



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 [

Universidad Autónoma de Yucatán (UADY),
2012

text (article)

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 sandflies, potential genetic variations have not been determined for geographically separated sandfly 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 univariate analyses, we then selected only the statistically significant morphological characteristics for a multivariate analysis to identify group characteristics. **Results.** For *Lu. olmeca olmeca*, univariate 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 univariate analysis, and for several characteristics considered simultaneously via multivariate analysis. More studies

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 sandflies, potential genetic variations have not been determined for geographically separated sandfly 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 univariate analyses, we then selected only the statistically significant morphological characteristics for a multivariate analysis to identify group characteristics. Results. For *Lu. olmeca olmeca*, univariate 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 univariate analysis, and for several characteristics considered simultaneously via multivariate analysis. More studies

<https://rebiunoda.pro.baratznet.cloud:28443/OpacDiscovery/public/catalog/detail/b2FpOmNlbGVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzI5NjAwMzk>

Título: Análisis morfométrico de poblaciones alopatricas de *Lutzomyia olmeca olmeca* y *Lutzomyia cruciata* (Diptera: Psychodidae: Phlebotominae), vectores principales de la leishmaniasis cutánea en el sureste de México [electronic resource]

Editorial: Universidad Autónoma de Yucatán (UADY) 2012

Tipo Audiovisual: Diptera Phlebotominae leishmaniasis México *Lu olmeca Lu cruciata* análisis de morfometría Diptera Phlebotominae leishmaniasis México *Lu olmeca Lu cruciata* morphometric analysis

Documento fuente: Revista Biomédica, ISSN 0188-493X, Vol. 23, Nº. 1, 2012, pags. 7-21

Nota general: application/pdf

Restricciones de acceso: Open access content. Open access content star

Condiciones de uso y reproducción: LICENCIA DE USO: Los documentos a texto completo incluidos en Dialnet son de acceso libre y propiedad de sus autores y/o editores. Por tanto, cualquier acto de reproducción, distribución, comunicación pública y/o transformación total o parcial requiere el consentimiento expreso y escrito de aquéllos. Cualquier enlace al texto completo de estos documentos deberá hacerse a través de la URL oficial de éstos en Dialnet. Más información: <http://dialnet.unirioja.es/info/derechosOAI> | INTELLECTUAL PROPERTY RIGHTS STATEMENT: Full text documents hosted by Dialnet are protected by copyright and/or related rights. This digital object is accessible without charge, but its use is subject to the licensing conditions set by its authors or editors. Unless expressly stated otherwise in the licensing conditions, you are free to linking, browsing, printing and making a copy for your own personal purposes. All other acts of reproduction and communication to the public are subject to the licensing conditions expressed by editors and authors and require consent from them. Any link to this document should be made using its official URL in Dialnet. More info: <http://dialnet.unirioja.es/info/derechosOAI>

Lengua: Spanish

Enlace a fuente de información: Revista Biomédica, ISSN 0188-493X, Vol. 23, Nº. 1, 2012, pags. 7-21

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es