

## SCIENTIFIC NOTE

### NOTES ON PHLEBOTOMINE SAND FLIES (DIPTERA: PSYCHODIDAE) FROM AMAPÁ STATE, NORTH BRAZIL

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**ABSTRACT.** Eighteen species of sand fly were collected from Amapá State, Brazil, with Centers for Disease Control light traps during May 1998. Five species (*Lutzomyia aragaoi*, *L. inpai*, *L. brachipyga*, *L. inflata*, and *L. richardwardi*) represent new records for the Amapá.

**KEY WORDS** Brazil, Amapá, tropical forest, Phlebotominae, *Lutzomyia*, sand fly

Cutaneous leishmaniasis is an important public health problem in most states of Brazil and is one of the parasitic diseases of high incidence in the Amazonian region (Lainson and Shaw 1992). Although the sand fly fauna of South America has received considerable attention in recent years (Young and Duncan 1994), few studies have been published on the vectors of leishmaniasis in Amapá State, Brazil (Forattini 1959, 1960). To study the taxonomy and geographic distribution of sand flies in this area, a sampling was performed during May 1998.

The state of Amapá is located in the northern part of Brazil at 1°40'N, 52°0'W and is dominated by 3 large geographic zones: Amazonian, Guianan, and Oceanic. Equatorial forest covers a large part of the state. The climate is hot and humid with a mean temperature of 26°C and average annual rainfall of 2,450 mm.

Adult sand flies were collected with Centers for Disease Control light traps in 2 forested areas of Amapá: the Museum Forest Reserve on the outskirts of Macapá, capital of the state, at 0°5'N, 51°10'W and a forested area of the Waiãpi Indian Reserve at 1°40'N, 53°50'W. In the latter area, 1 night of collection was also performed with a Shannon trap using light bait.

The captured specimens were initially stored in hemolysis glass tubes containing 70% alcohol and were later mounted for taxonomic identification on glass slides using Canada balsam for males and Berlese liquid for females. We adopted the classification proposed by Martins et al. (1978) and Young and Duncan (1994) and all specimens were deposited in the sand fly collection of the Centro de Pesquisas René Rachou-FIOCRUZ in Belo Horizonte, Minas Gerais, Brazil.

A total of 18 sand fly species were collected, 13

Table 1. Distribution of sand fly species caught in 2 forested areas of Amapá State, Brazil.

Species	No. flies		Area <sup>1</sup>
	♀	♂	
<i>Lutzomyia (Psychodopygus) squamiventris</i> (Lutz and Neiva)	29	7	MFR/WIR
<i>L. (Psychodopygus) sp.</i>	8		MFR/WIR
<i>L. (P.) davisii</i> (Root)	1		MFR
<i>L. (Nyssomyia) richardwardi</i> Ready and Fraiha	3		MFR
<i>L. (N.) flaviscutellata</i> (Mangabeira)	2		MFR
<i>L. (N.) antunesi</i> (Coutinho)		1	WIR
<i>L. (Viannamyia) furcata</i> (Mangabeira)	1		MFR
<i>L. (Evandromyia) infraspinoza</i> (Mangabeira)	12	10	MFR/WIR
<i>L. (E.) inpai</i> (Young and Arias)		1	WIR
<i>L. (Sciopenyia) sordellii</i> (Shannon and Del Ponte)	1		MRF
<i>L. (Trichopygomomyia) trichopyga</i> (Floch and Abonnenc)	1		MRF
<i>L. (Trichophoromyia) brachipyga</i> (Mangabeira)	1	1	MRF
<i>L. (Psathyromyia) abbonenci</i> (Floch and Chassignet)		1	WIR
<i>L. pusilla</i> Dias, Martins, Falcão and Silva	1	3	WIR
<i>L. aragaoi</i> (Costa Lima)	2		MFR/WIR
<i>L. rorotaensis</i> (Floch and Abonnenc)		2	WIR
<i>L. inflata</i> (Floch and Abonnenc)	1		MRF
<i>L. sericea</i> (Floch and Abonnenc)	1	1	MRF

<sup>1</sup> MFR, Museum Forest Reserve; WIR, Waiãpi Indian Reserve.

in the Museum Forest Reserve on the outskirts of Macapá and 10 in the Waiãpi Indian Reserve (Table 1). Eight female specimens of the subgenus *Psychodopygus* found in both areas could not be identified because the specific identification of flies in this group *L. corossoniensis* Le Pont and Pajot, *L. dirlinsis* (Le Pont and Desjeaux), *L. geniculata* (Mangabeira), and *L. guyanensis* (Floch and Abonnenc) is only possible when males are available (Young and Duncan 1994). *Lutzomyia aragaoi* (Costa Lima), *L. (Evandromyia) inpai* Young and Arias, *L. (Trichophoromyia) brachipyga* (Mangabeira), *L. inflata* (Floch and Abonnenc), and *L. (Nyssomyia) richardwardi* Ready and Fraiha are new records for the state of Amapá.

Two species deserve special note: *L. (Nyssomyia) flaviscutellata* (Mangabeira), a proven vector of *Leishmania (Leishmania) amazonensis* Lainson and Shaw in several areas of Brazil (Lainson and Shaw 1992), and *L. (Psychodopygus) squamiventris* (Lutz and Neiva), a suspected vector of *Leishmania (Viannia) naiffi* (Naif et al. 1991) in the Amazon. Several arbovirus have also been isolated from *L. flaviscutellata* (Aiken et al. 1975, Tesh et al. 1988) in this region.

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