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ARTÍCULO:

Notes on the genus *Scytodes* Latreille (Araneae, Scytodidae) from the Pantanal, Mato Grosso do Sul, Brazil

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NOTES ON THE GENUS *SCYTODES* LATREILLE (ARANEAE, SCYTODIDAE) FROM THE PANTANAL, MATO GROSSO DO SUL, BRAZIL

Antonio D. Brescovit, Cristina A. Rheims & Josué Raizer

Abstract:
One new species of *Scytodes*, *S. tuyucua*, is newly described from two subregions of the Brazilian Pantanal, known as "Miranda" and "Abobral", located in the state of Mato Grosso do Sul. In addition notes on species abundance and distribution patterns are presented.
Key words: Araneae, Scytodidae, *Scytodes*, new species, Pantanal, Brazil.
Taxonomy: *Scytodes tuyucua* sp. n.

Notas sobre el género *Scytodes* Latreille (Araneae, Scytodidae) en el Pantanal, Mato Grosso do Sul, Brasil

Resumen:
Se describe una nueva especie de *Scytodes*, *S. tuyucua,* de la subregión del Pantanal, conocida como "Pantanal do Miranda e Abobral", Mato Grosso do Sul, Brasil. Se presentan notas adicionales sobre su abundancia y distribución.
Palabras clave: Araneae, Scytodidae, *Scytodes*, nueva especie, Pantanal, Brasil.
Taxonomía: *Scytodes tuyucua* sp. n.

Introduction

This is the second of a series of papers dealing with the scytodid fauna of different fitogeographical regions in Brazil (Rheims & Brescovit, *in press*), in which we describe the first autochthonous species from the Pantanal.

The spiders were collected during a study of the diversity of six different areas (termed "capões") from two subregions of the Brazilian Pantanal, known as "Miranda" and "Abobral" (*sensu* Adámoli, 1982) (Figs. 10-12), located in the state of Mato Grosso do Sul, southwestern Brazil (19º22'-19º33'S; 57º2'-57º3'W) (Raizer & Amaral 2001). Samplings were carried out between July/1998 and November/1999 using five different collecting methods: arboreal and ground photoecletors, beating tray, nocturnal manual sampling and pitfall traps.

Descriptions and terminology follow Brescovit & Rheims (2000). The material is deposited in the collections of the Instituto Butantan, São Paulo (IBSP, I. Knysak); Museu de Zoologia da Universidade de São Paulo (MZSP, R. Pinto da Rocha) and Museu de Ciências Naturais, FZB/RS, Porto Alegre (MCN, E.H. Buckup). Epygines were dissected and immersed in clove oil for visualization of internal structures. All measurements are given in millimeters.

Scytodes tuyucua new species

Fig. 1-9.

TYPES. Male holotype from Passo do Lontra, Corumbá, Mato Grosso do Sul, Brazil, 1998, J. Raizer coll., deposited in IBSP 36444. Paratypes: 1♂ (IBSP 36442), 1♀ (IBSP 36443), 1♀1♂ (MZSP 22718), with the same data as holotype ; 2♀♀3♂♂, Morro do Azeite, Corumbá, Brazil, Apr., 1998, J. Raizer et al. (IBSP 21984); 1♀1♂, Pousada Caiman, Miranda, Brazil, May 6, 1991, A.C. Meyer coll. (MCN 20995).

ETYMOLOGY. The specific name is a noun in apposition taken from the Guarani indian language that means Pantanal.

DIAGNOSIS. The males of *Scytodes tuyucua* n. sp. resembles *S. championi* F.O.P-Cambridge and *S. romitii* Caporiacco by the presence of a subtriangular pocket in the distal area of the male palp (Brescovit & Rheims, 2001: 317, figs. 14, 20). They differ by the presence of a retrolateral hyaline membrane partially covering the apex of the distal area of the bulb (Fig. 7) and by the lack of the ventral serrated

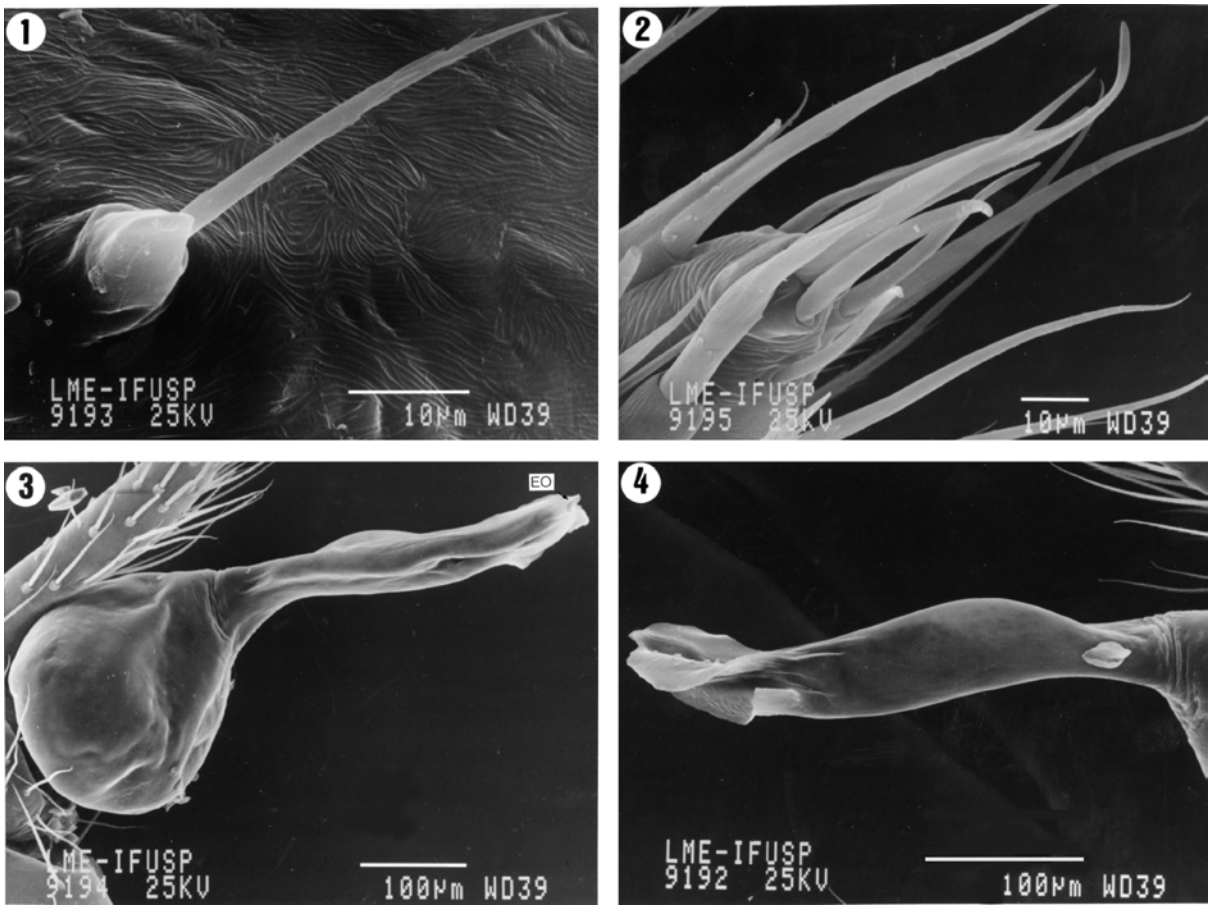

Fig. 1-4. *Scytodes tuyucua* n.sp. **1.** Male, left palp, stridulatory pick. **2.** Cymbium, apex detail. **3.** Prolateral view (EO = embolus openning). **4.** Retrolateral view.

membrane (Figs. 3-4, 7; Brescovit & Rheims 2001: 314, fig.5 for comparasion). The females resemble *S. championi* by the shape and medial position of the spermathecae (Brescovit & Rheims 2001: 317, fig. 17) but differ by the slightly bent apex and by the lack of hyaline pockets (Fig. 9).

DESCRIPTION.

MALE (IBSP 36424). Carapace orange with dark brown pattern, as shown on figure 5. Chelicerae orange with dorsal longitudinal brown stripe. Pedipalps orange. Femora with prolateral brown stain. Tibiae and patellae with dorsal longitudinal brown stripe and prolateral brown stains. Labium pale yellow, brown at base. Endites pale yellow. Sternum pale yellow with dark brown margins in front of each coxae. Legs yellow. Femora I-IV with pair of longitudinal brown stripes. Tibiae and metatarsi distally darker. Abdomen cream colored with very faint black pattern (Fig. 5). Total length 3.50. Carapace slightly domed, 1.90 long, 1.60 wide. Eye diameters: PME 0.12, ALE 0.12, PLE 0.12. Lateral eyes on a tubercle. Chelicerae with subapical hyaline keel and inconspicuous stridulatory ridges. Labium 0.12 long, 0.26 wide. Sternum 1.04 long, 0.80 wide. Leg measurements: I - femur 3.40/ patella 0.50/ tibia 3.70/ metatarsus 4.90/ tarsus 0.60/ total 13.10/ II – 2.60/ 0.50/ 2.70/ 3.10/ 0.60/ 9.50; III – 1.60/ 0.50/ 1.40/ 1.80/ 0.40/ 5.70; IV – 2.30/ 0.50/ 2.30/ 2.40/ 0.50/ 8.00. Tibia I with retrolateral row of small spines. Palpal femur with stridulatory pick long and slender on slightly triangular and projected socket (Fig. 1). Cymbium with very strong apical spine and a smaller adjacent one (Fig. 2). Bulb 0.62 long, slighlty bent retrolaterally (Figs 4, 7). Abdomen 1.60 long, 1.40 wide, covered with slender hairs.

FEMALE. (IBSP 36442). Coloration pattern as in male. Total length 3.70. Carapace domed, 1.80 long, 1.60 wide. Eye diameters: PME 0.10, ALE 0.10, PLE 0.10. Lateral eyes as in male. Chelicerae as in male. Labium 0.16 long, 0.24 wide. Sternum 1.00 long, 0.82 wide. Leg measurements: I - femur 2.10/ patella 0.50/ tibia 2.30/ metatarsus 2.50/ tarsus 0.70/ total 8.10; II – 1.70/ 0.40/ 1.70/ 2.10/ 0.50/ 6.40; III – 1.30/ 0.40/ 1.00/ 1.30/ 0.40/ 4.40; IV – 1.70/ 0.40/ 1.60/ 1.70/ 0.50/ 5.90. Palpal femur as in male. Epigynum with slightly triangular epigynal pouch, crescent-shaped positioning ridges, and slightly conspicuous foveas (Fig. 8). Abdomen 1.90 long, 1.50 wide, as in male.

VARIATION. 15 %%. Total length: 3.20-4.00; carapace: 1.50-2.10; femur I: 2.80-3.80; bulb: 0.56-0.70. 15 &&. Total length: 3.00-4.60; carapace: 1.60-2.10; femur I: 1.30-2.50.

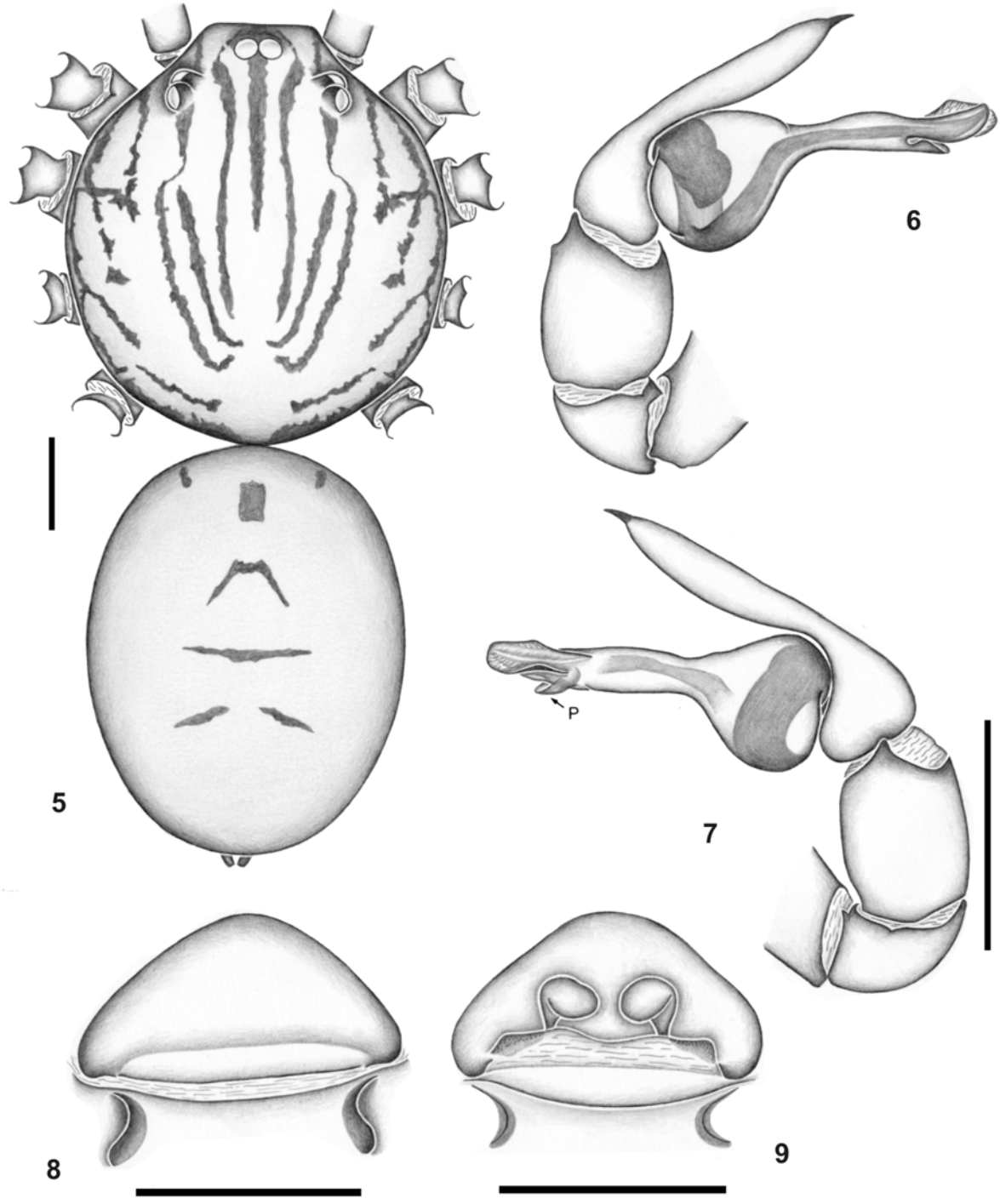

Fig. 5-9. *Scytodes tuyucua* n.sp. **5.** Male, body, dorsal view. **6.** Left palp, prolateral view. **7.** Retrolateral view (P = subtriangular pocket). **8.** Female, epigynum, ventral view. **9.** Dorsal view. Scale lines 0.5 mm.

DISTRIBUTION. Known only from the Pantanal region in Mato Grosso do Sul.

MATERIAL EXAMINED. Brazil. **Mato Grosso do Sul**: Corumbá, Passo do Lontra, 69%% 82&& 37 juvs., 1998, J. Raizer col. (IBSP 36413-36431; 36433-36441, 36445-36451; MZSP 22715-22717).

ECOLOGY. Three hundred spiders were collected between July/98 and November/99. Of these, 67 were males, 74 females, and 159 juveniles. The number of samples, as well as the sampling period varied amongst the capões, as shown on table I. No spiders were found in C1-C3 (Fig. 11). They were collected only in the

Table I. Sampling periods and effort (number of samples) for each of the six "capões" in the subregions "Miranda" and "Abobral", State of Mato Grosso do Sul (APE: arboreal photoecletor; GPE: ground photoecletor; BT: beating tray; MNC: manual nocturnal collecting; PIT: pitfall-traps).

"Capão"	Period	APE	GPE	BT	MNC	PIT
C1	Jul/98-Nov/99	13	12	77	28	92
C2	Jul/98-Nov/99	16	6	63	26	88
C3	Jul/98-Nov/99	13	16	58	15	86
C4	Aug/98-Sept/99	14	13	73	36	65
C5	Jul/98-Nov/99	20	22	71	36	92
C6	Aug/98-Nov/99	16	13	63	32	55
Total	**Jul/98-Nov/99**	**92**	**82**	**405**	**173**	**478**

Table II. Number of specimens (%) recorded with each sampling method in each of the "capões" (C4-C6) in the the subregions "Miranda" and "Abobral", State of Mato Grosso do Sul (APE: arboreal photoecletor; GPE: ground photoecletor; BT: beating tray; MNC: manual nocturnal collecting; PIT: pitfall-traps).

Capão	Sampling method	Male		Female		Immature		Total	
		n	%	n	%	n	%	n	%
C4	APE	–	–	–	–	–	–	–	–
	GPE	–	–	–	–	–	–	–	–
	BT	–	–	–	–	–	–	–	–
	MNC	1	0.33	–	–	–	–	1	0.33
	PIT	–	–	–	–	–	–	–	–
C5	APE	11	3.67	6	2.00	12	4.00	29	9.67
	GPE	–	–	–	–	1	0.33	1	0.33
	BT	–	–	–	–	–	–	–	–
	MNC	–	–	–	–	–	–	–	–
	PIT	–	–	–	–	1	0.33	1	0.33
C6	APE	48	16.00	56	18.67	113	37.67	217	72.33
	GPE	–	–	1	0.33	5	1.67	6	2.00
	BT	6	2.00	10	3.33	21	7.00	37	12.33
	MNC	1	0.33	–	–	–	–	1	0.33
	PIT	–	–	1	0.33	6	2.00	7	2.33
Total		**67**	**22.33**	**74**	**24.67**	**159**	**53.00**	**300**	**100.00**

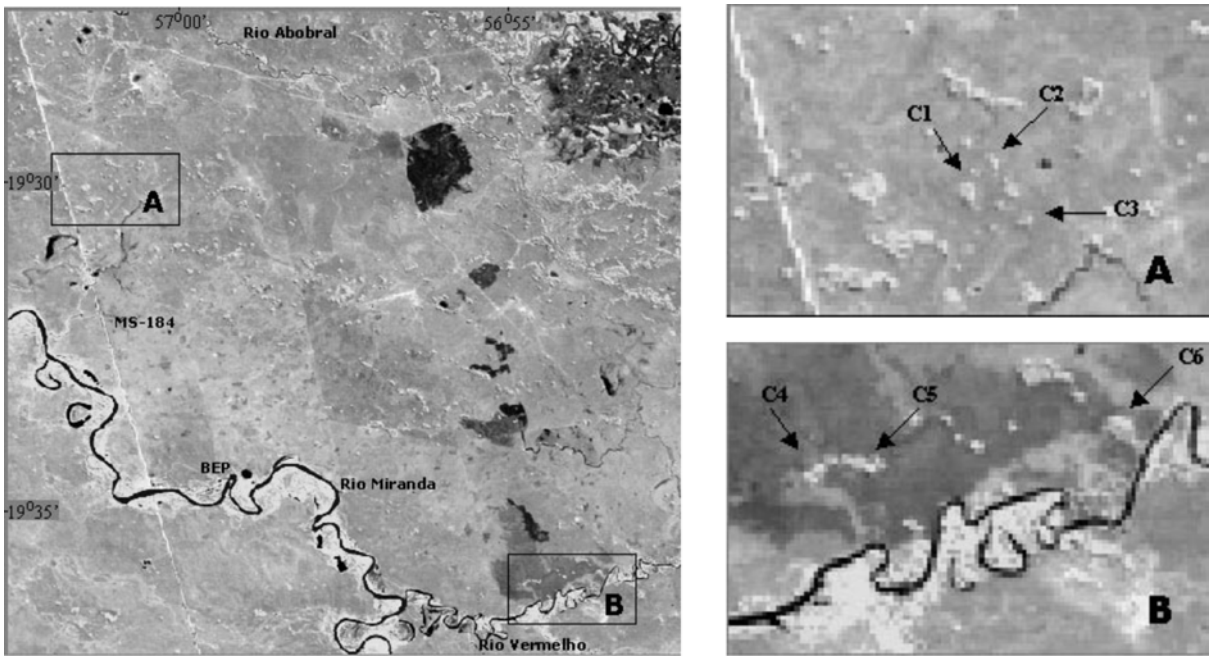

Fig. 10. Landsat 5 satellite image of the study area (A = location of capões C1-C3; B = location of capões C4-C6; BEP = Base de Estudos do Pantanal da Universidade Federal de Mato Grosso do Sul; MS-184 = State highway). **Fig. 11.** Enhanced Landsat 5 satellite image showing location of capões C1-C3. **Fig. 12.** Enhanced Landsat 5 satellite image showing location of capões C4-C6.

capões C4 (n=1; 0.33%), C5 (n=31; 10.33%) and C6 (n=268; 89.33%), all located close to the Rio Vermelho (Fig. 10, 12). Considering that C6 is the closest to the river, it is probable that the distribution of *S. tuyucuia* n. sp. is strongly influenced by the presence of water.

In relation to the sampling methods, 82% of the specimens were collected in arboreal photoecletors, 12.33% in beating trays, 2.33% in pitfall-traps, 0.33% by nocturnal manual collecting and 0.33% in ground photoecletors (Table II). This shows that these spiders are not easily detected at night and occur most frequently on tree trunks and bushes, rarely wandering on the ground.

Considering only arboreal photoecletors, the number of specimens varied throughout the sampling period. Frequency peaks were observed from October/98 to January/99, for males, and from August/98 to January/99 for females. Immatures occurred in all samplings between November/98 and January/99. This data confirms the strong influence of the presence of water on the abundance of *S. tuyucua* n. sp. since the higher frequencies were recorded during the months of higher pluviosity (Nat *et al.* 2003).

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