



Zootaxa 3290: 1–92 (2012)  
www.mapress.com/zootaxa/

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Monograph

ISSN 1175-5326 (print edition)

**ZOOTAXA**

ISSN 1175-5334 (online edition)

# ZOOTAXA

3290

## **Helminth parasites of wild Mexican mammals: list of species, hosts and geographical distribution**

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Magnolia Press  
Auckland, New Zealand

*Accepted by S. Monks: 20 Jan. 2012; published: 30 Apr. 2012*

LUIS GARCÍA-PRIETO, JORGE FALCÓN-ORDAZ & CARMEN GUZMÁN-CORNEJO  
**Helminth parasites of wild Mexican mammals: list of species, hosts and geographical distribution**  
(*Zootaxa* 3290)

92 pp.; 30 cm.

30 Apr. 2012

ISBN 978-1-86977-875-0 (paperback)

ISBN 978-1-86977-876-7 (Online edition)

FIRST PUBLISHED IN 2012 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: [zootaxa@mapress.com](mailto:zootaxa@mapress.com)

<http://www.mapress.com/zootaxa/>

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## Abstract

In the present work, a total of 339 nominal taxa of helminths (53 trematodes, 46 cestodes, 12 acanthocephalans, 227 nematodes, and 1 hirudinean), associated with 136 taxa of wild mammals from Mexico, are listed. Information on hosts, habitat, distribution, and records is included; these data come from 242 localities, pertaining to 31 of the 32 Mexican states, and represent the current knowledge on helminth parasites of wild mammals in Mexico. Eighteen taxa of helminths are registered for the first time in Mexico, and 46 new locality records are presented.

**Key words:** Mexico, mammals, helminths, distribution.

## Introduction

In accordance with Ceballos and Oliva (2005), 525 species of wild mammals are distributed in Mexico; Rodentia and Chiroptera are the most represented orders, with 235 and 137 species, respectively. The knowledge on helminth parasites of this group of host in Mexico comes from prehispanic times (Martín del Campo 1977); however, the first species formally described as a parasite of a wild Mexican mammal was *Mesocestoides bassaris* (MacCallum 1921). Since then, numerous helminthological studies focusing on Mexican mammals have been conducted and the information generated in such works has been published in a scattered manner and sometimes in local sources that are difficult access. The first attempt to systematize this information was conducted by Pérez-Ponce de León and García-Prieto (2001), who analyzed the diversity of helminth associated to wild vertebrates in Mexico. Particularly for mammals, Pérez-Ponce de León and García-Prieto (2001) compiled information about 249 helminth species collected from 128 species of host. However, to date no paper containing all this information in an explicit form has been published. The purpose of this work is to list the species of helminths parasite recorded in Mexican mammals and summarise the data on their hosts, distribution, and records.

## Material and Methods

This checklist was built based on information from two sources: 1) retrospective bibliographical search, using different databases such as CAB Abstracts, Biological Abstracts, and Zoological Record; 2) searches in the data bases of national [Colección Nacional de Helminths (CNHE), Instituto de Biología, UNAM, Mexico City, Mexico] and international [Harold W. Manter Laboratory of Parasitology (HWML), University of Nebraska-Lincoln, U.S.A., United States National Parasite Collection (USNPC), Beltsville, Maryland, U.S.A.] parasite collections that specialize in parasites.

The parasite-host list is presented in phylogenetic order; each group contains families, genera, and species in alphabetical order. The classification of helminths is based on the following references: trematodes (Yamaguti 1971; Gibson *et al.* 2002; Jones *et al.* 2005; Bray *et al.* 2008), cestodes (Khalil *et al.* 1994), acanthocephalans (Amin 1985), nematodes (Anderson *et al.* 1974–1983; Gibbons 2010), hirudineans (Sawyer 1986; Davies 1991). Names of hosts are in accordance with Wilson and Reeder (2005). The nomenclatural changes of the names of helminths are based on particular references indicated in the Notes section. Information for each species includes