

## On the taxonomy of the Neotropical spider genera *Dossenus* and *Dyrines* (Araneae: Lycosoidea: Trechaleidae) from Brazil

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**ABSTRACT.** The male of *Dossenus guapore* Silva, Lise & Carico, 2007 is described and illustrated for the first time, based on material from Bonito, Mato Grosso do Sul, Brazil. The spider genus *Dossenus* Simon, 1898 is distributed from Panama to southern Brazil and can be distinguished by the other known genera of Trechaleidae by the median dark brown band on the carapace that extends to the abdomen and by the spoon-like shape of the median apophysis of the male palpus. A new species of *Dyrines* Simon, 1903, *D. brescoviti* sp. nov., is described and illustrated based on material collected in Sergipe and Paraná, Brazil. The representatives of this spider genus are relatively small and can be distinguished from the other genera by the longitudinal dark brown bands on the legs. New records of *Dyrines striatipes* (Simon, 1898) are presented.

**KEY WORDS.** Morphology; Neotropical region; new species; taxonomy.

*Dossenus* Simon, 1903 was recently revised by SILVA *et al.* (2007) and includes two species: *D. marginatus* Simon, 1898 (type-species) (Trinidad-Tobago, Colombia, Peru, Brazil) and *D. guapore* Silva, Lise & Carico, 2007 (Panama, Brazil) (PLATNICK 2010). The representatives of this genus are characterized by the median dark brown band on the carapace that extends to the abdomen, the male palpus resembles the ones of *Enna* O.P. Cambridge, 1897 by the spoon-like shape of the median apophysis of the male palpus, the female epigynum presents a slightly projected scape (SILVA *et al.* 2007).

*Dyrines* Simon, 1903 was recently revised by CARICO & SILVA (2008) and now includes only three species: *Dyrines striatipes* (Simon, 1898) (type species, Panama to Venezuela), *D. ducke* Carico & Silva, 2008 (Amazonas, Brazil) and *D. huanuco* Carico & Silva, 2008 (Huanuco, Peru) (PLATNICK 2010). The representatives of this spider genus are relatively small if compared to other larger species, e.g., *Trechalea* Thorell, 1869. The main character that can be used to separate the specimens of this genus from other species, are the longitudinal dark bands on the legs (CARICO & SILVA 2008).

The distribution of this genus was restricted to the Amazon area, especially in Brazil. The present new record from north-eastern Brazil (Bahia) increases the occurrence of the genus.

In this work we describe and illustrate the male of *D. guapore* from Mato Grosso do Sul, Brazil and a new species of *Dyrines* from Sergipe, Brazil and new records of *Dyrines striatipes* are given.

### MATERIAL AND METHODS

The material examined is deposited in Instituto Butantan, São Paulo, Brazil (IBSP, A.D. Brescovit) and Museu de Ciências

e Tecnologia of Pontifícia Universidade Católica do Rio Grande do Sul (MCTP, A.A. Lise). The nomenclature of the male palpus structures follows CARICO (1993), SILVA *et al.* (2007) and CARICO & SILVA (2008). All the measurements are in millimeters. The abbreviations related to eye measurements, including diameter, interdistances and median ocular quadrangle are those routinely used in spider descriptions.

### TAXONOMY

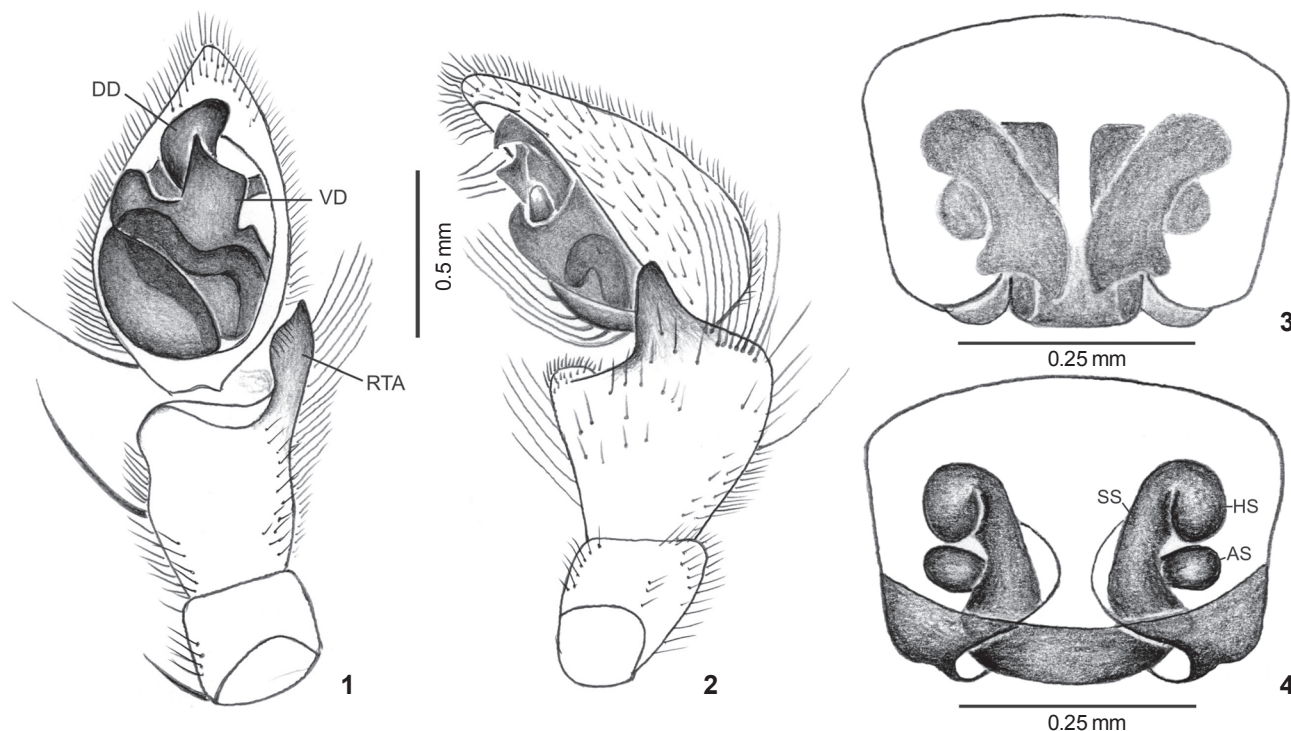
#### *Dossenus guapore* Silva, Lise & Carico, 2007

Figs 1-2

*Dossenus guapore* Silva *et al.* 2007: 147, figs 1, 19, 20, 31, 32, female holotype from Usina Hidrelétrica de Guaporé, Vale do São Domingos, Mato Grosso, Brazil, X.1999, Equipe Resgate leg. (IBSP 41643) (examined); Platnick, 2010.

**Diagnosis.** The male of *D. guapore* resembles the ones of *D. marginatus* Simon, 1898 by the general shape of the median apophysis and retrolateral tibial apophysis (SILVA *et al.* 2007, figs 5 and 6), but can be distinguished by the wider base of the ventral division of the median apophysis (VD) (Fig. 1) and by the acute apex of the retrolateral tibial apophysis (Fig. 2).

**Description.** Male (IBSP 52861). Total length 5.89. Carapace 2.57 long, 2.49 wide, light brown with median brownish band, rounded by a band of whitish setae. Clypeus brownish, 0.24 high. Anterior eye row straight, 0.62 wide; posterior 1.39 wide, recurved. Eye diameters, interdistances, and median ocular quadrangle: AME 0.11, ALE 0.09, PME 0.21, PLE 0.18; AME-AME 0.09, AME-ALE 0.06, PME-PME 0.27, PME-PLE 0.26, OQA 0.34, OQP 0.58, OQH 0.52. Chelicerae dark brown, bristly, light



Figures 1-4. *Dossenus guapore*, male palpus: (1) ventral view; (2) retrolateral view. (3-4) *Dyrines brescoviti* sp. nov., female epigynum: (3) ventral view; (4) dorsal view. (AS) Accessory spermathecae, (DD) dorsal division of median apophysis, (HS) head of spermathecae, (MS) medium septum, (RTA) Retrolateral tibial apophysis, (SS) stalk of spermathecae, (VD) ventral division of median apophysis.

brown near fang; promargin and retromargin of fang furrow with three teeth equidistant and equal in size. Sternum yellowish, scattered setae; 1.33 long, 1.30 wide. Labium dark brown, lighter posteriorly, 0.31 long, 0.44 wide. Legs dark brown with light brown spots, relative length: I-IV-II-III, I – femur 3.07/tibia-patella 4.15/metatarsus 3.65/tarsus 1.32/total 12.19; II – 3.15/4.23/3.32/1.24/11.94; III – 1.90/2.49/1.90/0.99/7.28; IV – 3.16/3.73/3.81/1.33/12.03. Ventral pairs of macrosetae on tibiae: I-5; II-5; III-3; IV-3. Abdomen, 3.40 long, dark brown, with a median light brown band rounded by a line of white setae, strong setae anteriorly. Venter light brown, with two thin brownish bands; scattered setae. Palpus with rounded dorsal division of the median apophysis and ventral division wider at the base (Fig. 1). Retrolateral tibial apophysis with an acute apex (Fig. 2).

Material examined. BRAZIL: *Mato Grosso do Sul*: Bonito (Abismo Anhumas, 21°10'S, 56°35'W), male, 14-23.X.2002, Equipe Biota leg. (IBSP 52861).

Distribution. Panama, Colombia, Brazil (Amazonas, Mato Grosso, Mato Grosso do Sul, São Paulo).

Remarks. The male can be considered co-specific with the female holotype of *D. guapore* because the type locality is in the same range of occurrence for the species. Since after the revision, most of the known species were synonymized, and

only one new species was described at that time (*D. guapore*). Thus *D. marginatus* even present a wide distribution from Central America (Panama) to southern Brazil the differences between the two males are very conspicuous.

### *Dyrines brescoviti* sp. nov.

#### Figs 3-4

Diagnosis. The female of *D. brescoviti* sp. nov. resembles the ones of *D. striatipes* (CARICO & SILVA 2008, figs 6 and 7), by the shape of the middle field of the epigynum (Fig. 1), but can be distinguished by the general shape of the spermathecae (Fig. 4), disposition of the accessory spermathecae and by the separated medium septum (Fig. 3).

Description. Female, holotype. Total length 3.81. Carapace 2.10 long, 1.95 wide, light brown, darker laterally, small thin whitish band. Clypeus brownish, 0.10 high. Anterior eye row slightly straight, 0.60 wide; posterior 0.98 wide. Eye diameters, interdistances, and median ocular quadrangle: AME 0.16, ALE 0.06, PME 0.15, PLE 0.14; AME-AME 0.08, AME-ALE 0.08, PME-PME 0.12, PME-PLE 0.20, OQA 0.32, OQP 0.44, OQH 0.38. Chelicerae light brown, with two brownish longitudinal bands, bristly, without lateral carina; promargin and retromargin of fang furrow with three teeth equidistant and equal in size. Ster-

num yellowish, scattered setae; 1.08 long, 0.99 wide. Labium light brown, darker anteriorly, 0.31 long, 0.34 wide. Legs brownish with light brown longitudinal bands extending from femora to tarsi, relative length: I-IV-II-III, I – femur 2.69/tibia-patella 3.78/metatarsus 3.16/tarsus 1.11/total 10.74; II – 2.32/2.88/2.32/0.78/8.30; III – 1.39/1.73/1.55/0.71/5.38; IV – 2.48/2.63/2.91/0.83/8.85. Ventral pairs of macrosetae on tibiae: I-5; II-5; III-4; IV-3. Abdomen, 1.70 long, light brown, bristly, dorsum with four conspicuous sigilla, darker anteriorly. Venter yellowish, scattered setae. Female epigynum with prominent scape (Fig. 3). Head of spermathecae globular and directed ventrally (Fig. 4) and accessory spermathecae circular at the base of spermathecae stalk (Fig. 4).

Male. Unknown.

Type. Female holotype from Estação Ecológica da Serra de Itabaina, Itabaina, Sergipe, Brazil (10°40'S, 37°25'W), 14-20.IX.1999, A.D. Brescovit *leg.*, deposited in Instituto Butantan (IBSP 57729). One female paratype from Morretes, Paraná, Brazil, 09-19.I.1995, A. Braul *leg.*, deposited in MCTP 12326.

Distribution. Brazil (Sergipe, Paraná).

Etymology. The specific name is a patronym in honor of the collector of the type-species, A.D. Brescovit.

### *Dyrines striatipes* (Simon, 1898)

*Dranes striatipes* Simon, 1898: 18.

*Dyrines striatipes*: Simon, 1903: 1045; Petrunkevitch, 1925: 543; Roewer, 1954: 136; Bonnet, 1956: 1615; Sierwald, 1990; Carico & Silva, 2008; Platnick, 2009.

*Dyrines lineatipes* Petrunkevitch, 1925: 166, figs 86, 87; Carico & Silva, 2008: 112; Platnick, 2009. **Syn. nov.**

Distribution. Panama, Venezuela, Guyana, Brazil.

Additional record. BRAZIL, *Bahia*: Itabuna (Fazenda São Francisco), 1 male, 26.III.1970, CEPLAC *leg.* (IBSP 15811).

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### LITERATURE CITED

- BONNET, P. 1956. **Bibliographia Araneorum. Analyse méthodique de toute la littérature aranéologique jusqu'en 1939.** Tome II, 3e partie: C-F. Toulouse, Les Artisans de l'Imprimerie Douladouire, p. 919-1925.
- CARICO, J.E. 1993. 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** 21 (3): 226-257.
- CARICO, J.E. & E.L.C. SILVA. 2008. Revision of the Neotropical spider genus *Dyrines* (Araneae, Lycosoidea, Trechaleidae). **Journal of Arachnology** 36 (1): 111-117.
- PETRUNKEVITCH, A. 1925. Arachnida from Panama. **Transactions of the Connecticut Academy of Arts and Sciences** 27: 51-248.
- PLATNICK, N.I. 2010. **The World Spider Catalog version 10.5.** New York, American Museum of Natural History, available on line at: <http://research.amnh.org/entomology/spiders/catalog/html> [Access: 31.III.2010].
- ROEWER, C.F. 1954. **Katalog der Araneen von 1758 bis 1940, bsw.** 1954. Bruxelles, Institut Royal des Sciences Naturelles de Belgique, vol. 2a, 923p.
- SILVA, E.L.C.; A.A. LISE & J.E. CARICO. 2007. Revision of the Neotropical spider genus *Dosseus* (Araneae, Lycosoidea, Trechaleidae). **Insect Systematics & Evolution** 38: 139-148.
- SIERWALD, P. 1990. Morphology and homologous features in the male palpal organs in Pisauridae and other spider families with notes on the taxonomy of Pisauridae (Arachnida: Araneae). **Nemouria. Occasional Papers of the Delaware Museum of Natural History** 35: 1-59.
- SIMON, E. 1898. Descriptions d'arachnides nouveaux des familles des Agelenidae, Pisauridae, Lycosidae et Oxyopidae. **Annales de la Société Entomologique de Belgique** 42: 1-34.
- SIMON, E. 1903. **Histoire naturelle des araignées, deuxième édition.** Paris, Librairie encyclopedique de Roret, Tome 2, Fascicule 4, p. 669-1080.

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