

ARTÍCULO:

Redescription of *Fufius funebris* Vellard, 1924 and description of *Fufius lucasae* sp. n. with comments on *Ctenochelus maculatus* Mello-Leitão, 1923 (Mygalomorphae, Cyrtaucheniidae)

José Paulo Leite Guadanucci

Museu de Zoologia da Universidade de São Paulo,
Av. Nazaré, 481, Ipiranga, São Paulo, São Paulo, 04263-000, Brazil;
Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, SP, Brazil.
zepaulo@artist.com.br

Rafael Prezzi Indicatti

Laboratório de Artrópodes, Instituto Butantan,
Av. Vital Brazil, 1500, Butantã, São Paulo, São Paulo, 05503-900, Brazil.
indicatti@butantan.gov.br

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Grupo Ibérico de Aracnología (GIA)
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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ARTÍCULO:

REDESCRIPTION OF *FUFIOUS FUNEBRIS* VELLARD, 1924 AND DESCRIPTION OF *FUFIOUS LUCASAE* SP. N. WITH COMMENTS ON *CTENOCHELUS MACULATUS* MELLO-LEITÃO, 1923 (MYGALOMORPHAE, CYRTAUCHENIIDAE)

José Paulo Leite Guadanucci & Rafael Prezzi Indicatti

Abstract:

To date, the family Cyrtaucheniidae has been recorded, in South America, only from the Amazon region, central and south-eastern Brazil. In this paper, the genus *Ctenochelus* Mello-Leitão is removed from the synonymy of *Bolostromus* Ausserer, and synonymized with *Stenoterommata* Holmberg (Nemesiidae). A new name, *Stenoterommata melloleitaoi*, is proposed for *C. maculatus*, preoccupied by Bertkau. In addition we present the redescription of *Fufius funebris* Vellard 1924, from the Brazilian cerrado, and the description of *Fufius lucasae* sp. n. from the Atlantic Forest in south-eastern Brazil, the first record of this family from an Atlantic Forest area.

Key words: Araneae, Cyrtaucheniidae, *Ctenochelus*, *Fufius*, Atlantic Forest, Brazil.
Taxonomy: *Fufius lucasae* sp.n.

Redescripción de *Fufius funebris* Vellard, 1924 y descripción de *Fufius lucasae* sp. n. y comentarios sobre *Ctenochelus maculatus* Mello-Leitão, 1923 (Mygalomorphae, Cyrtaucheniidae)

Resumen:

Hasta la fecha, la familia Cyrtaucheniidae se ha registrado en Suramérica sólo de la región amazónica (centro y sureste de Brasil). En el presente trabajo se revoca la sinonimia del género *Ctenochelus* Mello-Leitão con *Bolostromus* Ausserer, y se sinonimiza *Ctenochelus* con *Stenoterommata* Holmberg (Nemesiidae). Se propone un nombre nuevo, *Stenoterommata melloleitaoi*, para *C. maculatus*, preocupado por Bertkau. Por otra parte, se presentan la redescripción de *Fufius funebris* Vellard, 1924, del Cerrado brasileño, y la descripción de *Fufius lucasae* sp. n. del Bosque Atlántico en el sureste de Brasil, que constituye el primer registro de la familia para el área.

Palabras clave: Araneae, Cyrtaucheniidae, *Ctenochelus*, *Fufius*, Bosque Atlántico, Brasil.

Taxonomía: *Fufius lucasae* sp.n.

Introduction

The family Cyrtaucheniidae includes 125 species distributed in three sub-families: Cyrtaucheninae, from the Southern Mediterranean region and Africa; Euctenizinae, from North America; and Aporoptychinae, from Western Africa and Central and South Americas. Aporoptychinae is the only one with Neotropical species and includes seven genera, of which five present Neotropical records: *Acontius* Karsch, 1879, *Bolostromus* Ausserer, 1875, *Fufius* Simon, 1888, *Rhytidicolus* Simon, 1889 and *Bolostromoides* Schiapelli & Gerschman, 1945 (Platnick, 2004; Raven, 1985; Bond & Opell, 2002).

In Brazil, Cyrtaucheniidae is represented by the genera *Bolostromus*, *Fufius* and *Rhytidicolus* (Platnick, 2004), the latter represented solely by an undescribed species from Amazonas (Höfer & Brescovit, 2001; Brescovit *et al.*, 2002). The genus *Fufius* includes, to date, eight species described from northern South America and Central America. In Brazil, it is recorded mainly from the Amazon region and Amazonian influenced environments. *Bolostromus* is more widely distributed and, until now, included the only record of Cyrtaucheniidae from an Atlantic Forest, with *B. maculatus* (Mello-Leitão, 1923), from São Paulo, Brazil. This species was originally described in *Ctenochelus* by Mello-Leitão (1923) and transferred to *Bolostromus* by Raven (1985). Nevertheless, this record should not be considered since we here propose the transfer of *Ctenochelus maculatus* Mello-Leitão, 1923 to the genus *Stenoterommata*.

In this paper the genus *Ctenochelus* Mello-Leitão, is removed from the synonymy of *Bolostromus* Ausserer, and synonymized with *Stenoterommata*

Holmberg, Nemesiidae. The new name *Stenoterommata melloleitaoi* is proposed for *C. maculatus*, preoccupied by Bertkau. In addition, we present the redescription of *Fufius funebris* Vellard and the description of *Fufius lucasae* sp. n., which is now the only known species occurring outside the Amazon region and the first Cyrtaucheniidae from the Atlantic forest.

Material and methods

The material examined belongs to the following institutions: **IBSP**, Instituto Butantan, São Paulo (A. D. Brescovit), **MZSP**, Museu de Zoologia da Universidade de São Paulo (R. Pinto da Rocha).

All measurements are in millimeters. Spine notation follows Petrunkevitch (1925) with modifications proposed by Bertani (2001). The abbreviation **spnf** refers to spiniform setae. The term "spiniform" was also used by Vellard (1924); some article faces show variation between right and left legs. When this occurs it is described and separated by a dash "?".

Taxonomy

NEMESIIDAE

Stenoterommata Holmberg

Stenoterommata Holmberg, 1881a: 126, pl. 1, fig. 1. Type-species: *S. platensis* Holmberg.

Ctenochelus Mello-Leitão, 1923: 61. (Type-species: *C. maculatus* Mello-Leitão, by monotypy); Brignoli 1983: 106; Raven, 1985: 151 (as syn. of *Bolostromus* Ausserer).

Syn.n.

Stenoterommata melloleitaoi nom. nov.

Ctenochelus maculatus Mello-Leitão, 1923: 62, fig. 127; Bonnet, 1956: 1269.

Bolostromus maculatus; Raven, 1985: 151; Platnick 2004.

Stenoterommata maculata (preoccupied by *S. maculata* Bertkau, 1880: 14).

NOTE: Raven (1985) stated that based on the description of *Ctenochelus maculatus* Mello-Leitão (1923) it is only possible to place this genus within Aporoptychinae and thus, tentatively placed it in the synonymy of *Bolostromus*. Nevertheless, from Mello-Leitão's description it is possible to distinguish *Ctenochelus* from *Bolostromus* by the following features: *Ctenochelus* presents the labium wider than long, the rastelum formed by setae and the apical segment of the posterior lateral spinnerets very short. *Bolostromus* presents the labium longer than wide, the rastelum formed by thick spines and the apical segment of the posterior lateral spinnerets digitiform. *Ctenochelus* and *Stenoterommata* share the absence of spines in tarsus IV, anterior tarsi and metatarsi scopulate and the numerous cuspules in the endites and thus should be considered synonyms. Since the gender of *Stenoterommata* is feminine, the species would be called *S. maculata*, but this epithet is preoccupied by *S. maculata* (Bertkau, 1880). Therefore, we the new name *melloleitaoi* is proposed for *C. maculatus*.

CYRTAUCHENIIDAE

Fufius funebris Vellard, 1924

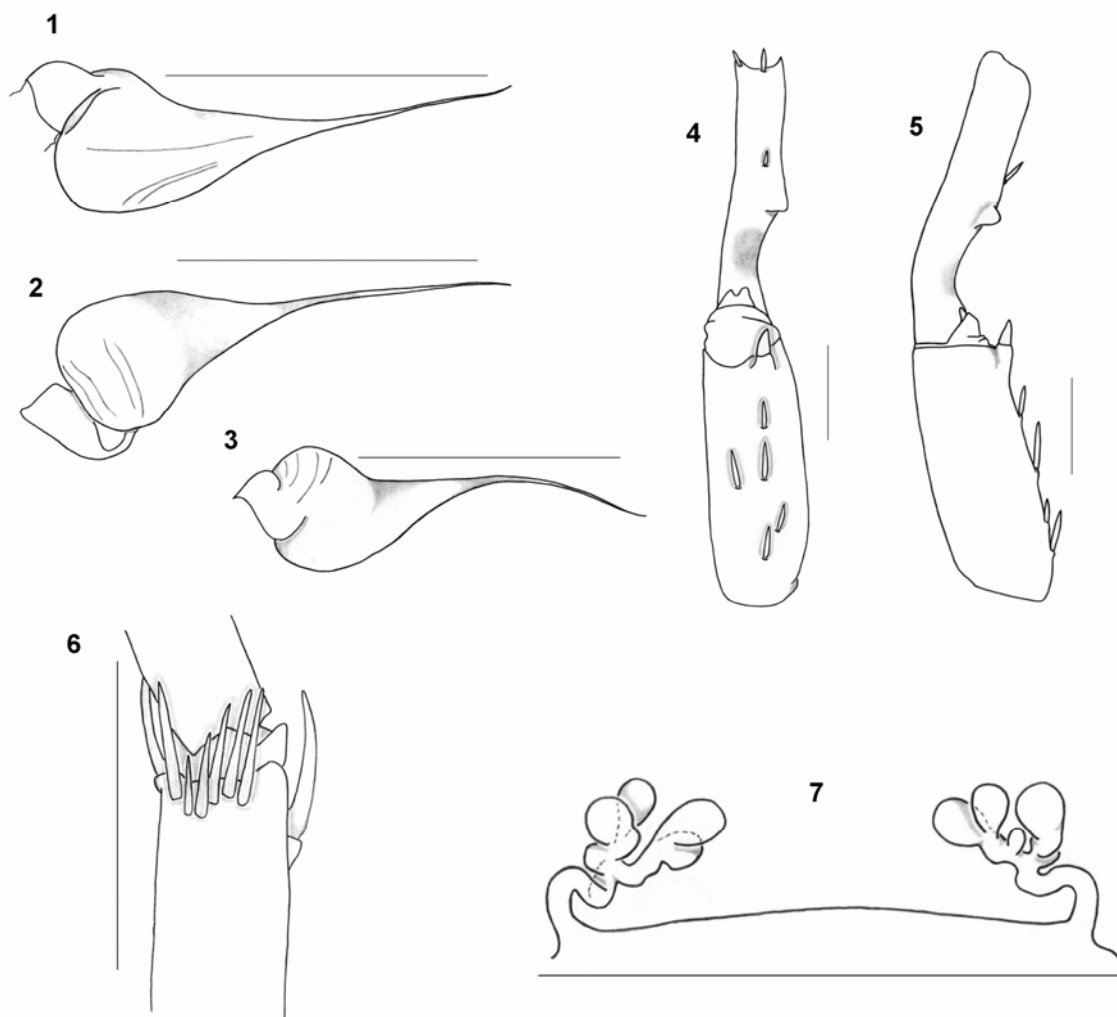
(Figs 1-7)

Fufius funebris Vellard, 1924: 153, pl. 11, fig.43. (holotype, from Catalão, Goiás, Brazil, should be deposited in Instituto Vital Brazil, is lost). Bonnet 1956, 1925; Platnick 2004.

DIAGNOSIS. Males are recognized by the presence of a preening comb formed by 5-7 spines on the ventral-retrolateral face of metatarsus IV (Fig. 6) and by the shape of the male bulb with a long and slightly sinuous embolus (Fig. 3). Females are recognized by the distinct cefalic region, by the anterior eye row almost straight and by the anterior median eyes smaller than the anterior lateral eyes.

DESCRIPTION. MALE (IBSP 10948). Total length: 10.9. Carapace: length 5.1; width 3.9. Eye tubercle: length 0.5; width 1.1. Labium: length 0.8; width 0.6. Sternum: length 2.4; width 2.2. Basal segment of chelicera with 8 teeth. Labium almost as long as wide, trapezoidal with 3 cuspules. Endite subquadrate with more than 60 cuspules. Sternum longer than wide, posterior sternal sigilla submarginal. Palp: femur 2.5/ patella 1.4/ tibia 1.4/ cymbium 1.1/ total 6.4. Legs **I**: femur 3.6/ patella 2/ tibia 2.3/ metatarsus 2.8/ tarsus 1.7/ total 12.4. **II**: 3.3/ 1.9/ 2.1/ 2.5/ 1.6/ 11.4. **III**: 2.8/ 1.4/ 1.5/ 2.3/ 1.4/ 9.4. **IV**: 3.8/ 1.9/ 3/ 3.4/ 1.4/ 13.5. Spines: Tarsi without spines. Palp: femur d0-0-p1. Legs: **I**: femur d1-1-3, patella v2, p2, tibia v3-2-2, p0-1-1 metatarsus v0-1-ap2; **II**: femur d1-2-3, patella v1, p3/2, tibia v2-2-1(3ap), p0-1-1, metatarsus v2-4-ap3, p0-1-0; **III**: femur d2-r1-0, patella p5/8, r1/3, tibia d0-1-0, v2-2-ap3, p1-0-1/1-1-1, r1-0-1, metatarsus d3-2-r1, v2-2-ap2, p0-1-1/1-1-0, r0-0-ap1; **IV**: femur d1-2-0, patella r1/0, tibia v2-2-ap2/2-3-ap2, r1-0-1, metatarsus v2-2-ap2, p1-1-ap1/0-1-ap1, r1-1-ap1/0-1-ap1. Anterior and posterior eye rows recurved, anterior eyes larger than posteriors. Fovea recurved. Male palpal bulb with embolus long and thin (Figs. 1-3). Tibial spur formed by a short and thick spine inserted in a short process (Figs. 4-5). Superior tarsal claws with two rows of teeth. Third claw present on all legs. Scopula present on tarsi I-III. Metatarsi without scopula. Preening comb formed by five spines (Fig. 6) on the ventral-retrolateral face of the apical metatarsus IV. Anterior legs darker than posterior. Femur and patella with a dark ring on the apical dorsal face, tibia and metatarsi with dark rings on the dorsal basal and apical faces. Carapace reddish-brown. Abdomen brown. Golden setae on carapace and abdomen. Posterior lateral spinnerets with apical article digitiform, very light stain on the ventral face, posterior median spinnerets very short.

FEMALE. (IBSP 10949) Total length: 15.6. Carapace: length 5.5; width 4.4. Eye tubercle: length 0.9; width 1.7. Labium: length 1; width 0.9. Sternum: length 2.9; width 2.6. Chelicera, labium, endite and sternum as in male. Palp: femur 2.4/ patella 1.5/ tibia 1.5/ cymbium 1.8/ total 7.2. Legs **I**: femur 3.6/ patella 2.3/ tibia 2.3/ metatarsus 2.4/ tarsus 1.7/ total 12.3. **II**: 3.2/ 2.1/ 2/ 2.2/



Figs. 1-7. *Fufius funebris* Vellard. **1-3.** Male palpal bulb. **1.** Prolateral view. **2.** Retrolateral view. **3.** Dorsal view. **4-5.** Male tibial spur. **4.** Ventral view. **5.** Prolateral view. **6.** Male preening comb, metatarsus IV, ventro-retrolateral view. **7.** Spermathecae, dorsal view. Scale = 1mm.

1.4/ 10.9. **III:** 2.8/ 1.7/ 1.5/ 2.1/ 1.4/ 9.5. **IV:** 3.8/ 2.1/ 2.8/ 3/ 1.3/ 13. Spines: Palp: femur d0-0-p1, patella p3, tibia v2-2-ap3 (spnf), p0-1-0, tarsus p1, r1/0. Legs: **I:** femur d0-0-p1, patella p1/3, tibia v1-1-ap2/0-1-ap2 (spnf), p0-0-1, metatarsus v2-1-ap2; **II:** femur d0-0-p1 (spnf), patella p2 (spnf), tibia v0-1-ap1 (spnf), p0-0-1 (spnf), metatarsus v1-2-1(2ap)/2-3-ap2; **III:** femur d0-0-1 (spnf), patella, p3, tibia, v1-2-ap2 (spnf), p1-1-1, r0-1-0, metatarsus d1-1-0, v2-2-ap3, p0-1-ap1, r0-1-ap1; **IV:** femur d0-0-1 (spnf), patella 0, tibia v2-2-ap2 (spnf), r1-0-1/0-0-1, metatarsus v2-2-1(3ap)/3-2-1(3ap), pap1, r0-1-ap1. Anterior eye row slightly recurved, posterior recurved, anterior eyes larger than posteriors. Fovea slightly recurved. Spermathecae formed by two multilobed receptacula (Fig. 7). Superior tarsal claws with two rows of teeth. Third claw present on all legs. Scopula present on tarsi I and II. Metatarsi I and II with scopula on the apical half. Metatarsi III and IV without scopula. Anterior legs darker than posteriors. Femora and patellae with a dark ring on apical dorsal face, tibiae and metatarsi with dark rings on the dorsal basal and apical faces. Coloration and spinnerets as in male.

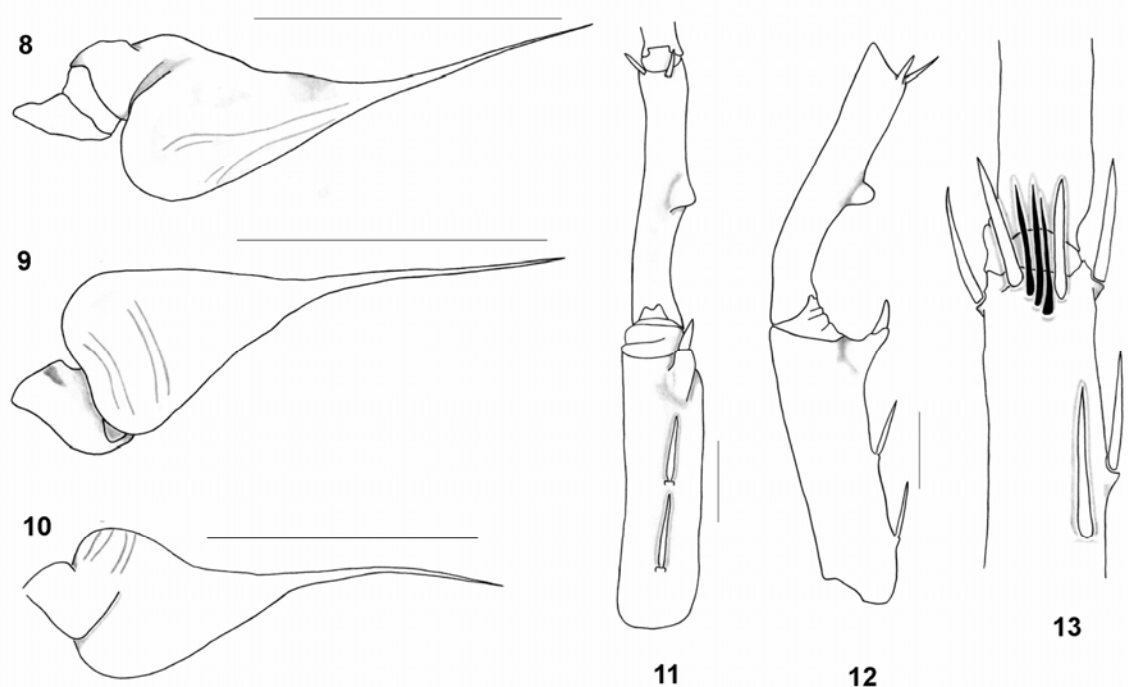
NATURAL HISTORY. These spiders live in silken tubes in crevices (Goloboff, 1993) and underneath rocks (Guadanucci personal obs.).

MATERIAL EXAMINED. BRAZIL. Distrito Federal: Brasília, 29-31.X.1999 G. G. Montingelli *leg.* 1♂ (IBSP 10948), 1♂ (IBSP 8011). Goiás: Catalão 1♂j and 1♀f (MZSP 22767). Minas Gerais: Uberlândia, Fazenda Experimental da Glória, 27.IX.2000 A. J. Santos *leg.*, 1♀f (IBSP 10949), 1♀, 1j (IBSP10950), 1♀f (MZSP 23582).

GEOGRAPHIC DISTRIBUTION. Central and southeastern Brazil: States of Distrito Federal, Goiás, Minas Gerais.

Fufius lucasae sp. n.
(Figs. 8-13)

TYPES: Holotype male from Núcleo Pedra Grande, Parque Estadual da Serra da Cantareira, São Paulo, São Paulo, Brazil; C. C. Aires *leg.*, date absent, deposited in MZSP 23231. **Paratypes:** Male from Parque Estadual do Jara-



Figs. 8-13. *Fufius lucasae*. **8-10.** Male palpal bulb. **8.** Prolateral view. **9.** Retrolateral view. **10.** Ventral view. **11-12.** Male tibial spur. **11.** Ventral view. **12.** Prolateral view. **13.** Male preening comb, metatarsus IV, ventro-retrolateral view. Scale = 1mm.

guá, São Paulo, São Paulo, Brazil; 17.I.2004, R. P. Indicatti *leg.* deposited in IBSP 10952. Male from Reserva Florestal do Morro Grande, Cotia, São Paulo, Brazil; J. M. B. Ghelleri *leg.* deposited in MZSP 22017. Núcleo Pedra Grande, Parque Estadual da Serra da Cantareira, São Paulo, São Paulo, Brazil; C. C. Aires *leg.*, date absent 1♂ (IBSP 10993), 1♂ (MZSP 23226).

ETMOLOGY: the specific name honours to Sylvania M. Lucas, who has encouraged us on the study of Mygalomorphae spiders.

DIAGNOSIS. Males are recognized by the absence of spines on the ventral face of patella I and II, by the presence of preening comb formed by spiniform setae on the retrolateral face of metatarsus IV (Fig. 13), by the absence of a interchelicer light stain, by the tibial spur which is more developed than the other species (Figs. 11-12) and by the palpal bulb format (Figs. 8-10). Females unknown.

DESCRIPTION. MALE (Holotype). Total length: 14.1. Carapace: length 6.0; width 4.9. Eye tubercle: length 1.1; width 1.7. Labium: length 0.9; width 1. Sternum: length 3.4; width 2.6. Basal segment of chelicera with eight teeth. Labium almost as long as wide, trapezoidal with nine cuspules (varies from five to 11). Endite subquadrate with more than 50 cuspules. Sternum longer than wide, posterior sternal sigilla submarginal. Palp: femur 3.2/ patella 1.5/ tibia 1.9/ cymbium 1.2/ total 7.8. Legs **I:** femur 4.6/ patella 2.8/ tibia 3.3/ metatarsus 3.8/ tarsus 1.9/ total 16.4. **II:** 4/ 2.4/ 2.9/ 3.2/ 1.7/ 14.2. **III:**

3.3/ 1.9/ 1.9/ 2.7/ 1.6/ 11.4. **IV:** 4.3/ 2.3/ 3.6/ 3.5/ 1.5/ 15.2. Spines: Tarsi without spines. Palp without spines. Legs: **I:** femur d1-1-p1 (spnf), patella p2/1 (spnf), tibia v1-1-0, metatarsus v0-1-ap2; **II:** femur d1-1-p1 (spnf), patella 2 (spnf), tibia v1-1-1(2ap)/1-2-1(2ap), metatarsus v2-2-ap2; **III:** femur d1-1-0 (spnf), patella p2, tibia v1-1-1(3ap), p1-1-0, r1-1-0/1-0-0, metatarsus d3-1-0, v2-2-ap2/2-3-ap3, p0-1-ap1, r0-1-ap1/0-2-2(1ap); **IV:** femur d1-2-0 (spnf), patella 0, tibia v2-3-ap2/2-3-1(2ap), r0-1-1, metatarsus v2-3-ap3/1-2-ap3, r0-1-ap1. Anterior and posterior eye rows recurved, anterior eyes larger than posteriors. Fovea recurved. Male palpal bulb with embolus long and thin (Figs. 8-10), slightly curved (Fig. 10). Tibial spur formed by a short and thick spine inserted in a well developed process (Figs. 11-12). Superior tarsal claws with two rows of teeth. Third claw present on all legs. Scopula present on tarsi I and II. Metatarsi I with scopula on the apical half, II with scopula on the apical one third. Preening comb formed by 2-3 long spiniform setae between two spines on the ventro-retrolateral face on the apical region of metatarsus IV (Fig. 13). Posterior lateral spinnerets with apical article digitiform, dark on the ventral face, posterior median spinnerets very short. Carapace dark brown. Anterior legs darker than posterior. Femur and patella with a dark ring on the apical dorsal face, tibia and metatarsi with dark rings on the dorsal basal and apical faces. Abdomen brown.

OTHER MATERIAL EXAMINED. BRAZIL, São Paulo, São Paulo. Parque Estadual da Serra da Cantareira: C. C. Aires *leg.*, date absent. 1♂ (MZSP 23227), 1♂ (MZSP

23227), 1♂ (MZSP 23228), 1♂ (MZSP 23229), 1♂ (MZSP 23230), 2♂♂ (MZSP 23232), 1♂ (MZSP 23233), 1♂ (MZSP 23234), 1♂ (MZSP 23235), 1♂ (MZSP 23236), 1j, São Paulo, São Paulo Parque Estadual do Jaraguá, 12.X.02, R. P. Indicatti *leg.* (IBSP 10992).

GEOGRAPHIC DISTRIBUTION. Southeastern Brazil: State of São Paulo.

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References

- BERTANI, R. 2001. Revision, Cladistic Analysis, and Zoogeography of *Vitalius*, *Nhandu*, and *Proshapalopus*; with notes on other theraphosinae genera (Araneae, Theraphosidae). *Arquivos de Zoologia, São Paulo*, **36** (3): 265-356.
- BERTKAU, P. 1880. Verzeichniss der von Prof. Ed. van Beneden auf seiner im Auftrage der Belgischen Regierung unternommen wissenschaftlichen Reise nach Brasilien und La Plata im Jahren 1872-73 gensem-melten Arachniden. *Mem. Cour. Acad. Belg.*, **43**: 1-120.
- BOND, J. E. & B. D. OPELL 2002. Phylogeny and taxonomy of the genera of south-western North American Euctenizinae trapdoor spiders and their relatives (Araneae: Mygalomorphae: Cyrtaucheniidae). *Zoological Journal of the Linnean Society*, **136**: 487-534.
- BONNET, P. 1956. *Bibliographia araneorum*. Toulouse, **2**(2): 919-1926.
- BRIGNOLI, P. M. 1983. *A catalogue of Araneae described between 1940 and 1981*. Manchester, 755 pp.
- BRESCOVIT, A. D., A. B. BONALDO, R. BERTANI & C. A. RHEIMS 2002. Araneae. In *Amazonian Arachnida and Myriapoda*. Adis, J. (Ed.). Pensoft Publishers. Bulgaria. Pp. 303-343.
- GOLOBOFF, P. A. 1993. A reanalysis of mygalomorph spiders families (Araneae). *American Museum Novitates*, **3056**: 1-32.
- HÖFER, H. & A. D. BRESCOVIT 2001. Species and guild structure of a Neotropical spiders assemblage (Araneae) from Reserva Ducke, Amazonas, Brazil. *Andrias*, **15**: 99-119.
- MELLO-LEITÃO, C. F. DE 1923. Theraphosidae do Brasil. *Revista do Museu Paulista*, **13**: 1-438.
- PETRUNKOVITCH, A. 1925. Arachnida from Panamá. *Transactions of the Connecticut Academy of Arts and Sciences*, **27**: 51-248.
- PLATNICK, N. I. 2004. The world spider catalog, version 5.0. American Museum of Natural History, online at <http://research.amnh.org/entomology/spiders/catalog/index.html> (Accessed in september 2004).
- RAVEN, R. 1985. The spider infraorder Mygalomorphae (Araneae): cladistics and systematics. *Bulletin of the American Museum of Natural History*, **182**: 1-180.
- VELLARD, J. 1924. Etudes de zoologie. *Archivos do Instituto Vital Brasil*, **2**: 1-32, 121-170.