

FIRST RECORD OF *Panstrongylus megistus* (BURMEISTER, 1835) (HEMIPTERA, REDUVIIDAE, TRIATOMINAE) ON ILHA GRANDE, RIO DE JANEIRO, BRAZIL

ALLAN PITTA SEABRA¹, JOÃO PAULO SALES OLIVEIRA-CORREIA¹, QUEZIA MOURA OLIVEIRA², MARIA CLARA REGO E SILVA², ALENA MAYO IÑIGUEZ^{2*}, CLEBER GALVÃO^{1*}

¹LABORATÓRIO NACIONAL E INTERNACIONAL DE REFERÊNCIA EM TAXONOMIA DE TRIATOMÍNEOS, INSTITUTO OSWALDO CRUZ, FIOCRUZ, AV. BRASIL 4365, RIO DE JANEIRO 21040-900, BRAZIL

²LABORATÓRIO DE PARASITOLOGIA INTEGRATIVA E PALEOPARASITOLOGIA, INSTITUTO OSWALDO CRUZ, FIOCRUZ, AV. BRASIL 4365, RIO DE JANEIRO 21040-900, BRAZIL

Chagas disease is a parasitic infection caused by the parasite *Trypanosoma cruzi*, transmitted by insects such as *Panstrongylus megistus*, which was the first triatomine recognized as a vector of the disease. This study investigated the presence of *P. megistus* in Ilha Grande, Rio de Janeiro state. The insect was collected, identified, and analyzed to determine the *T. cruzi* infection and their blood meal source. The presence of *P. megistus* was morphologically confirmed. The genetic analysis showed *Gallus gallus* as the blood meal source, but it was negative for *T. cruzi* infection. The findings expand the known distribution of *P. megistus* and highlight the need for the continued monitoring of this Chagas disease vector. Herein, we present the first record of *P. megistus* in the region, and due to the potential of *T. cruzi* transmission in the area, the installation of physical barriers to reduce this risk is recommended.

Keywords: Chagas disease. kissing bugs. *Trypanosoma cruzi*.

Financial Support

This research was funded by Fundação de Amparo à Pesquisa do Rio de Janeiro (<http://www.faperj.br/>) (AMI., Grant Numbers E-26/210.131/2023 and E-26/201.069/2021); Conselho Nacional de Desenvolvimento Científico e Tecnológico (<http://www.cnpq.br/>) (AMI, 315634/2021-9); Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (<https://www.gov.br/capes/pt-br>) (QMO, 88887.644154/2021-00; APS, Grant code 001)