VIII.1993, G. Fiorentim col. (MCTP 4301), ♂, ♀, 28.VI.2003, L. E. C. Schmidt col. (MCN 36944). **URUGUAY, Treinta y Tres**: Quebrada de los Cuervos, 2 ♂, ♀, 12.XI.2002, F. Costa col. (FCE 1001; 1015), Arroyo Yermal Chico, 5 ♂, 11 ♀, 12.XII.2005, M. Simó col. (FCE 2424-2426).

Paratrechalea saopaulo Carico, 2005

Paratrechalea saopaulo Carico, 2005: 810, figs. 30-33, male holotype from São Paulo, Brazil, 1897, Moenkhaus col., deposited in Peabody Museum of Natural History, Yale University (not examined).

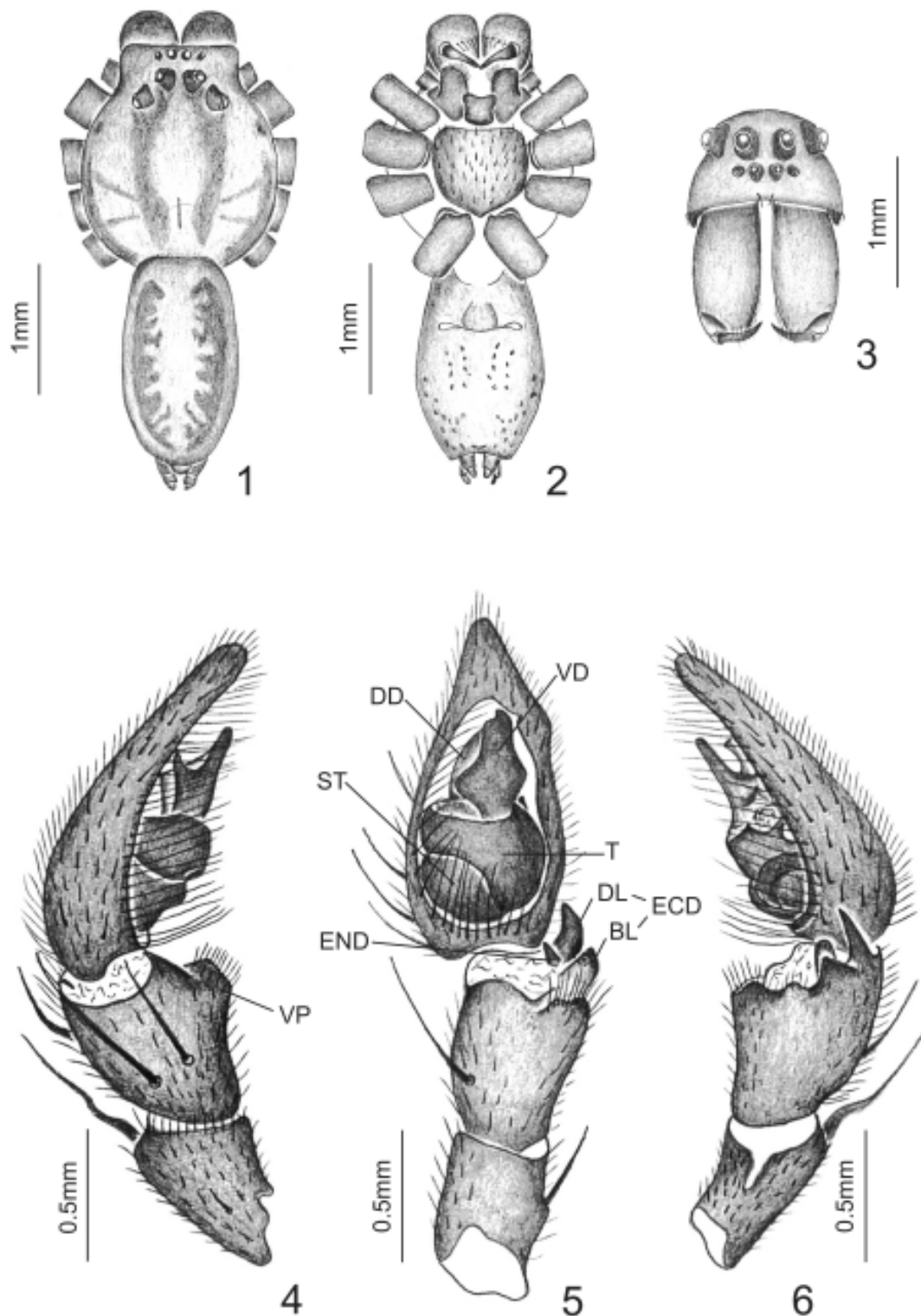
New records. BRAZIL, Rio de Janeiro: Bom Jesus do Itabapua, Usina Hidrelétrica de Rosal (Rio Itabapua), 5♂, 13 ♀, XI.1999, I. Knysak col. (IBSP 26400, 26410, 26457, 26467); Pinheiral, Fazenda Santa Helena, 2 ♂, 05-11.XI.1999, A. D. Brescovit et al. col. (IBSP 52732); **São Paulo**: São Paulo, Jardim Rizzo, ♂, 10.X.2000, Equipe IBSP col. (IBSP 38912).

ACKNOWLEDGMENTS

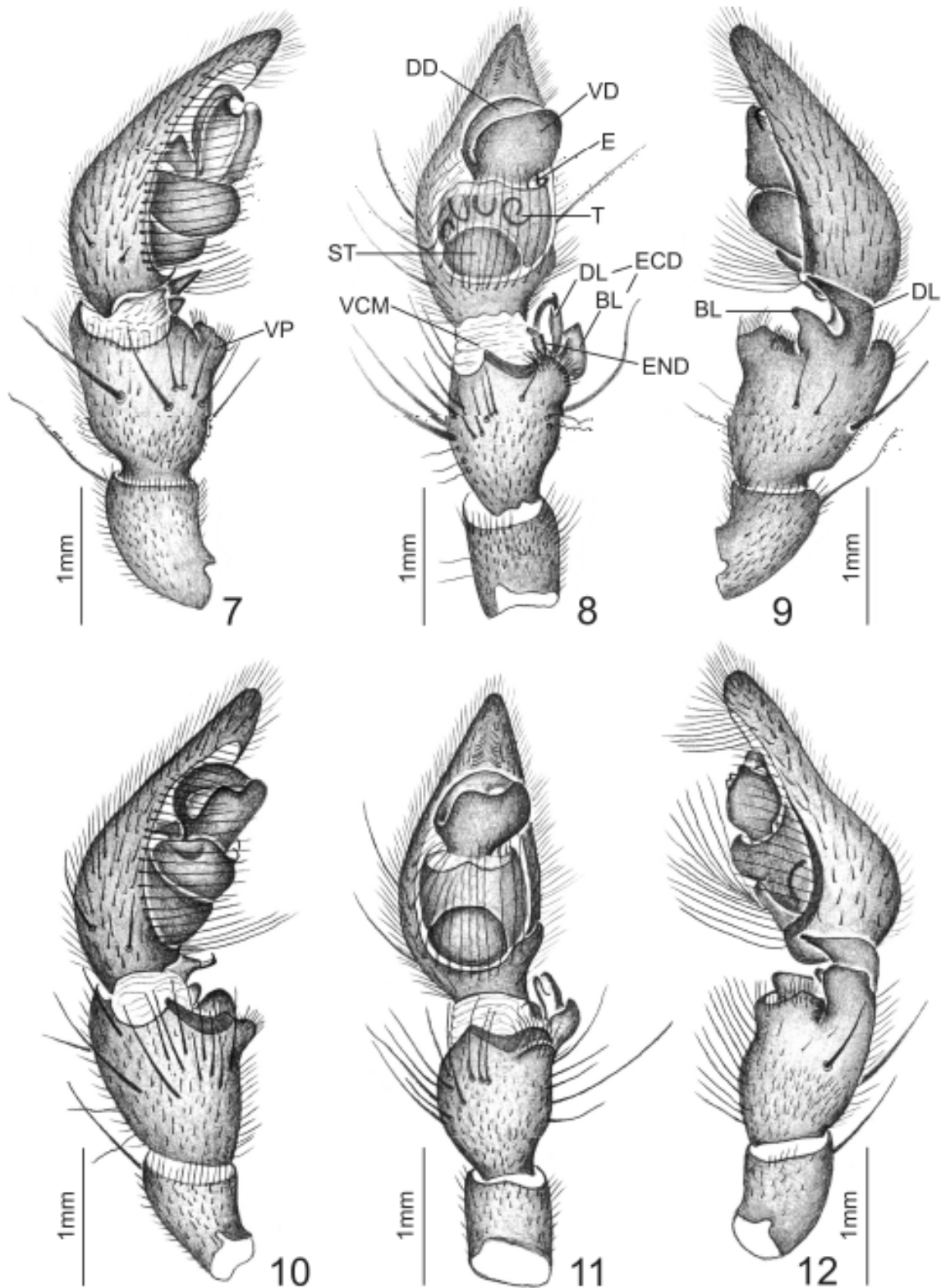
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REFERENCES

- CARICO, J. E. Revision of the genus *Trechalea* Thorell (Araneae, Trechaleidae) with a review of the taxonomy of the Trechaleidae and Pisauridae of the western hemisphere. **Journal of Arachnology**, Denver, v. 21, n. 2, p. 226-257, 1993.
- CARICO, J. E. Descriptions of two new spider genera of Trechaleidae (Araneae, Lycosoidea) from South America. **Journal of Arachnology**, Denver, v. 33, n. 3, p. 797-812, 2005.
- MELLO-LEITÃO, C. Arañas novas de Mendoza, La Rioja y Cordoba coligidas por el Prof. M. Biraben. **Revista do Museu de La Plata** (N. S., Zool.), La Plata, v. 3, n. 20, p. 101-121, 1943.
- MELLO-LEITÃO, C. Aranhas do Paraná e Santa Catarina, das coleções do Museu Paranaense. **Arquivos do Museu Paranaense**, Curitiba, v. 6, p. 231-304, 1947.
- PLATNICK, N. I. Spinneret morphology and the phylogeny of ground spiders (Araneae, Gnaphosoidea). **American Museum Novitates**, New York, n. 2978, p. 1-42, 1990.
- PLATNICK, N. I. **Advances in spider taxonomy 1992-1995 with redescriptions 1940-1980**. New York: Manchester University Press, 1998, 976 p.
- PLATNICK, N. I. **The World Spider Catalog version 6.5**. American Museum of Natural History, New York. Available at <<http://research.amnh.org/entomology/spiders/catalog/html>>. Access: March, 30, 2006.
- ROEWER, C. F. **Katalog der Araneae von 1758 bis 1940**. Buxelles: Institut Royal des Sciences Naturelles de Belgique, 1954. v. 2, fasc. A, 923 p.
- SOARES, B. A. M.; CAMARGO, H. F. Aranhas coligidas pela Fundação Brasil Central. **Boletim do Museu Paraense Emílio Göeldi**, Pará, v. 10, p. 355-409, 1938.



Figs. 1-6. *Paratrechalea julyae* Silva & Lise sp. nov. male: **1.** dorsal view; **2.** ventral view; **3.** carapace and chelicerae, frontal view; palpus: **4.** pro-lateral view; **5.** ventral view; **6.** retrolateral view. Abbreviations: BL, basal lobe of ECD; DD, dorsal division of median apophysis; DL, distal lobe of ECD; ECD, ectal division of retrolateral tibial apophysis; END, ental division of retrolateral apophysis; ST, subtegulum; T, tegulum; VD, ventral division of median apophysis; VP, ventral protuberance of male palpal tibia.



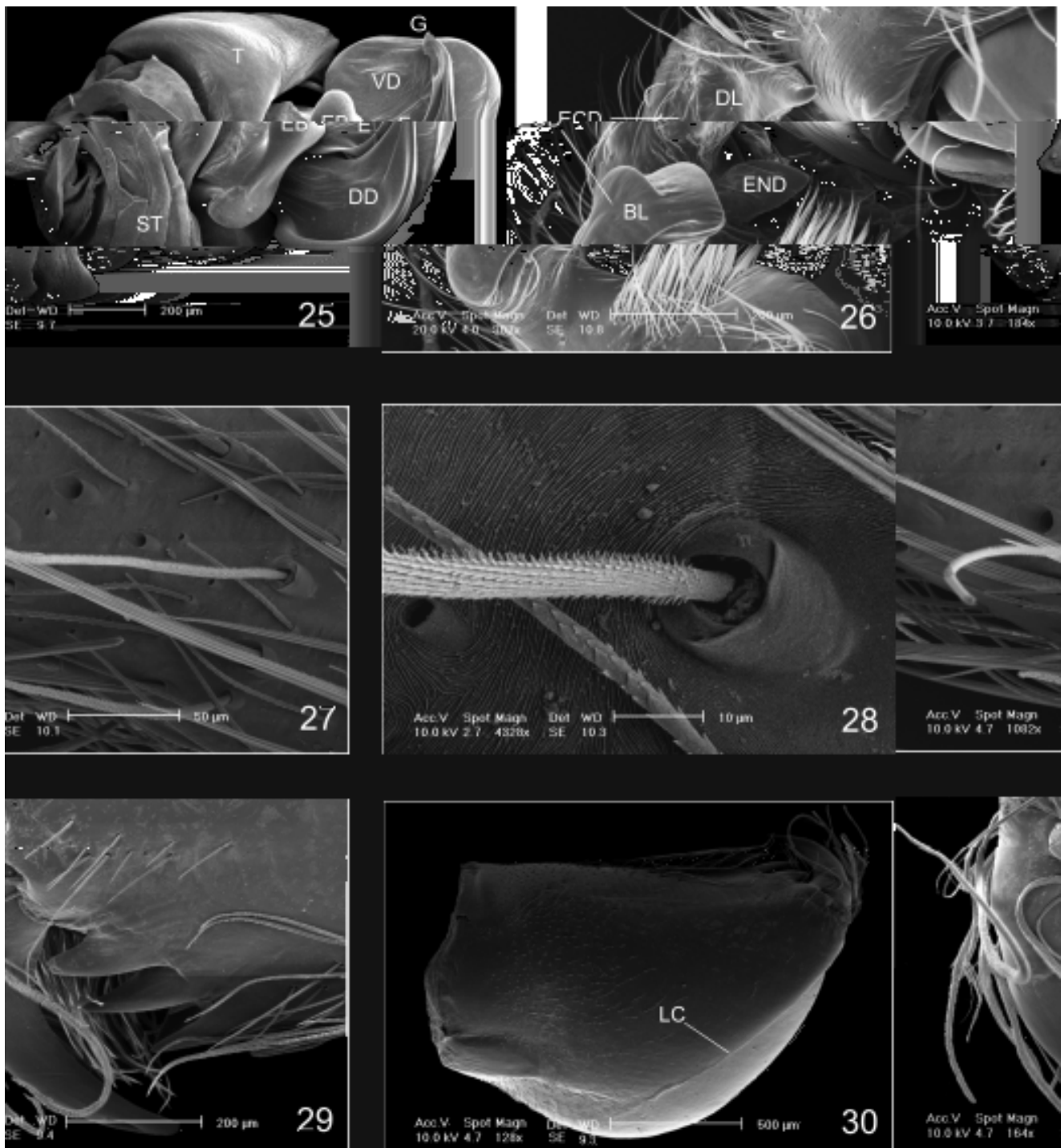
Figs. 7-12. Male palpi of *Paratrechalea azul* Carico and *Paratrechalea galianoae* Carico, male palpus: **7.** prolateral view; **8.** ventral view; **9.** retrolateral view. **10-12.** *P. galianoae*: male palpus: **10.** prolateral view; **11.** ventral view; **12.** retrolateral view. Abbreviations: E, embolus; VCM, ventral cymbio-tibial membrane.

Figs. 13-18. Habitats and variations of *Paratrechalea* Carico: **13.** Sapiranga (Arroio Feitoria); **14.** São Francisco de Paula (Arroio Bananeiras); **15.** Terra de Areia (Rio dos Pintos); **16-18.** *P. azul*: **16,** juvenile; **17, 18.** variation of dorsal pattern of two adult males.

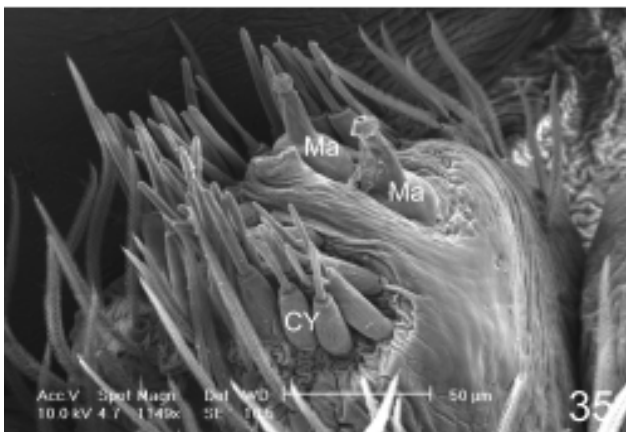
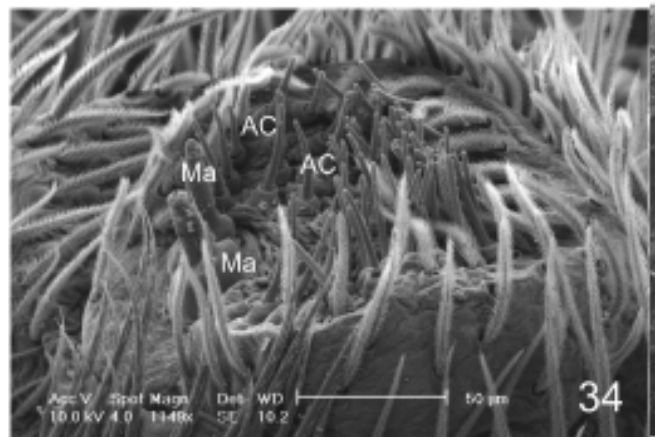
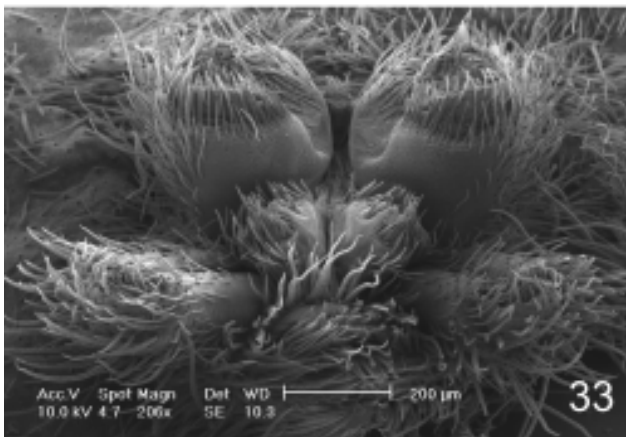
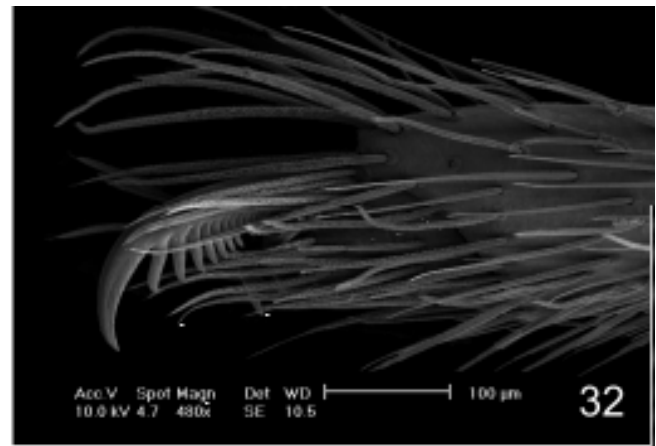
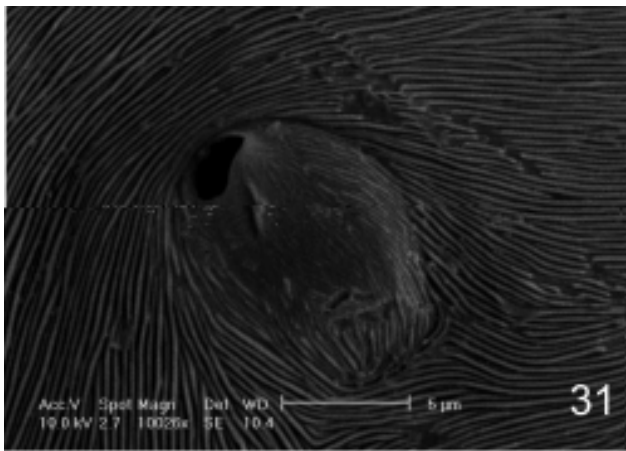


Figs. 19, 20. *Paratrechalea wygodzinskyi* (Soares & Camargo), female epigynum: **19.** ventral view; **20.** dorsal view. Abbreviations: AF, anterior field of epigynum; CD, copulatory duct; HS, head of spermathecae; MF, middle field of epigynum; SC, scape of epigynum.

Figs. 21-24. Male palpi of *Paratrechalea azul* Carico and *Paratrechalea galianoae* Carico: **21.** ventral view; **22.** retrolateral view.



Figs. 25-30. Anatomical details of *Paratrechalea azul* Carico: **25.** palpal bulb, dorsal view; **26.** retrolateral tibial apophysis, frontal view; **27.** trichobothria, general view; **28.** bothrium of metatarsus of leg IV; **29.** promarginal teeth of right chelicera; **30.** chelicera in posterior view, showing the lateral carina. Abbreviations: EB, embolic base; G, guide (terminal portion of median apophysis); LC, lateral carina.



Figs. 31-36. Anatomical details of *Paratrechalea azul* Carico, male: **31.** tarsal organ of leg I; **32.** tarsal claw of leg I; **33-36.** spinnerets. **33.** general view; **34.** anterior lateral, aciniform and major ampullate spigot glands; **35.** posterior median, cylindrical and major ampullate spigot glands; **36.** posterior lateral, aciniform spigot glands. Abbreviations: AC, aciniform; CY, cylindrical; Ma, major ampullate.