

OBSERVATIONS ON THE SANDFLY (DIPTERA : PSYCHODIDAE)  
FAUNA OF ALÉM PARAÍBA, STATE OF MINAS GERAIS, BRAZIL, AND  
THE ISOLATION OF A PARASITE OF THE *LEISHMANIA BRAZILIENSIS*  
COMPLEX FROM *PSYCHODOPYGUS HIRSUTA HIRSUTA*

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*Dissection of 765 sandflies captured in Além Paraíba (the type locality of Leishmania braziliensis) resulted in the isolation, from Psychodopygus hirsuta hirsuta, of a parasite of the Le. braziliensis complex.*

The type locality for the parasite described as *Le. braziliensis* by Vianna (1911) is Além Paraíba, state of Minas Gerais, on the border of the state of Rio de Janeiro, Brazil.

According to Martins, Williams & Falcão (1978) the sandfly fauna of Além Paraíba included: *Lu. fischeri*, *Lu. intermedia*, *Lu. quinquefer*, *Lu. sallesi* and *Lu. schreiberi*.

During a visit made to the area by Rangel and Lainson in February, 1983 (Lainson, 1983) approximately 515 female sandflies were collected, using horse and human bait, and the following species were identified (by Dr. H. Fraiha of the Instituto Evandro Chagas): *Ps. carrerai carrerai* (75.6%), *Ps. hirsuta hirsuta* (22.4%), *Ps. davisii* (1.8%), *Lu. breviductus* (0.1%) and *Lu. sallesi* (0.1%). Due to their rarity, the last two species were not mentioned by Lainson (1983). Although the latter female is indistinguishable from *Lu. edwardsi*, the specimen collected by Rangel and Lainson is most likely the former as this has already been recorded in the area by Martins, Williams & Falcão (1978).

Lainson (1983) pointed out the importance of further observations in the type locality of *Le. b. braziliensis*, leading to the present observations. In June 1985 we (E.F.R. & L.R.) visited Além Paraíba to continue these studies, and specifically to study natural flagellate infections in the sandflies captured. Dissection techniques were as detailed elsewhere (Ryan, Lainson & Shaw, 1986).

Sandflies were captured from horse and human bait in remnants of high forest and from human bait in other "capoeira" forests. The following female sandflies were dissected: *Ps. c. carrerai* (328), *Ps. davisii* (10), *Ps. h. hirsuta* (337), *Lu. dendrophylla* (6), *Lu. intermedia* (38), *Lu. pessoai* (16) and *Lu. whitmani* (30). Only one infection was encountered, a peripylarian infection in *Ps. h. hirsuta*, and this was cultured directly from the gut (see Ryan, Lainson & Shaw, 1986 for techniques). The flagellates prepared from the culture were identified by monoclonal antibodies (see Shaw et al., 1986 for techniques) as those of *braziliensis* complex *Leishmania*.

Three isolates of a *braziliensis* complex parasite have previously been made from *Ps. h. hirsuta* in the state of Pará (Ryan, Lainson & Shaw, 1986). Until we have specific means of identification (Shaw et al., 1986) however, we are unable to say if these are the same parasite as that found in this sandfly from Além Paraíba. Clearly it remains impossible to say if any *Leishmania* presently isolated in Além Paraíba is the same as that described by Vianna and Lainson (1983) has suggested that it would perhaps be better to designate a neotype from a well studied, nearby area. Further work will continue in attempts to isolate parasites from human cases, and it may be noted that clinicians had in fact sent three suspected cases for diagnosis to Juiz de Fora, Minas Gerais, in the 6 months prior our visit. It is also hoped to make more isolations from sandflies, in particular *Lu. intermedia*, which is strongly suspected as a vector elsewhere in the south of Brazil (Aragão, 1922; Forattini & Santos, 1952; Forattini et al., 1972, Rangel et al., 1984).

## RESUMO

Foram dissecados 765 flebotomos capturados em Além Paraíba (localidade tipo da *Leishmania braziliensis*) resultando no isolamento de um parasita do complexo *Le. braziliensis*, encontrado em *Psychodopygus hirsuta hirsuta* naturalmente infectado.

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