
**REGISTRATION OF NEW GEOGRAPHICAL
DISTRIBUTION OF *Panstrongylus geniculatus*
(LATREILLE) 1811 (HEMIPTERA, REDUVIIDAE,
TRIATOMINAE) IN BRAZIL**

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ABSTRACT

The first report of the occurrence of *Panstrongylus geniculatus* (Latreille) 1811 was reported in the state of Pernambuco. Therefore its distribution was amplified, and now, such as *P. megistus*, is the most widely distributed species in Brazil. *P. geniculatus* was found by health workers in intradomiciliary environments in Vitória de Santo Antão, testing positive for flagellates observed by direct examination of intestinal contents, and Giemsa staining.

KEY WORDS: Chagas Disease; triatominae; Pernambuco.

RESUMO

Registro de nova distribuição geográfica de *Panstrongylus geniculatus* (Latreille) 1811 (Hemiptera, Reduviidae, Triatominae) no Brasil

Relatou-se a ocorrência de *Panstrongylus geniculatus* (Latreille) 1811 pela primeira vez no estado de Pernambuco. Desta forma sua distribuição foi ampliada, sendo agora, assim como *P. megistus*, a espécie com maior distribuição no Brasil. *P. geniculatus* foi encontrado no intradomicílio no município de Vitória de Santo Antão por agentes de saúde, sendo positivo para flagelados observados por meio de exame direto de conteúdo intestinal e coloração por Giemsa.

DESCRITORES: Doença de Chagas; triatomíneos; Pernambuco.

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Currently 148 species of Triatominae are to be found, distributed in 18 genders and five tribes, all potential vectors of *Trypanosoma cruzi* (Galvão et al., 2003). In Brazil 64 species have been noted, 29 of these registered to date in the northeastern region.

The *Panstrongylus* genera is widely distributed and most important in the vectorial transmission of *Trypanosoma cruzi*, the etiological agent of Chagas disease, currently consisting of 14 species, ten of which have been found in Brazil (Galvão, 2015).

P. geniculatus is a wild species, often associated with land hosts such as armadillos, and eventually found in households. Although demonstrating low capacity to colonize households, infestation reports mention pig sties and frequent detection within homes (Valente, 1999) in the Amazon River floodplain areas and on Marajo island, State of Pará.

In other South American countries such as Venezuela, however, the number of intra domiciliary colonies is increasing with a high percentage of *T. cruzi* natural infection (Reyes-Lugo, 2009).

P. geniculatus has been reported in the states of Acre, Amapá, Amazonas, Bahia, Ceara, Federal District, Espírito Santo, Goiás, Maranhão, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Para, Parana, Piaui, Rio de Janeiro, Rondônia, Roraima, São Paulo and Tocantins, but, despite its wide distribution, this is the first occurrence reported in the state of Pernambuco.

The sample of *P. geniculatus* (Figure 1) was found in the municipality of Vitória de Santo Antão, located in the Central Forrest mesoregion in the state of Pernambuco, Brazil, bordering the municipalities of Glória de Goitá and Chão de Alegria to the North, Primavera and Escada, in the South, Cabo and São Lourenço da Mata in the East, and Pombos in the West.



Figure 1. *Panstrongylus geniculatus* found in the municipality of Vitória de Santo Antão, State of Pernambuco, Brazil.

Vitoria de Santo Antão, where the specimens were collected, is located in an area of eroded and dissected land surfaces and deep valleys. This coastal region of Pernambuco and Alagoas is characterized by the “sea of hills” near the Chapada da Borborema, presenting poor soils and dhyoxerophytic vegetation in a rainy tropical climate with dry summers.

The municipality’s territory covers 37,180 hectares at an altitude of 162 meters, its geographical coordinates are latitude -8.11389 decimal, longitude -35.2915 and sexagesimal geographical coordinates 8’6’50” latitude South and 35’17’29” longitude West. The city of Vitoria de Santo Antão (Figure 2) is 49 kilometers from Recife the capital of Pernambuco, (Rodrigues e Silva, 2000).



Figure 2. Map of the State of Pernambuco, Brazil, highlighted the Municipality of Vitória de Santo Antão.

Source: <http://www.mfrural.com.br/cidade/vitoria-de-santo-antao-pe.aspx>

This report informs the result of intra domiciliary captures in a small farm, performed by local endemic field agents of the Chagas Disease Control Program. The insects were sent directly to Lacen / Labend (Endemic Diseases Laboratory) where they were identified by fresh parasitological examination, and later sent to the Reference Laboratory in Triatomine Taxonomy at the Oswaldo Cruz Institute for subsequent confirmation.

The first recorded occurrence of *P. geniculatus* in the state of Pernambuco expands its distribution making it, along with *P. megistus*, the two most widely distributed species in Brazil. There are now 13 species of insects in the state, they are: *Panstrongylus geniculatus*, *Panstrongylus lutzi*, *Panstrongylus megistus*, *Psammolestes tertius*, *Rhodnius nasutus*, *Rhodnius neglectus*, *Triatoma brasiliensis*, *Triatoma melanocephala*, *Triatoma petrochiae*, *Triatoma pseudomaculata*, *Triatoma rubrofasciata*, *Triatoma sordida* and *Triatoma tibiamaculata*.

The registration of the occurrence of *P. geniculatus* should be taken into consideration to assist guiding the actions of vector surveillance programs, in order to alert field agents and respective laboratory to constantly observe its evolution in the state of Pernambuco.

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