

# Epidemiological patterns of cutaneous leishmaniasis in Panama

## II. Incidental occurrence of cases in non-endemic settlements\*

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Susceptibility to cutaneous leishmaniasis among humans is independent of age, sex or race. However, the risk of acquiring the infection is directly related to the activities of individuals and the frequency with which such activities bring them into intimate contact with endemic foci of the disease.

Presently there are no methods available to assess accurately the level of endemicity in any particular locality. This is a serious deficiency in epidemiological investigations as it relates to changes in transmission activity following the establishment of new forest settlements.

Due to the frequent travel of settlers, an individual residing in a non-endemic community may acquire the disease during excursions through endemic areas. The nature of these cases, as well as their epidemiological significance are difficult to assess and frequently lead to erroneous estimations concerning the local distribution of the infection in forested regions of the neotropics.

This report concerns a community in the Bayano region, central Panama, where cutaneous leishmaniasis had disappeared, but sporadic infections persisted among the villagers and their dogs.

## MATERIALS AND METHODS

### **The Study Area**

Majecito Arriba is a community irrigated by the Majecito river in the Bayano basin, Panama province. First settlers arrived there from western provinces about 12 years ago. Homesteads were constructed and the primary forest surrounding the settlement was cut and burned. Small sections of the land were set aside for crops but the principal occupation of the settlers was cattle raising, which necessitated planting grass over most of the cleared area. Feral mammals are rare in this area but phlebotomine sandflies still persist especially along the river, where many large trees were left unmolested.

The Majecito river flows westward through the study area which is situated in a narrow valley ranging from about 250 to 350 m above sea level. Most of the valley floor is grassland which now extends well into the foothills and forms a sharp ecotonal division with the primary forest of the bordering mountain ridges (see Fig., arrow).

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