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THE SOUTHERNMOST RECORD OF SCHIZOMIDA IN SOUTH AMERICA, FIRST RECORDS OF SCHIZOMIDA FOR RIO DE JANEIRO AND OF *STENOCHRUS* CHAMBERLIN, 1922 FOR BRAZIL (ARACHNIDA, SCHIZOMIDA, HUBBARDIIDAE) [1]

(With 4 figures)

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The order Schizomida has underwent in recent years substantial changes which caused the replacement of the old scheme of only a few genera by numerous generic names (REDDELL & COKENDOLPHER, 1995). The order is well distributed in the tropics worldwide, except for central-southern South America. There is a genus of the Hubbardiidae, *Surazomus* Reddell & Cokendolpher, 1995, which possesses many endemic species from northern South America, but the southernmost record of the order Schizomida in South America is from Amazonia. Sifting leaf litter specially looking for small arachnids during projects conducted in the Laboratory of Arachnology of the Museu Nacional-Rio de Janeiro, yielded no schizomids from central-southeastern Brazil. Surprisingly, sifting of litter from metropolitan Rio produced some females of the widespread species *Stenochrus portoricensis* Chamberlin, 1922, naturally occurring in Mexico and the Caribbean and introduced to many countries. Illustrations of the diagnostic features are given for specimens from the population of Rio. The Museu Nacional-Rio de Janeiro, Brazil is herein abbreviated as MNRJ.

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RESULTS

Order Schizomida Petrunkevitch, 1945
Family Hubbardiidae Cook, 1899
Subfamily Hubbardiinae Cook, 1899
Genus *Stenochrus* Chamberlin, 1922

Stenochrus Chamberlin, 1922:11; MELLO-LEITÃO, 1931:19; PETRUNKEVITCH, 1945:322; LEVI & LEVI, 1968:122, 469; ROWLAND & REDDELL, 1977:83; REDDELL & COKENDOLPHER, 1991:1-5, 18-19; COKENDOLPHER & REDDELL, 1992:39.

Diagnosis – *Stenochrus* differs from all other described Hubardiidae genera by the combination of the following: female flagellum with three segments (Fig.1), presence of anterior process of propeltidium with one pair of setae arranged one behind the other (Fig.3), metapeltidium entire (Fig.3), movable cheliceral jaw without accessory teeth (Fig.2); guard tooth present at end of serrula, spermathecae with two pairs of asymmetric lobes, the lateral clearly smaller than the median pair (Fig.4).

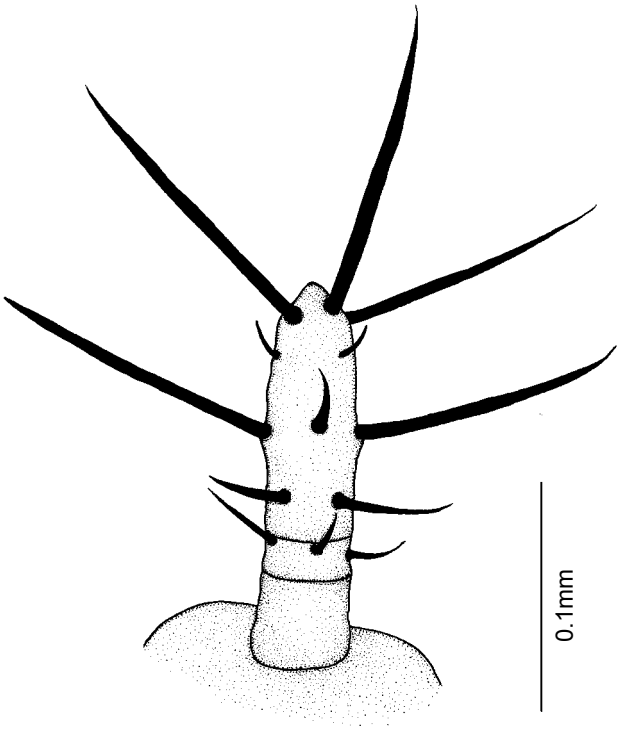


Fig.1- *Stenochrus portoricensis* Chamberlin, 1922 (♀MNRJ 7063), lateral view of female flagellum showing three segments.

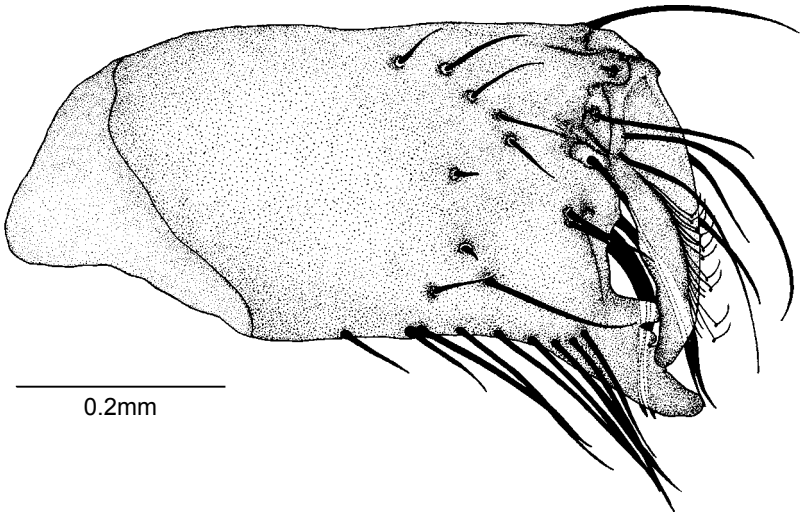


Fig.2- *Stenochrus portoricensis* Chamberlin, 1922 (♀ MNRJ 7065), lateral view of chelicerae.

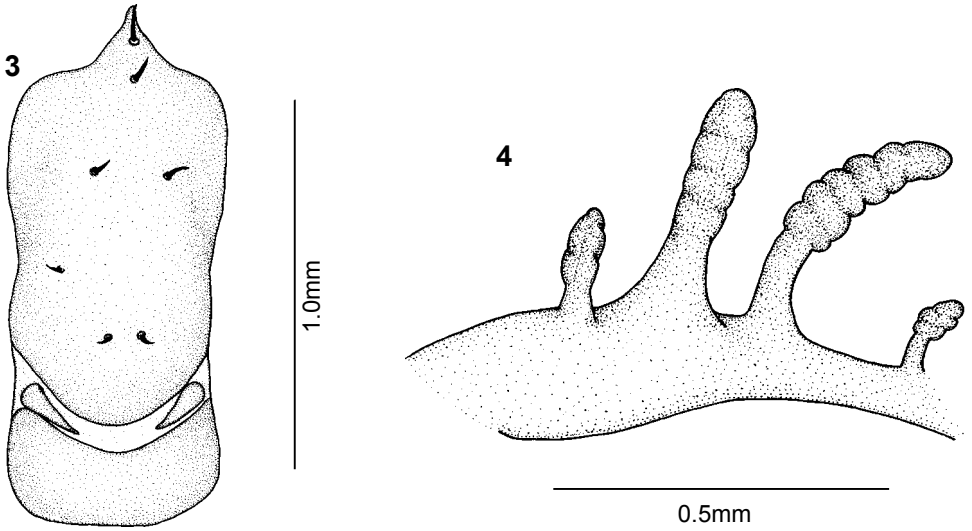
Stenochrus portoricensis Chamberlin, 1922

Stenochrus portoricensis Chamberlin, 1922:11-12; REDDELL & COKENDOLPHER, 1995:110 (see this for exhaustive references).

Diagnosis – With two pairs of dorsal propeltidial setae (Fig.3). At most, slight sexual dimorphism in pedipalps. Spermathecal lobes of uniform thickness; median pair highly sclerotized and about twice as long as lateral pair and medians with surfaces crenulate (Fig.4). Facultatively parthenogenetic. Male flagellum with double pit.

Material examined. MNRJ 7063, 4♀ MNRJ 7064, 1♀ MNRJ 7065, 4♀ , MZUSP 11990, 4♀ , Praia Vermelha, Rio de Janeiro/RJ, BRASIL, 1993-1999, leg. A.Kury by sifting leaf litter. TMMC (Texas Memorial Museum Collection, Austin) 2♀ , 27/I/1999 leg. A.Kury and A.Tourinho.

Biotope – The Pista Cláudio Coutinho (formerly Caminho do Bem-Te-Vi) is a paved path along a cliff on the coast of the Guanabara Bay, adjacent to the Praia Vermelha, used by joggers and mountaineers. The path is limited by the steep slope of the Sugar Loaf hill, covered by the remnants of a lowland evergreen rainforest, disturbed by human activities. Other arachnids often found there include the native laniatorean harvestman cosmetid *Paecilaemulla bella* Mello-Leitão, 1932, the tricommatine harvestman *Cryptogeobius crassipes* Mello-Leitão, 1935 and pholcid spiders *Blechroscelis* sp.



Stenochrus portoricensis Chamberlin, 1922: fig.3- dorsal view of propeltidium (♀ MNRJ 7063); fig.4- spermathecae, ventral view (♀ MNRJ 7065).

DISCUSSION

Rio de Janeiro, worldwide known shortly as Rio, is the second largest city in Brazil. It is the capital of the Rio de Janeiro state, and it was until 1960 the capital of the country. Once an important port city, it still possesses many harbors and active naval trade.

The majority of males that are known from southern Mexico with a few specimens known from the bigger Caribbean islands. Probably the origin of the species would have been southern Mexico (J.C.Cokendolpher, Lubbock, pers. comm.). The discontinuity of endemic species of schizomids from so far as Amazonia and the well known cases of introduction of *S. portoricensis* in many countries (namely, USA, Central America, Caribbean, Colombia, Ecuador, Canary Islands and England) obviously supports the hypothesis of the introduction of this species in Rio via ship carriage or even airplane transport within garden plant earth and pottery. Some of the early populations could have been moved in ballast on ships. It seems unlikely that they could have rafted on drifting vegetative material. This species is facultatively parthenogenetic and it has been found in diverse associations with termites, ants and varied habitats including houses (REDDELL & COKENDOLPHER, 1995; J.C.Cokendolpher, Lubbock, pers. comm).

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RESUMO

O REGISTRO MAIS MERIDIONAL DE SCHIZOMIDA NA AMÉRICA DO SUL, PRIMEIROS REGISTROS DE SCHIZOMIDA PARA O ESTADO DO RIO DE JANEIRO E DE *STENOCHRUS* CHAMBERLIN, 1922 PARA O BRASIL (ARACHNIDA, SCHIZOMIDA, HUBBARDIIDAE)

O registro mais ao Sul da ordem Schizomida na América do Sul até hoje era para a Amazônia. Como resultado de prospecções em folhiço peneirado na região metropolitana do Rio de Janeiro foram encontradas algumas fêmeas de *Stenochrus portoricensis* Chamberlin, 1922, espécie bastante difundida, que ocorre naturalmente no México e no Caribe e foi introduzida em muitos países. Esse é o primeiro registro de Schizomida para o Estado do Rio de Janeiro e o primeiro registro do gênero *Stenochrus* para o Brasil. Desenhos de estruturas diagnósticas são apresentados.

Palavras-chave: Schizomida; *Stenochrus*; Brasil; Hubbardiidae.

ABSTRACT

The southernmost record for the order Schizomida in South America was hitherto from the Brazilian Amazonia. As a result of a leaf litter sifting project in the metropolitan zone of Rio de Janeiro some females of *Stenochrus portoricensis* Chamberlin, 1922 have been found. This widespread species is native from Mexico and the Caribbean and has been introduced to many countries. This is the first record of the order Schizomida for the state of Rio de Janeiro and the first record of the genus *Stenochrus* for Brazil. Illustrations of diagnostic structures are provided.

Key words: Schizomida; *Stenochrus*; Brazil; Hubbardiidae.

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