

The presence of *Lutzomyia longipalpis* in a focus of American visceral leishmaniasis where the only proven vector is *Lutzomyia cruzi*. Corumbá, Mato Grosso do Sul State

Presença de *Lutzomyia longipalpis* em foco de leishmaniose visceral americana onde o vetor provável é somente o *Lutzomyia cruzi*. Corumbá, Mato Grosso do Sul

Soraya Oliveira dos Santos¹, Jorge R. Arias², Marta de Paiva Hoffmann¹, Mara Beatriz Grotta Furlan¹,
Wilson Francisco Ferreira¹, Cláudio Pereira¹ and Lourival Ferreira¹

Abstract The present communication reports the presence of *Lutzomyia longipalpis* in Corumbá, Mato Grosso do Sul, where the principal vector is *Lutzomyia cruzi*.

Key-words: Sand flies. American visceral leishmaniasis.

Resumo A presente comunicação relata a presença do *Lutzomyia longipalpis* em Corumbá, Mato Grosso do Sul, onde o vetor principal é o *Lutzomyia cruzi*.

Palavras-chaves: Mosquito-palha. Leishmaniose visceral americana.

Since 1983, many scientists have shown interest in the epidemiology of American visceral leishmaniasis (AVL) in Corumbá, since studies have not detected the presence of *Lutzomyia longipalpis*, the principal known vector of this disease in the Americas¹.

From 1995 to 1998 the entomology team of the Regional Coordination for Mato Grosso do Sul has been systematically capturing sand flies, vectors of *Leishmania chagasi*. These collections resulted in the incrimination of *Lutzomyia cruzi* as the vector of AVL in the absence of *Lu longipalpis* in Corumbá⁴.

Because of this peculiarity, and in order to obtain more information on the vector involved, intensified studies were carried out in the field⁵, and in the laboratory, by various groups of scientists²⁻³.

The DIVEP team (Division of Epidemiological and Environmental Surveillance) of the Mato Grosso do Sul (Health) Co-ordination, presented a project to study the habits of *Lu cruzi* to the Coreplan (Regional Planning Council) in 2001, which included two monthly

24-hour captures in residences, caves and surrounding areas, using CDC miniature light traps.

The phlebotomine sand flies were captured in two-hour intervals noting the corresponding time period, mounted and identified per capture period (every 2 hours).

Following this separation, in processing the collected material from 17/07/2001 from a pig sty and a chickenhouse in the Cristo Redentor District of Corumbá, three male specimens of *Lu longipalpis* were identified from the 22:00 - 24:00 hour collection.

For some time we have discussed the possibility of finding this species in Corumbá since it is present in the surrounding municipalities of Miranda, Aquidauana and Anastácio, where *Lu longipalpis* is the principal vector of AVL. Although there is a natural barrier between these municipalities and Corumbá (the Paraguay River), it is important to note that progress, particularly in transportation, (railways and highways) include the completion of a bridge over this river, offering more rapid access to the city of Corumbá.

1. Coordenação Regional de Mato Grosso do Sul da Fundação Nacional de Saúde. 2. Organização Panamericana de Saúde, Campo Grande, MS.

Research conducted with the support of Fundação Nacional de Saúde

Address to: Dra. Soraya Oliveira dos Santos. R. Belizário Lima 263, Centro. 79470-210 Campo Grande, MS.

Tel: 55 67 321-3074, Fax: 55 67 382-8790

e-mail: sorayasantos@hotmail.com

Recebido para publicação em 2/8/2002

Aceito em 24/7/2003

The importance of detecting *Lu longipalpis* lies in the fact that this species is better adapted to the epidemiology of the diseases and widely distributed throughout the Country and present in areas where AVL is a constant concern of public health control programs such as those of Teresina (Piauí State), Belo

Horizonte (Minas Gerais State), Araçatuba (São Paulo State), São Luis (Maranhão State) and, Tres Lagoas in Mato Grosso do Sul State).

The presence of *Lu longipalpis* in this focus of AVL presents a new variable in the epidemiology of this disease in Corumbá.

REFERENCES

1. Arias JR, Beltrán F, Desjeux P, Walton B. Epidemiología y Control de las Leishmaniasis en las Américas, por país o territorio. OPS, Cuaderno Técnico 44, 1996.
2. Galati EAB, N VLB, Oshiro ET, Rego FA Jr. Nova espécie de Phlebotominae *Lutzomyia corumbaensis*, sp.n. (Diptera: Psychodidae) do complexo *Lutzomyia cortelezzi*. Revista Brasileira de Entomologia 33: 465-475, 1989.
3. Galati EAB, Rego FA Jr, Nunes VBL, Teruya E. Fauna flebotomínica do município de Corumbá, Mato Grosso do Sul. Brasil e descrição de *Lutzomyia forattinii*, sp.n. (Diptera: Psychodidae, Phlebotominae). Revista Brasileira de Entomologia 29: 261-266, 1985.
4. Santos SO, Arias JR, Ribeiro AA, Hoffmann MP, Freitas RA, Malacco MAF. Incrimination of *Lutzomyia (Lutzomyia) cruzi* as a vector of American Visceral Leishmaniasis. Medical and Veterinary Entomology 12:315-317, 1998.
5. Santos SO, Falcão AL, Brazil R. Behavior of the *Lutzomyia (Lutzomyia) cruzi* (Diptera: Psychodidae), vector of the American Visceral Leishmaniasis and other phlebotomines in Corumbá and Ladário, Mato Grosso do Sul, Brasil. I. Evaluation of peri and intra-domiciliary environments using CDC light traps. Poster in 3rd International Symposium on Phlebotomine sandflies, Montpellier-France, 1999.