

## **New Mexican and Central American Ephemeroptera Records, with First Species Checklists for Mexican States**

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## New Mexican and Central American Ephemeroptera records, with first species checklists for Mexican states

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### ABSTRACT

Twenty-three Ephemeroptera species are reported variously from four Central American countries (Costa Rica, Honduras, Nicaragua, Panama) and nine Mexican states (Chiapas, Durango, Guanajuato, Guerrero, Hidalgo, Oaxaca, Puebla, Queretaro, San Luis Potosi) for the first time. *Campsurus decoloratus*, *Fallceon nikitai*, and *Tricorythodes explicatus* are reported from Central America for the first time. *Allenhyphes vescus* is reported from southern Mexico for the first time, and second ever records are given for *Choroterpes unguis* (Durango), and *Leptohyphes priapus* (Panama). Published record based checklists for the 28 Mexican states with reported mayflies are provided. The greatest diversity is found in Vera Cruz followed in order by Chihuahua, Chiapas, Tamaulipas, Neuvo Leon and Queretaro. *Baetis magnus*, *Callibaetis pictus*, *Camelobaetis mexicanum*, *Fallceon quilleri*, *Neochoroterpes oklahoma*, *Thraulodes brunneus*, *Traverella albertana* and *Vacupernius packeri* are among the most commonly encountered mayflies in Mexico.

### INTRODUCTION

The following records are based on identifications of material housed in the Purdue Entomological Research Collection and the Packer Honduras Collection. The contribution continues a series of records reports documenting mayfly biodiversity and distribution in Central America and Mexico (McCafferty 1985, McCafferty and Lugo-Ortiz 1992, Lugo-Ortiz and McCafferty 1994, 1995a,b, 1996b, c, McCafferty and Lugo-Ortiz 1996, Randolph and McCafferty 2000, 2001, 2002, McCafferty et al. 2004, Meyer et al. 2008, McCafferty 2011) generated from sorting, identification and curation of acquisitions associated with the entomological collections program at Purdue University. Considerable records are byproducts of systematic studies at Purdue (e.g., Waltz and McCafferty 1985, 1987, Lugo-Ortiz and McCafferty 1996a, McCafferty and Randolph 2000, McCafferty and Baumgardner 2003, Baumgardner and McCafferty 2010). All materials reported here are in reference to larvae unless the data are appended with (A) indicating that alate materials are referenced.

### RECORD DATA

- Allenhyphes vescus* (Allen): MEXICO, **Queretaro**, Neblinas, Rio Verdito, 13-VII-2000, W. D. Shepard. This species has been known from Texas, Arizona, Chihuahua, Nuevo Leon and Tamaulipas (see e.g., McCafferty 2011, McCafferty et al. 2012). Queretaro represents the first record from as far south as southern Mexico.
- Asioplax isabelia* Baumgardner, Meyer & McCafferty: **HONDURAS**, Dept. Cortes, Chamelecon, Rio Chamelecon, 18-X-1964, J. S Packer. This striking species has been known previously from Costa Rica and Nicaragua (Baumgardner et al. 2006).
- Callibaetis californicus* Banks: MEXICO, **Hidalgo**, 10 mi N Monterey, Sabinus, 25-XII-1947, S. Mulaik. This species is known in the USA from California, Idaho and Texas, although I have also seen material of it taken at a spring in Garfield County, Oklahoma (no other data). In Mexico, it has been known from Baja California, Baja California Sur,

Guerrero, Mexico State, Morelos and Nuevo Leon (see e.g., Randolph and McCafferty 2000, McCafferty et al. 2012).

*Camelobaetidius arriaga* (Traver & Edmunds):

**COSTA RICA**, Guanacaste Province, Rio Tenorio at Finca La Pacifica, E Pan Am Hwy, 2-II-1969, W. P. McCafferty; Alajuela, Rio Pizote, ca 5 km S Brasilia, 12-III-1986, Holzenthal, Fasth. This species has been correctly reported only from Chiapas and Vera Cruz in Mexico, and in Central American from Belize and Guatemala (see McCafferty 2011).

*Camelobaetidius warreni* (Traver & Edmunds):

**PANAMA**, Canal Zone, Rio Guanabano, 3 mi N Fort Clayton, and Rio Camaron, N edge Fort Clayton, Chiva-Chiva Rd, 9-IX-1963, and Rio Venado, Fort Kobbe, 10-IX-1964, W. L. Peters, C. M. Keenan. This relatively common species is known from throughout Mexico, Central America, and much of western North America north of Mexico (see review in McCafferty et al. 2012). Panama represents the southernmost part of its known range.

*Campsurus decoloratus* (Hagen): **NICARAGUA**,

La Flores, Finca Tullez, 20-XI-1987, J. M. Maes (A). This represents the first Central American record of this species, which otherwise had been known only from Texas and Tamaulipas (see McCafferty 1975).

*Choroterpes unguis* Lugo-Ortiz & McCafferty:

**MEXICO**, **Durango**, La Michilia, Arroyo Nana Juana, Bosque seco de pino-encino, 15-IV-1988, R. Novelo. This species had previously been known only from its type locality in Chiapas (Lugo-Ortiz and McCafferty 1996a).

*Epiphraides undatus* (Lugo-Ortiz & McCafferty):

**HONDURAS**, Dept. Francisco, Morazan, 6.5 mi from Junction Hwys 3 and 5, 7-XI-1964, J. S. Packer. This Central American species has also been taken from Costa Rica (Lugo-Ortiz and McCafferty 1995b), Guatemala (McCafferty et al. 2004), and Nicaragua (Meyer et al. 2008).

*Fallceon nikitai* McCafferty & Lugo-Ortiz, **COSTA RICA**, Guanacaste Province, Rio Tenorio at Finca La Pacifica, E Pan Am Hwy, 2-8-II-1969, W. P. McCafferty. This species was previously known from Cuba (McCafferty and Lugo-Ortiz 1994).

*Farrodes otiesa* Lugo-Ortiz & McCafferty,

**MEXICO**, **Oaxaca**, Oaxaca Comino, at Guelatao, 9-III-1978, Zapién. This species was previously known only from Costa Rica, Queretaro and Tamaulipas (Lugo-Ortiz and McCafferty 1996a, Randolph and McCafferty 2000, 2001).

*Farrodes texanus* Davis, **COSTA RICA**, San

Jose, Rio Parrita Chiquito, 10-VI-1987, Holzenthal, Hamilton, Heyn. This species is also known from Belize, Guatemala, Nicaragua, Tamaulipas and Texas (see McCafferty et al. 2004, Meyer et al. 2008).

*Hexagenia albivitta* (Walker): **MEXICO**, **Chiapas**,

Agua Azul, 1-V-1978, H. Brailowsky (A). In Mexico, this species has been known also from the adjacent southern state of Vera Cruz (Lugo-Ortiz and McCafferty 1996b). It has also been known from Guatemala and Costa Rica (see McCafferty et al. 2004), and is best known from much of tropical South America.

*Leptohyphes apache* Allen: **COSTA RICA**,

Guanacaste Province, Rio Tenorio, at Finca La Pacifica, E Pan Am Hwy, 2-II-1969, W. P. McCafferty; Heredia Province, Quebrada Salto in SW section of teaching area at La Selva, 25-II-1969, W. P. McCafferty. This species is known from the southwestern USA (see McCafferty et al. 2012), in Mexico from the states of Chiapas, Chihuahua, Morelos, Oaxaca, Queretaro, Sonora, Tamaulipas and Vera Cruz, and in Central America it is also known from Belize, Guatemala, Honduras, Nicaragua and El Salvador (see also Baumgardner and McCafferty 2010, McCafferty 2011).

*Leptohyphes priapus* Traver: **PANAMA**, Pueblo

Nuevo Cave, 16-VI-1999, W. Reeves (A). This species is known only in the adult stage and was previously known only from its type locality in Costa Rica (see Baumgardner and McCafferty 2010).

- Neochoroterpes oklahoma* (Traver): MEXICO, **Puebla**, Rio Lacan, Ha Km 22.5 carratera, Agua Azul-Ocotzingo, 22-VII-1978, J. Bueno, J. Padilla. This species has been known throughout much of Mexico as well as prairie regions in the western USA (see Review in McCafferty et al. 2012).
- Paracloeodes minutus* (Daggy): MEXICO, **San Luis Potosi**, Ruinas de Tamuin, 19-V-1978, J. Bueno (A). Surprisingly, this species, which is known as a transcontinental species in the USA (e.g., see McCafferty et al. 2012) and is also known from several Central American countries including Belize, Costa Rica, Honduras and Nicaragua (e.g., see Meyer et al. 2008), has been reported from Mexico only from Baja California Sur (Lugo-Ortiz and McCafferty 1994). It is expected to occur throughout Mexico, but probably because of its small size and difficulty in sampling, it has been overlooked in much of Mexico.
- Thraulodes brunneus* Koss: MEXICO, **Guanajuato**, San Miguel, VI-1984, Zapién; **San Luis Potosi**, Rio Xilitla, 12-IV-1980, Zapién. This species was originally known from the extreme southwestern USA, but is now known throughout much of Mexico (e.g., Randolph and McCafferty 2000, 2001) and is known to extend to Central America in Costa Rica, Guatemala and Honduras (see McCafferty et al. 2004).
- Thraulodes pacaya* McCafferty, Baumgardner & Guenther: MEXICO, **Puebla**, Rio Lacan, Ha Km 22.5 carretera, Agua Azul, Ocotzingo, 22-VII-1978, J. Bueno, J. Padilla. This species has been known from Chiapas, San Luis Potosi, Tabasco, Vera Cruz, Guatemala, Honduras, Nicaragua, and Panama (Allen and Brusca 1978, McCafferty et al. 2004, Meyer et al. 2008).
- Thraulodes tenulineus* Lugo-Ortiz & McCafferty, MEXICO, **Guerrero**, Km 15 carretera Bejucos. Altamirano, 22-XI-1984. This species is known from Arizona and almost all northern states of Mexico as well as some southern Mexican states (Randolph and McCafferty 2000, McCafferty et al. 2012).
- Traverella albertana* (McDunnough): MEXICO, **Puebla**, Rio Lacan, Ha Km 22.5 carretera, Agua Azul, Ocotzingo, 22-VII-1978, J. Bueno, J. Padilla. This is the most widespread *Traverella* species in North America, and should be found in nearly all of Mexico. It has also been found in Central America in Nicaragua (Meyer et al. 2008).
- Traverella presidiana* (Traver): MEXICO, **Hidalgo**, Rio Venados, 6-X-1979, Zapién. This species has been known from Texas and eastern Mexico, including the neighboring states of Coahuila, Neuvo Leon and Tamaulipas (all of which border Texas) as well as Chiapas to the south and Chihuahua to the north.
- Tricorythodes explicatus* (Eaton): **HONDURAS**, Dept. El Paraiso, Escuela Agricola Panamericana 10-III-1967, J. S. Packer (A). This is the first report of this widespread western North American species from south of Mexico, although it recently was also reported from southern Mexico by McCafferty (2011).
- Tricorythodes sordidus* Allen, 1967: **HONDURAS**, Dept. Olancho, 1.6 mi W Campamento Galera turn-off at Bridge on Hwy 3, 7-XI-1964, J. S. Packer; Dept. El Paraiso, 6 mi E Danli, 6-VIII-1966, J. S. Packer. These are the northernmost records of this Central American species. It has also been reported from Costa Rica (Allen 1967), Guatemala (McCafferty et al. 2004), and Nicaragua (Baumgardner and Ávila 2006, Meyer et al. 2008).

## CHECKLISTS

The Mexican species *Thraulodes humeralis* Navás, *T. mexicanus* (Eaton) and *Traverella sallei* (Navás), while known from Mexico, are based on records that did not include state designation nor can such be ascertained with certainty, and thus they do not appear in the following Mexican state checklists. No mayflies have been reported from the Mexican states of Colima, Compeche, Quintana Roo and Yucatan, the latter three of which generally lack habitat to support mayflies. With respect to diversity and distribution of mayflies in Central American countries, a comprehensive up-to-date accounting can be found at Mayfly Central at <http://www.entm.purdue.edu/mayfly/ca-species-list.php>.

**Aguascalientes**

*Callibaetis floridanus* Banks

**Baja California**

*Baetis adonis* Traver  
*Baetis tricaudatus* Dodds  
*Caenis bajaensis* Allen & Murvosh  
*Callibaetis californicus* Banks  
*Callibaetis pictus* (Eaton)  
*Choroterpes inornata* Eaton  
*Drunella coloradensis* Dodds  
*Drunella flavilinea* (McDunnough)  
*Epeorus margarita* Edmunds & Allen  
*Fallceon eatoni* (Kimmins)  
*Fallceon quilleri* (Dodds)  
*Ironodes nitidus* (Eaton)  
*Paraleptophlebia memorialis* (Eaton)  
*Rhithrogena morrisoni* (Banks)  
*Serratella micheneri* (Traver)  
*Thraulodes brunneus* Koss  
*Tricorythodes explicatus* (Eaton)  
*Vacupernius packeri* (Allen)

**Baja California Sur**

*Baetis adonis* Traver  
*Baetodes longus* Mayo  
*Caenis bajaensis* Allen & Murvosh  
*Callibaetis californicus* Banks  
*Callibaetis montanus* Eaton  
*Callibaetis pictus* (Eaton)  
*Camelobaetidius mexicanus* (Traver & Edmunds)

*Camelobaetidius musseri* (Traver & Edmunds)  
*Camelobaetidius warreni* (Traver & Edmunds)  
*Choroterpes inornata* Eaton  
*Cloeodes excogitatus* Waltz & McCafferty  
*Cloeodes peninsulus* Waltz & McCafferty  
*Epeorus margarita* Edmunds & Allen  
*Fallceon quilleri* (Dodds)  
*Paracloeodes minutus* (Daggy)  
*Serratella micheneri* (Traver)  
*Thraulodes brunneus* Koss  
*Tricorythodes explicatus* (Eaton)

**Chiapas**

*Americabaetis lugoi* Waltz & McCafferty  
*Baetis magnus* McCafferty & Waltz  
*Baetodes caritus* Cohen & Allen  
*Baetodes pallidus* Cohen & Allen  
*Baetodes tritus* Cohen & Allen  
*Caenis bajaensis* Allen & Murvosh  
*Caenis latipennis* Banks  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Camelobaetidius arriaga* (Traver & Edmunds)  
*Camelobaetidius mexicanus* (Traver & Edmunds)  
*Camelobaetidius musseri* (Traver & Edmunds)  
*Camelobaetidius warreni* (Traver & Edmunds)  
*Choroterpes unguis* Lugo-Ortiz & McCafferty  
*Cloeodes excogitatus* Waltz & McCafferty  
*Fallceon quilleri* (Dodds)  
*Farrodes maya* Domínguez  
*Farrodes tulija* Domínguez, Molineri & Peters  
*Hexagenia albivitta* (Walker)  
*Homoeoneuria salviniae* Eaton  
*Lachania iops* Allen & Cohen  
*Leptohyphes apache* Allen  
*Leptohyphes musseri* Allen  
*Leptohyphes zalope* Traver  
*Moribaetis macaferti* Waltz  
*Neochoroterpes oklahoma* (Traver)  
*Thraulodes cryptodrilus* Nieto & Domínguez  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes ephippiatus* Traver & Edmunds  
*Thraulodes pacaya* McCafferty, Baumgardner & Guenther  
*Thraulodes packeri* Traver & Edmunds  
*Thraulodes spangleri* Traver & Edmunds  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Thraulodes zonalis* Traver & Edmunds

*Traverella albertana* (McDunnough)  
*Traverella presidiana* (Traver)  
*Traverella promifrons* Lugo-Ortiz & McCafferty  
*Vacupernius packeri* (Allen)  
*Varipes lasiobrachiis* Lugo-Ortiz & McCafferty

### Chihuahua

*Acentrella insignificans* (McDunnough)  
*Acentrella turbida* (McDunnough)  
*Allenhypes vesus* (Allen)  
*Baetis adonis* Traver  
*Baetis flavistriga* McDunnough  
*Baetis magnus* McCafferty & Waltz  
*Baetodes caritus* Cohen & Allen  
*Baetodes pictus* Cohen & Allen  
*Caenis amica* Hagen  
*Caenis latipennis* Banks  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Callibaetis punctilusus* McCafferty & Provonsha  
*Camelobaetidius kickapoo* McCafferty  
*Camelobaetidius warreni* (Traver & Edmunds)  
*Choroterpes inornata* Eaton  
*Cloeodes macrolamellus* Waltz & McCafferty  
*Epeorus margarita* Edmunds & Allen  
*Euthyplocia hecuba* (Hagen)  
*Fallceon quilleri* (Dodds)  
*Heptagenia elegantula* (Eaton)  
*Heterocloeon amplum* (Traver)  
*Homoeoneuria alleni* Pescador & Peters  
*Homoleptohyphes dimorphus* (Allen)  
*Homoleptohyphes mirus* (Allen)  
*Isonychia intermedia* (Eaton)  
*Isonychia sicca* (Walsh)  
*Labiobaetis ephippiatus* (Traver)  
*Leptohyphes apache* Allen  
*Neochoroterpes oklahoma* (Traver)  
*Rhithrogena plana* Allen & Chao  
*Siphonurus occidentalis* (Eaton)  
*Thraulodes brunneus* Koss  
*Thraulodes gonzalesi* Traver & Edmunds  
*Thraulodes speciosus* Traver  
*Thraulodes tenulinus* Lugo-Ortiz & McCafferty  
*Traverella albertana* (McDunnough)  
*Traverella presidiana* (Traver)  
*Tricorythyphes condylus* (Allen)  
*Tricorythodes explicatus* (Eaton)  
*Tricorythodes fictus* Traver

*Vacupernius packeri* (Allen)

### Coahuila

*Callibaetis punctilusus* McCafferty & Provonsha  
*Camelobaetidius kickapoo* McCafferty  
*Fallceon quilleri* (Dodds)  
*Neochoroterpes oklahoma* (Traver)  
*Rhithrogena plana* Allen & Chao  
*Thraulodes gonzalesi* Traver & Edmunds  
*Traverella presidiana* (Traver)  
*Tricorythodes explicatus* (Eaton)

### Distrito Federal

*Baetis magnus* McCafferty & Waltz  
*Baetis tricaudatus* Dodds  
*Callibaetis montanus* Eaton  
*Callibaetis pictus* (Eaton)  
*Callibaetis undatus* (Pictet)  
*Rhithrogena notialis* Allen & Cohen  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty

### Durango

*Baetis magnus* McCafferty & Waltz  
*Caenis bajaensis* Allen & Murvosh  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Choroterpes unguis* Lugo-Ortiz & McCafferty  
*Cloeodes macrolamellus* Waltz & McCafferty  
*Epeorus metlacensis* Traver  
*Neochoroterpes oklahoma* (Traver)  
*Thraulodes brunneus* Koss  
*Tricorythodes explicatus* (Eaton)  
*Tricorythodes fictus* Traver

### Guanajuato

*Caenis bajaensis* Allen & Murvosh  
*Homoleptohyphes dimorphus* (Allen)  
*Thraulodes brunneus* Koss  
*Tricorythyphes mulaiki* (Traver)  
*Tricorythodes explicatus* (Eaton)

### Guerrero

*Ableptemetes dicinctus* (Allen & Brusca)  
*Baetis magnus* McCafferty & Waltz  
*Baetodes caritus* Cohen & Allen  
*Baetodes deficiens* Cohen & Allen  
*Baetodes inermis* Cohen & Allen  
*Baetodes tritus* Cohen & Allen



*Callibaetis californicus* Banks  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Camelobaetidius mexicanus* (Traver & Edmunds)  
*Camelobaetidius musseri* (Traver & Edmunds)  
*Camelobaetidius warreni* (Traver & Edmunds)  
*Fallceon quilleri* (Dodds)  
*Lachlania saskatchewanensis* Ide  
*Leptohyphes lestes* Allen & Brusca  
*Leptohyphes musseri* Allen  
*Leptohyphes nigripunctum* Traver  
*Leptohyphes peterseni* Ulmer  
*Leptohyphes zalope* Traver  
*Moribaetis macaferti* Waltz  
*Paracloeodes lugoi* Randolph & McCafferty  
*Thraulodes brunneus* Koss  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes speciosus* Traver  
*Thraulodes tenulinus* Lugo-Ortiz & McCafferty  
*Traverella albertana* (McDunnough)  
*Tricoryhyphes mulaiki* (Traver)  
*Tricorythodes comus* Traver

### Hidalgo

*Baetis magnus* McCafferty & Waltz  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Epeorus metlacensis* Traver  
*Fallceon sageae* McCafferty  
*Siphonurus occidentalis* (Eaton)  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes lunatus* Traver & Edmunds  
*Traverella albertana* (McDunnough)  
*Traverella presidiana* (Traver)

### Jalisco

*Baetis magnus* McCafferty & Waltz  
*Baetis tricaudatus* Dodds  
*Baetodes deficiens* Cohen & Allen  
*Baetodes inermis* Cohen & Allen  
*Baetodes pallidus* Cohen & Allen  
*Baetodes tritus* Cohen & Allen  
*Callibaetis floridanus* Banks  
*Callibaetis montanus* Eaton  
*Callibaetis pictus* (Eaton)  
*Camelobaetidius mexicanus* (Traver & Edmunds)  
*Camelobaetidius musseri* (Traver & Edmunds)

*Fallceon quilleri* (Dodds)  
*Hexagenia limbata* (Serville)  
*Isonychia sicca* (Walsh)  
*Leptohyphes musseri* Allen  
*Thraulodes brunneus* Koss  
*Traverella albertana* (McDunnough)

### Mexico

*Americabaetis intermedius* (Lugo-Ortiz & McCafferty)  
*Baetis magnus* McCafferty & Waltz  
*Baetis notos* Allen & Murvosh  
*Baetis tricaudatus* Dodds  
*Baetodes pallidus* Cohen & Allen  
*Callibaetis californicus* Banks  
*Callibaetis pictus* (Eaton)  
*Epeorus metlacensis* Traver  
*Lachlania fusca* (Navás)  
*Moribaetis macaferti* Waltz  
*Thraulodes brunneus* Koss

### Michoacan

*Baetis magnus* McCafferty & Waltz  
*Callibaetis pictus* (Eaton)  
*Ecdyonurus bellus* (Allen & Cohen)  
*Epeorus metlacensis* Traver  
*Fallceon quilleri* (Dodds)  
*Rhithrogena notialis* Allen & Cohen  
*Thraulodes brunneus* Koss

### Morelos

*Baetis magnus* McCafferty & Waltz  
*Baetis tricaudatus* Dodds  
*Baetodes caritus* Cohen & Allen  
*Baetodes deficiens* Cohen & Allen  
*Baetodes fuscipes* Cohen & Allen  
*Baetodes inermis* Cohen & Allen  
*Baetodes tritus* Cohen & Allen  
*Callibaetis californicus* Banks  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Camelobaetidius mexicanus* (Traver & Edmunds)  
*Camelobaetidius musseri* (Traver & Edmunds)  
*Epeorus metlacensis* Traver  
*Fallceon quilleri* (Dodds)  
*Leptohyphes apache* Allen  
*Leptohyphes musseri* Allen  
*Paracloeodes lugoi* Randolph & McCafferty

*Thraulodes brunneus* Koss  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Traverella albertana* (McDunnough)  
*Tricorythodes notatus* Allen & Brusca  
*Tricorythodes ulmeri* Allen & Brusca  
*Vacupernius packeri* (Allen)

### Nayarit

*Caenis bajaensis* Allen & Murvosh  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Vacupernius packeri* (Allen)

### Nuevo Leon

*Allenhyphes vesus* (Allen)  
*Americabaetis pleturus* (Lugo-Ortiz & McCafferty)  
*Baetis magnus* McCafferty & Waltz  
*Baetodes bibranchius* McCafferty & Provonsha  
*Baetodes longus* Mayo  
*Baetodes tritus* Cohen & Allen  
*Baetodes velmae* Cohen & Allen  
*Caenis latipennis* Banks  
*Caenis punctata* McDunnough  
*Callibaetis californicus* Banks  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Callibaetis punctilulus* McCafferty & Provonsha  
*Camelobaetidium mexicanus* (Traver & Edmunds)  
*Camelobaetidium musseri* (Traver & Edmunds)  
*Camelobaetidium variabilis* Wiersema  
*Cloeodes excogitatus* Waltz & McCafferty  
*Fallceon eatoni* (Kimmins)  
*Fallceon quilleri* (Dodds)  
*Heptagenia flavescens* (Walsh)  
*Hexagenia limbata* (Serville)  
*Isonychia sicca* (Walsh)  
*Leptohyphes sabinus* Traver  
*Leptohyphes zalope* Traver  
*Neochoroterpes oklahoma* (Traver)  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes gonzalesi* Traver & Edmunds  
*Thraulodes lunatus* Traver & Edmunds  
*Thraulodes packeri* Traver & Edmunds  
*Traverella presidiana* (Traver)  
*Traverella promifrons* Lugo-Ortiz & McCafferty  
*Tricorythodes sordidus* Allen  
*Vacupernius packeri* (Allen)

### Oaxaca

*Americabaetis intermedius* (Lugo-Ortiz & McCafferty)  
*Baetis magnus* McCafferty & Waltz  
*Baetis tricaudatus* Dodds  
*Baetodes inermis* Cohen & Allen  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Camelobaetidium maidu* Jacobus & McCafferty  
*Camelobaetidium mexicanus* (Traver & Edmunds)  
*Camelobaetidium musseri* (Traver & Edmunds)  
*Camelobaetidium warreni* (Traver & Edmunds)  
*Choroterpes inornata* Eaton  
*Epeorus metlacensis* Traver  
*Fallceon quilleri* (Dodds)  
*Farrodes otiesa* Lugo-Ortiz & McCafferty  
*Hexagenia mexicana* Eaton  
*Leptohyphes alleni* Brusca  
*Leptohyphes apache* Allen  
*Leptohyphes musseri* Allen  
*Leptohyphes sabinas* Traver  
*Leptohyphes zalope* Traver  
*Moribaetis macaferti* Waltz  
*Rhithrogena notialis* Allen & Cohen  
*Thraulodes brunneus* Koss  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Tricorythodes notatus* Allen & Brusca  
*Vacupernius packeri* (Allen)

### Puebla

*Baetis magnus* McCafferty & Waltz  
*Baetodes inermis* Cohen & Allen  
*Callibaetis pictus* (Eaton)  
*Fallceon quilleri* (Dodds)  
*Moribaetis macaferti* Waltz  
*Neochoroterpes oklahoma* (Traver)  
*Neochoroterpes orientalis* Henry  
*Thraulodes pacaya* McCafferty, Baumgardner & Guenther  
*Traverella albertana* (McDunnough)

### Queretaro

*Acentrella insignificans* (McDunnough)  
*Allenhyphes vesus* (Allen)  
*Americabaetis pleturus* (Lugo-Ortiz & McCafferty)  
*Asioplax numinuh* Wiersema, McCafferty & Baumgardner



*Baetis magnus* McCafferty & Waltz  
*Baetodes deficiens* Cohen & Allen  
*Baetodes fuscipes* Cohen & Allen  
*Baetodes inermis* Cohen & Allen  
*Baetodes longus* Mayo  
*Baetodes tritus* Cohen & Allen  
*Baetodes velmae* Cohen & Allen  
*Callibaetis pictus* (Eaton)  
*Camelobaetidium kickapoo* McCafferty  
*Camelobaetidium mexicanus* (Traver & Edmunds)  
*Camelobaetidium shepardii* Randolph & McCafferty  
*Camelobaetidium variabilis* Wiersema  
*Camelobaetidium warreni* (Traver & Edmunds)  
*Choroterpes inornata* Eaton  
*Cloeodes excogitatus* Waltz & McCafferty  
*Ecdyonurus bellus* (Allen & Cohen)  
*Epeorus metlacensis* Traver  
*Fallceon quilleri* Dodds  
*Farrodes otiesa* Lugo-Ortiz & McCafferty  
*Leptohyphes apache* Allen  
*Leptohyphes zalope* Traver  
*Moribaetis macaferti* Waltz  
*Neochoroterpes orientalis* Henry  
*Thraulodes brunneus* Koss  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes speciosus* Traver  
*Thraulodes zonalis* Traver & Edmunds  
*Tricorythodes fictus* Traver  
*Tricorythodes sordidus* Allen

### San Luis Potosi

*Americabaetis pleturus* (Lugo-Ortiz & McCafferty)  
*Baetis magnus* McCafferty & Waltz  
*Caenis latipennis* Banks  
*Camelobaetidium musseri* (Traver & Edmunds)  
*Campsurus cuspidatus* Eaton  
*Fallceon quilleri* (Dodds)  
*Farrodes reevesi* Randolph & McCafferty  
*Hexagenia bilineata* (Say)  
*Hexagenia limbata* (Serville)  
*Isonychia sicca* (Walsh)  
*Lachlania iops* Allen & Cohen  
*Leptohyphes zalope* Traver  
*Neochoroterpes oklahoma* (Traver)  
*Paracloeodes minutus* (Daggy)  
*Thraulodes brunneus* Koss  
*Thraulodes pacaya* McCafferty, Baumgardner & Guenther

*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Traverella longifrons* Lugo-Ortiz & McCafferty  
*Tricorythodes sordidus* Allen  
*Vacupernius packeri* (Allen)

### Sinaloa

*Baetodes edmundsi* Koss  
*Baetodes fuscipes* Cohen & Allen  
*Callibaetis pictus* (Eaton)  
*Camelobaetidium maidu* Jacobus & McCafferty  
*Camelobaetidium mexicanus* (Traver & Edmunds)  
*Camelobaetidium musseri* (Traver & Edmunds)  
*Camelobaetidium warreni* (Traver & Edmunds)  
*Choroterpes inornata* Eaton  
*Cloeodes excogitatus* Waltz & McCafferty  
*Fallceon quilleri* (Dodds)  
*Homoleptohyphes mirus* (Allen)  
*Leptohyphes lestes* Allen & Brusca  
*Thraulodes brunneus* Koss  
*Thraulodes gonzalesi* Traver & Edmunds  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Tortopsis primus* (McDunnough)  
*Traverella albertana* (McDunnough)  
*Tricorythodes explicatus* (Eaton)  
*Vacupernius packeri* (Allen)

### Sonora

*Acentrella insignificans* (McDunnough)  
*Baetodes deficiens* Cohen & Allen  
*Baetodes edmundsi* Koss  
*Baetodes fuscipes* Cohen & Allen  
*Caenis bajaensis* Allen & Murvosh  
*Callibaetis distinctus* Lugo-Ortiz & McCafferty  
*Callibaetis pictus* (Eaton)  
*Callibaetis punctilulus* McCafferty & Provonsha  
*Camelobaetidium mexicanus* (Traver & Edmunds)  
*Camelobaetidium warreni* (Traver & Edmunds)  
*Choroterpes inornata* Eaton  
*Ecdyonurus criddlei* (McDunnough)  
*Fallceon eatoni* (Kimmins)  
*Fallceon quilleri* (Dodds)  
*Fallceon sonora* (Allen & Murvosh)  
*Homoleptohyphes mirus* (Allen)  
*Isonychia sicca* (Walsh)  
*Leptohyphes apache* Allen  
*Leptohyphes lestes* Allen & Brusca  
*Leptohyphes musseri* Allen  
*Leptohyphes sabinus* Traver

*Siphonurus occidentalis* (Eaton)  
*Thraulodes brunneus* Koss  
*Thraulodes gonzalesi* Traver & Edmunds  
*Thraulodes speciosus* Traver  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Traverella albertana* (McDunnough)  
*Tricorythodes condylus* (Allen)  
*Tricorythodes mulaiki* (Traver)  
*Tricorythodes explicatus* (Eaton)  
*Tricorythodes fictus* Traver  
*Vacupernius packeri* (Allen)

### **Tabasco**

*Hydrosmilodon primanus* (Eaton)  
*Leptohyphes zalope* Traver  
*Maccaffertium mexicanum* (Ulmer)  
*Thraulodes hilaris* (Eaton)  
*Thraulodes pacaya* McCafferty, Baumgardner & Guenther  
*Tortopsis primus* (McDunnough)  
*Traverella albertana* (McDunnough)

### **Tamaulipas**

*Allenhyphes vascus* (Allen)  
*Americabaetis pleturus* (Lugo-Ortiz & McCafferty)  
*Apobaetis etowah* (Traver)  
*Asioplax numinuh* Wiersema, McCafferty & Baumgardner  
*Asioplax texana* (Traver)  
*Baetodes bibranchius* McCafferty & Provonsha  
*Baetodes inermis* Cohen & Allen  
*Baetodes longus* Mayo  
*Baetodes tritus* Cohen & Allen  
*Caenis latipennis* Banks  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Camelobaetidius mexicanus* (Traver & Edmunds)  
*Camelobaetidius variabilis* Wiersema  
*Campsurus decoloratus* (Hagen)  
*Choroterpes inornata* Eaton  
*Cloeodes excogitatus* Waltz & McCafferty  
*Cloeodes waltzi* Wiersema & Baumgardner  
*Fallceon eatoni* (Kimmins)  
*Fallceon fortipalpus* Lugo-Ortiz & McCafferty  
*Fallceon quilleri* (Dodds)  
*Farrodes otiesa* Lugo-Ortiz & McCafferty  
*Farrodes texanus* Davis  
*Hexagenia limbata* (Serville)

*Isonychia sicca* (Walsh)  
*Leptohyphes apache* Allen  
*Leptohyphes sabinas* Traver  
*Leptohyphes zalope* Traver  
*Maccaffertium mexicanum* (Ulmer)  
*Neochoroterpes oklahoma* (Traver)  
*Plauditus virilis* (McDunnough)  
*Thraulodes gonzalesi* Traver & Edmunds  
*Thraulodes lunatus* Traver & Edmunds  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Traverella presidiana* (Traver)  
*Tricorythodes sordidus* Allen  
*Tricorythodes ulmeri* Allen & Brusca  
*Vacupernius packeri* (Allen)

### **Tlaxcala**

*Callibaetis floridanus* Banks

### **Vera Cruz**

*Americabaetis intermedius* (Lugo-Ortiz & McCafferty)  
*Americabaetis pleturus* (Lugo-Ortiz & McCafferty)  
*Baetis magnus* McCafferty & Waltz  
*Baetis notos* Alen & Murvosh  
*Baetis tricaudatus* Dodds  
*Baetodes adustus* Cohen & Allen  
*Baetodes caritus* Cohen & Allen  
*Baetodes deficiens* Cohen & Allen  
*Baetodes fortinensis* Mayo  
*Baetodes fuscipes* Cohen & Allen  
*Baetodes inermis* Cohen & Allen  
*Baetodes obesus* Mayo  
*Baetodes pictus* Cohen & Allen  
*Baetodes tritus* Cohen & Allen  
*Caenis anceps* Traver  
*Callibaetis floridanus* Banks  
*Callibaetis pictus* (Eaton)  
*Camelobaetidius arriaga* (Traver & Edmunds)  
*Camelobaetidius mexicanus* (Traver & Edmunds)  
*Camelobaetidius musseri* (Traver & Edmunds)  
*Camelobaetidius warreni* (Traver & Edmunds)  
*Campsurus cuspidatus* Eaton  
*Cloeodes excogitatus* Waltz & McCafferty  
*Ecdyonurus bellus* (Allen & Cohen)  
*Epeorus metlacensis* Traver  
*Euthyplocia hecuba* (Hagen)  
*Fallceon quilleri* (Dodds)  
*Farrodes flavipennis* Domínguez, Molineri & Peters

*Farrodes mexicanus* Domínguez  
*Hexagenia albivitta* (Walker)  
*Hexagenia mexicana* Eaton  
*Hydrosmilodon primanus* (Eaton)  
*Isonychia sicca* (Walsh)  
*Leptohyphes apache* Allen  
*Leptohyphes bernerii* Traver  
*Leptohyphes ferruginus* Allen & Brusca  
*Leptohyphes pilosus* Allen & Brusca  
*Leptohyphes sabinas* Traver  
*Leptohyphes zalope* Traver  
*Moribaetis macaferti* Waltz  
*Moribaetis salvini* (Eaton)  
*Neochoroterpes oklahoma* (Traver)  
*Rhithrogena notialis* Allen & Cohen  
*Thraulodes brunneus* Koss  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes pacaya* McCafferty, Baumgardner & Guenther  
*Thraulodes spangleri* Traver & Edmunds  
*Thraulodes tenulineus* Lugo-Ortiz & McCafferty  
*Traverella albertana* (McDunnough)  
*Vacupernius packeri* (Allen)

### Zacatecas

*Callibaetis pictus* (Eaton)  
*Camelobaetidius mexicanus* (Traver & Edmunds)  
*Fallceon quilleri* (Dodds)  
*Isonychia sicca* (Walsh)  
*Neochoroterpes oklahoma* (Traver)  
*Thraulodes eccentricus* Lugo-Ortiz & McCafferty  
*Thraulodes lunatus* Traver & Edmunds  
*Traverella albertana* (McDunnough)

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