Análisis morfométrico de poblaciones alopátricas de Lutzomyia olmeca olmeca y Lutzomyia cruciata (Diptera: Psychodidae: Phlebotominae), vectores principales de la leishmaniasis cutánea en el sureste de México [

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Analítica

Introduction. Localised cutaneous leishmaniasis (LCL) is endemic in the Peninsula of Yucatan. Leishmania mexicana is transmitted to humans by the infectious bite of the insect vector Lutzomyia olmeca olmeca and possibly by Lu. cruciata as well. Even though there are several previous studies on the ecology of both phlebotomid sandfl ies, potential genetic variations have not been determined for geographically separated sandfl y populations Objective. The main objective of this study was to evaluate the existence of variability of morphological characters among populations, and then to evaluate whether or not populations could be distinguished from each other using discriminant analyses Materials and Methods. Specimens of Lu. olmeca olmeca and Lu. cruciata were collected in distinct locations of the southern states of Tabasco, Campeche, Yucatán y Quintana Roo. Thirty one morphological characteristics were measured using a micrometric for every specimen, using consistent techniques for preservation and slide mounting for all samples. Following univariant analyses, we then selected only the statistically signifi cant morphological characteristics for a multivariant analysis to identify group characteristics. Results. For Lu. olmeca olmeca, univariant analysis found that 26 out of 31 characteristics were statistically significant, whereas for Lu. cruciata, 16 out of 31 characteristics were significant. Subsequent multivariate analyses showed that Lu. olmeca olmeca from Bechanchén were statistically different (discriminant) from the rest of the populations. In the case of Lu. cruciata, the populations of Dos Naciones and La Libertad were statistically different (discriminant) from the rest of populations studied. Conclusions. Geographic variability was found among the morphological characteristics of the studied populations at both individual levels using univariant analysis, and for several characteristics considered simultaneously via multivariant analysis. More studies

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