Terrestrial Isopod
(Crustacea:Isopoda)
Atlas for Mexico

By Joan Jass and Barbara Klausmeier
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Abstract

An atlas for 86 terrestrial isopod species (33 genera, 16 families) reported from Mexico is presented based on records in the literature. Publications with diagnostic illustrations are cited and Mexican type localities given. State checklists are generated based on citations for the first records in the literature. A map for each species presents a visual summary of its recorded distribution in the country.

Introduction

Several comprehensive works have been produced which summarized information about North American terrestrial isopods. Richardson (1905) covered marine, terrestrial, and freshwater species in her still useful *Monograph on the Isopods of North America.* Mexican localities were given for seven of the oniscideans included in this work, which appeared in the Smithsonian Institution's *Bulletin of the United States National Museum* series, and included USNM (now NMNH) numbers where appropriate for type specimen material. Richardson included the original descriptions in quotes in those instances where she was not able to examine specimens. Van Name (1936) provided a compilation of descriptions and illustrations for all American land and freshwater species, followed by two supplements (1940, 1942). Van Name’s types as well as other significant type material supporting his work at the American Museum of Natural History (AMNH) in New York were deposited there. The work of Hatch (1947) included a summary of distribution records for North America. The Hatch Collection is part of the University of Washington’s Burke Museum holdings.

Beginning in 1950, and for well over a decade thereafter, E. Rioja of the Institute of Biology of the National Autonomous University of Mexico published an impressive series of papers on the Mexican fauna, including numerous new species descriptions. Most of these were published by the Institute of Biology in their annals.

Primary among summary works with a focus on Mexico is the monograph of University of Utah researcher S.B. Mulaik, translated into Spanish (Mulaik 1960). In his unpublished dissertation, Mulaik (1954) had noted the low number of Mexican species previously reported in comprehensive works, and he attributed that to the lack of collections from Mexico. Though a number of the taxa that he introduced have been subsequently reclassified, the sheer quantity of new species that Mulaik (1960) described and illustrated, the first state records given, and the bibliographic compilation of the older literature in his monograph (as prepared for publication by the expert on Mexican cave fauna, F. Bonet) make it a reference still of great importance. The types were placed on deposit in the Escuela Nacional de Ciencias Biologicas in Mexico, with some duplicate paratypes in the museum at the University of Utah. As
stated by Bonet in the preliminary note to the 1960 translation, some details were changed from the 1954 unpublished thesis. Included among the discrepancies between the two are collection data and species name differences. That could lead to some question of authorship for the later work, although Mulaik’s cooperation in the preparation of that publication was noted explicitly.

Vandel (1965) published a detailed review of all North American cavernicoles in the family Trichoniscidae, based largely on the collection of Thomas C. Barr. Barr-collected type material is on deposit at the National Museum of Natural History (NMNH). Beginning in 1971 and continuing into the 1980s, Reddell (1981a), sometimes in collaboration with coauthors (Reddell and Elliot 1973a and b, Reddell and Mitchell 1971a and b), produced a series of checklists of the cave fauna of Mexico. These were gathered into a compilation (Reddell 1981b) which summarized records for cave-dwelling oniscideans. Souza-Kury (2000) presented a recent summary of the Mexican fauna. The landmark publications cited above have been the major sources for this atlas, as supplemented by volumes of the Zoological Record, particularly the Geographical Indices through volume 137 (2000/2001).

This atlas consists of four sections. The first is a taxonomic listing of all terrestrial isopod species having records in the literature from Mexico. The second section is an alphabetical list of species and provides sources of diagnostic illustrations in the literature, as well as details on habitat information and collecting locality data. The third section gives species lists for each state, with the first citation from the literature documenting the presence there of each species. Finally, Mexican maps present a visual summary of the current state records.

Publishing in English, we hope to draw the attention of other English-speakers like ourselves to the high potential interest of Mexican terrestrial isopods. As there are many oniscideans whose ranges cross North American political borders, we hope that future research projects of biogeographers and other interested zoologists will similarly transcend such artificial barriers. Our present effort is merely one step in that direction, and our eventual goal is to foster increased communication between those of us who may speak different languages but who share a common zoological interest in contributing to a better knowledge of the fauna. However in spite of those good intentions, because of our shortcomings in terms of familiarity with the Spanish language literature, there are no doubt more than the usual number of records that we have unfortunately missed in this compilation.

Classification And Summary

The classification used and the order of families listed in this summary are based on Erhard (1998), Holdich et al. (1984), and Schmidt (2002, 2003). For more taxonomic information including lists of synonyms, see Leistikow and Wägele’s (1999) immensely valuable, indexed checklist of New World
terrestrial isopods. More recently a “World catalog of terrestrial isopods” was published by Schmalfuss (2003). The world list of terrestrial isopods that appears on the Smithsonian Institution’s National Museum of Natural History website [http://www.nmnh.si.edu/iz/isopod/] is searchable and is updated regularly. If there are nomenclatural discrepancies in the literature, the name as it appears on this website will be the one used here.

Order ISOPODA,
Suborder ONISCIDEA Latreille 1829 (86)
I. DIPLOCHETA Vandel 1957 (3)
   Family LIGIIDAE Brandt & Ratzeburg 1831 (3)
      *Ligia baudiniana* H. Milne Edwards 1840
      *Ligia exotica* Roux 1828
      *Ligia occidentalis* Dana 1853

II. HOLOVERTICATA Erhard 1998 (83)
   TYLIDA Erhard 1998 (2)
      Family TYLIDAE H. Milne Edwards 1840 (2)
         *Tylos niveus* Budde-Lund 1885
         *Tylos punctatus* Holmes & Gay 1909

ORTHOGONOPODA Tabacaru & Danielopol 1996 (81)
EUONISCOIDA Vandel 1943 (81)
SYNOCHETA Legrand 1946 (14)
   Family TRICHONISCTDAE Sars 1899 (14)
      *Brackenridgia acostai* (Rioja 1951)
      *Brackenridgia bridgesi* (Van Name 1942)
      *Brackenridgia palmitensis* (Mulaik 1960)
      *Brackenridgia villalobosi* (Rioja 1950)
      *Cylindroniscus cavicola* (Mulaik 1960)
      *Cylindroniscus maya* Rioja 1957
      *Cylindroniscus vallesensis* Schultz 1970
      *Cylindroniscus yucatanensis* (Mulaik 1960)
      *Haplophthalmus danicus* Budde-Lund 1880
      *Mexiconiscus laevis* (Rioja 1956)
      *Miktoniscus medcofi* Van Name 1940
      *Trichoniscus hoctuni* Mulaik 1960
      *Trichoniscus orchidicola* Mulaik 1960
      *Typhlotricholigioides aquaticus* Rioja 1952

CRINOCHETA Legrand 1946 (67)
   Family ONISCIDAE Latrielle 1806 (1)
      *Oniscus asellus* Linnaeus 1758

Family PHILOSCIIDAE Kinahan 1957 (10)
   *Androdeloscia formosa* (Mulaik 1960)
   *Hoctunus vespertilio* Mulaik 1960
   *Littorophiloscia richardsonae* (Holmes & Gay 1909)
Littorophiloscia tropicalis Taiti & Ferrara 1986
Oxalaniscus ctenoscioides (Mulaik 1960)
Philoscia colimensis Mulaik 1960
Philoscia guerrerensis Mulaik 1960
Philoscia veracruzeana Mulaik 1960
Quintanoscia contoyensis (Mulaik 1960)
Troglophiloscia laevis Schultz 1977

Family PLATYARTHRIDAE Verhoeff 1949 (9)
Trichorhina atoyacensis Mulaik 1960
Trichorhina boneti Rioja 1956
Trichorhina heterophthalma Lemos de Castro 1964
Trichorhina macrophthalma Mulaik 1960
Trichorhina mulaiki Schmalfuss 2003
Trichorhina pearsei (Creaser 1938)
Trichorhina vandeli Rioja 1955
Trichorhina xolotmae Mulaik 1960
Trichorhina zimpanensis Mulaik 1960

Family RHYSCOTIDAE Budde-Lund 1904 (2)
Rhyscotoides parallelus (Budde-Lund 1893)
Rhyscotus colimensis Mulaik 1960

Family ALLONISCIDAE Schmidt 2003 (3)
Alloniscus mirabilis (Stuxberg 1875)
Alloniscus perconvexus Dana 1856
Alloniscus thalassophilus Rioja 1964

Family DETONIDAE Budde-Lund 1906 (2)
Armadilloniscus holmesi Arcangeli 1933
Armadilloniscus lindahlia (Richardson 1905)

Family STENONISCIDAE Budde-Lund 1904 (1)
Stenoniscus pleonalis Aubert & Dollfus 1890

Family ARMADILLIDAE Brandt & Ratzeburg 1831 (24)
Cubaris acapulcensis (Mulaik 1960)
Cubaris benitensis (Mulaik 1960)
Cubaris bolivari (Mulaik 1960)
Cubaris minuta (Mulaik 1960)
Cubaris mirandai Rioja 1954
Cubaris marina Brandt 1833
Venezillo articulatus Mulaik 1960
Venezillo boneti Mulaik 1960
Venezillo cacahuamilpensis (Bilimek 1867)
Venezillo chiapensis Rioja 1955
Venezillo dugesi (Dollfus 1896)
Venezillo llamas Rioja 1954
Venezillo macrosoma Mulaik 1960
Venezillo mexicanus (Verhoeff 1933)
Venezillo nevadensis Mulaik 1960
Venezillo oaxacanus (Van Name 1936)
Venezillo osoriori Mulaik 1960
Venezillo pleogoniaphorus (Rioja 1951)
Venezillo schultzei Verhoeff 1933
Venezillo soyattlanensis Mulaik 1960
Venezillo stuckchensis Mulaik 1960
Venezillo sylvicola (Mulaik 1960)
Venezillo tanneri (Mulaik & Mulaik 1942)
Venezillo walkeri (Pearse 1911)

Family ARMADILLIDIIDAE Brandt 1833 (1)
    Armadillidium vulgare (Latrielle 1804)

Family SCLEROPACTIDAE Verhoeff 1938 (2)
    Spherarmadillo huatuscensis Mulaik 1960
    Spherarmadillo schwarzi Richardson 1907

Family PORCELLIONIDAE Brandt & Ratzeburg 1831 (8)
    Agabiformius lentus (Budde-Lund 1885)
    Porcellio laevis Latrielle 1804
    Porcellio scaber Latrielle 1804
    Porcellio scabriusculus Mulaik 1960
    Porcellionides floria Garthwaite & Sassaman 1985
    Porcellionides pruinosus (Brandt 1933)
    Porcellionides saussurei Dollfus 1896
    Porcellionides virgatus (Budde-Lund 1885)

Family CYLISTICIDAE Verhoeff 1949 (1)
    Cylisticus convexus (DeGeer 1778)

Family TRACHELIPODIDAE Strouhal 1953 (3)
    Nagurus cristatus (Dollfus 1889)
    Trachelipus rathkii (Brandt 1833)
    Trachelipus richardsonae Mulaik 1960

Alphabetical List Of Species, Sources Of Illustrations,
Locality And Habitat Data

Each terrestrial isopod known to occur in Mexico is listed alphabetically.
Only those synonyms used in the sources cited here are added after the
currently accepted name for each species. See Richardson (1905), Van Name
(1936), Leistikow and Wägele (1999) and Schmalfuss (2003) for more
complete lists of synonyms.

Publications with diagnostic drawings, photographs, or scanning electron
micrographs are cited alphabetically by author. This is by no means an
exhaustive listing, because for some species, many duplicate illustrations
have appeared in the literature. Wherever possible, sources of illustrations
from Spanish language publications will be included. Secondary references
are sometimes given, especially where access to the original publication may
be difficult.
Our goal has been to compile a bibliographic guide to information currently recorded in the literature for Mexican isopods. Complete species treatments ideally include locality and habitat data, etymology and diagnostic traits for each. However, the sources available vary widely in the nature of their treatments, and our compilation reflects this variability. The Remarks section under each species is used to note briefly the additional data available in the sources cited, especially details about type localities in Mexico. A minority (31/86 = 36%) of the isopods recorded are species whose type localities are not in Mexico.

Close to one third (24/86) of the species known from Mexico have been collected from caves. Reddell (1981b) found a 50/50 proportion between the troglophilic and troglobitic species, and added that some of these cave dwellers "may prove to be identical with forms inhabiting the endogean zone" — an indication of how little was (and still is) known of these oniscideans. Two of the more famous of these caves are featured in Appendix II.

Abbreviations. — Codes for the states of Mexico are: AGS, Aguascalientes; BCN, Baja California [Norte]; BCS, Baja California Sur; CAM, Campeche; CHIS, Chiapas; CHIH, Chihuahua; COAH, Coahuila; COL, Colima; DF, Distrito Federal; DGO, Durango; GTO, Guanajuato; GRO, Guerrero; HGO, Hidalgo; JAL, Jalisco; MEX, Mexico; MICH, Michoacan; MOR, Morelos; NAY, Nayarit; NL, Nuevo Leon; OAX, Oaxaca; PUE, Puebla; QRO, Queretaro; QROO, Quintana Roo; SLP, San Luis Potosi; SIN, Sinaloa; SON, Sonora; TAB, Tabasco; TAMPS, Tamaulipas; TLAX, Tlaxcala; VER, Veracruz; YUC, Yucatan; ZAC, Zacatecas.

Agabiformius lentus Synonyms: Metoponorthus ixma, M. hidalguensis, Porcellio gertschi
Sources of illustrations: Mulaik (1960) Figs. 315-319 (M.h.) and Figs. 662-664 (Pg.), Schultz (1972) Fig. 5A-F, Schultz (1984b) Fig. 2E-G.
Remarks: Collecting locality—Cueva de los Lagos COAH (Schultz 1965).

Alloniscus mirabilis
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 14, Schultz (1984a) Figs. 3-4 and 5A-D.
Remarks: Habitat—littoral (Schultz 1984a).

Alloniscus perconvexus

Alloniscus thalassophilus
Sources of illustrations: Rioja (1964) Figs. 1-36.
Remarks: Type locality—Isla de Ixtapan, near Zihuatanejo GRO (Rioja 1964). Habitat—supralittoral (Rioja 1964).
AndrodeLoscia formosa Synonyms: Philoscia formosa

Armadillidium vulgare
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 19, Mulaik (1960) Figs. 322-325, Richardson (1905) Fig. 706, Van Name (1936) Figs. 157-159.
Remarks: Collecting localities include Mexico City DF and “Moralia” (sic) Morelia MICH in Hatch collection (Hatch 1947).

Armadillidium holmesi Synonyms: A. tuberculatus
Sources of illustrations: Garthwaite, Lawson and Taiti (1992) Fig. 1c, 2d-f and 3d, Holmes and Gay (1909) Fig. 5, Mulaik (1960) Figs. 93-105, Van Name (1936) Fig. 46.
Remarks: Van Name (1936) quoted the Holmes and Gay (1909) original description of A. tuberculatus and said that its type was in the U.S. National Museum. Habitat—littoral (Hatch 1947).

Armadilloiscus lindahli Synonyms: Actoniscus lindahli, Scleropactes cedrosensis
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 12, Mulaik (1960) Figs. 342-346, Richardson (1905) Figs. 679-680.
Remarks: Habitat—littoral (Garthwaite and Lawson 1992). Found on Isla Cedros, Baja California (Mulaik 1960). Types are in the museum of the Cincinnati Society of Natural History, Cat. No. 16365 (Richardson 1905).

Brackenridgia acostai Synonyms: Protrichoniscus acostai
Remarks: Type locality—Cueva de la toma de Agua CHIS (Rioja 1951a).
Named for the collector, geologist Carlos Acosta (Rioja 1951a).

Brackenridgia bridgesi Synonyms: Protrichoniscus bridgesi
Sources of illustrations: Mulaik (1960) Figs. 27-38, Rioja (1950) Figs. 1-20, Vandel (1965) Fig. 5, Van Name (1942) Figs. 4-5.
Remarks: Type locality—Cave at Pujal SLP, collector—Mr. W. Bridges (Van Name 1942). Mulaik (1960) added the locality Cueva de los Sabinos. According to Reddell (1981b), both of these locations are within 20 km of Ciudad Valles in the Sierra de El Abra region of San Luis Potosi. Vandel (1965) mapped seven collecting localities (including both of the above mentioned), three from the Thomas C. Barr Collection. Although Mulaik (1960) said that his P. potosinus differed from P. bridgesi in numerous details, Vandel (1965) synonymized P. potosinus under P. bridgesi.
**Brackenridgia palmitensis** Synonyms: *Protrichoniscus palmitensis*
Remarks: Type locality—Cueva del Palmito, Bustamante NL (Mulaik 1960).
Lacking eyes and pigment (Mulaik 1960).

**Brackenridgia villalobosi** Synonyms: *Protrichoniscus villalobosi*
Sources of illustrations: Mulaik (1960) Figs. 527-551, Rioja (1950) Figs. 21-49, Rioja (1951a) Fig. 14, Vandel (1965) Fig. 8.
Remarks: Type locality—Cueva de Ojo de Agua Grande, near Cordoba VER (Rioja 1950). Vandel (1965) listed two collecting localities, one from the Thomas C. Barr Collection.

**Cubaris acapulcensis** Synonyms: *Armadillo acapulcensis*
Remarks: Type locality—Near Acapulco GRO (Mulaik 1960). Also found at Tierra Colorada GRO (Mulaik 1960).

**Cubaris benitensis** Synonyms: *Armadillo benitensis*
Remarks: Type locality—Isla Benito, Baja California (Mulaik 1960).

**Cubaris bolivari** Synonyms: *Armadillo bolivari*

**Cubaris mirandai** Synonyms: *Armadillo mirandai*
Remarks: Type locality—Cueva de Ojo de Agua Grande, Paraje Nuevo, Cordoba VER (Rioja 1954). Named for botanist Dr. Faustino Miranda, who accompanied the Instituto de Biologia expedition in the exploration of this cave (Rioja 1954).

**Cubaris murina** Synonyms: *Armadillo murinus*
Remarks: Collecting locality—Guanajuato MEX (De Borre 1886). Van Name (1936) quoted the original description of Brandt and gave the habitat as the vicinity of towns and cities.
Cylindroniscus cavicola

Synonyms: Antroniscus cavicola
Sources of illustrations: Mulaik (1960) Figs. 59-64.
Remarks: Type locality—Gruta del Palmito, Bustamente NL (Mulaik 1960). Differs from *C. yucatanensis* in features of leg VII and in having more teeth in the first maxillae (Mulaik 1960).

Cylindroniscus maya

Synonyms: Antroniscus balamensis
Remarks: Type locality—Cenote de Sambulha, near Sur de Motul YUC (Rioja 1957). Type specimens (females only) in the collection of the Instituto de Biologia (Rioja 1957).

Cylindroniscus vallesensis

Remarks: Type locality—Cueva Pinta, 8 mi NE of Valles SLP (Schultz 1970). Reddell (1981b) noted immature specimens from Sotano de Yerbania cave SLP.

Cylindroniscus yucatanensis

Synonyms: Antroniscus yucatanensis
Sources of illustrations: Mulaik (1960) Figs. 49-55.
Remarks: Type locality—Santa Maria, Tecax YUC (Mulaik 1960). Holotype is male and lacks pigment (Mulaik 1960).

Cylisticus convexus

Sources of illustrations: Mulaik (1960) Figs. 249-253, Richardson (1905) Fig. 665, Schmidt (2003) Figs. 142-148, Van Name (1936) Figs. 147A and 148.
Remarks: Van Name (1942) noted specimens from Tacubaya, near Mexico City. F. Bonet collected this species at Tixtla GRO (Mulaik 1960).

Haplophthalmus danicus

Sources of illustrations: Mulaik (1960) Figs. 82-86, Van Name (1936) Fig. 37.

Hoctunus vespertilio


Ligia baudiniana

Synonyms: Ligyda baudiniana
Sources of illustrations: Ives (1891) PL VI Fig. 2; Mulaik (1960) Figs. 10, 12-13, 15, 17, 19; Richardson (1905) Figs. 719-723, Schultz (1972) Fig. 2G-J.
Remarks: Type locality—San Juan d’Ulloa, the fortress of the harbor of Vera Cruz (Ives 1891). Habitat—littoral (Van Name 1936).
Ligia exotica  
Synonyms: Ligyda exotica  
Sources of illustrations: Mulaik (1960) Figs. 11, 14, 16, 18; Richardson (1905) Figs. 716-718; Schultz (1972) Fig. 2K-L; Van Name (1936) Figs. 5c, 8.  
Remarks: Habitat—littoral (Van Name 1936). Topolobampo, collecting locality (Richardson 1905).

Ligia occidentalis  
Synonyms: Ligyda occidentalis  
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 2; Mulaik (1960) Fig. 20, Richardson (1905) Figs. 724-725.  
Remarks: Habitat—littoral (Van Name 1936).

Littorophiloscia richardsonae  
Synonyms: Philoscia richardsonae  
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 7, Holmes and Gay (1909) Fig. 6, Mulaik (1960) Figs. 217-223, Taiti and Ferrara (1986) Figs. 2-3, Van Name (1936) Fig. 89.  
Remarks: Van Name (1936) has quoted the original description. Habitat—littoral (Hatch 1947).

Littorophiloscia tropicalis  
Sources of illustrations: Taiti and Ferrara (1986) Fig. 9.  

Mexiconiscus laevis  
Synonyms: Cordioniscus laevis, M. tlumay[a]ensis, Xilitloniscus laevis  
Remarks: Type locality—Cueva de la Hoya, Ahuacatlan, Municipio de Xilitla SLP (Rioja 1955b). Found in aquatic habitats also and therefore possibly amphibious (Vandel 1970). Reddell (1981b) listed six other San Luis Potosi caves where this species has been found.

Miktoniscus medcofi  
Synonyms: Trichoniscus medcofi, T. veracrucensis  
Sources of illustrations: Mulaik (1960) Figs. 65-73, Van Name (1940) Fig. 2.  
Remarks: Habitat—native habitat unknown (Van Name 1940).

Nagurus cristatus  
Synonyms: Leptotrichus emarginatus, Nagara cristata  
Sources of illustrations: Van Name (1936) Fig. 146.  
Remarks: Habitat—woodlands, wetlands (Van Name 1936).

Oniscus asellus  
Sources of illustrations: Mulaik (1960) Figs. 181-185, Richardson (1905) Fig. 657, Schmidt (2003) Figs. 129-135, Van Name (1936) Figs. 97-98.  
Remarks: Habitat—woodlands and grasslands (Harding and Sutton 1985).
Oxalaniscus ctenoscioides
Synonyms: Philoscia ctenoscioides
Remarks: Type locality—Ruinas de Palenque CHIS (Mulaik 1960). Transferred from Philoscia and redescribed under this new genus as O. ctenoscioides (sic) by Leistikow (2000).

Philoscia colimensis
Synonyms: P. colima
Sources of illustrations: Mulaik (1960) Figs. 196-207.
Remarks: Type locality—Cuyutlan COL (Mulaik 1960). Holotype and paratypes are all females (Mulaik 1960).

Philoscia guerrerensis
Remarks: Type locality—Icacos, Acapulco GRO (Mulaik 1960). Mulaik (1960) said the closest relative to this isopod was the species now known as Oxalaniscus ctenoscioides.

Philoscia veracruzana
Remarks: Type locality—Veracruz VER (Mulaik 1960). Also collected from El Hule OAX, both lots having F. Bonet as the collector (Mulaik 1960).

Porcellio laevis
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 17, Mulaik (1960) Figs. 292-298, Richardson (1905) Fig. 666, Schultz (1972) Fig. 7A-F, Van Name (1936) Fig. 129, Van Name (1940) Fig. 27.
Remarks: Richardson (1905) gave “Alvarez...at an altitude of 8,000 feet” among the Mexican localities listed for this species.

Porcellio scaber
Synonyms: P. marginalis, P. montezumae
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 15, Mulaik (1960) Figs. 281-291, Richardson (1905) Fig. 623, Van Name (1936) Figs. 2-3 and 127A and 128, Van Name (1940) Fig. 28.

Porcellio scabriusculus
Remarks: Type locality—Km.132 on the Mexico to Laredo highway (Mulaik 1960). Mulaik (1960) said that the single male holotypic specimen “did not afford opportunity to examine” the pleopods.

Porcellionides florio
Sources of illustrations: Garthwaite and Lawson (1992) Fig. 18; Garthwaite and Sassaman (1985) Figs. 1A-C, 2.
Remarks: Habitat—riparian (Garthwaite and Sassaman 1985).
Porcellionides pruinosus Synonyms: Metoponorthus pruinosus
Sources of illustrations: Mulaik (1960) Figs. 299-303, Richardson (1905) Fig. 674, Schultz (1972) Fig. 6H-L, Van Name (1936) Fig. 133-134.
Remarks: Locality data—Mexico City, Atepec near Ixtlan (Hatch 1947).

Porcellionides saussurei Synonyms: Metoponorthus saussurei
Sources of illustrations: Mulaik (1960) Figs. 320-321, Richardson (1905) Fig. 673, Van Name (1936) Fig. 137, Van Name (1940) Fig. 14.
Remarks: Type locality—Cordova VER, altitude: over 2800 feet (Van Name 1940). Richardson (1905) included Dollfus’ original description and an English adaptation of it. Van Name (1942) listed this species from Ciudad del Maiz SLP also.

Porcellionides virgatus Synonyms: Metoponorthus virgatus
Sources of illustrations: Mulaik (1960) Figs. 304-314, Van Name (1936) Fig. 135, Van Name (1940) Fig. 30A.
Remarks: Richardson (1905) included Budde-Lund’s original description and an English adaptation of it. Habitat—woodlands (Schultz 1982).

Quintanoscia contoyensis Synonyms: Philoscia contoya

Rhyscotoides parallelus Synonyms: R. laxus, Rhyscotus laxus
Sources of illustrations: Mulaik (1960) Figs. 110-115 and Van Name (1936) Figs. 150c, 150m, 150s, 154.
Remarks: Collected by F. Bonet from Cuyutlan COL and Acapulco GRO (Mulaik 1960).

Rhyscotus colimensis
Remarks: Type locality—Cuyutlan COL (Mulaik 1960). Mulaik (1960) used number of ocelli to distinguish this species (about 10) from R. laxus (about 15).

Spherarmadillo huatuscensis Synonyms: S. huatusco

Spherarmadillo schwarzi Synonyms: S. cavernicola, S. cuevicola
Richardson (1907) Figs. a-g, Van Name (1936) Fig. 171. Remarks: S. cavernicola was collected in Cueva de los Sabinos Valles SLP by C. Bolivar, F. Bonet, D. Pelaez, and B.F. Osorio Tafall on April 2, 1942 (Mulaik 1960). S. schwarzi type is in the U.S. National Museum (Richardson 1907).

Stenoniscus pleonalis Synonyms: S. contoyensis

Trachelipus rathkii Synonyms: Tracheoniscus rathkei
Sources of illustrations: Van Name (1936) Figs. 147B and 149, Van Name (1940) Fig. 31. Remarks: Van Name (1936) noted specimens from Cuatotolapam VER that were identified, with some doubt, by Richardson, who stated that they differed somewhat in the markings from those from the United States.

Trachelipus richardsonae

Trichoniscus hoctuni
Sources of illustrations: Mulaik (1960) Figs. 80-81. Remarks: Type locality—Cueva de Hoctun, Hoctun YUC (Mulaik 1960). Type specimens lack pigment and were taken in bat guano (Mulaik 1960).

Trichoniscus orchidicola
Sources of illustrations: Mulaik (1960) Figs. 74-79. Remarks: Type locality—Mexico [no state, therefore no map in this atlas]. Habitat—found in supply of orchids (Mulaik 1960).

Trichorhina atoyacensis

Trichorhina boneti
Trichorhina heterophthalma

Trichorhina macrophthalma
Remarks: Type locality—Villahermosa TÀB (Mulaik 1960). Distinctive traits of this species (Mulaik 1960) are prominent eyes and a body length of about 2 mm.

Trichorhina mulaiki Synonyms: T. squamata
Sources of illustrations: Mulaik (1960) Figs. 151-157, Van Name (1936) Fig. 322.
Remarks: Van Name (1936) gave the following locality and habitat data—Chilopa (sic), probably Chilapa, in the humus of a mountain forest GRO.

Trichorhina pearsei Synonyms: Porcellio pearsei, T. yucatanensis
Sources of illustrations: Creaser (1938) Figs. 1-8, Mulaik (1960) Figs. 146-150 and 654-661.
Remarks: Type locality (P. p.)—Balam Canche Cave, near Chichen Itza YUC (Creaser 1938). Type locality for T. yucatanensis—Cueva de Gorgosa, Oxkutzcab YUC (Mulaik 1960). Reddell (1981b) listed seven cave localities.

Trichorhina vandeli
Remarks: Type locality—Cerro Hueco, Tuxtla, Gutierrez CHIS (Rioja 1955a). Type material is in the collection of the Instituto de Biologia (Rioja 1955a).

Trichorhina xoltumae
Remarks: Type locality—Xoltum YUC (Mulaik 1960). Mulaik (1960) described this species as lacking eyes and pigment.

Trichorhina zimapanensis
Sources of illustrations: Mulaik (1960) Figs. 131-145.
Remarks: Type locality—Six miles north of Zimapan HGO (Mulaik 1960). Mulaik (1960) described the unique traits of this species as lack of eyes, white coloration, and an acutely pointed telson.

Troglophiloscia laevis
Remarks: Type locality—Actun Xpukil YUC (Schultz 1977). Reddell (1981b Fig. 9) mapped the type locality, 3 km south of Calcehtok, and said the species was known only from a single male.
Tylos niveus
Sources of illustrations: Mulaik (1960) Figs. 5-9, Richardson (1905) Fig. 645, Schultz (1972) Fig. 2F.
Remarks: Habitat—littoral (Schultz and Johnson 1984).

Tylos punctatus
Sources of illustrations: Van Name (1936) Figs. 215-253.
Remarks: Habitat—sand beaches (Hamner, Smith and Mulford 1968), where detailed study of its distribution as related to moisture and other factors was reported by Hayes (1977).

Typhlotricholigoides aquaticus
Remarks: Type locality—Cueva del Ojo de Agua Grande, Paraje Nuevo, Cordoba VER (Rioja 1952). Found in travertine pools filled with water left from flooding deep within the cave (Reddell 1981b).

Venezillo articulatus Synonyms: Armadillo articulata
Sources of illustrations: Mulaik (1960) Figs. 415-422.

Venezillo boneti Synonyms: Armadillo boneti
Remarks: Type locality—Cueva de Juxtlahuaca, Colotlipa GRO (Mulaik 1960). F. Bonet collected the types and also collected specimens from Huixtla CHIS (Mulaik 1960).

Venezillo cacahuamilpensis Synonyms: Armadillo cacahuamilpensis
Remarks: Type locality—Cacahuamilpa Caverns, near Cuernavaca GRO (Mulaik 1960). Also collected from two other caves in Guerrero state (Mulaik 1960).

Venezillo chiapensis Synonyms: Armadillo chiapensis
Remarks: Type locality—Cueva de Zapaluta, Comitan CHIS (Rioja 1955a). Type material is in the collection of the Instituto de Biologia (Rioja 1955a).

Venezillo dugesi Synonyms: Armadillo dugesi, Cubaris dugesi
Sources of illustrations: Mulaik (1960) Figs. 439-442, Richardson (1905) Fig. 695.
Remarks: Type locality—Mexico; Richardson (1905) included Dollfus' original description and an English adaptation of it
and gave as localities Corritos and Morelia but did not specify the Mexican state for these. Mulaik (1960) said the species is known from Michoacan and possibly from San Luis Potosi.

**Venerillo llamasi**

**Synonyms:** Armadillo llamasi


**Remarks:** Type locality—Cueva de Patla, Hydroelectric Plant of Tepexi, 8 km southwest of Villa Juarez, on the bank of the River Necaxa PUE (Rioja 1954). Named for R. Llamas, Director of the Instituto de Biologia (Rioja 1954).

**Venerillo macrosoma**

**Synonyms:** Armadillo macrosoma

**Sources of illustrations:** Mulaik (1960) Figs. 423-427.

**Remarks:** Type locality—Isla de San Pedro Martir, Baja (Mulaik 1960). Known from the female holotype only (Mulaik 1960).

**Venerillo mexicanus**

**Synonyms:** Armadillo mexicanus, Cubaris mexicana

**Sources of illustrations:** Mulaik (1960) Figs. 435-438, Van Name (1936) Fig. 321, Verhoeff (1933) Figs. 1-4.

**Remarks:** Type locality—Near Chilopa (probably Chilapa) GRO (Van Name 1936). Habitat—In the humus of a mountain forest (Van Name 1936).

**Venerillo nevadensis**

**Synonyms:** Armadillo nevadensis

**Sources of illustrations:** Mulaik (1960) Figs. 401-403.

**Remarks:** Type locality—Nevado de Colima JAL (Mulaik 1960). Known from the male holotype only (Mulaik 1960).

**Venerillo oaxacanus**

**Synonyms:** Armadillo oaxacanus, Cubaris oaxacana

**Sources of illustrations:** Mulaik (1960) Figs. 410-414, Van Name (1936) Fig. 215.

**Remarks:** Type locality—San Geronimo OAX (Van Name 1936). The type is a 14 mm long female—AMNH 6517 (Van Name 1936).

**Venerillo osorioi**

**Synonyms:** Armadillo osorioi

**Sources of illustrations:** Mulaik (1960) Figs. 428-434.

**Remarks:** Type locality—Cueva Acuitlapan GRO (Mulaik 1960). B.F. Osorio Tafall and others collected the type; also known from Cueva del Palmito NL (Mulaik 1960).

**Venerillo pleogoniophorus**

**Synonyms:** Armadillo pleogoniophorus, Cubaris pleogoniophorus

**Sources of illustrations:** Mulaik (1960) Figs. 451-459 and 464-472, Rioja (1951b) Figs. 1-17, Rioja (1954) Figs. 44-46.

**Remarks:** Type locality—Cueva de los Sabinos, Ciudad Valles SLP (Rioja 1951b). Known from the type locality only (Mulaik 1960).
Venezillo schultzei Synonyms: Armadillo schultzei, Cubaris schultzei
Sources of illustrations: Mulaik (1960) Figs. 460-463; Van Name (1936) Fig. 320.
Remarks: Type locality—Chilopa (probably Chilapa) GRO (Van Name 1936). Habitat—mountain forest (Van Name 1936).

Venezillo soyatlanensis Synonyms: Armadillo soyatlanensis

Venezillo stuckchensis Synonyms: Armadillo stuckchensis
Sources of illustrations: Mulaik (1960) Figs. 373-379.

Venezillo sylvicola Synonyms: Armadillo sylvicola
Sources of illustrations: Mulaik (1960) Figs. 347-351.

Venezillo tanneri Synonyms: Cubaris tanneri
Sources of illustrations: Mulaik and Mulaik (1942) Figs. 31-39.
Remarks: Schultz (1965) reported localities in Mexico.

Venezillo walkeri Synonyms: Armadillo walkeri, Cubaris walkeri
Sources of illustrations: Mulaik (1960) Figs. 507-512, Pearse (1911) Figs. 1a-f, Van Name (1936) Fig. 208.
Remarks: Type locality—Cuatotolapam VER (Pearse 1911). The type is in the University of Michigan Museum (Pearse 1911).
State Species Lists

Under First Published Record, this section gives the first records from the literature for each Mexican state. Each state name is followed by its postal code abbreviation. The *Merriam-Webster’s Geographical Dictionary* Third Edition (1997) was consulted to determine the correct state for a given locality, if not specified in the publication. Because some sources in the literature do not separate Baja California into separate northern and southern entities, we report those two states as one in this listing. The number for total species is given in parentheses. The state having the highest number of species recorded is Veracruz with 17. Sixty-two percent of the species have been recorded from one state only, 20% from two states, and 17% from three.

<table>
<thead>
<tr>
<th>Mexican State</th>
<th>First Published Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGUASCALIENTES, AGS (0)</td>
<td>Schulz 1984a</td>
</tr>
<tr>
<td>CAMPECHE, CAM (0)</td>
<td>--</td>
</tr>
<tr>
<td>CHIAPAS, CHIS (6)</td>
<td>Rioja 1951a</td>
</tr>
<tr>
<td>CHIHUAHUA, CHIH (0)</td>
<td>Schultz 1965, Schultz 1965</td>
</tr>
<tr>
<td>COAHUILA, COAH (2)</td>
<td>Agabiformius lentus, Venezillo tanneri</td>
</tr>
<tr>
<td>COLIMA, COL (7)</td>
<td>Mulaik 1960, Mulaik 1960, Mulaik 1960, Mulaik 1960</td>
</tr>
</tbody>
</table>

Mexican State:
- Alloniscus mirabilis
- Alloniscus perconvexus
- Armadillidium holmesii
- Armadillidium lindahli
- Cubaris benitensis
- Ligia baudiniana
- Ligia exotica
- Ligia occidentalis
- Lidoraphiloscia richardsonae
- Porcellio laevis
- Porcellionides floridana
- Tylos punctatus
- Venezillo macrosoma
- Venezillo stuckchensis
Rhyscotoides parallelus
Rhyscotus colimensis
Venezillo soyatlanensis
Venezillo sylvicola

DISTRITO FEDERAL, DF (6)
Armadillidium vulgare
Cylisticus convexus
Haplophthalmus danicus
Mexiconiscus laevis
Oniscus asellus
Porcellionides pruinosis

DURANGO, DUR (0)
GUANAJUATO, GTO (1)
Cubaris murina

GUERRERO, GRO (15)
Alloniscus thalassophilus
Cubaris acapulcensis
Cylisticus convexus
Oniscus asellus
Philoscia guerrerensis
Porcellio laevis
Rhyscotoides parallelus
Trichorhina mulaiki
Venezillo articulatus
Venezillo boneti
Venezillo cacahuamilpensis
Venezillo mexicanus
Venezillo oaxacanus
Venezillo osoroi
Venezillo schultzei

HIDALGO, HGO (4)
Agabiformius lentus
Mexiconiscus laevis
Porcellio scabriusculus
Trichorhina zimpanensis

JALISCO, JAL (2)
Venezillo nevadensis
Venezillo soyatlanensis

MEXICO, MEX (3)
Cubaris murina
Venezillo articulatus
Venezillo cacahuamilpensis

MICHOACAN, MICH (3)
Armadillidium vulgare
Porcellio scaber
Venezillo dugesi

Mulaik 1960
Mulaik 1960
Mulaik 1960
Mulaik 1960

Hatch 1947
Van Name 1942
Mulaik 1960
Vandel 1970
Mulaik 1960
Hatch 1947

Borre 1886
Rioja 1964
Mulaik 1960
Mulaik 1960
Mulaik 1960
Reddell 1981b
Mulaik 1960
Verhoeff 1933
Mulaik 1960
Bilimek 1867
Verhoeff 1933
Van Name 1936
Mulaik 1960
Verhoeff 1933

Mulaik 1960
Rioja 1955c
Souza-Kury 2000
Mulaik 1960

Mulaik 1960
Mulaik 1960

Borre 1886
Souza-Kury 2000
Reddell 1981b

Hatch 1947
Hatch 1947
Dollfus 1896
MORELOS, MOR (2)
Nagurus cristatus
Venezillo oaxacanus

NAYARIT, NAY (1)
Porcellionides virgatus

NUEVO LEON, NL (4)
Brackenridgia palmitensis
Cylindroniscus cavicolus
Venezillo osoroi
Venezillo tanneri

OAXACA, OAX (2)
Philoscia veraeana
Venezillo oaxacanus

PUEBLA, PUE (2)
Porcellio scaber
Venezillo llamasii

QUERETARO, QRO (0)

QUINTANA ROO, QROO (5)
Cubaris murina
Oxalaniscus ctenoscioides
Quintanoscia contoyensis
Stenoniscus pleonalis
Tylos niveus

SAN LUIS POTOSI, SLP (10)
Agabifonnius lentus
Brackenridgia bridgesi
Cylindroniscus vallesensis
Mexiconiscus laevis
Porcellionides saussurei
Spherarmadillo schwarzi
Trichorhina boneti
Venezillo articulatus
Venezillo dagesii
Venezillo pleogoniophorus

SINALOA, SIN (1)
Ligia exotica

SONORA, SON (3)
Ligia occidentalis
Porcellionides floriana
Tylos punctatus

TABASCO, TAB (5)
Androdeloscia formosa
Nagurus cristatus
Oxalaniscus ctenoscioides
Trichorhina macrophthalmalma
Venezillo soyatlanensis

Mulaik 1960
Souza-Kury 2000

Mulaik 1960

Mulaik 1960
Mulaik 1960
Mulaik 1960
Schultz 1965

Mulaik 1960
Mulaik 1960

Sauussure 1857, 1858
Rioja 1954

Armas de Juarrero de Varona 1997

Mulaik 1960
Mulaik 1960
Mulaik 1960
Mulaik 1960

Van Name 1942
Van Name 1942
Schultz 1970
Rioja 1955a
Van Name 1942
Mulaik 1960
Rioja 1955b
Mulaik 1960
Dollfus 1896
Rioja 1951b

Richardson 1905

Mulaik 1960
Garthwaite & Sassaman 1985
Van Name 1940

Mulaik 1960
Mulaik 1960
Mulaik 1960
Mulaik 1960
Mulaik 1960
TAMAULIPAS, TAMPS (3)
- Brackenridgia bridgesi
- Porcellionides virgatus
- Spherarmadillo schwarzi

TLAXCALA, TLAX (0)

VERACRUZ, VER (17)
- Brackenridgia bridgesi
- Brackenridgia villalobosi
- Cubaris bolivari
- Cubaris mirandai
- Ligia baudiniana
- Ligia exotica
- Miktoniscus medcofi
- Philoscia veracrucana
- Porcellio scaber
- Porcellionides saussurei
- Spherarmadillo huatuscensis
- Spherarmadillo schwarzi
- Trachelipus rathkii
- Trachelipus richardsonae
- Trichorhina atoyacensis
- Typhlotricholigioides aquaticus
- Venezillo walkeri

YUCATAN, YUC (14)
- Cylindroniscus maya
- Cylindroniscus yucatanensis
- Hoctunus vespertilio
- Ligia baudiniana
- Littorophiloscia tropicalis
- Porcellio laevis
- Porcellionides flora
- Porcellionides pruinosus
- Trichoniscus hoctuni
- Trichorhina atoyacensis
- Trichorhina heterophthalma
- Trichorhina pearsei
- Trichorhina xoltumae
- Troglophiloscia laevis

ZACATECAS, ZAC (0)
- Vandel 1965
- Mulaik 1960
- Reddell 1981b

- Mulaik 1960
- Rioja 1950
- Mulaik 1960
- Rioja 1954
- H. Milne Edwards 1840
- Mulaik 1960
- Mulaik 1960
- Mulaik 1960
- Saussure 1857, 1858
- Richardson 1905
- Mulaik 1960
- Mulaik 1960
- Pearse 1911
- Mulaik 1960
- Mulaik 1960
- Rioja 1952
- Pearse 1911
- Rioja 1957
- Mulaik 1960
- Mulaik 1960
- Ives 1891
- Souza-Kury 2000
- Creaser 1938
- Garthwaite & Sassaman 1985
- Creaser 1938
- Mulaik 1960
- Mulaik 1960
- Armas de & Juarrero de Varona 1997
- Mulaik 1960
- Mulaik 1960
- Schulz 1977
Maps

Maps giving the published records follow the Literature Cited section. Introductory Map 1 identifies the Mexican states by keying the name of the state to a numbered listing that precedes it. The species distribution maps appear in alphabetical order, with the states marked from which each terrestrial isopod has been recorded.

The purpose of the maps is to present preliminary visual summaries of these species distributions. The state records show the patchiness of terrestrial isopod occurrences as they have been reported. The current picture is unfortunately one based on scantly collecting. A more realistic plotting of their actual distributions awaits a future when the presence of terrestrial isopods in the country, and in North America as a whole, has been documented in greater detail than it is at present.

Acknowledgements

We are grateful for the support of the Milwaukee Public Museum’s staff, especially Judith Turner and Ruth King for assistance in the Library and publications editor Paul Mayer. We gratefully acknowledge the invaluable resource “The World List of Marine, Freshwater and Terrestrial Isopod Crustaceans” provided through the Smithsonian Institution’s National Museum of Natural History.

Literature Cited


Rioja, E., 1955b. XXXIV, Dos nuevos isopodos cavernicolas de la Sierra Madre Oriental (Reg. de Xilitla), Mexico. Anales del Instituto de Biologia, 26: 447-457.
Rioja, E., 1964. XXXVII, Descripcion y algunos datos morfologicos de Allonisicus thalassophilus n.s. (Isopoda Oniscoidea) del piso supralitoral de las costas Mexicanas del Pacifico. Anales del Instituto de Biologia, 34: 285-300.


MAP 1 Mexican State Names

1. Baja California
2. Baja California Sur
3. Sonora
4. Chihuahua
5. Coahuila
6. Sinaloa
7. Durango
8. Nuevo Leon
9. Zacatecas
10. Tamaulipas
11. Nayarit
12. Aguascalientes
13. San Luis Potosi
14. Jalisco
15. Guanajuato
16. Queretaro
17. Hidalgo
18. Colima
19. Michoacan
20. Mexico
21. Distrito Federal
22. Tlaxcala
23. Morelos
24. Puebla
25. Guerrero
26. Veracruz
27. Tabasco
28. Campeche
29. Yucatan
30. Quintana Roo
31. Oaxaca
32. Chiapas
Agabiformius lentus

Alloniscus mirabilis
Alloniscus perconvexus

Alloniscus thalassophilus
Androdeloscia formosa

Armadillidium vulgare
Armadilloniscus holmesi

Armadilloniscus lindahli
*Brackenridgia acostai*

*Brackenridgia bridgesi*
Brackenridgia palmitensis

Brackenridgia villalobosi
Cubaris acapulcensis

Cubaris benitensis
Cubaris bolivari

Cubaris minuta
Cubaris mirandai

Cubaris murina
Cylindroniscus cavicola

Cylindroniscus maya
Cylindroniscus vallesensis

Cylindroniscus yucatanensis
*Hoctunus vespertilio*

*Ligia baudiniana*
*Ligia exotica*

*Ligia occidentalis*
Littorophiloscia richardsonae

Littorophiloscia tropicalis
Mexiconiscus laevis

Miktoniscus medcofi
Nagurus cristatus

Oniscus asellus
**Oxalaniscus ctenoscioides**

**Philoscia colimensis**
Philoscia guerrerensis

Philoscia veracruzana
Porcellio laevis

Porcellio scaber
Porcellio scabriusculus

Porcellionides floria
Porcellionides pruinosus

Porcellionides saussurei
Porcellionides virgatus

Quintanoscia contoyensis
Rhyscotoides parallelus

Rhyscotus colimensis
Spherarmadillo huatuscensis

Spherarmadillo schwarzi
Stenoniscus pleonalis

Trachelipus rathkii
Trachelipus richardsonae

Trichoniscus hoctuni
Trichorhina atoyacensis

Trichorhina boneti
Trichorhina heterophthalma

Trichorhina macrophthalmalma
Trichorhina mulaiki

Trichorhina pearsei
Trichorhina vandeli

Trichorhina xoltumae
Trichorhina zimapanensis

Troglophiloscia laevis
Tylos niveus

Tylos punctatus
Typhlotricholigioides aquaticus

Venezillo articulatus
Venezillo boneti

Venezillo cacahuamilpensis
Venezillo chiapensis

Venezillo dugesi
Venezillo llamasi

Venezillo macrosoma
Venezillo mexicanus

Venezillo nevadensis
Venezillo oaxacanus

Venezillo osorioi
Venezillo pleogoniophorus

Venezillo schultzei
Venezillo soyatlanensis

Venezillo stuckchensis
Venezillo sylvicola

Venezillo tanneri
Venezillo walkeri
Appendix II: Photographs

Through fortuitous happenstance, the Milwaukee Public Museum collections include historic photographs of significant oniscidean collecting sites in Mexico. As noted previously, one third of all the country’s terrestrial isopods have been collected from caves. Two endemic species whose names reflect this origin are *Trichorrhina atoyacensis* from Atoyac Cave and *Venezillo cacahuamilpensis* from Cacahuamilpa Cave. The fragile nature of such habitats and the attendant importance of conservation measures to protect them were documented by photographer Sumner Matteson, who noted damage done by casual visitors to the area.

The following information about the images of Mexican caves and the accompanying photo captions (Atoyac—Figs. 1-3 and Cacahuamilpa—Fig. 4-5) were provided by the Milwaukee Public Museum Photo Archivist, Susan Otto.

These photographs were taken by Sumner W. Matteson (1867-1920) while he was in Mexico (December 1906 to Autumn 1907). After photographing the city life during the spring of 1907, Matteson, an avid mountain climber, spent the summer photographing Mexico’s rugged countryside.

According to Matteson’s notes, Atoyac Cave had been discovered the previous year. On one of the photographs is written: “Discovered a year ago and apparently never before entered by humans. Although it is now locked and barred it is already badly defaced with names, some of which look American. The most conspicuous of all was ‘Parker the Oliver,’ which disgraces everything and everyone associated with it.”
FIGURE 1 Entrance to the Atoyac Cave, State of Veracruz. Sumner W. Matteson, 1907 (SWM1-D082).
**Figure 2** In the Atoyac Cave. Sumner W. Matteson, 1907 (SWM1-D083).
FIGURE 3 In the Atoyac Cave. Sumner W. Matteson, 1907 (SWM1-D084).
FIGURE 5 Entrance to Cacahuamilpa Cave, 8 miles long, near Puente de Ixla. Sumner W. Matteson, 1907 (SWM1-D040).