



## The Meniscus midges of Costa Rica (Diptera: Dixidae)

LUIS GUILLERMO CHAVERRI<sup>1</sup> & ART BORKENT<sup>2</sup>

<sup>1</sup>Instituto Nacional de Biodiversidad, 400 Mts Oeste del Cementerio, A.P. 22-3100 Santo Domingo de Heredia, Costa Rica.  
E-mail: lchaverr@inbio.ac.cr

<sup>2</sup>Research Associate, Royal British Columbia Museum, American Museum of Natural History, and Instituto Nacional de Biodiversidad, 691-8th Ave. SE, Salmon Arm, British Columbia, V1E 2C2, Canada. E-mail: aborkent@sunlite.ca

### Table of contents

Abstract .....	1
Resumen .....	1
Introduction .....	2
Material and methods .....	2
Key to the adult Dixidae of Costa Rica.....	3
<i>Dixella maculata</i> Chaverri and Borkent <b>n. sp.</b> .....	4
<i>Dixella hernandezi</i> Chaverri and Borkent <b>n. sp.</b> .....	10
<i>Dixella shannoni</i> Lane .....	11
<i>Dixella hansonii</i> Chaverri and Borkent <b>n. sp.</b> .....	13
<i>Dixella fernandezae</i> Chaverri and Borkent <b>n. sp.</b> .....	15
<i>Dixella jironi</i> Chaverri and Borkent <b>n. sp.</b> .....	17
<i>Dixella venezuelensis</i> Lane .....	18
<i>Dixella woodi</i> Chaverri and Borkent <b>n. sp.</b> .....	21
<i>Dixella lobata</i> Chaverri and Borkent <b>n. sp.</b> .....	24
<i>Dixella suzukii</i> Chaverri and Borkent <b>n. sp.</b> .....	28
Conclusions .....	30
Acknowledgments .....	33
References .....	34

### Abstract

A revision of the Dixidae of Costa Rica indicates that 10 named species of *Dixella* are present, eight of which are described as new (described stages indicated): *D. fernandezae* (♂), *D. hansonii* (♂), *D. hernandezi* (♂), *D. jironi* (♂), *D. lobata* (♂, ♀), *D. maculata* (♂, ♀), *D. suzukii* (♂, ♀), *D. woodi* (♂). Two named species were previously known from Costa Rica: *D. shannoni* Lane (♂, ♀) and *D. venezuelensis* Lane (♂, ♀). A key to the species of Costa Rica is provided and other similar Neotropical species discussed. An overview of all Central American species is given. Five of the 10 Costa Rican species were collected above 1200 meters in elevation, indicating that further collecting, especially at high elevations will reveal further species. Five additional species from Costa Rica remain unnamed because they are represented only by females. A total of 15 species of *Dixella* are therefore present in this country.

### Resumen

Una revisión de Dixidae de Costa Rica indica que hay 10 especies de *Dixella* presentes, ocho de ellas se describen como especies nuevas (se indican las etapas descritas): *D. fernandezae* (♂), *D. hansonii* (♂), *D. hernandezi* (♂), *D. jironi* (♂), *D.*