

ISOPS 7

International Symposium on Phlebotomine Sand flies

25-30 April 2011
Kuşadası – Turkey

P-073

Phlebotomine sand flies (Diptera, Psychodidae) in Xakriaba Indigenous Reserve, North of Minas Gerais, Brazil

P. F. Quaresma1, R. A. Barata1,2, H. A. Botelho1, C. M. F. Gontijo1, E. S. Dias1

1René Rachou Research Center/FIOCRUZ. Brazil; 2Federal University of Vales do Jequitinhonha e Mucuri. Brazil

E-mail: patyquaresma@cpqrr.fiocruz.br

Xakriaba Indigenous Reserve located in the municipality of São João das Missões, north of Minas Gerais (MG), showed 224 human cases of American tegumentary leishmaniasis (ATL) between 2001 and 2008. To know the epidemiology of the disease, this study was to investigate the phlebotomine fauna in two large aldeous, the species found associated with the risk of transmission of leishmaniasis in the area. During the period July 2008 to March 2009, there were five captures with the help of light traps HP in peridomestic of 21 indigenous households. We captured 17 species of sand flies, totaling 1,327 specimens, 49.6% females and 50.4% males (ratio 1:1). The presence of *Lutzomyia intermedia* (22.3%) and other vector species such as *L. migonei* (1.73%) and *L. whitmani* (0.22%), even in small numbers, suggests that they are responsible for the transmission of ATL in the Indigenous Reserve. *Lutzomyia longipalpis*, vector of visceral leishmaniasis, was the predominant species (56.9%), showing the importance of epidemiological surveillance at the study area.

P-074

Entomological survey for sand fly Fauna in cutaneous leishmaniasis endemic sites of Afyon Province

H. Kavur1, Ö. Ermiş2, S. Demir3, I. C. Balcıoğlu4, M. Kirami Ölgen5, Y. Özbel6

1PhD Student, Ege University Science Faculty, Department of Zoology, Izmir, Turkey; 2Master Student, Celal Bayar University Science Faculty, Department of Biology, Manisa, Turkey; 3Mustafa Kemal University Science Faculty Department of Zoology, Hatay; 4Celal Bayar University Medical School, Department of Parasitology, Manisa, Turkey; 5Ege University, Literature Faculty Department of Geography, Izmir; 6Ege University Medical School, Department of Parasitology, Izmir, Turkey

E-mail: hakankavur@yahoo.com

Leishmaniases are widespread in most countries in the Mediterranean Basin and it is also present in two clinical forms, cutaneous and visceral, in Turkey. The studies were carried out on sand fly fauna in leishmaniasis endemic areas have great importance. So far, the entomological and parasitological surveys were performed in 27 endemic/sporadic areas where one or both of the diseases are present. To date, a total of 21 *Phlebotomus* and 4 *Sergentomyia* species were determined in Turkey. *L. infantum* is responsible for both clinical forms occurred many areas of Turkey while *L. tropica* causes cutaneous leishmaniasis especially Southeastern and Western parts of Turkey. *P. tobbi* is the proven vectors of CL caused by *L. infantum* in East Mediterranean part of Turkey. *P. sergenti* and *P. similis* are probable vectors of *L. tropica* in Southeastern and Western parts of Turkey, respectively.

In the present study, we aimed to determine sand fly fauna of three endemic areas for CL in Afyon province where located in inner and higher part of Aegean Region. A total of 28 CL cases had been reported in last 4 years in our study area.

The field works were carried out between 23-25 July 2009 and 13-14 July 2010 in four villages named Aydın (alt. 1242 m asl.), Göçerli (alt. 1237 m asl.) Yıprak (alt. 1329 m asl.), Kulak (alt. 1349 m asl.) and one town named Doğanlı (alt. 1136 m asl.) of Afyon province. We collected 1.514 sand fly specimens using 73 light traps in three nights. The identification of the species was done using several keys, previous drawings and morphometric measurements. The following 10 *Phlebotomus* species were identified; *P. halepensis* (41.74%), *P. papatasi* (34.54%), *P. neglectus* (8.98%), *P. balcanicus* (8.98%), *P. syriacus* (2.70%), *P. simici* (1.78%), *P. perfiliewi* (1.05%), *P. sergenti* (0.66%), *P. similis* (0.66%), and *Sergentomyia spp*. (0.66%). In general and in all individual settlements, *P. halepensis* was found to be dominant species. Because of very low population density of other proven vector, *P. sergenti*, in the area and experimentally confirmed vectorial competence of *P. halepensis*, this species can transmit *L. tropica* in our study areas.

This work is a part of an ongoing PhD thesis and to incriminate *P. halepensis* as the potential vector of the disease, the study will further focus on detecting the *Leishmania* parasite in the sand fly specimens using microscopical examination and real-time PCR method.