

CRISTINA A. RHEIMS & ANTONIO D. BRESCOVIT

New species and records of *Scytodes* LATREILLE, 1804 of the “*globula* group” from Brazil (Araneae, Scytodidae)

Abstract

Four new species of scytodid spiders from Brazil are described: *Scytodes becki* sp.n. from Niquelândia and *Scytodes eleonorae* sp.n. from São Domingos, both in the state of Goiás; *Scytodes skuki* sp.n. from Aripuanã, Mato Grosso and *Scytodes strussmannae* sp.n. from Xapuri, Acre. Together with the synanthropic species *S. globula* NICOLET and the Brazilian species *S. itapevi* BRESCOVIT & RHEIMS these four new species form a distinct group within the Neotropical *Scytodes*, herein named “*globula* group”. New records for *S. globula* and *S. itapevi* are also reported.

Resumo

Novas espécies e novos registros de *Scytodes* LATREILLE do “grupo *globula*” do Brasil (Araneae, Scytodidae)

Neste trabalho são descritas quatro novas espécies de *Scytodes* do Brasil: *Scytodes becki* sp.n. de Niquelândia e *Scytodes eleonorae* sp. n. de São Domingos, ambos em Goiás; *Scytodes strussmannae* sp.n. de Xapuri, Acre e *Scytodes skuki* sp. n. de Aripuanã, Mato Grosso. Junto com a espécie sinantrópica *S. globula* NICOLET e a espécie brasileira *S. itapevi* BRESCOVIT & RHEIMS, as quatro espécies novas formam um grupo distinto dentro dos *Scytodes* Neotropicais, chamado “grupo *globula*”. São incluídos novos registros para *Scytodes globula* e *Scytodes itapevi*.

Authors

CRISTINA A. RHEIMS & DR. ANTONIO D. BRESCOVIT, Laboratório de Artrópodes, Instituto Butantan, Av. Vital Brasil, 1500, Butantã, CEP 05503-900, São Paulo SP, Brazil; e-mail: chris.rheims@aol.com.br; adbrsc@terra.com.br

Key words

Araneae, *Scytodes*, Neotropical, taxonomy

1. Introduction

The scytodids are a small spider family comprising only five genera: *Dictis* L.KOCH, *Scyloxes* DUNIN, *Stedocys* ONO, *Scytodes* LATREILLE and *Soeuria* SAARISTO. Of these, only *Scytodes* occurs in the Neotropical region. During the last three years, this genus has been the subject of several taxonomic studies, resulting in the description of 11 new Neotropical species (BRESCOVIT & HÖFER 1999; BRESCOVIT & RHEIMS 2000; RHEIMS & BRESCOVIT 2000). Together with the four new species described in this paper we count to date a total of 35 valid species (ROEWER 1942; BONNET 1958; PLATNICK 1989, 1993, 1997).

The species are separated mainly by morphological characteristics of the male palp and female epigynum. These characteristics enable a preliminary recognition of at least one distinct group within the Neotropical species, herein named “*globula* group”. This group includes the synanthropic species *Scytodes globula* NICOLET, *S. itapevi* BRESCOVIT & RHEIMS and the four new species described here. The diagnostic characters for the group include a male palp with a large curved sclerotized process (SP in figs 1b, 2c, 3d; BRESCOVIT & RHEIMS 2000: figs 27, 31, 37), initially mistaken for the embolus in BRESCOVIT & RHEIMS (2000). The female epigynes are highly variable but generally present large rounded foveae and two pairs of seminal receptacles, one being globular (figs 2 f-h; 3 b,c; BRESCOVIT & RHEIMS 2000: figs 33,34, 38,39).

2. Material and methods

The material examined belongs to the following institutions: IBSP, Instituto Butantan, São Paulo (A.D. BRESCOVIT); MCTP, Museu de Ciência e Tecnologia, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre (A.A. LISE); MZSP, Museu de Zoologia, Universidade de São Paulo, São Paulo (E. CANCELLO); SMNK, Staatliches Museum für Naturkunde Karlsruhe (H. HÖFER). Descriptions and terminology follow BRESCOVIT & RHEIMS (2000). All measurements are in millimetres. The epigynes were submerged in lactic acid in order to study the internal structures. Micrographs were obtained with a JEOL (JSM 840A) scanning electron microscope at the University of São Paulo (USP).

3. Systematics

Scytodes becki, new species

Figure 1

Holotype: male from Niquelândia, Goiás (14°01' S; 48°18' W), Brazil, Sept. 24 - Oct. 6, 1995, SILVESTRE, DIETZ & BRANDÃO col., deposited in MZSP 14306.

Etymology

The specific name is a patronym in honor of the soil biologist and arachnologist Dr. LUDWIG BECK, who helped supporting the second author's arachnological work in Amazonia and Germany.

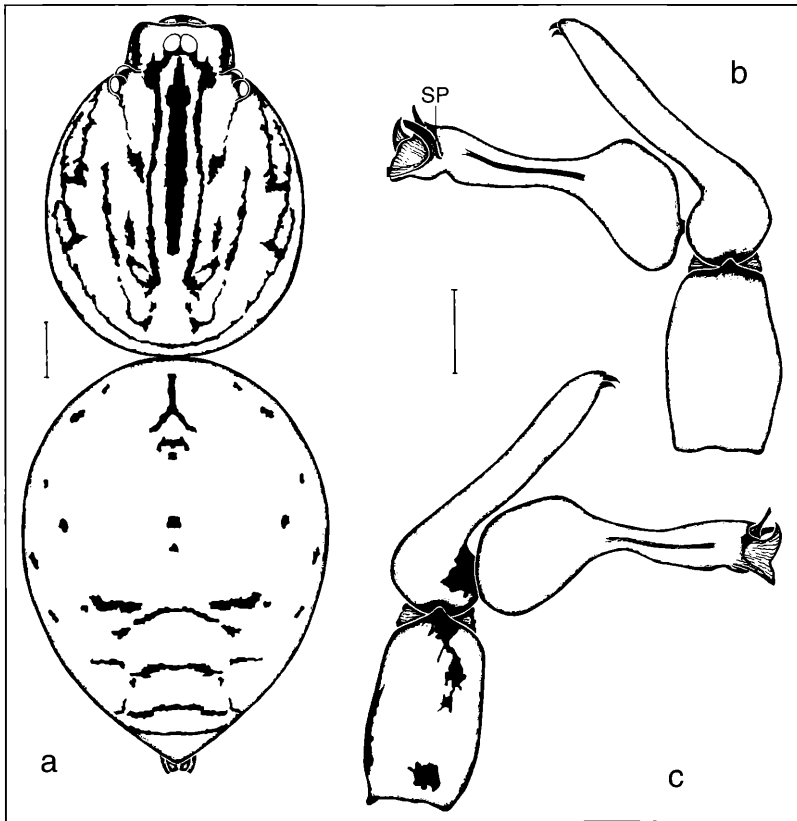


Figure 1. *Scytodes becki*, n. sp. a) male body, dorsal view; b) left palp, retrolateral view (SP = Sclerotized process); c) proximal view. Scale lines: 0.25 mm.

Diagnosis

The male of *Scytodes becki* differs from all the species of the *globula* group by the shorter sclerotized process and small and pointed apical, dorsal membrane on the distal area of the palpal bulb and by a pair of strong, short and curved distal spines on the cymbium (figs 1 b,c).

Description

Male (MZSP 14306). The species described in this paper was probably collected soon after moulting and presents very light yellow coloration. Carapace with a pattern of thin brown stripes as in figure 1 a. Pedipalps with few scattered thin brown spots. Legs with a pair of ventral longitudinal brown stripes on femur. Abdomen with light brown pattern of few anterior scattered spots and posterior transversal stripes as in figure 1 a.

Total length 6.1. Carapace slightly flattened, 2.9 long, 2.2 wide. Eye diameters: PME 0.16, ALE 0.14, PLE 0.16. Lateral eyes on tubercle. Chelicerae with subapical hyaline keel and inconspicuous stridulatory ridges. Labium 0.26 long, 0.28 wide. Sternum 1.32 long, 1.04 wide. Abdomen 3.2 long, 2.5 wide.

Leg measurements: I - femur 6.8/ patella 0.7/ tibia 6.9/ metatarsus 9.0/ tarsus 1.3/ total 24.7/ II - 5.0/ 0.7/ 4.9/

5.6/ 0.7/ 16.9/ III - 3.0/ 0.6/ 2.5/ 3.5/ 0.7/ 10.3/ IV - 5.0/ 0.7/ 4.4/ 5.3/ 0.9/16.3.

Palp: Palpal femur with short and narrow stridulatory pick with rounded and slightly projecting socket. Bulb 0.8 long, slightly constricted medially (fig. 1 c). Distal area with large proximal hyaline membrane, slightly curved upwards (figs 1 b,c).

Female: Unknown.

Distribution: Known only from the type locality.

Material examined

Only the holotype.

Scytodes eleonora, new species

Figures 2, 4

Types: Male holotype and female paratype from Angélica Cave, Parque Estadual de Terra Ronca, São Domingos, Goiás, Brazil, Sept. 6, 2000, C.A. RHEIMS col., deposited in IBSP 26037; male and female paratypes from same locality as holotype, Sept. 6, 2000, F.P. FRANCO col., deposited in IBSP 26041 and male and female paratypes with same data as holotype, deposited in MZSP.

Etymology

The specific name honors Dr. ELEONORA TRAJANO, a speleologist from the University of São Paulo, who organized the field course on cave communities in Goiás, during which most specimens were collected.

Diagnosis

The male of *Scytodes eleonorae* resembles that of *S. itapevi* by the presence of two hyaline membranes at the distal area of the palpal bulb, but differs by the long dorsal membrane and the absence of a prolateral curved prong (figs 2 c,d). The female resembles that of *S. strussmannae* by the large and globular seminal receptacles with lateral sclerotized plates, but differs by the simple smaller seminal receptacles with sinuous stalks (figs 2 f-h).

Description

Male (IBSP 26037). Carapace yellow with dark brown pattern as shown in figure 2 a. Pedipalps yellow with anterior transversal bands close to the articulations. Labium and endites yellow with thick brown margins. Sternum yellow with brown spots in front of each coxa, narrowing towards centre. Legs yellow with brown transversal bands, except on tarsi. Abdomen greyish with very faint brown pattern.

Total length 6.9. Carapace slightly flattened, 3.0 long, 2.3 wide. Eye diameters: PME 0.18, ALE 0.2, PLE 0.18. Lateral eyes on prominent tubercle. Chelicerae anteriorly projected, with subapical hyaline keel and inconspicuous stridulatory ridges. Labium 0.26 long, 0.3 wide. Sternum 1.5 long, 1.2 wide. Abdomen 3.8 long, 2.3 wide.

Leg measurements: I - femur 17.4/ patella 0.9/ tibia 17.4/ metatarsus 23.6/ tarsus 1.5/ total 60.8/ II - 11.9/ 0.8/ 11.7/ 15.1/ 1.0/ 40.5/ III - 7.5/ 0.8/ 6.9/ 8.2/ 1.2/ 24.6/ IV - 11.3/ 0.8/ 10.5/ 11.9/ 1.2/ 35.7.

Palp: Cymbium with a pair of long and slender distal spines (figs 2 c,d). Palpal femur with short and thickened stridulatory pick with rounded and slightly projected socket (fig. 4 d). Bulb 0.74 long, at middle slightly constricted with very long, strongly curved process (figs 2 c,d, 4 a,c). Distal area narrow and sinuous, carrying duct opening (fig. 4 b).

Female (IBSP 26037). Colour pattern as in male but slightly darker.

Total length 6.0. Carapace domed, 2.5 long, 2.2 wide. Eye diameters: PME 0.16, ALE 0.16, PLE 0.14. Lateral eyes as in male. Chelicerae as in male. Labium 0.3 long, 0.32 wide. Sternum 1.4 long, 1.1 wide. Abdomen 3.5 long, 2.5 wide.

Leg measurements: I - femur 6.9/ patella 0.7/ tibia 7.2/ metatarsus 8.9/ tarsus 1.2/ total 24.9/ II - 5.6/ 0.6/ 5.0/ 6.6/ 1.1/ 18.9/ III - 3.9/ 0.6/ 3.4/ 4.2/ 0.9/ 13.0/ IV - 5.5/ 0.7/ 5.4/ 6.0/ 1.2/ 18.8.

Epigynum: Palpal femur with stridulatory pick as in male. Foveae rounded with triangular positioning

ridges very close together (fig. 2 e). Internal genitalia with globular pair of seminal receptacles medianly united (figs 2 f-h).

Variation: Four males: total length 4.9 - 6.3; carapace 2.3 - 2.9; femur I 16.0 - 17.38; bulb 0.66 - 0.82; eighteen females: total length 5.1 - 8.0; carapace 2.5 - 3.2; Femur I 5.6 - 8.2. Some specimens present darker and more elaborate colour patterns, as shown in figure 2 b. The sclerotized plates on the larger globular seminal receptacles and the shape of the smaller seminal receptacles vary considerably as shown in figures 2 g,h.

Natural history

This species was found inhabiting subterranean habitats in Bahia and Goiás, Brazil. They were observed feeding and carrying egg-sacs in cave interiors at distances of up to 800 meters from the cave entrance. Although very abundant deep inside the cave, few specimens were collected close to the entrance. In most cases, they were collected from between pholcid (*Mesabolivar* sp.) webs.

The specimens from Bahia were collected in "caatinga" areas, a habitat characterized by a very hot and dry climate and sparse vegetation (AB'SABER 1977 JOLY et al. 1999). They were found inhabiting small subterranean cavities, less than 100 meters deep, called "tocas" (LUMLEY et al. 1987). The specimens from São Domingos, Goiás were collected in "cerrado" (RIZZINI 1997), in an area with several deep caves.

All specimens present the same basic genital morphology but the São Domingos specimens are larger with very long legs and much lighter colour patterns than those collected from small caves or epigeic habitats. Although the latter present characteristics shared by many exclusively subterranean species (troglobites sensu BARR & HOLSINGER 1985), such as elongated legs and pigment reduction, no collections were made outside these caves to indicate any possibility of isolation in the subterranean environment initiating species differentiation.

Distribution

The species is known from caves in central and north-eastern Brazil (states of Ceará and Paraíba).

Material examined

Brazil. Ceará, 8 Km SW Porteiras (39°10' W; 07°30' S), 1♀, Jan. 28, 1995, M. VERHAAGH col. (SMNK); Paraíba, Areia, Mata de Pau Ferro (06°57' S; 35°44' W), 1♂, Sept., 1999, A. D. BRESCOVIT et al. col. (IBSP 26210), Bahia, Itaguassú (Toca Santo Eusébio), 1♀, July 20, 2000, A.D. BRESCOVIT et al. col. (IBSP 26145); (Toca de Pilões), 4♀ 1 juv., July 19, 2000, A.D. BRESCOVIT et al. col. (IBSP 26146); Jussara (Toca da Esperança), 2♀, July 21, 2000, A.D. BRESCOVIT col. (IBSP 26156); Goiás, São Domingos, (Caverna Angélica), 1♂ 6♀ 6 juvs, Sept. 6, 2000, C.A. RHEIMS col. (IBSP 26036); 1♀, Sept. 9, 2000, C.A. RHEIMS & F.P. FRANCO col. (IBSP 26043); (Caverna Passa Três), 1♂ 1♀, Sept. 5, 2000, C.A. RHEIMS col. (IBSP

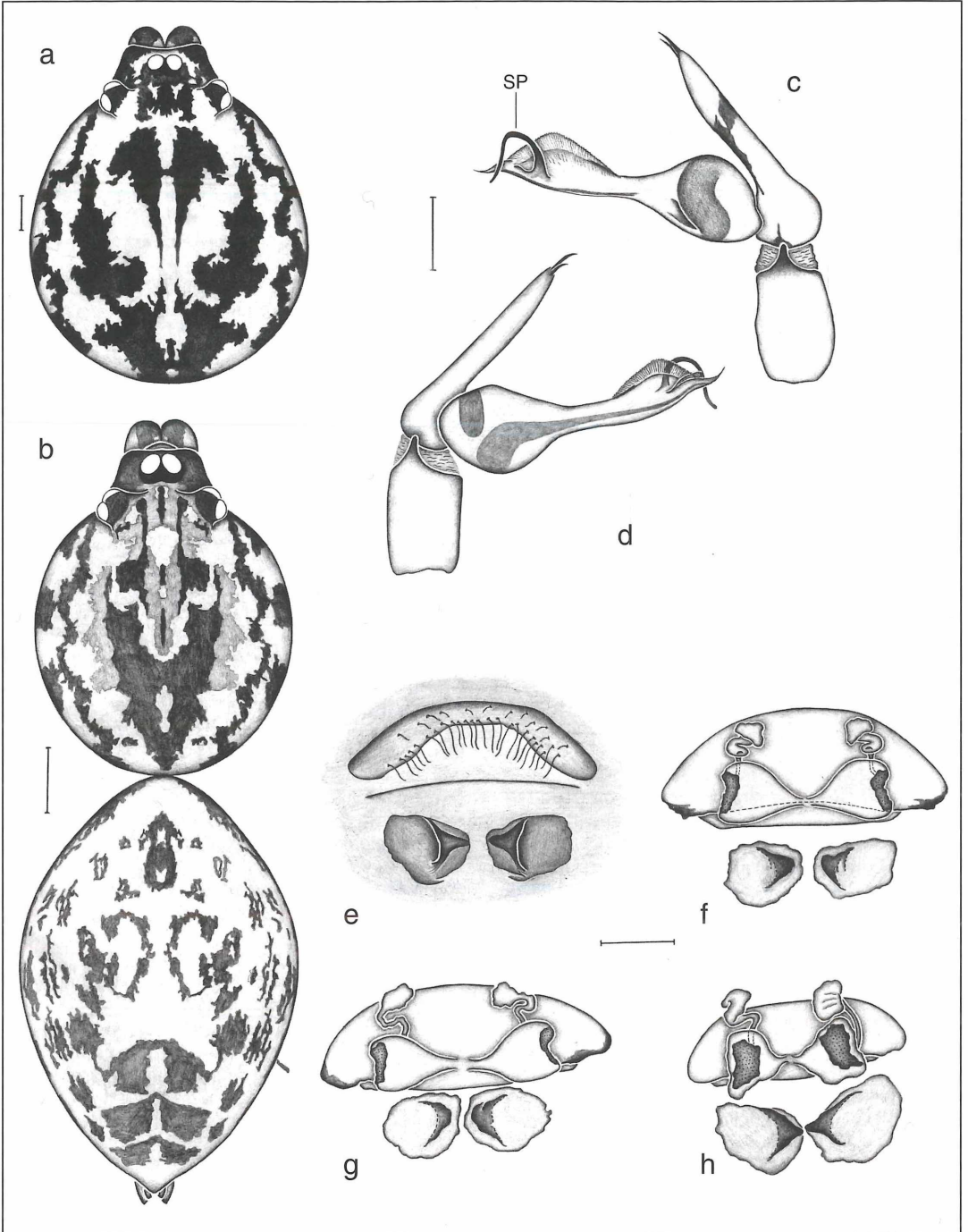


Figure 2. *Scytodes eleonora*, n. sp. a) male carapace, dorsal view; b) body, dorsal view; c) left palp, retrolateral view (SP = sclerotized process); d) prolateral view; e) female epigynum, ventral view; f) dorsal view; g) variation, dorsal view; h) variation, dorsal view. Scale lines: 0.25 mm.

26038); 1♀ 1juv., Sept. 3, 2000, C.A. RHEIMS col. (IBSP 26039); (Caverna São Bernardo), 1♀, Sept. 8, 2000, F.P. FRANCO col. (IBSP 26040); 2♀ 1 juv., Sept. 8, 2000, C.A. RHEIMS col. (IBSP 26042).

***Scytodes strussmannae*, new species**

Figures 3 a-c

Types: Female holotype from Pimenteira, Xapuri, Acre, Brazil, Apr. 5-7, 1996, Eq. IBSP/SMNK col., deposited in IBSP 8636. Two female paratypes from Piraputanga, Dois Irmãos do Buriti (20°27' S; 55°30' W), Mato Grosso do Sul, Brazil, Jun. 31 Jul. 6, 1999, A.D. BRESCOVIT et al. col., deposited in IBSP 26212 and IBSP 26213. Female paratype from Denise, Mato Grosso, Brazil, Sept. 12, 1992, C. STRUSSMANN col., deposited in MCTP 3015.

Etymology

The specific name is a patronym in honor of the collector of one of the paratypes.

Diagnosis

The female of *Scytodes strussmannae* resembles that of *S. eleonorae* by the sclerotized plate of the larger seminal receptacles; but differs by the subrectangular shape of the smaller seminal receptacles with a dorsal projection (fig. 3 c) and the semicircular shape of the positioning ridges (fig. 3 b).

Description

Female (MCTP 3015). Carapace yellow with dark brown pattern as shown in figure 3 a. Pedipalps yellow with transversal brown bands. Labium brown. Endites anteriorly brown, posteriorly yellow with brown margins. Sternum yellow with light brown margins and large brown spots in front of each coxa, extending towards centre. Legs yellow with brown transversal bands along entire leg. Abdomen grey with brown pattern of two posterior paired large transversal spots followed by two large spots and covered by many scattered small spots as shown in figure 3 a.

Total length 8.0. Carapace domed, 3.7 long, 2.6 wide. Eye diameters: PME 0.2, ALE 0.18, PLE 0.18. Lateral eyes on tubercle. Chelicerae with subapical hyaline keel and 5 to 6 very conspicuous stridulatory ridges. Labium 0.3 long, 0.4 wide. Sternum 1.7 long, 1.24 wide. Abdomen 4.3 long, 3.2 wide.

Leg measurements: I - femur 6.5/ patella 0.7/ tibia 6.9/ metatarsus 8.0/ tarsus 1.4/ total 23.5/ II - 5.3/ 0.7/ 5.1/ 5.4/ 1.0/ 17.5/ III - 4.0/ 0.7/ 3.4/ 3.8/ 1.2/ 13.1/ IV - 5.0/ 0.7/ 5.2/ 5.3/ 1.2/ 17.4.

Epigynum: Palpal femur with short and strong stridulatory pick with rounded and slightly projecting socket. Foveae separated from each other by their width (fig. 3 b). Internal genitalia with large oval seminal receptacles widely separated. Smaller seminal receptacles with non-sinuuous stalks (fig. 3 c).

Variation: Two females: total length 6.8, 8.0; carapace 2.9, 3.7; femur I 4.9, 6.5.

Male unknown.

Distribution

Known from the States of Acre and Mato Grosso, Brazil.

Material examined

Only the types.

***Scytodes skuki*, new species**

Figures 3 d,e

Types: Male holotype from Chapada Dardanelos, Aripuanã, Mato Grosso (10°10' S; 59°27' W), Brazil, Nov. 2-13, 1996, G. SKUK col., deposited in MZSP 15409.

Etymology

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

Diagnosis

The male of *Scytodes skuki* resembles that of *S. globula* by the presence of a single hyaline membrane, but differs by the membrane's larger size, by a concave ventral prolateral projection (figs 3 d-e) and by the absence of a dorsal projection on the distal area of the palpal bulb.

Description

Male (MZSP 15409). Carapace and abdomen colour pattern cannot be well defined due to the poor condition of the specimen that was probably moulting when caught. Carapace orange with brown pattern. Pedipalps orange with brown transversal bands. Labium and endites orange with anterior brown transversal stripe. Sternum creamy coloured with light brown margins. Legs orange with brown thick transversal bands, except on tarsi.

Total length 7.4. Carapace slightly flattened, 3.6 long, 2.7 wide. Eye diameters: PME 0.2, ALE 0.2, PLE 0.2. Lateral eyes on tubercle. Chelicerae with subapical hyaline keel and inconspicuous stridulatory ridges. Labium 0.46 long, 0.48 wide. Sternum 1.9 long, 1.7 wide. Abdomen 3.8 long, 2.1 wide.

Leg measurements: I - absent, II - femur 9.2/ patella 1.0/ tibia 9.0/ metatarsus 11.2/ tarsus 1.3/ total 31.7/ III - 6.2/ 0.9/ 5.6/ 6.5/ 1.2/ 20.4/ IV - 8.5/ 1.0/ 8.3/ 9.4/ 1.3/ 28.5.

Palp: Cymbium with a single apical spine (figs 3 d,e). Palpal femur with short and narrow stridulatory pick with rounded and slightly projecting socket. Bulb 0.96 long, narrow and at the middle slightly constricted (fig. 3 e). Distal area with strongly curved sclerotized process (fig. 3 d). Cymbium with single apical spine (figs 3 d,e).

Female unknown.

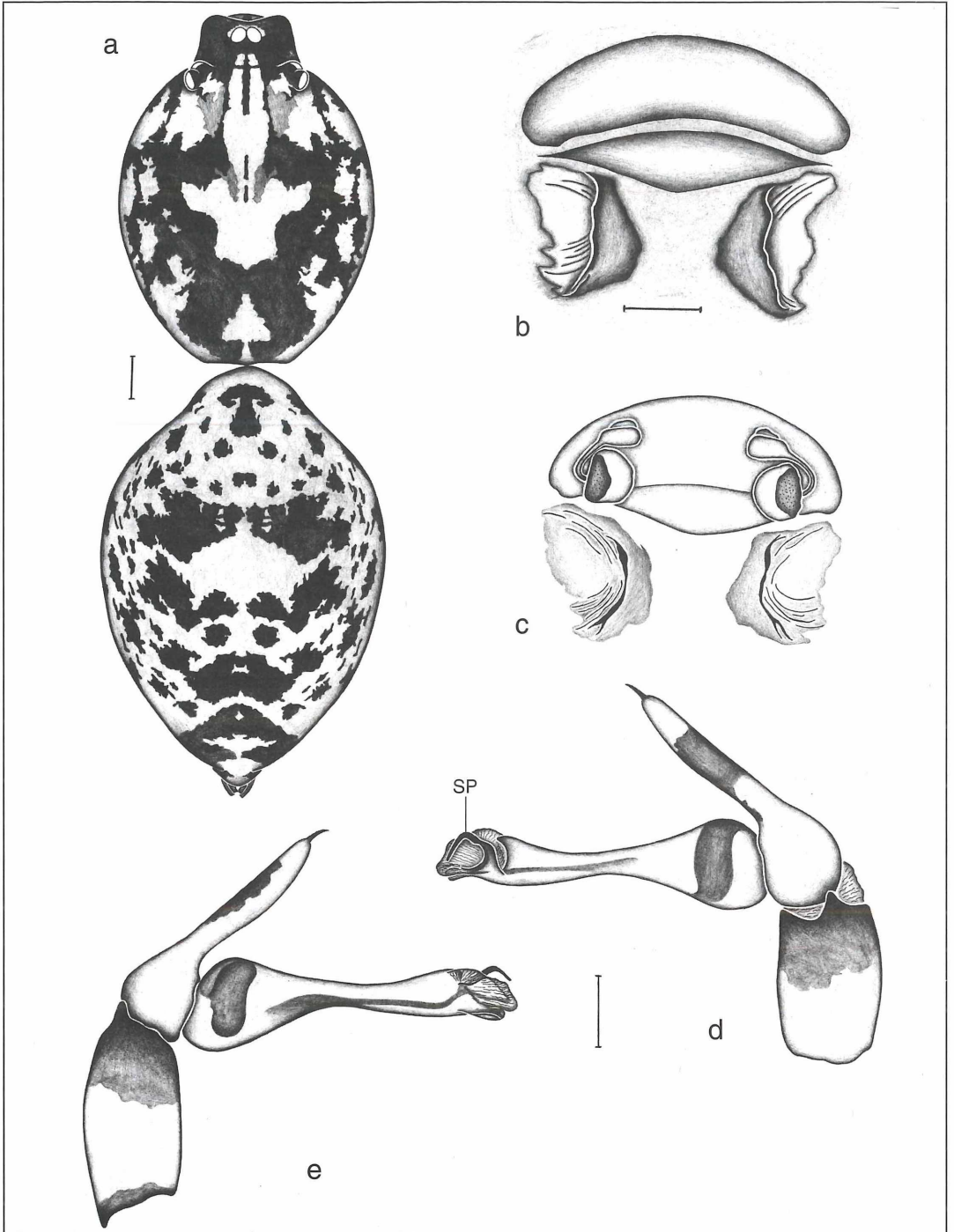


Figure 3 a-c. *Scytodes strussmannae*, n. sp. a) female body, dorsal view; b) epigynum, ventral view; c) dorsal view; d,e. *Scytodes skuki*, n. sp. d) left male palp, retrolateral view (SP = sclerotized process); e) prolateral view. Scale lines: 0.25 mm.

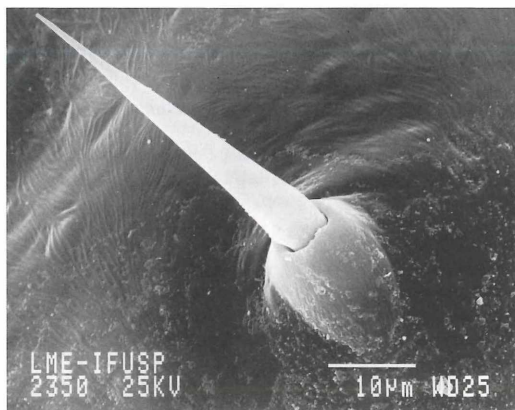
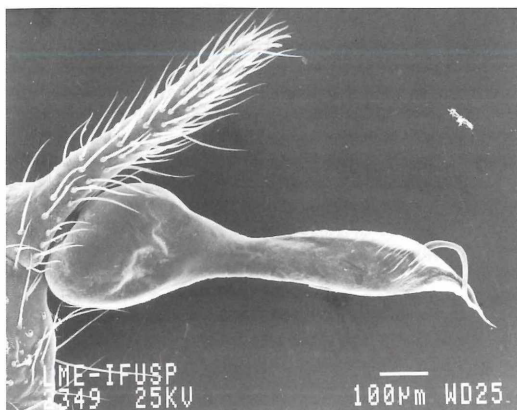
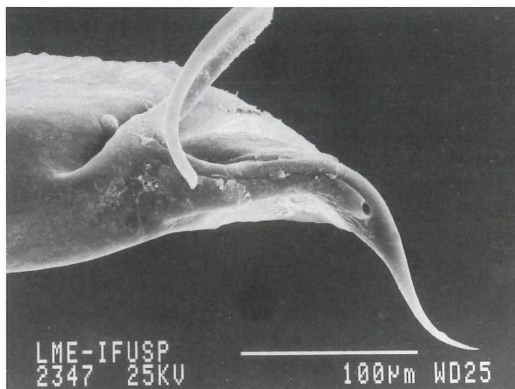
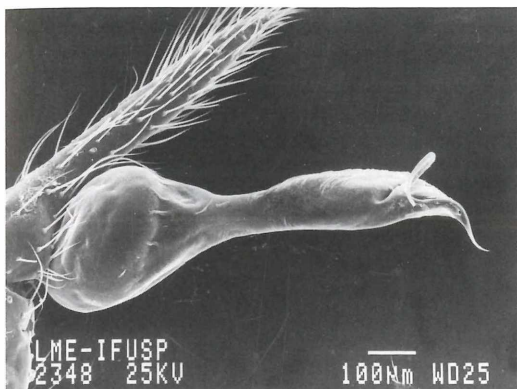


Figure 4. *Scytodes eleonorae*, n. sp. a) male right palp, retrolateral view; b) distal area (D = Duct opening); c) left palp, prolateral view; d) stridulatory pick.

Distribution

Known only from the type locality.

Material examined

Only the type.

New records

Scytodes globula NICOLET, 1849

Material examined

Brazil. Minas Gerais: Uberlândia, Fazenda Experimental do Gloria, Sept. 27, 2000, A.J. SANTOS col., 2♂ 4♀ (IB 0 26186); São Paulo: Itirapina, Jul. 27 - Nov. 22, 1999, M.E. do E.S. OLIVEIRA col., 31♂ 8♀ 4 juvs (IBSP); Mato Grosso do Sul: Brasilândia (Usina Hidrelétrica Engenheiro Sergio Motta), Jul. - Aug., 2000, Eq. IBSP col., 1♂ 6♀ (IBSP); Bataguáçu, Aug. 3, 2000, D. CANDIANI & C. SOUZA col., 2♀ (IBSP); Paraná: Morretes, Pico do Marumbi, Dec., 1945, GOFFERGÉ col., 1♂ (MZSP 3185); Santa Catarina: Ilhota, Parque Botânico Morro do Baú (26°48' S; 48°57' W), Apr. 1-2, 1999, R. PINTO-DA-ROCHA, R.

BÉRNILS & R. LINGNAU col., 1♀ 7 juvs (MZSP 18548); São Bento do Sul, Ano Bom (26°22' S; 49°13' W), R. PINTO-DA-ROCHA, R. BÉRNILS & R. LINGNAU col. (MZSP 18606).

Uruguay. Minas, Dpto. Lavalleja, Cerro Arequita (34°17' S; 55°15' W), Dec. 3, 1997, R. PINTO-DA-ROCHA col., 1♀ 4 juvs (MZSP 16035).

Scytodes itapevi BRESICOVIT & RHEIMS, 2000

Material examined

Brazil. Bahia: Porto Seguro (Parque Nacional do Monte Pascoal), Apr. 23, 1998, A.D. BRESICOVIT et al. col., 2♂ 1♀ (IBSP 18991); Minas Gerais: Belo Horizonte, Estação Ecológica da UFMG (19°52' S; 43°58' W), 1999-2000, E.S.S. ALVARES, C.S. AZEVEDO & E.O. MACHADO col., 1♂ 1♀ 1 juv. (IBSP 26187); 2♀ (IBSP 26188); Uberlândia, Fazenda Experimental do Gloria, Sept. 27, 2000, A.J. SANTOS col., 1♂ 1♀ 4 juvs (IB 26185). Rio de Janeiro: Pinheiral, Fazenda Santa Helena, Nov. 5-11, 1999, A. D. BRESICOVIT et al. col., 1♂ (IBSP 26193), 1♀ (IBSP 26194), 1♂ (IBSP 26192), 1♀ (IBSP 26191)

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4. Literature

- AB'SABER, A.N. (1977): Os domínios morfoclimáticos na América do Sul. Primeira aproximação. – Geomorfologia, **52**:1-21.
- BARR, T.C. & HOLSINGER, J.A. (1985): Speciation in cave faunas. – Ann. Rev. Ecol. Syst., **16**:313-337
- BONNET, P. (1958): Bibliographia araneorum. – v. 2, pte 4, p. 3027-4230, Toulouse (Douladoure).
- BRESCOVIT, A.D. & HÖFER, H. (1999): Four new species of litter inhabiting *Scytodes* spiders (Araneae, Scytodidae) from Amazonia. – Stud. Neotrop. Fauna & Environm., **34**:105-113.
- BRESCOVIT, A.D. & RHEIMS, C.A. (2000): On the synanthropic species of the genus *Scytodes* LATREILLE (Scytodidae, Araneae) of Brazil, with synonymies and records of these species in other Neotropical countries. – Bull. Br. arachnol. Soc., **11**: 320-330.
- JOLY, C.A., AIDAR, M.P.M., KLINK, C.A., McGRATH, D.G., MOREIRA, A.G., MOUTINHO, P., NEPSTAD, D.C., OLIVEIRA, A.A., POTT, A., RODAL, M.J.N. & SAMPAIO, E.V.S.B. (1999): Evolution of the Brazilian phytogeography classification systems: Implications for biodiversity conservation. **51**: 331-348.
- LUMLEY, H., DE LUMLEY, M.-A., BELTRÃO, M.C.M.C., YOKOYAMA, Y., LABEYRIE, J., DANON, J., DELIBRIAS, G., FALGUERES, C. & BISCHOFF, J.L. (1987): Présence d'outils taillés associés a une faune quaternaire datée du Pleistocène moyen dans la Toca da Esperança, région de Central, état de Bahia, Brésil. – L'Anthropologie (Paris), **91**(4):917-942.
- PLATNICK, N.I. (1989): Advances in Spider Taxonomy 1981-1987 – Manchester (Manchester University Press).
- PLATNICK, N. I. (1993): Advances in Spider Taxonomy 1988-1991 with synonymies and transfers 1940-1980. – New York (New York Entomological Society).
- PLATNICK, N.I. (1997): Advances in Spider Taxonomy 1992-1995 with redescrptions 1940-1980. – New York (New York Entomological Society).
- RHEIMS, C.A. & BRESCOVIT, A.D. (2000): Six New Species of Neotropical *Scytodes* LATREILLE (Araneae, Scytodidae). – Zoosystema, **22** (4): 721-731.
- RIZZINI, C.T. (1997): Tratado de Fitogeografia do Brasil. Aspectos ecológicos, sociológicos e florísticos. – 2. edição; Rio de Janeiro (Âmbito Cultural Edições LTDA.).
- ROEWER, C. F. (1954): Katalog der Araneae von 1758 bis 1940. – Vol. 2: 1-923; Bruxelles.