

ARTÍCULO:

**Redescription of *Trechona venosa* (Latreille, 1832) and designation of its neotype (Araneae: Dipluridae)**

Denis Rafael Pedroso  
drpedroso@mn.ufrj.br

Renner Luiz Cerqueira Baptista  
baptistr@mn.ufrj.br

Departamento de Invertebrados,  
Laboratório de Aracnologia,  
Museu Nacional/UFRJ,  
Quinta da Boa Vista,  
São Cristóvão, 20.940-040,  
Rio de Janeiro, RJ, Brazil.

**Revista Ibérica de Aracnología**  
ISSN: 1576 - 9518.  
Dep. Legal: Z-2656-2000.  
Vol. 10, 31-XII-2004  
Sección: Artículos y Notas.  
Pp: 149-156.

Edita:  
**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

Información sobre suscripción,  
índices, resúmenes de artículos *on line*,  
normas de publicación, etc. en:

Índice, resúmenes, abstracts vols.  
publicados:  
<http://entomologia.rediris.es/sea/publicaciones/ria/index.htm>

Página web GIA:  
<http://entomologia.rediris.es/gia>

Página web SEA:  
<http://entomologia.rediris.es/sea>

ARTÍCULO:

**REDESCRIPTION OF *TRECHONA VENOSA* (LATREILLE, 1832) AND DESIGNATION OF ITS NEOTYPE (ARANEAE: DIPLURIDAE)**

Denis Rafael Pedroso &  
Renner Luiz Cerqueira Baptista

**Abstract:**

*Trechona venosa* (Latreille, 1832), the type-species of the Neotropical diplurid genus *Trechona* C. L. Koch, 1850, is herein redescribed and a neotype is also designed. The species is separated from related forms by the undivided scopula in tarsus III, the presence of a round, almost spherical, spermathecal fundus, and by the pyriform bulb. *T. venosa rufa* Vellard, 1924 is probably a separate species, occurring in São Paulo State, but further studies are needed to establish its status. The distribution of *T. venosa* is herein restricted to the Atlantic Forest of Brazil, occurring from southern Rio de Janeiro State to central-northern Espírito Santo State.

**Key words:** Araneae, Dipluridae, *Trechona*, taxonomy, Atlantic Forest, Brazil, Neotropics.

**Redescripción de *Trechona venosa* (Latreille, 1832) (Araneae: Dipluridae)**

**Resumen:**

*Trechona venosa* (Latreille, 1832), especie tipo del género de diplúridos neotropical *Trechona* C. L. Koch, 1850, se redescubre en el presente trabajo, designándose un neotipo. Esta especie puede separarse de las otras especies del género por presentar la escópula del tarso III indivisa, el fundus de la espermateca subs esférico y tener los bulbos piriformes. *T. venosa rufa* Vellard, 1924, es probablemente una especie diferente, que habita en el estado de São Paulo, aunque son necesarios estudios complementarios para corroborar dicha hipótesis. La distribución geográfica de *T. venosa* está restringida a los remanentes de Bosque Atlántico Brasileño, desde el sudeste del estado de Río de Janeiro hasta la porción septentrional-central del estado de Espírito Santo.

**Palabras clave:** Araneae, Dipluridae, *Trechona*, taxonomía, Bosque Atlántico, Brasil, Región Neotropical.

**Redescrição de *Trechona venosa* (Latreille, 1832) (Araneae: Dipluridae)**

**Resumo:**

*Trechona venosa* (Latreille, 1832) é a espécie-tipo do gênero *Trechona* C. L. Koch, 1850, um diplurídeo neotropical. Neste trabalho é redescrita e também um neotipo é designado. Esta espécie pode ser separada das outras espécies do gênero por apresentar a escópula não dividida no tarso III, a presença de uma espermateca com fundus subs esférico, e pelo formato piriforme do bulbo. *T. venosa rufa* Vellard, 1924 é provavelmente uma espécie distinta, ocorrendo no estado de São Paulo, mas estudos posteriores são necessários para estabelecer seu status. A distribuição de *T. venosa* é restrita neste trabalho à Mata Atlântica do Brasil, abrangendo do sul do estado do Rio de Janeiro ao centro-norte do estado do Espírito Santo.

**Palavras-chaves:** Araneae, Dipluridae, *Trechona*, taxonomia, Mata Atlântica, Brasil, Região Neotropical.

**Introduction**

The genus *Trechona* C. L. Koch, 1850 includes large-sized spiders, with a body size reaching up to 50 mm. The genus may be recognized by the presence of a well-developed lyra in the internal side of the pedipalp coxa. In *Trechona*, this stridulating apparatus is formed by a large number of rigid setae, sorted in two size classes: around 15-20 long, robust setae, disposed in one wide series (the middle setae are the longest and strongest ones, bearing a distinctly club-shaped apex each one), and 50 or more shorter, thinner setae, disposed in several smaller series. The shorter setae are placed posteriorly to and cover most of the extension of the series of longer setae, forming a large setal plate, of a black to reddish brown color. Most other diplurids do not have any lyra and the only other lyrate diplurids, the species of *Diplura* C. L. Koch, 1850, bear only a series of up to 10 clavate setae (Raven, 1985). In *Trechona*, the setae of the lyra are probably rubbed against the pecten, formed by 6-9 strong, erect setae placed at the outer, basal margin of the chelicera. Adult *Trechona* have a brownish to black coloration, usually presenting transversal light stripes (zebrate pattern) on the dorsum of the abdomen.

*Trechona* spiders live inside burrows they dig on ravines or under logs or stones in the forest ground. The rounded burrow entrance is camouflaged with dry leaves and sticks and usually the hole is covered by a silk veil, but no sheet-web is built (Pedroso & Baptista, pers. obs.). The females remain all their lives inside their tunnels, but the adult males roam the forest ground, looking for females. Although relatively frequent in the Atlantic Forest, they are not well represented in collections, due to their cryptic habits and the effort needed to extract them from their long, deep burrows. The preying behavior of *Trechona* differs from the behavior of the typical Dipluridae, as they do not use webs. They capture their prey (large to middle-sized invertebrates and small vertebrates), through fast, direct attacks upon approaching prey (Pedroso & Baptista, pers. obs.).

Due to the absence of a taxonomic revision, the composition of *Trechona* is not clearly understood. There are only insufficient descriptions of the six species and one subspecies currently placed in the genus, lack of detailed illustration and additional information. Besides, the current distribution of the genus seems odd, as *Trechona* species are indicated for Chile, Colombia, Guyana and Brazil. As a preliminary result of the revision of the genus we are undertaking, *Trechona* seems restricted to the Atlantic Forest of Southeastern and South Brazil, as we have not found any specimen of the genus outside this area.

The first citation of a *Trechona* specimen in literature was Latreille's description (1832, p. 61) of *Mygale venosa*, based on a female from Brazil. Walckenaer (1835, p. 642) described *Mygale zebrata*, unaware of the former description of *M. venosa* by Latreille (1832). The type locality of the female holotype of *M. zebrata* was unknown, but Walckenaer supposed it was collected in Brazil. In an addendum to the same paper (1835, p. 648), presented in a posterior session of the "Société Entomologique de France", Walckenaer synonymized his species with *M. venosa*, after examination of Latreille's work. Walckenaer (1837) erroneously changed the name of his formerly described species to *Mygale zebra* and listed it, without explanation, as a valid species, including *M. venosa* as a synonym. C. L. Koch (1842) examined the type and redescribed *M. zebra* Walckenaer, 1835 (*sic!*). In 1850, C. L. Koch proposed a subdivision of *Mygale* Latreille, 1802 in seven subgenera, including the new subgenus *Trechona*, based on *M. zebra* and five other species. Koch probably followed Walckenaer's erroneous usage of *M. zebra*, instead of *M. venosa*.

Ausserer, in his capital work on Mygalomorphae taxonomy (1871), raised *Trechona* to genus level and changed its species composition, leaving in the genus only *T. venosa* and, in a dubitative way, *Trechona lycosiformis* (C. L. Koch, 1842). So, *T. venosa* was implicitly considered as the type species of *Trechona*. He also misidentified two males from Chile as *T. venosa* and described them as the first known males of this species. In 1879, Karsch pointed out that the *Trechona* redescription by Ausserer was probably based only on the two misidentified males from Chile, and not on specimens of

*Trechona*. Some characters indicated by Ausserer (ex. the length/width ratio of the sternum and the tarsal scopula position and shape) do not agree with the characters presented by specimens Karsch examined at Berlin Museum. Those specimens, three dried females of *Trechona venosa* from Brazil, were probably the same ones used by Koch in its redescription of the species.

Pocock (1896) published a small paper on the presence of Wood Mason's organ (stridulating lyra and pecten) in *Trechona venosa*. He drew attention to the first description of a lyra for this species made by Blackwall (1867), who erroneously considered that the lyra aided in mastication. In the same paper, Pocock also considered as the probable holotype of *Mygale zebra* a dried, pinned female, labeled by Walckenaer, then present at the British Museum. F. Pickard-Cambridge, also in 1896, recognized the value of the lyra as a taxonomic character in Dipluridae and gave a fair description of its shape and position in *T. venosa*. In the same year (1896), Simon identified some young specimens from Chile as *T. venosa*, probably misguided by Ausserer's misidentification of the species.

In his list of genera of spiders and their type-species (1902), F. Pickard-Cambridge erroneously considered that *Mygale zebra* (= *M. venosa*) should not be considered as the type species of *Trechona*, as it was indicated as the type species of *Onysopelma* Simon, 1864 (and of *Pezionyx* Simon, 1864, a superfluous name proposed for its replacement). He then proposed *Mygale lycosiformis* as the type species of *Trechona*. However, the genus *Onysopelma* had been already synonymized with *Trechona* by Ausserer (1871). The indication of *T. venosa* as the type species of *Trechona* had also been made implicitly by Ausserer in the same paper and explicitly by Simon (1902).

Mello-Leitão (1923) redescribed the female of *T. venosa* and indicated that its distribution extended from the Guyanas to South Brazil. However, he made reference only to two specimens in his paper: the female used for the redescription, from Petrópolis, Rio de Janeiro state, and a second female from São Paulo, São Paulo state. In 1924, Vellard also made a redescription of the female of *T. venosa*, based on several females from Rio de Janeiro and Niterói, Rio de Janeiro state. He also described a male he attributed to *T. venosa*, based on a specimen from Fortaleza de Minas, Minas Gerais state. In the same paper, he described a new subspecies, *T. venosa rufa*, based on a female from Cubatão, São Paulo state, and on two females from unknown localities at the same state.

Mello-Leitão & Arlé (1934) described the ontogeny of the lyra in the three first instars of *T. venosa*. They pointed out that there were no rigid, clavate setae at the inner side of the pedipalp coxa in spiders of the first instar and that the number of rigid setae increased from 5-10 setae at the second instar to 15 or more setae at the third instar.

In his work on Mygalomorphae phylogeny, Raven (1985) made a short discussion on *Trechona*. He considered the Chilean specimens attributed to *T. venosa* as probably belonging to *Acanthogonatus subcalpeianus*

(Nicolet, 1849), a genus of Nemesiidae. After Goloboff (1995), Raven misidentified this species which is *A. campanae* (Legendre & Calderón, 1984), a species with light abdominal chevrons similar to *Trechona*.

Vellard & Vital Brazil (1925) and Vellard (1936) studied the poison of *T. venosa*, showing the strong toxic activity of the poison components in laboratory experiments. However, only a few *Trechona* bites have been registered in humans, causing only local pain (Lucas *et al.*, 1994). Additional information and color pictures of *Trechona* are available on our website: <http://acd.ufrj.br/mndi/Aracnologia/Trechona.htm>.

## Material and methods

The specimens examined belong to the following institutions (with indication of their respective abbreviations and curators): IBUT - Instituto Butantan, São Paulo, Brazil, Rogério Bertani; MNRJ - Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, Adriano Kury. The types and additional material of *Trechona venosa* and allied taxa should be deposited at the following institutions: BMNH – The British Museum of Natural History, London, Great Britain, Janet Beccaloni & Paul Hillyard; FIOCRUZ – Fundação Oswaldo Cruz, Rio de Janeiro, Brazil, Sebastião de Oliveira; MNHN – Museum National d’Histoire Naturelle, Paris, France, Christine Rollard; NMHB – Naturhistorisches Museum, Humboldt Universität, Berlin, Germany, Jason Dunlop.

The description format follows the current taxonomical standards, exemplified by Coyle, 1995 and Goloboff, 1995. The color pattern was based in specimens kept in ethanol 75 %, supplemented by information based on living specimens. As some structures on the female genitalia are not named in the taxonomic literature on *Trechona*, the following new name is proposed here: spermathecal anterior branch, referring to a lobe arising at the anterior side and before the apex of the spermatheca.

The measurements and illustrations were made with the use of a stereoscopic microscope Wild Heerbrugg M8, a camera lucida and a micrometric eye-piece. The drawings were then digitalized and adjusted in Adobe Photoshop 7.0. The geographical coordinates were obtained from the 1998 version of the Instituto Brasileiro de Geografia e Estatística (IBGE) database on Brazilian municipalities and districts, available on the Internet site of that institution. The measurements are given in millimeters. The cephalothorax length was measured from the posterior border of the cephalothorax to the anterior margin of the chelicerae. The total length was measured from the posterior border of the anal tubercle to the anterior margin of the chelicerae. Each article of the pedipalp and the first leg was measured in retrolateral view, from the proximal condylus to the distal one. The number of specimens measured is given between parentheses, (n = x), followed by the average measurement and by the range of variation between parentheses, x (y-z)'.

The vulva was clarified with a proteolytical enzyme solution (Prolase 300) during 24 hours. After

clarification, a temporary mounting of the vulva was made, using glycerol gel and an excavated slide glass.

## *Trechona venosa* (Latreille, 1832)

Figs. 1-8.

*Mygale venosa* Latreille, 1832: 80.

*M. zebrata* Walckenaer, 1835: 637, pl. 19; 649 (= *M. venosa*).

*Mygale zebra*: Walckenaer, 1837: 221 (superfluous amendment); C. L. Koch, 1842: 60, fig. 729; Blackwall, 1867: 258.

*Mygale (Trechona) zebra*: C. L. Koch, 1850: 75.

*T. zebrata*: Pocock, 1896: 177.

*T. v.*: Ausserer, 1871: 197 (Male description, misidentification); Karsch, 1879: 543; Simon, 1892: 179; Pickard-Cambridge, 1896: 754; Mello-Leitão, 1923a: 91, fig. 17-18; Vellard, 1924: 155, pl. 12, fig. 44 (Male description, misidentification).

*T. v. rufa* Vellard, 1924: 157.

**TYPES:** *Mygale venosa* Latreille, 1832: female holotype from **BRAZIL**, without a specific locality, Gory, H. L. *leg.* (MNHN, lost); female neotype from **Rio de Janeiro**: Rio de Janeiro, Floresta da Tijuca. 3.III.2001. Giupponi, A. P. L., Pedroso, D. R. & Almeida, D. F. col. (Female neotype (herein designated, MNRJ 14190). *Mygale zebrata* Walckenaer, 1835: female holotype from **BRAZIL**?, without a specific locality, Lefèbvre, A. *leg.* (BMHN, lost). *Trechona venosa rufa* Vellard, 1924: male holotype from **BRAZIL: São Paulo**: Cubatão, M. Lutz col (FIOCRUZ, lost).

**DIAGNOSIS:** *T. venosa* is the largest species of the genus (females with body up to 50 mm long). It differs from *T. uniformis* Mello-Leitão, 1935 by its short spermatheca and bulb, in contrast to the very elongated structures of the latter species. Also, *T. venosa venosa* do not bear a row of black setae in the middle of the ventral tarsal scopula of the third leg of the females, present in other *Trechona* species. *T. venosa venosa*, from Rio de Janeiro and Espírito Santo states, has an almost spherical fundus (or spermathecal head) and a piriform bulb bearing a relatively long embolus, in contrast to *Trechona venosa rufa*, from São Paulo state, which has a lobate fundus and a bulb with an inner hump in frontal view. Typical *T. venosa* also presents a darker coloration than *T. venosa rufa*.

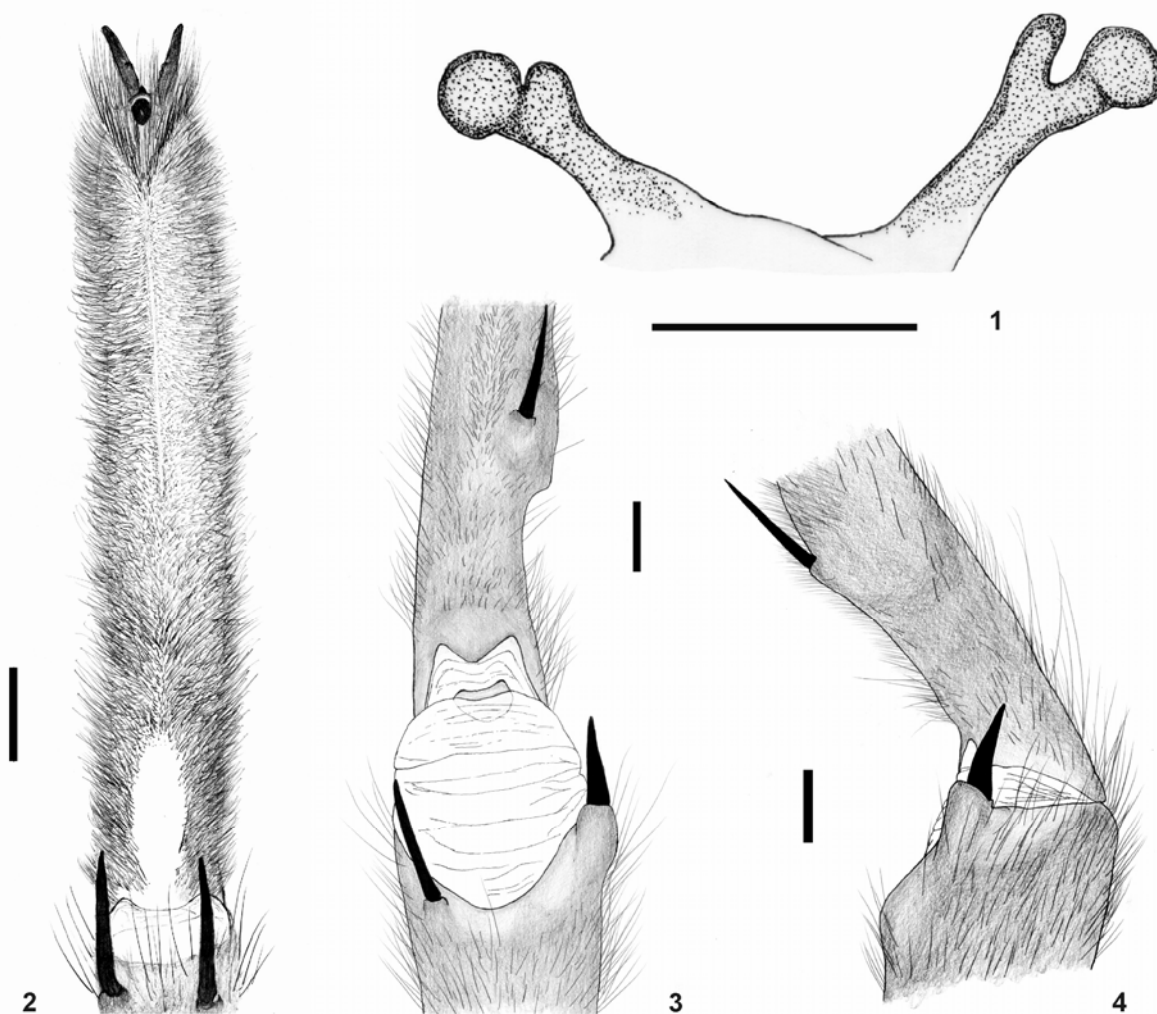
**DESCRIPTION:** Body total length (including chelicera, but not the spinnerets): Females (n = 5): 48,9 mm (46,3 mm - 53,7 mm). Males (n = 2): 38,2 mm (37,0 mm-39,4 mm).

**FEMALE: Carapace:** Color dark brown to almost black, with a covering of dark gray simple hairs and some black setose hairs spread all over it. At the middle portion of the anterior border of the clypeus there are twelve setae, turned backwards. Anterior portion of the eye tubercle with some isolated straight setae. **Chelicera** black or dark brown and blackish at the distal portion, covered by abundant pale gray hairs. Some straight black setae found in its median dorsal portion. Internal margin of the cheliceral furrow with a row of 14 to 16 teeth. Claw without teeth. **Sternum** brown or blackish dark brown, with gray hairs and several straight black

setae all over the surface. **Labium** reddish brown or blackish dark brown, lighter colored anteriorly. Some scattered black setae present, thinner than in sternum, and no simple hairs. **Pedipalp:** Color same as cephalothorax, with two glabrous dorsal longitudinal stripes. **Coxa** without spines or simple hairs, but with straight black setae at the ventral side. The size of the setae becomes smaller toward the maxillar scopula, which is composed by abundant long reddish setae. Anterior portion near the labium with 50-60 cuspules. Dorsal face with setae at the distal portion. Stridulating lyra with 15-17 large, clavate setae placed in a single transverse row at the basal portion of the inner side of the pedipalp maxilla. The setae decrease in size and lose gradually the club-shaped apex in direction to the extremities of the row. Many (50 or more) smaller clavate and straight setae placed in several rows near the posterior side of the row of large setae and covering around two thirds of its length. All the rigid setae are dark brown to black in color. **Trochanter** without spines, with a glabrous basal portion and some scattered dorsal black setae at the distal portion. **Femur** without spines or with one to three diminute pro lateral spines, one to three unpaired dorsal spines and a small, thin retrolateral spine. **Patella** with one or two unpaired spines between the dorsum and the retrolateral side. **Tibia** with eight or nine spines at the ventral side, forming a distal pair, one median pair and two or three unpaired basal spines. Two or three pro lateral and one to three retrolateral unpaired spines. **Tarsus** scopulate, with a pair of spines. Dorsally with a covering of abundant hairs and some scattered straight black setae. **Abdomen:** Color blackish dark brown, with six beige "V" shaped transversal stripes (chevrons) over the dorsum and sides. In some specimens, there are two or three additional short beige stripes at the ventral portion of the lateral faces of the abdomen, placed between the longer stripes. Spinnerets with the three articles roughly of similar size, the middle one just a bit smaller than the others. **Legs:** All the legs colored as the cephalothorax, with some glabrous longitudinal stripes, abundant simple hairs and several scattered straight black setae. Tarsi cracked, with a dorsal row formed by many trichobothria. Tarsus and metatarsus of legs I-II and only the tarsus of legs III-IV with well-marked ventral scopula. Tarsi I-III with scopula parted in two halves only by a distal median glabrous line, without black setae. **Leg I:** Coxa without spines. Dorsal side with setae at the distal margin. Trochanter without spines. Basal portion without hairs and setae, and distal portion with setae at the dorsal side. Femur with one to three thin dorsal spines and sometimes a pro lateral spine at the posterior portion of the femur. Patella with one pro lateral spine. Glabrous stripes wider than those from femur and tibia. Tibia at the ventral side with one or two unpaired spines at the basal half and one distal pair of spines. At the pro lateral side there are one or two unpaired spines. Metatarsus at the ventral side with three unpaired spines at the basal half and one distal pair of spines. Tarsus without spines. **Leg II:** Coxa, trochanter and tarsus as in leg I. Femur with one to three thin dorsal spines and one or two pro lateral spines. Patella with

one pro lateral spine at the distal portion. Tibia with one pair of dorsal spines at the distal margin, two or three unpaired dorsal spines at the basal half and two unpaired pro lateral spines. Metatarsus with one pair of dorsal spines at the distal margin, three or four unpaired dorsal spines at the basal half and one or two unpaired pro lateral spines at the basal half. **Leg III:** Coxa, patella, trochanter and tarsus as in leg I. Femur with five to nine dorsolateral spines. Tibia with three pairs of ventral spines placed at basal, middle and distal portion, respectively, one or two pro lateral spines and two to four retrolateral spines. Metatarsus with 15 to 19 spines, including a dorsal pair and three unpaired ventral spines at the distal portion. Scopula thin, not well-marked. **Leg IV:** Coxa, trochanter and tarsus as in leg I. Femur with three to five dorsolateral spines. Patella without spines or with one retrolateral spine at the basal half. Tibia with nine to 12 spines. Metatarsus with 16 to 20 spines. Scopula almost indistinct at the ventral side. Tarsus with a ventral row of black setae, parting the scopula in half.

**MALE:** similar to female, except as follow: **Chelicera** relatively smaller and shorter. **Pedipalp:** Femur with six to seven dorsolateral spines. Ventral side with a knob covered by several straight black setae. **Patella** without spines or with a basal pro lateral spine. **Tibia** with six to 10 spines irregularly placed. **Tarsus** short and cylindrical, with a distal cleft after the bulb insertion. See the male genitalia section for the description of the copulatory bulb. **Abdomen:** Straight black setae scattered all over the dorsum. Only four beige transversal chevron stripes at the dorsum, sometimes not well marked. Spinnerets longer than in females, with all the segments of equal size. **Legs:** All tarsi long, cracked, with well-marked scopula. **Leg I:** Femur with eight to 13 dorsolateral spines. Patella with one or two spines, the first one at the distal region and the second, when present, at the basal region. Tibia (Figs. 3-4) with nine to 11 dorsolateral spines. Distal margin with a pro lateral spine and a large retrolateral apophysis bearing a bulky, short spine. Metatarsus elongated, with four to seven spines. Retrolateral side of the basal portion bearing a deep, sinuous concavity, followed by a knob bearing a large spine. **Leg II:** Femur with 11 to 13 dorsal spines. Patella with one or two spines. Tibia with eight to 13 distal spines, including three unpaired spines near distal margin. Metatarsus elongated, with eight to 11 spines, including a ventral pair near distal margin. **Leg III:** Femur with 11 to 12 dorsolateral spines. Patella as in leg II. Tibia with 12 to 13 dorsolateral spines, including two or three ventral spines near the distal margin. Metatarsus elongated, with an almost indistinct scopula. 17 to 21 spines dorsolateral spines, including five spines near the distal margin. **Leg IV:** Femur with 14 to 18 dorsal spines, irregularly placed. Patella without or with one retrolateral spine. Tibia with 13 to 16 dorsolateral spines irregularly placed, including three spines near the distal margin. Metatarsus elongated, with an almost indistinct scopula. 19 to 22 spines, irregularly placed. **Genitalia: Female** (Fig. 1): Vulva composed by two spermathecae connected to a common membranous



**Fig. 1-4.** *Trechona venosa* (Latreille). **1.** Female (MNRJ 4173, Barra de São João, Casimiro de Abreu, Rio de Janeiro State, Brazil): spermathecae, dorsal view. **2-3.** Female (MNRJ 3458, Cachoeiras de Macacu, Rio de Janeiro State, Brazil). **2.** tarsus III, ventral view. **3.** joint tibia-metatarsus I, ventral view. **4.** Male (MNRJ 3458, Cachoeiras de Macacu, Rio de Janeiro State, Brazil): joint tibia-metatarsus I, retrolateral view.

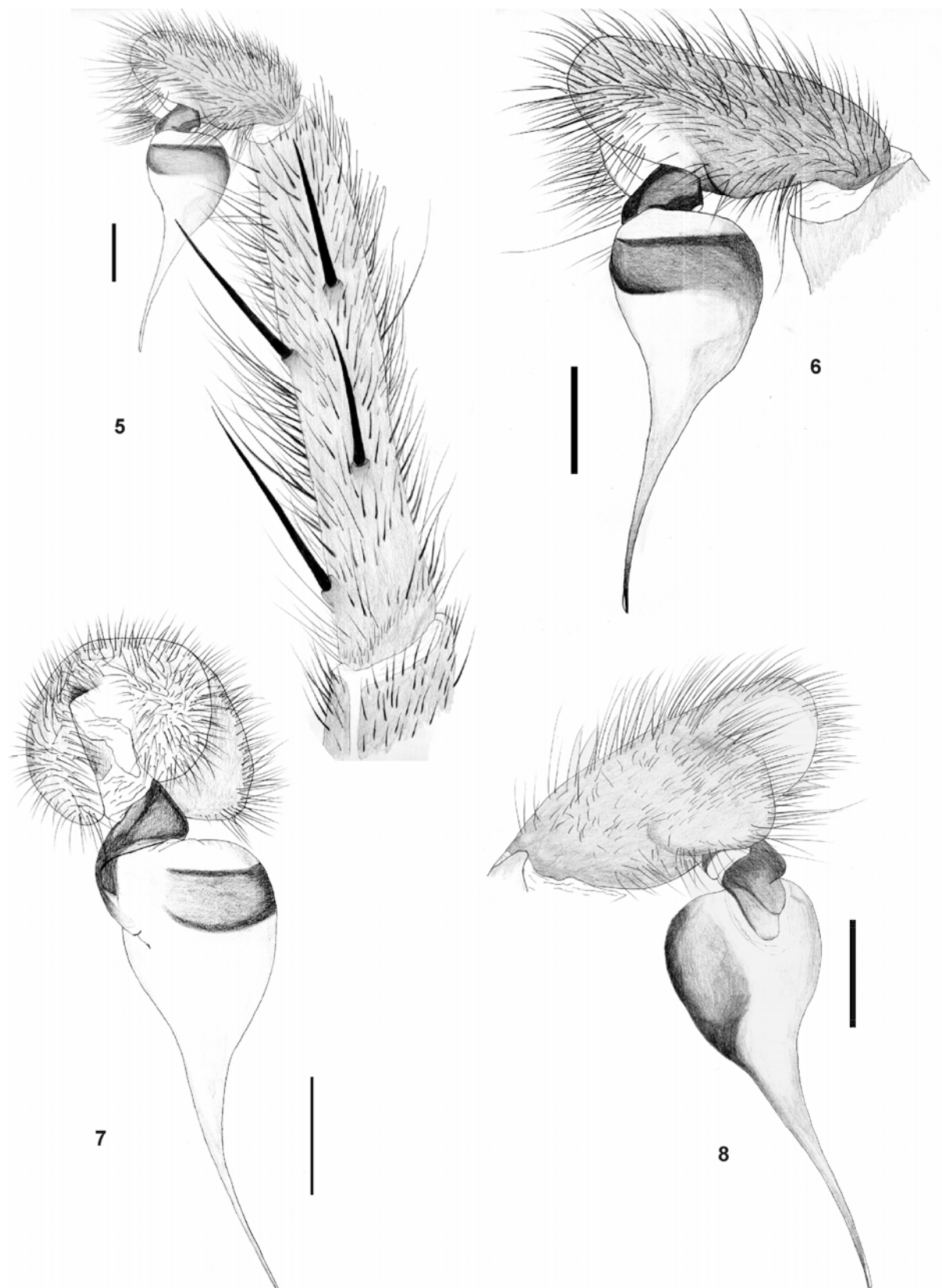
atrium. Spermathecae with a roundish, slightly flattened fundus at the distal end and a subdistal anterior branch of variable size, from almost the same length as the branch leading to the fundus to much smaller than it. **Male** (Figs. 5-8): Bulb almost piriform, with an “S”-shaped regular curve at its internal side, tapering regularly to a long, thin embolus, which bears a small whitish membranous area at its tip.

**DISTRIBUTION:** Atlantic Forest at southeastern Brazil, from south Rio de Janeiro state to central-north Espírito Santo state. No specimens were found proceeding from other parts of the distribution formerly attributed to this species, namely, Minas Gerais state, Amazonian region and Guyanas.

**COMMENTS:** The old dried, pinned holotype of *M. venosa* is probably lost, as it was not found by the second author during his trip to the Paris Museum (July 1999) and is still not located (C. Rollard, pers. comm.). The type of *Trechona venosa rufa* was destroyed, as all the arachnological collection of the FIOCRUZ has been lost and/or deteriorated some decades ago (S. Oliveira,

pers. comm.). The male described by Vellard (1924), from Fortaleza de Minas, Minas Gerais state (FIOCRUZ, lost), does not seem to belong to *T. venosa*. This specimen was also lost and there is no other available *Trechona* specimen from the same region in the examined collections. Vellard’s illustrations show a longer embolus and a thinner bulb than those present in males of *T. venosa*. The status of the subspecies *Trechona venosa rufa* is questionable, as it probably represents a valid species, but there are not enough data yet to clearly separate it from *T. venosa venosa*. More specimens from southern Rio de Janeiro and northern São Paulo state are needed, as these regions seem to represent the geographical boundary between both taxa.

As the female holotype of *T. venosa* from Brazil was lost, a female neotype from Rio de Janeiro city is herein designated. Although no data is available on the precise collection locality of the holotype, the choice of a neotype from Rio de Janeiro city is based in a series of historical considerations. Rio was the most probable source for the lost holotype, as the majority of collections at the beginning of the 19<sup>th</sup> century were made at



**Fig. 5-8.** *Trechona venosa* (Latreille). Male (MNRJ 3458, Cachoeiras de Macacu, Rio de Janeiro State, Brazil). **5.** terminal articles of pedipalp, retrolateral view. **6.** bulb, retrolateral view. **7.** bulb, frontal view. **8.** bulb, prolateral view.



the then capital of Brazil and it was the most important brazilian harbor then open for foreign ships. Besides, Mello-Leitão (1923) and Vellard (1924) also based their redescriptions of *T. venosa* on females collected at that city or nearby places.

**MATERIAL EXAMINED: BRAZIL: Rio de Janeiro:** Without additional data (1 juvenile, MNRJ 13606); Rio de Janeiro. (1 Female, MNRJ 14004); Cachoeiras de Macacu, Reserva Ecológica de Guapiaçu. 11.III.2001. Baptista, R. L. C., Giupponi, A. P. L., Pedroso, D. & Pires, A. col. (3 Females, MNRJ 03086); Cachoeiras de Macacu, Reserva Ecológica de Guapiaçu. 8-12.XI.2001. Pedroso, D. R., Giupponi, Alessandro P. L., Frota, D. & Pérez G., A. col. (1 Male, 1 Female, MNRJ 03458); Casimiro de Abreu, Barra de São João, Morro de São João. 21-24.III.2003. Expedição Arachne. (3 Females, 1 juvenile, MNRJ 04173); Petrópolis, Fazenda Ranchinho, Porto da Roça. 8-5.II.2000. Cunha, F. et al. Col. (1 juvenile, IBSP 8683); Rio de Janeiro, Horto Florestal. 8.VI.1997. Giupponi, A. P. L. col. (1 juvenile, MNRJ 01857); Rio de Janeiro, Jardim Botânico. XI.1983. Grupo União col. (1 Female, 1 juvenile, MNRJ 04172); Rio de Janeiro, Serra da Carioca, Paineiras. V.1993. Wienskosi, E. H. col. (1 Male, MNRJ 4179); **Espírito Santo:** Santa Teresa, Estação Biológica de Santa Lúcia. 14-18.X.2003. Baptista, R. L. C., Pedroso, D. R., Giupponi, A. P. L., Almeida, D. F. & Mendes, A. C. col. (5 Females, MNRJ 03997); Santa Teresa, Estação Biológica de Santa Lúcia. 13-16.I.2004. Baptista, R. L. C., Pedroso,

D. R., Almeida, D. F., Mendes, A. C. & Pérez, A. col. (1 Female, MNRJ 04177).

**LITERATURE RECORDS (Not Checked): BRAZIL:** Without additional data (3 Females, Koch, C. L., 1850 det., Karsch, 1879 det., NMHB, dried, pinned); Amazonian region (Mello-Leitão, 1923 det., repository collection?, lost?) **Minas Gerais:** Fortaleza de Minas (1 Male, Vellard, 1924 det., FIOCRUZ, lost); **Rio de Janeiro:** Niterói (several F, Vellard, 1924 det., FIOCRUZ, lost); Niterói (Female, several juvenile, Mello-Leitão & Arlé, 1935 det., MNRJ, lost); Petrópolis, Sodré, A. col. (1 Female, Mello-Leitão, 1923 det., MNRJ, lost); Rio de Janeiro (several Female, Vellard, 1924 det., FIOCRUZ, lost); **São Paulo:** Without additional data (2 Females, Vellard, 1924 det., FIOCRUZ, lost); São Paulo (1 Female, Mello-Leitão, 1923 det., Mello-Leitão Private Collection, lost); **GUYANAS:** Without additional data (Mello-Leitão, 1923 det., repository collection?, lost?).

#### Acknowledgements

Thanks to Abel Pérez González and Adriano Brillhante Kury for the comments on the manuscript and help with illustrations and plates. To Fernando Pérez-Miles for useful comments via the editor. To all curators who loaned material and provided information on *Trechona* specimens. To the Fundação José Bonifácio (FUJB) for the climatization of the Laboratório de Aracnologia of the Museu Nacional, Rio de Janeiro.

#### Literature Cited

- AUSSERER, A. 1871. Beiträge zur Kenntniss der Arachniden-Familie der Territelariae Thorell. *Verhandlungen des zoologischen-botanischen Gesellschaft im Wien*, **21**: 117-224.
- 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 gesammelten Arachniden. *Mémoires Courantes de l'Académie de Belgique*, **43**: 1-120.
- BLACKWALL, J. 1867. Remarks on the falces and maxillae of spiders. *Annals and Magazine of Natural History*, (3) **19**: 258-259.
- CODDINGTON, J. A. & H. W. LEVI 1991. Systematics and evolution of spiders (Araneae). *Annual Review of Ecology and Systematics*, **22**: 565-592.
- COYLE, F. A. 1995. A revision of the funnel-web mygalomorph spider Subfamily Ischnothelinae (Araneae, Dipluridae). *Bulletin of the American Museum of Natural History*, **226**(1): 1-133.
- GOLOBOFF, P. A. 1995. A revision of the South American spiders of the family Nemesiidae (Araneae, Mygalomorphae). Part I: species from Peru, Chile, Argentina and Uruguay. *Bulletin of the American Museum of Natural History*, **224**(1): 1-189.
- KARSCH, F. 1879. Arachnologische Beiträge. *Zeitschrift für gesammelte Naturwissenschaften*, **52**: 534-562.
- KOCH, C. L. 1842. *Die Arachniden*. 9 Band [Folge]. Nürnberg, pp. 57-108.
- KOCH, C. L. 1850. *Übersicht des Arachnidensystems*. 5 Band. J. L. Lotzbeck (ed.), Nürnberg, pp. 1-77.
- LATREILLE, P. A. 1832. Vues générales sur les araneides à 4 pneumobranches ou quadripulmonaires, suivies d'une notice de quelques especes de mygales inedites et de l'habitation de celle que l'on nomme *nidulans*. *Nouvelles Annales du Museum d'Histoire Naturelle de Paris*, **1**: 61-76.
- LUCAS, S. M., P. I. DA SILVA JR., R. BERTANI & J. L. COSTA CARDOSO 1994. Mygalomorph spider bites: a report on cases in state of São Paulo, Brazil. *Toxicon*, **32**(10): 1211-1215.
- MELLO-LEITÃO, C. F. DE 1923. Theraphosoídeas do Brasil. *Revista do Museu Paulista*, **13**: 1-438.
- MELLO-LEITÃO, C. F. DE & R. ARLÉ 1934. De l'importance des exuvies dans l'étude de la biologie et de la systematique des araignées (note préliminaire). *Annaes da Academia Brasileira de Ciências*, **6**(3): 125-28.
- PICKARD-CAMBRIDGE, F. O. 1896. On the Theraphosidae of the lower Amazons: being an account of the new genera and species of this group of spiders discovered during the expedition of the steamship "Faraday" up the river Amazons. *Proceedings of the zoological Society of London*, **1896**: 716-766.
- PICKARD-CAMBRIDGE, F. O. 1902. A revision of the genera of Araneae or spiders with reference to their type species. *Annals and Magazine of natural History*, (7)**9**: 5-20.
- PLATNICK, N. I. 2004. *The World Spider Catalog*, version 4.5. Online publication available at the website of the

- American Museum of Natural History: <http://research.amnh.org/entomology/spiders/catalog/index.html>. Last consulted in May 22, 2004.
- POCOCK, R. I. 1896. On the presence of Wood Mason's stridulating organ in *Trechona zebrata*. *Annals and Magazine of Natural History*, (6)**17**: 177-179.
- RAVEN, R. J. 1985. The spider infraorder Mygalomorphae (Araneae): Cladistics and systematics. *Bulletin of the American Museum of Natural History*, **182**: 1-180.
- SIMON, E. 1896. Étude sur les arachnides du Chili. Premier mémoire. *Actes de la Société Scientifique du Chili*, **1896**: 63-70.
- SIMON, E. 1892. *Histoire Naturelle des Araignées*. Paris, vol 1, pp. 1-256.
- VELLARD, J. 1924. Études de zoologie, 1ère série - Note I., II., III. *Archivos do Instituto Vital Brazil*, **2**: 121-70.
- VELLARD, J., 1936. *Le Venim des Araignées*. Paris, 1936, pp.1-312.
- VITAL BRAZIL, M. DA C. & J. VELLARD 1925. Contribuição ao estudo do veneno das aranhas. *Memórias do Instituto Butantan*, **2**(5): 1-77.
- WALCKENAER, C. A. 1835. Mémoire sur une nouvelle espèce de Mygale, sur les théraphoses et les divers genres dont se compose cette tribu d'Aranéides. *Annales de la Société Entomologique de France*, **4**: 637-651.
- WALCKENAER, C. A. 1837. *Histoire Naturelle des Insectes. Aptères*. Volume I. Librairie Encyclopédique de Roret. Paris, vol. 1, pp. 1-682.