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A NEW SPECIES OF *CHARINUS* SIMON, 1892 FROM NORTHEASTERN BRAZIL
(ARACHNIDA, AMBLYPYGI, CHARINIDAE) ⁽¹⁾

(With 10 figures)

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The genus *Charinus* currently includes nine described Neotropical species, of which five are from Brazil (WEYGOLDT, 1972a, 1972b, 1998; QUINTERO, 1983). They are typically rare arachnids, known only from a few specimens, although recently larger series have been reported (PINTO-DA-ROCHA, MACHADO & WEYGOLDT, 2002). A survey in a cave in the State of Bahia yielded two females that are considered to belong to a new species herein described. This is the first described species of *Charinus* of Brazil that does not occur near the coast.

In all Amblypygi the tibia IV is divided by adesmatic joints. The tibia of leg IV in the genus *Charinus* is divided in four of those joints. There is a segment between tibia and tarsus which is considered by SHULTZ (1989) to belong to the tibia proper, and which is called by most authors "basitarsus" (e.g. HAMMEN, 1986). Herein this segment is called distitibia.

Genus *Charinus* Simon, 1892

Brazilian species – *Charinus mysticus* new species, *Charinus schirchii* (Mello-Leitão, 1931), *Charinus brasilianus* Weygoldt, 1972, *Charinus montanus* Weygoldt, 1972, *Charinus asturius* Pinto-da-Rocha, Machado & Weygoldt, 2002 and *Charinus acaraje* Pinto-da-Rocha, Machado & Weygoldt, 2002.

Other neotropical species – *Charinus guianensis* (Caporiacco, 1947), *Charinus insularis* Banks, 1902, *Charinus koepcke* Weygoldt, 1972, *Charinus muchmorei*, Armas, 1997.

Charinus mysticus new species (Figs.1-10)

Type material – BRAZIL, BAHIA, Caverna Encantados, Gentil do Ouro, 16km from

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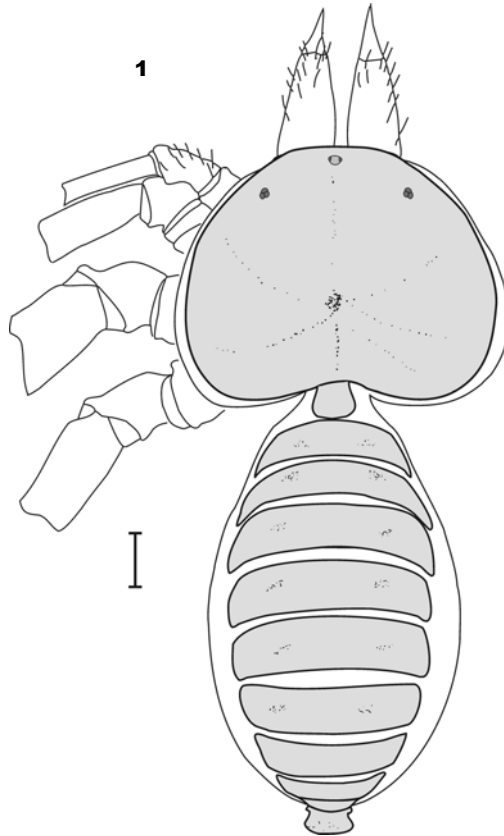
Santo Inácio, road to Gameleira. Cave with stream, about 8m from entrance: ♀ holotype (MNRJ 9074), 1♀ paratype (MNRJ 9022).

Etymology – Species name is a Latin translation of the place name Encantado, which means “charmed”.

Diagnosis – Body length 13mm. Sternal plates narrow, convex and rounded. Pedipalpal femur with 6 spines. Basitibia + distitibia of leg IV with 19 trichobothria (1 + 18). Pedipalpal distitarsus dorsal with three spines (I<II<III). Frontal process large and triangular as in *C. asturius*. Median eye tubercle low as in *C. acaraje*.

Description of female holotype:

Carapace 7.0mm wide, 5.5mm long, finely granular (Figs.1-2). Abdomen 7.5mm long. Color (in alcohol). Chelicerae, pedipalps and carapace reddish brown. Legs lighter. Abdomen yellowish brown.

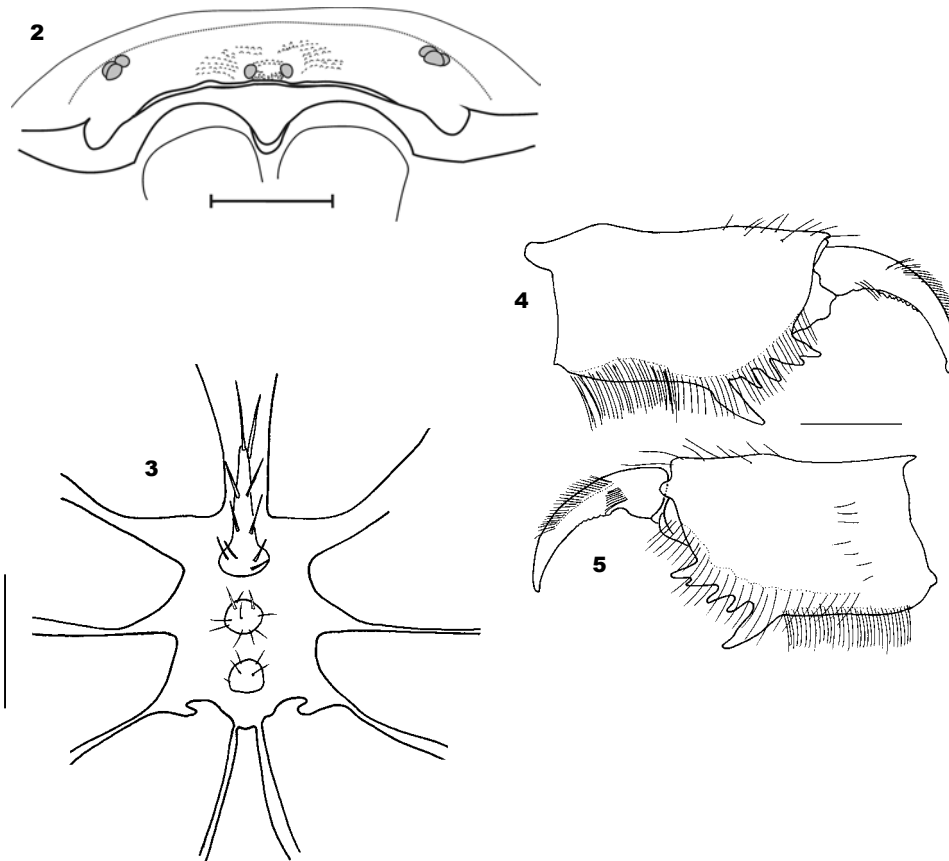


Charinus mysticus sp.nov., ♀ holotype: fig.1- Habitus, dorsal view. Scale bar = 1mm.

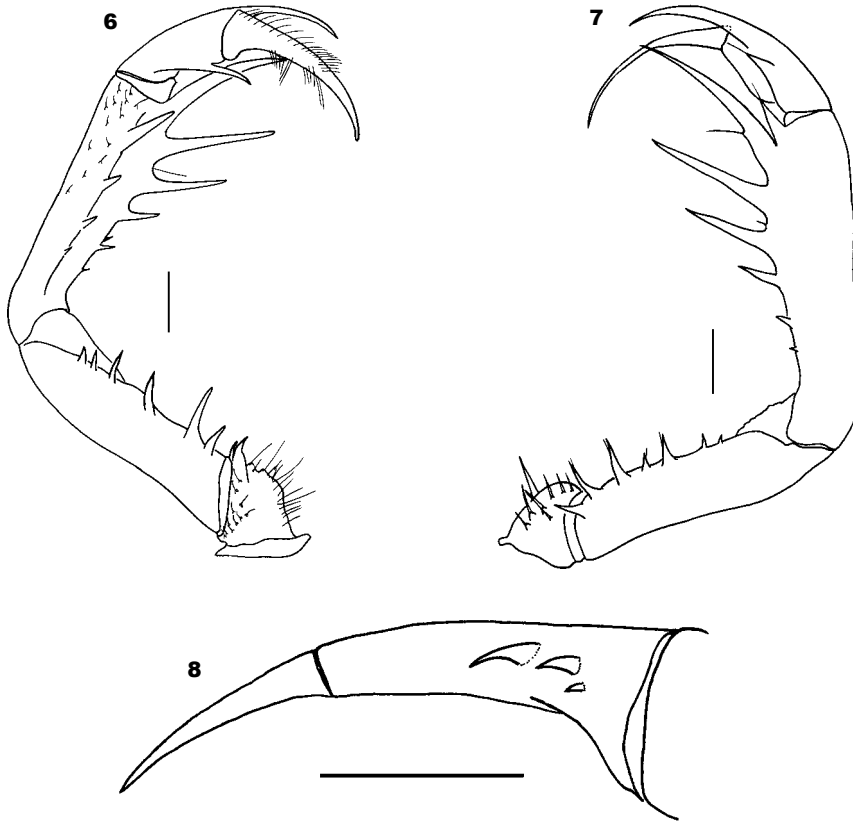
Sternum (Fig.3) tri-segmented. Anterior sclerite as a spiniform apophysis pointed frontwards, second sclerite rounded and concave, separated from the others by a space equal to its whole length. Posterior sclerite rounded and concave, a little smaller than the second.

Cheliceral hand (Figs.4-5) with 4 teeth, the most distal bifid. Relative sizes: (I>IVa>IVb=III>II).

Right pedipalpus (Figs.6-7). Dorsal view: Femur with 6 spines (I=II>IV>V>III=VI). Tibia with 7 spines (VI>V>IV>III>VII>II>I). Basitarsus with 2 spines (II>I). Trochanter unarmed. Ventral view: Femur with 6 spines (II>III=IV>=I>V=VI). Tibia with 4 spines (IV>III>II>I). Basitarsus with 1 spine. Trochanter with large distal spiniform apophysis pointed frontwards and two subequal spines. Distitarsus with 3 unequal teeth (Fig.8).



Charinus mysticus sp.nov., ♀ holotype: fig.2- anterior margin of carapace, frontal view, showing strong frontal process and with low eye tubercle; fig.3- sternum, ventral view; fig.4- right chelicera, outer view; fig.5- right chelicera, inner view. Scale bar = 1mm.



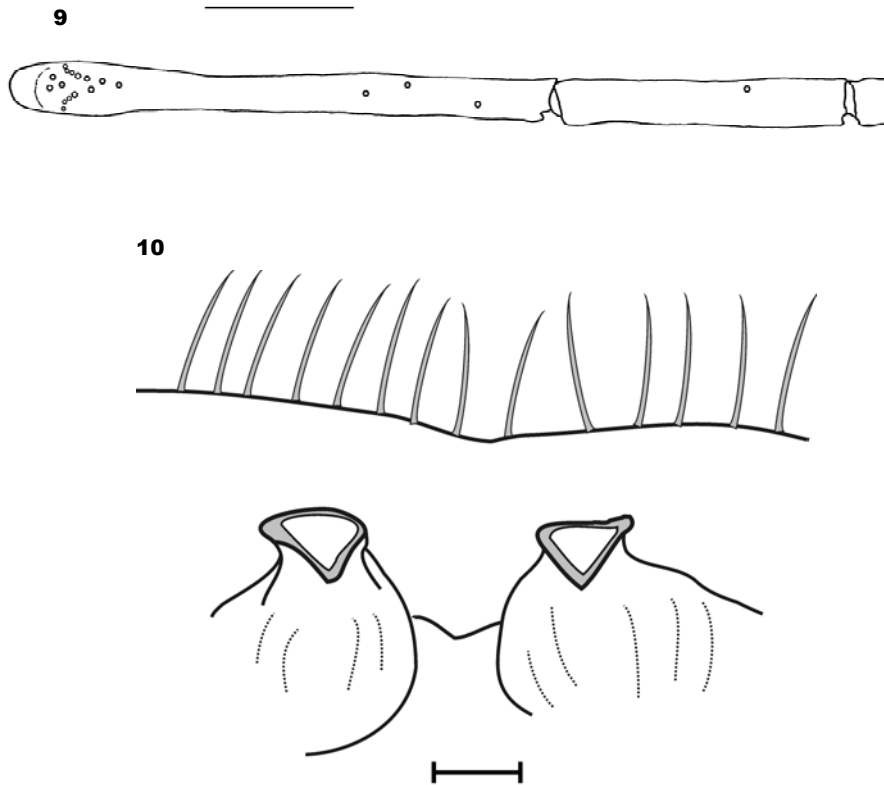
Charinus mysticus sp.nov., ♀ holotype: fig.6- right pedipalpus, ventral view; fig.7- right pedipalpus, dorsal view; fig.8- right pedipalp, distitarsus and claw, lateral view. Scale bar = 1mm.

Left pedipalpus. Dorsal view: Femur with 6 spines (I=II>IV>V>III=VI=VII). Tibia with 7 spines (VI>V>IV>III=VII>II>I). Basitarsus with 2 spines (II>I). Trochanter unarmed. Ventral view: Femur with 6 spines (II>III=IV>=I>V>VI). Tibia with 4 spines (IV>III>II>I). Basitarsus with 1 spine. Trochanter with large distal spiniform apophysis pointed frontwards and two subequal spines.

Measurements of pedipalpus. Trochanter 1.7mm, Femur 7.0mm, Tibia 5.5mm, Tarsus 1.7mm, Tarsal claw 1.7mm.

Basitibia of leg IV with four segments, the last with one trichobothrium. Distitibia with 18 trichobothria (Fig.9). Tarsus pentamerous. Pedipalpal distitibia with two small spines.

Genitalia – Female gonopods (Fig.10) as long as wide, rounded, with short bottleneck and rounded sclerotized collar with V-shaped cleft. Opening shifted towards center.



Charinus mysticus sp.nov., ♀ holotype: fig.9- Leg IV, distitibia and fourth segment of tibia, dorsal view showing trichobothria (scale bar = 1mm); fig.10- Gonopods, dorsal view (scale bar = 0.1mm).

Key to identification and distribution of the Brazilian species of *Charinus*

1. Second and third sternal sclerites flattened and twice wide as long (Espírito Santo, Serra) *C. montanus*
 Second and third sternal sclerites convex and more or less rounded 2
2. Distitibia of leg IV with 16 trichobothria (Espírito Santo, São Domingos) *C. brasilianus*
 Distitibia of leg IV with 18 trichobothria 3
3. Frontal process of carapace weak (Bahia, Pedra do Sino Cave, Santa Luzia) ... *C. acaraje*
 Frontal process of carapace strong, large and triangular 4
4. Median eye tubercle high (São Paulo, Ilha Bela) *C. asturius*
 Median eye tubercle low (Bahia, Encantados Cave, Gentil do Ouro) *C. mysticus* sp.nov.

Remarks – *C. schirchii* from Rio de Janeiro state is very poorly known and has not been included in the key. The original description (MELLO-LEITÃO, 1931) is vague and fits in any charinid. The female holotype was once deposited in the Museu Nacional-Rio de Janeiro, but was borrowed by Dr D.Quintero some twenty years ago and never returned. For the moment it is unavailable for study. It can be distinguished from the new species by its smaller size, comparable to both species described by Weygoldt. This species is the type of the monotypic genus *Enantiosarax* Mello-Leitão, 1931. QUINTERO (1983) synonymized *Enantiosarax* with *Charinus* and promised a detailed redescription of *E. schirchii*, which however remains unpublished.

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RESUMO

NOVA ESPÉCIE DE *CHARINUS* SIMON, 1892 DO NORDESTE DO BRASIL (ARACHNIDA, AMBLYPYGI, CHARINIDAE)

Uma nova espécie de *Charinus* é descrita de uma caverna no nordeste do Brasil. Até agora eram conhecidas cinco espécies do gênero no país. A nova espécie é a maior de todas e possui um conformação esternal única.

Palavras-chave: fauna cavernícola, América do Sul, Neotrópico, aracnídeos do Brasil, amblipígeos.

ABSTRACT

A new species of *Charinus* is described from a cave in northeastern Brazil. Hitherto five other species were known from this country. The new species is the largest of all and has a distinctive conformation of sternal pieces and spinaton of pedipalp.

Key words: cave fauna, South America, Neotropics, Brazilian arachnids, whip-spiders.

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