

## **Annotated Checklist Of The Millipeds Of California (Arthropoda: Diplopoda)**

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## ANNOTATED CHECKLIST OF THE MILLIPEDS OF CALIFORNIA (ARTHROPODA: DIPLOPODA)

Rowland M. Shelley<sup>1</sup>

**ABSTRACT.**—The milliped fauna of California consists of 11 orders, 24 families, 83 genera, and 226 species and subspecies. A complete listing of these taxa and intergrades is provided, with published and new records from the state and type localities. *Cylindroiulus caeruleocinctus* (Wood), *C. truncorum* (Silvestri), *Ophiulus pilosus* (Newport) (all Julida: Julidae), and *Opiona fisheri* Gardner and Shelley (Chordeumatida: Caseyidae) are newly recorded from California. The new combination *Atopetholus wheeleri* (Chamberlin) is proposed.

*Key words:* milliped, California.

Nearly 40 years have elapsed since Buckett (1964) published a listing of California Diplopoda. This work preceded 2 periods of activity on the state's fauna, the first from 1964 through 1975 by Buckett and M.R. Gardner, and the second from 1989 through 1997 by myself. Knowledge of California diplopods is thus significantly advanced over the condition in 1964, to the point that a new checklist is in order. Buckett (1964) documented a fauna of 9 orders, 23 families, 80 genera, and 178 species and subspecies, 126 of which (70.1% of the total) were known only from the type locality; the present contribution documents a fauna of 11 orders, 24 families, 83 genera, and 226 species and subspecies, 78 of which (34.5% of the total) are known only from the type locality. While considerable work has been done on the California fauna, much remains, and this contribution is intended to stimulate future research.

With the publication of this checklist, California becomes the 4th state with a modern milliped listing, the others being Michigan (Snider 1991, an update of an old list by Johnson [1954]), North Carolina (Shelley 2000a), and Florida (Shelley 2001). An earlier publication on Ohio (Williams and Hefner 1928) is now obsolete. In addition, the faunas of eastern and western Canada have been documented (Shelley 1988, 1990), and there are now 2 continental checklists, by Chamberlin and Hoffman (1958) and Hoffman (1999), from which faunal information can be gleaned for California or

any other state in the continental United States. Four diplopods—*Cylindroiulus caeruleocinctus* (Wood), *C. truncorum* (Silvestri), *Ophiulus pilosus* (Newport), and *Opiona fisheri* Gardner and Shelley—are newly recorded from California. These species plus *Brachyiulus lusitanus* Verhoeff are European julids that have been imported into urban environments; likewise, the Asian species *Oxidus gracilis* (C.L. Koch) and the Australian/New Zealand diplopod *Akamptogonus novarae* (Humbert and DeSaussure) have been introduced into California cities and towns. Generic and/or specific names cannot be provided for certain representatives of the Siphonophoridae (Siphonophorida), *Atopetholus* (Spirobolida: Atopetholidae), *Caseya* (Chordeumatida: Caseyidae), *Rhiscosomides* (Chordeumatida: Rhiscosomidae), and *Striaria* (Chordeumatida: Striariidae). For *Paeromopus angusticeps* (Wood) (Julida: Paeromopodidae), and *Motyxia sequoia* (Chamberlin), *Xystocheir dissecta* (Wood), and *X. stolonifera* Shelley (all Polydesmida: Xystodesmidae), I present accounts of intergrades, which are prominent in sections of the state. I also propose the new combination *Atopetholus wheeleri* (Chamberlin). The format for the accounts provides a citation of the type locality (given as a state or country when not in California), occurrence in California including published and new records, pertinent references, and miscellaneous remarks where appropriate. For new records, locality details are provided when there are 6 or fewer new county

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records; counties alone are presented when there are more than 6 new counties. Details about junior synonyms should be sought in either Hoffman (1999) or the reference given for the relevant taxa. Acronyms of sources of preserved material are as follows:

AMNH – American Museum of Natural History,  
New York, NY  
BMNH – The Natural History Museum, London,  
England  
BYU – Monte L. Bean Life Science Museum,  
Provo, UT  
CAS – California Academy of Sciences, San  
Francisco  
CDFA – California Department of Food and  
Agriculture, Sacramento  
FMNH – Field Museum of Natural History,  
Chicago, IL  
FSCA – Florida State Collection of Arthropods,  
Gainesville  
LACMNH – Los Angeles County Museum of  
Natural History, Los Angeles, CA  
MCZ – Museum of Comparative Zoology,  
Harvard University, Cambridge, MA  
NCSM – North Carolina State Museum of  
Natural Sciences, Raleigh  
NMNH – National Museum of Natural History,  
Smithsonian Institution, Washington, DC  
TMM – Texas Memorial Museum, Austin  
UAZ – Department of Entomology, University  
of Arizona, Tucson  
UCB – Entomology Department, University of  
California, Berkeley  
UCD – Entomology Department, University of  
California, Davis  
UCR – Entomology Department, University of  
California, Riverside  
UID – Entomology Department, University of  
Idaho, Moscow  
WAS – Private collection of W.A. Shear,  
Hampden-Sydney, VA  
WSU – Entomology Department, Washington  
State University, Pullman  
WTAMU – Department of Life, Earth, and  
Environmental Sciences, West Texas A&M  
University, Canyon, TX

**Subclass Penicillata**  
**Order Polyxenida**  
**Family Polyxenidae**  
**Genus *Polyxenus* Latreille**

***Polyxenus anacapensis* Pierce, 1940**

TYPE LOCALITY.—Middle Anacapa Island,  
Santa Barbara County.

OCCURRENCE IN CALIFORNIA.—*Published*  
*record*: Santa Barbara County. *New records*:

Alameda, Contra Costa, Humboldt, Los Angeles,  
Marin, Mendocino, Napa, Nevada, Orange,  
Plumas, Riverside, San Diego, San Joaquin, San  
Luis Obispo, San Mateo, Santa Clara, Shasta,  
Solano, Sonoma, Tehama, Trinity, and Ventura  
cos. (CDFA, FSCA, LACMNH, NMNH, UCB,  
UCD, UCR, WAS).

REFERENCE.—Pierce 1940.

REMARKS.—For convenience I list all sam-  
ples of California *Polyxenus* that I have seen  
under *P. anacapensis*. Some may refer to other  
species.

**Subclass Chilognatha**  
**Infraclass Pentazonia**  
**Order Glomerida**  
**Family Glomeridae**  
**Genus *Glomeroides* Chamberlin, 1922**

***Glomeroides primus* (Silvestri, 1929)**

TYPE LOCALITY.—Mill Valley, Marin County.

OCCURRENCE IN CALIFORNIA.—*Published*  
*records*: Marin and Monterey counties. *New*  
*records*: Contra Costa Co., Redwood Park  
(FSCA, NMNH) and Morega Redwoods (CAS).  
Santa Cruz Co., Ben Lomond (FSCA) and Santa  
Cruz City Cave (FSCA).

REFERENCE.—Shear 1986.

**Infraclass Helminthomorpha**  
**Subterclass Colobognatha**  
**Order Polyzoniida**  
**Family Polyzoniidae**  
**Subfamily Buzoniinae**  
**Tribe Buzoniini**  
**Genus *Buzonium* Cook and**  
**Loomis, 1928**

***Buzonium crassipes* Cook and Loomis, 1928**

TYPE LOCALITY.—Sunnyside Mine near  
Seneca, Plumas County.

OCCURRENCE IN CALIFORNIA.—*Published*  
*records*: Calaveras, Del Norte, El Dorado,  
Humboldt, Mendocino, Nevada, Placer, Siski-  
you, Sonoma, and Trinity counties. *New records*:  
None.

REFERENCE.—Shelley 1997a.

**Tribe Bdellozoniini**  
**Genus *Bdellozonium* Cook and**  
**Loomis, 1928**

***Bdellozonium cerviculatum* Cook and**  
**Loomis, 1928**

TYPE LOCALITY.—Belden, Plumas County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Del Norte, El Dorado, Fresno, Humboldt, Mariposa, Monterey, Placer, Shasta, Tuolumne, and Tulare counties. *New records*: None.

REFERENCE.—Shelley 1997a.

***Bdellozonium quicki* (Chamberlin, 1954)**

TYPE LOCALITY.—Chowchilla Mountain, 0.75 mi (1.2 km) N Signal Peak, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mariposa County (known only from the type locality).

REFERENCE.—Shelley 1997a.

**Genus *Stenozonium* Shelley, 1997**

***Stenozonium exile* Shelley, 1997**

TYPE LOCALITY.—Arcata Community Forest near Arcata, Humboldt County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Humboldt County. *New records*: None.

REFERENCE.—Shelley 1997a.

**Family Hirudisomatidae  
Genus *Octoglena* Wood, 1864**

***Octoglena bivirgata* Wood, 1864**

TYPE LOCALITY.—2 mi (3.2 km) N Ft. Ross, Sonoma County (neotype locality).

OCCURRENCE IN CALIFORNIA.—*Published records*: Colusa, Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, San Mateo, Santa Clara, Santa Cruz, and Sonoma counties. *New records*: None.

REFERENCE.—Shelley 1995a.

***Octoglena sierra* Shelley, 1995**

TYPE LOCALITY.—4 mi (6.4 km) W Newcastle, Placer County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Placer County. *New records*: None.

REFERENCE.—Shelley 1995a.

**Superorder Typhlogena  
Order Platydesmida  
Family Andrognathidae  
Genus *Brachycybe* Wood, 1864**

***Brachycybe californica* (Karsch, 1880)**

TYPE LOCALITY.—California without further specification.

OCCURRENCE IN CALIFORNIA.—Unknown.

REMARKS.—Hoffman (1999) thought this

species should be regarded as valid until the type specimen, in the Zoologisches Museum der Humboldt-Universität, Berlin, Germany, could be examined. He suggested that it might be a senior name to *B. producta* Loomis.

***Brachycybe picta* Gardner, 1975**

TYPE LOCALITY.—1 mi (1.6 km) N Mendocino, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Marin and Mendocino counties. *New records*: Marin Co., Sam P. Taylor State Park (UCD), Mill Valley (BMNH), and Lagunetas Canyon (FSCA). Mendocino Co., 5 mi (8 km) E Anchor Bay (AMNH).

REFERENCE.—Gardner 1975.

***Brachycybe producta* Loomis, 1936**

TYPE LOCALITY.—Baja California Norte.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador, Calaveras, El Dorado, Lake, Marin, Mariposa, Napa, Nevada, Placer, Sacramento, Shasta, Solano, Sonoma, and Tuolumne counties. *New records*: Butte Co., Forest Ranch (NCSM) and 2.5 mi (4.0 km) SW Cherokee (WSU).

REFERENCES.—Gardner 1975, Chamberlin and Hoffman 1958.

***Brachycybe rosea* Murray, 1877**

TYPE LOCALITY.—3 mi (4.8 km) SW Placerville, El Dorado County (neotype locality).

OCCURRENCE IN CALIFORNIA.—*Published records*: El Dorado, Nevada, Plumas, and Shasta counties. *New records*: Butte Co., 4 mi (6.4 km) SW Stirling City (LACMNH), Big Bear Mountain near Pulga (NMNH), and Forest Ranch (NCSM). Lassen Co., Monton (FSCA). Mendocino Co., 4.1 mi (6.6 km) SW Leggett (AMNH). Placer Co., 5 mi (8 km) N Placerville (NCSM). Sierra Co., Sierra City (AMNH). Tehama Co., Deer Creek (NMNH), S of Lassen Peak (NMNH), and Dales, 10 mi (16 km) E Red Bluff (NCSM). Yuba Co., 5 mi (8 km) N Smartville (UCB) and 1 mi (1.6 km) W Strawberry Valley Ranger Station (UCB).

REFERENCE.—Gardner 1975.

**Genus *Gosodesmus*  
Chamberlin, 1922**

***Gosodesmus claremontus* Chamberlin, 1922**

TYPE LOCALITY.—Claremont, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador, Kern, Los Angeles, Marin, Mariposa, Mendocino, Monterey, Placer, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, and Tulare counties. *New records*: Alameda, Del Norte, El Dorado, Fresno, Madera, Orange, San Bernardino, San Diego, San Joaquin, Shasta, and Stanislaus cos. (AMNH, CAS, FSCA, LACMNH, NCSM, UAZ, UCB, UCD, UCR).

REFERENCE.—Gardner 1975.

**Genus *Ischnocybe* Cook and Loomis, 1928**

***Ischnocybe plicata* Cook and Loomis 1928**

TYPE LOCALITY.—14 mi (22.4 km) up North Fork of Feather River from Belden, Plumas County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Plumas County. *New records*: Humboldt Co., Highway of Giants, 2 mi (3.2 km) N Mendocino County line (AMNH). Sonoma Co., locality not specified (BMNH).

REFERENCE.—Gardner 1975.

**Genus *Mitocybe* Cook and Loomis, 1928**

***Mitocybe auriportae* Cook and Loomis, 1928**

TYPE LOCALITY.—Mount Tamalpais, Marin County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Marin County (known only from the type locality).

REFERENCE.—Gardner 1975.

**Order Siphonophorida  
Family Siphonophoridae  
Genus *Illacme* Cook and Loomis, 1928**

***Illacme plenipes* Cook and Loomis, 1928**

TYPE LOCALITY.—Near the divide between Salinas and San Juan Bautista, San Benito County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Benito County (known only from the type locality).

REFERENCE.—Shelley 1996a.

REMARKS.—*Illacme plenipes* is the milliped and the animal with the most legs; a female paratype has 750. I have searched in the vicinity of the type locality several times without

finding more specimens. Re-collection of *I. plenipes* is much to be desired.

**Family Siphonophoridae**

**Undetermined genus and species**

OCCURRENCE IN CALIFORNIA.—*Published records*: Los Angeles and Orange counties. *New records*: None.

REFERENCE.—Shelley 1996a.

**Subterclass Eugnatha  
Superorder Juliformia  
Order Julida  
Family Julidae**

**Genus *Brachyiulus* Berlese, 1884**

***Brachyiulus lusitanus* Verhoeff, 1898**

TYPE LOCALITY.—Portugal.

OCCURRENCE IN CALIFORNIA.—*Published record*: Contra Costa County. *New records*: Kern Co., 15 mi (24 km) S Shirley Meadows (LACMNH). Los Angeles Co., Los Angeles (LACMNH), Pasadena (CAS), Claremont and Pomona (NMNH). Riverside Co., Riverside (UCR). Santa Barbara Co., Santa Barbara (NMNH). Santa Clara Co., Palo Alto (NMNH). Tulare Co., E of Visalia (WTAMU). Yolo Co., Davis (UCD). Yuba Co., 5 mi (8 km) N Smartville (UCB).

REFERENCE.—Reeves 2000.

**Genus *Cylindroiulus*  
Verhoeff, 1893**

***Cylindroiulus caeruleocinctus* (Wood, 1864)**

TYPE LOCALITY.—Pennsylvania.

OCCURRENCE IN CALIFORNIA.—*Published records*: None. *New records*: Los Angeles Co., Long Beach, San Pedro, and Torrance (LACMNH). Orange Co., La Habra (LACMNH).

REFERENCES.—None.

REMARKS.—*Cylindroiulus caeruleocinctus* is a new species for California.

***Cylindroiulus latestriatus* (Curtis, 1845)**

TYPE LOCALITY.—England.

OCCURRENCE IN CALIFORNIA.—*Published records*: Los Angeles and Santa Barbara counties. *New records*: Los Angeles Co., Artesia, Long Beach, Pasadena, and Torrance (CAS, FMNH, LACMNH). Orange Co., Anaheim, Newport Beach, and Santa Ana (LACMNH). Sacramento Co., Sacramento (NMNH). San



Bernardino Co., Victorville (LACMNH). San Francisco Co., San Francisco (CAS). San Joaquin Co., Manteca (CAS). Santa Barbara Co., Los Alamos (LACMNH).

REFERENCE.—Chamberlin 1914.

REMARKS.—Buckett (1964) said that this species occurs from Los Angeles as far north as San Francisco Bay.

***Cylindroiulus truncorum* (Silvestri, 1896)**

TYPE LOCALITY.—Tunisia.

OCCURRENCE IN CALIFORNIA.—*Published records*: None. *New records*: Alameda Co., Berkeley (UCB). Butte Co., Chico (NCSM). Los Angeles Co., Pasadena (CAS). Sacramento Co., North Highlands, Dry Creek (UCD). San Bernardino Co., Mt. Baldy Village (BYU). San Mateo Co., Junipero Serra County Park (CAS). Yolo Co., Davis (UCD).

REFERENCES.—None.

REMARKS.—*Cylindroiulus truncorum* is a new record for California.

**Genus *Ophiulus* Berlese, 1884**

***Ophiulus pilosus* (Newport, 1843)**

TYPE LOCALITY.—England.

OCCURRENCE IN CALIFORNIA.—*Published records*: None. *New records*: Los Angeles Co., Claremont (FSCA). Sacramento Co., Carmichael (UCD).

REFERENCES.—None.

REMARKS.—*Ophiulus pilosus* is a new record for California.

**Family Nemasomatidae**

**Genus *Orinisobates***

**Lohmander, 1932**

***Orinisobates expressus* (Chamberlin, 1941)**

TYPE LOCALITY.—Washington.

OCCURRENCE IN CALIFORNIA.—*Published record*: Glenn County. *New records*: Shasta Co., along California highway 89 near Bartle (UCD). Trinity Co., 4 mi (6.4 km) S Hayfork (UCB).

REFERENCE.—Enghoff 1985.

**Family Paeromopodidae**

**Genus *Californiulus* Verhoeff, 1938**

***Californiulus blechrostriatus* Shelley and Bauer, 1997**

TYPE LOCALITY.—Saline Valley, Death Valley National Park, Inyo County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Inyo County. *New record*: Inyo Co., Nelson Range, Grapevine Canyon, (FSCA).

REFERENCE.—Shelley and Bauer 1997a.

***Californiulus chamberlini* (Brolemann, 1922)**

TYPE LOCALITY.—Mt. Shasta, Siskiyou County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Shasta and Siskiyou counties. *New records*: None.

REFERENCE.—Shelley 1994a.

***Californiulus dorsovittatus* Verhoeff, 1938**

TYPE LOCALITY.—Mt. Harkness, Lassen Volcanic National Park, Plumas County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Lassen, Plumas, Shasta, Siskiyou, and Tehama counties. *New records*: None.

REFERENCES.—Shelley 1994a, Shelley and Bauer 1997a.

***Californiulus yosemitensis* Chamberlin, 1941**

TYPE LOCALITY.—Aspen Valley, Yosemite National Park, Tuolumne County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Butte, Fresno, Kern, Lassen, Madera, Mariposa, Modoc, Mono, Nevada, Placer, Plumas, Shasta, Sierra, Tulare, and Tuolumne counties. *New record*: County unknown (either Placer or El Dorado), Lake Tahoe (BMNH).

REFERENCES.—Shelley 1994a, Shelley and Bauer 1997a.

**Genus *Paeromopus* Karsch, 1881**

***Paeromopus angusticeps angusticeps* (Wood, 1864)**

TYPE LOCALITY.—Oakland, Alameda County (neotype locality).

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda, Marin, Monterey, Santa Clara, and Santa Cruz counties. *New records*: None.

REFERENCES.—Shelley 1994a, Shelley and Bauer 1997a.

***Paeromopus angusticeps buttensis* Chamberlin, 1954**

TYPE LOCALITY.—Big Bar Mountain E Pulga, Butte County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador, Butte, Calaveras, El Dorado, Humboldt, Lake, Mendocino, Nevada, Placer,

Plumas, Shasta, Sierra, Solano, Sonoma, Trinity, Tuolumne, Yolo, and Yuba counties. *New records*: None.

REFERENCES.—Shelley 1994a, Shelley and Bauer 1997a.

***Paeromopus angusticeps intergrades***

OCCURRENCE IN CALIFORNIA.—*Published records*: Solano and Sonoma counties. *New records*: None.

REFERENCE.—Shelley and Bauer 1997.

***Paeromopus cavicolens* Chamberlin, 1949**

TYPE LOCALITY.—Windeler Cavern, ca 8 mi (12.8 km) N Columbia, Tuolumne County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Tuolumne County (known definitely only from the type locality).

REFERENCE.—Shelley 1994a.

***Paeromopus eldoradus* Chamberlin, 1941**

TYPE LOCALITY.—Coloma, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published record*: El Dorado County (known only from the type locality).

REFERENCE.—Shelley 1994a.

***Paeromopus paniculus* Shelley and Bauer, 1997**

TYPE LOCALITY.—1.5 mi (2.4 km) W El Portal, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mariposa County. *New records*: None.

REFERENCE.—Shelley and Bauer 1997a.

**Family Parajulidae**  
**Genus *Bollmaniulus* Verhoeff, 1926**

***Bollmaniulus catalinae* (Chamberlin, 1940)**

TYPE LOCALITY.—Santa Catalina Island, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Catalina Island, Los Angeles County (known only from the type locality).

REFERENCE.—Chamberlin 1940.

***Bollmaniulus concolor* (Chamberlin, 1940)**

TYPE LOCALITY.—Redlands, San Bernardino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Bernardino County (known only from the type locality).

REFERENCE.—Chamberlin 1940.

***Bollmaniulus pachysomus* (Chamberlin, 1940)**

TYPE LOCALITY.—Yosemite National Park, Mariposa/Tuolumne counties.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mariposa/Tuolumne counties (known only from the type locality).

REFERENCE.—Chamberlin 1940.

***Bollmaniulus pearcei* (Chamberlin, 1943)**

TYPE LOCALITY.—South Fork of Bishop Creek, Inyo County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Inyo County (known only from the type locality).

REFERENCE.—Chamberlin 1943a.

***Bollmaniulus rhodogeus* (Chamberlin, 1940)**

TYPE LOCALITY.—Redlands, San Bernardino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Bernardino County (known only from the type locality).

REFERENCE.—Chamberlin 1940.

**Genus *Codiulus* Chamberlin, 1940**

***Codiulus etirus* Chamberlin, 1941**

TYPE LOCALITY.—Cardiff-by-the-Sea, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County (known only from the type locality).

REFERENCE.—Chamberlin 1941a.

***Codiulus oulogon* Chamberlin, 1940**

TYPE LOCALITY.—Box Springs/Riverside, Riverside County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Riverside County (known only from the type locality).

REFERENCE.—Chamberlin 1940.

**Genus *Mulaikiulus* Chamberlin, 1941**

***Mulaikiulus stanleius* Chamberlin, 1941**

TYPE LOCALITY.—12 mi (19.2 km) NE Hammond, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Tulare County (known only from the type locality).

REFERENCE.—Chamberlin 1941b.

**Genus *Parajulus* Humbert and  
DeSaussure, 1869**

***Parajulus varius* Bollman, 1887**

TYPE LOCALITY.—San Diego, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Mendocino and San Diego counties, and “Rosario Mission,” county unknown. *New records*: None.

REFERENCES.—Bollman 1887a, 1887b.

REMARKS.—This species, listed under “Parajulidae of Uncertain Systematic Position” by Chamberlin and Hoffman (1958) and “Parajulidae of Uncertain Generic Position or Validity” by Hoffman (1999), was described as new twice by Bollman (1887a, 1887b). I cite it here under *Parajulus*, but undoubtedly it belongs to a different genus, a decision that must await comprehensive studies on western components of the family. In the original descriptions, Bollman reported it from San Diego; Ukiah, Mendocino County; and “Rosario Mission,” which was reported to be in Southern California and “Lower California,” i.e., Baja California. Chamberlin and Hoffman (1958) suggested San Diego as a restricted type locality but did not designate a lectotype.

**Genus *Simiulus* Chamberlin, 1940**

***Simiulus arius* (Chamberlin, 1918)**

TYPE LOCALITY.—Stanford, Santa Clara County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Clara County (known only from the type locality).

REFERENCE.—Chamberlin 1940.

**Genus *Sophiulus* Chamberlin, 1940**

***Sophiulus lomondus* Chamberlin, 1941**

TYPE LOCALITY.—Ben Lomond, Santa Cruz County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Cruz County (known only from the type locality).

REFERENCE.—Chamberlin 1941a.

***Sophiulus tivius* (Chamberlin, 1912)**

TYPE LOCALITY.—Mill Valley, Marin County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Marin, San Francisco, and Santa Clara counties. *New records*: None.

REFERENCE.—Chamberlin 1940.

**Genus *Spathiulus* Chamberlin, 1940**

***Spathiulus elegantulus* Causey, 1950**

TYPE LOCALITY.—Happy Isle, Yosemite National Park, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mariposa County (known only from the type locality).

REFERENCE.—Causey 1950.

***Spathiulus leptus* Chamberlin, 1940**

TYPE LOCALITY.—Yosemite National Park, Mariposa/Tuolumne counties.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mariposa/Tuolumne counties (known only from the type locality).

REFERENCE.—Chamberlin 1940.

***Spathiulus tribolus* Chamberlin, 1941**

TYPE LOCALITY.—Sequoia National Park, 12 mi (19.2 km) N Hammond, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Tulare County (known only from the type locality).

REFERENCE.—Chamberlin 1941b.

***Spathiulus tuolumnus* (Chamberlin, 1950)**

TYPE LOCALITY.—Pinecrest, Tuolumne County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Tuolumne County (known only from the type locality).

REFERENCE.—Chamberlin 1950.

REMARKS.—Chamberlin and Hoffman (1958) and Hoffman (1999) show this species as having been originally included in *Spathiulus*, but it was actually described in *Sophiulus*.

**Genus *Tuniulus* Chamberlin, 1941**

***Tuniulus milpitanus* (Chamberlin, 1940)**

TYPE LOCALITY.—Milpitas, Santa Clara County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Clara County (known only from the type locality).

REFERENCE.—Chamberlin 1940.

**Order Spirobolida  
Family Atopetholidae  
Subfamily Arinoliniae**

***Arinolus latus* Loomis, 1953**

TYPE LOCALITY.—Antelope Valley between Lancaster and Palmdale, Los Angeles County.



OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles County. *New record*: San Bernardino Co., Pisgah Crater (LACMNH).

REFERENCE.—Hoffman and Orcutt 1960.

**Genus *Piedolus* Chamberlin, 1930**

***Piedolus utus* Chamberlin, 1930**

TYPE LOCALITY.—Utah.

OCCURRENCE IN CALIFORNIA.—*Published record*: Inyo County. *New records*: None.

REFERENCE.—Shelley 2000b.

**Subfamily Atopetholinae**

**Genus *Atopetholus* Chamberlin, 1918**

***Atopetholus angelus* Chamberlin, 1920**

TYPE LOCALITY.—Silver Lake (Edendale suburb), Los Angeles, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles County. *New records*: San Diego Co., U.S. International University, Elliott Campus and Scripps Ranch (NCSM, UCD).

REFERENCE.—Hoffman and Orcutt 1960.

REMARKS.—This name may prove to be a junior synonym of *A. californicus*.

***Atopetholus barbaranus* Chamberlin, 1949**

TYPE LOCALITY.—Orcutt, Santa Barbara County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Barbara County (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960

***Atopetholus californicus* Chamberlin, 1918**

TYPE LOCALITY.—Claremont, Los Angeles/San Bernardino counties.

OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles/San Bernardino counties. *New records*: Kern Co., Tehachapi Mountains, along California highway 58 at Clear Creek (NMNH). Orange Co., Newport Beach (UCD). San Diego Co., Torrey Pines State Beach and Reserve (NMNH).

REFERENCES.—Hoffman and Orcutt 1960, Hoffman 1998.

***Atopetholus carmelitus* Chamberlin, 1940**

TYPE LOCALITY.—Hastings Reservation, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Monterey County (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960.

***Atopetholus fraternus* Chamberlin, 1918**

TYPE LOCALITY.—Friant, Fresno County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Fresno County. *New record*: Kings Co., Avenal (AMNH).

REFERENCE.—Hoffman and Orcutt 1960.

***Atopetholus paroicus* Chamberlin, 1941**

TYPE LOCALITY.—Mountain Springs, Imperial County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Imperial County (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960.

***Atopetholus pearcei* Chamberlin, 1950**

TYPE LOCALITY.—Oildale, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Kern County (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960.

***Atopetholus wheeleri* (Chamberlin, 1918), new combination**

TYPE LOCALITY.—Cold Spring Canyon, Santa Ynez Mountains, Santa Barbara County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Barbara County (known only from the type locality).

REFERENCES.—Hoffman and Orcutt 1960, Hoffman 1998.

REMARKS.—Hoffman (1999) considered *Hesperolus* a questionable synonym of *Atopetholus* but nevertheless listed *H. wheeleri*, making the combination with *Atopetholus* new.

***Atopetholus* sp.**

OCCURRENCE IN CALIFORNIA.—Kern County, Erskine Canyon SE of Kernville (LACMNH). Riverside County, Joshua Tree National Park, Pinyon Wells (LACMNH).

REMARKS.—For completion I list here counties from which unidentified species of *Atopetholus* have been taken.

**Genus *Orthichelus* Chamberlin and Hoffman, 1950**

***Orthichelus michelbacheri* (Verhoeff, 1938)**

TYPE LOCALITY.—Walker Pass, 6 mi (9.6 km) NW Freeman, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Kern County. *New records*: Inyo Co., Argus Mountains (FSCA). Riverside Co. (UCD). San Bernardino Co., 5 mi (8 km) S Atolia (FSCA).

REFERENCE.—Hoffman and Orcutt 1960.

#### Genus *Tidolus* Chamberlin, 1949

##### *Tidolus parvus* Chamberlin, 1918

TYPE LOCALITY.—Claremont, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles County. *New records*: None.

REFERENCE.—Hoffman and Orcutt 1960.

#### Genus *Watichelus* Chamberlin, 1949

##### *Watichelus edentatus* Loomis, 1949

TYPE LOCALITY.—Between San Diego and El Centro, San Diego/Imperial counties.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego/Imperial counties (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960.

##### *Watichelus parallelus* Loomis, 1949

TYPE LOCALITY.—Chula Vista, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960.

##### *Watichelus robustus* Loomis, 1949

TYPE LOCALITY.—Chula Vista, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960.

##### *Watichelus smithi* (Chamberlin, 1947)

TYPE LOCALITY.—Murray Canyon, 3 mi (4.8 km) N Palm Springs, Riverside County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Riverside County (known only from the type locality).

REFERENCE.—Hoffman and Orcutt 1960.

#### Subfamily Onychelinae

##### Genus *Onychelus* Cook, 1904

##### *Onychelus obustus* Cook, 1904

TYPE LOCALITY.—Colorado Desert, Riverside County.

OCCURRENCE IN CALIFORNIA.—*Published records*: San Bernardino, San Diego, and Riverside counties. *New records*: None.

REFERENCE.—Shelley 1998.

#### Family Spirobolidae

##### Subfamily Tylobolinae

##### Genus *Hiltonius* Chamberlin, 1918

##### *Hiltonius australis* (Grinnell, 1908)

TYPE LOCALITY.—Rancho La Brea tar pits, Los Angeles, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles County (known only from the type locality).

REFERENCE.—Grinnell 1908.

REMARKS.—I follow Hoffman (1999) in placing this species in *Hiltonius*. He stated that it is “almost certainly a senior synonym of either *H. pulchrus* or *Tylobolus claremontus*.”

##### *Hiltonius hebes* (Bollman, 1887)

TYPE LOCALITY.—San Diego, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County. *New records*: None.

REFERENCE.—Keeton 1960.

##### *Hiltonius mimus* Chamberlin, 1941

TYPE LOCALITY.—Mountain Springs, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County (known only from the type locality).

REFERENCE.—Keeton 1960.

##### *Hiltonius pulchrus* Chamberlin, 1918

TYPE LOCALITY.—Claremont, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern, Los Angeles, and Riverside counties. *New records*: None.

REFERENCE.—Keeton 1960.

#### Genus *Tylobolus* Cook, 1904

##### *Tylobolus castaneus* Chamberlin, 1918

TYPE LOCALITY.—Brookdale, Santa Cruz County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda, Amador, Contra Costa, Fresno, Mariposa, Sacramento, San Joaquin,

Santa Clara, Santa Cruz, and Tulare counties. *New record*: El Dorado Co., 1 mi (1.6 km) E Pacific House (NCSM).

REFERENCES.—Keeton 1960, 1966.

***Tylobolus claremontus* Chamberlin, 1918**

TYPE LOCALITY.—Claremont, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Los Angeles, Riverside, and San Diego counties. *New records*: None.

REFERENCES.—Keeton 1960, 1966.

***Tylobolus deses deses* Cook, 1904**

TYPE LOCALITY.—California without further specification; stated to be Stanford University, Santa Clara County, by Buckett and Gardner (1966).

OCCURRENCE IN CALIFORNIA.—*Published records*: Marin, San Mateo, Santa Cruz, and Sonoma counties. *New records*: None.

REFERENCES.—Keeton 1960, 1966, Buckett and Gardner 1966.

***Tylobolus deses magnificus* Buckett and Gardner, 1966**

TYPE LOCALITY.—2 mi (3.2 km) W Cordelia, Solano County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Merced, Napa, and Solano counties. *New records*: Contra Costa Co., 2 mi (3.2 km) E Clayton Valley (UCD). Sacramento Co., 5 mi (8 km) SW Folsom Dam (UCD). Stanislaus Co., 15 mi (24 km) W Patterson (CAS).

REFERENCES.—Keeton 1960, 1966, Buckett and Gardner 1966.

***Tylobolus loomisi* Keeton, 1966**

TYPE LOCALITY.—South of Ft. Tejon, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern, Santa Barbara, and Ventura counties. *New records*: None.

REFERENCE.—Keeton 1966.

***Tylobolus monachus* (Chamberlin, 1949)**

TYPE LOCALITY.—Hastings Reservation, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Fresno and Monterey counties. *New records*: None.

REFERENCE.—Keeton 1960.

***Tylobolus uncigerus* (Wood, 1864)**

TYPE LOCALITY.—California without further specification; restricted by Keeton (1960) to Solano County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Contra Costa, Humboldt, Mariposa, Sacramento, San Joaquin, Santa Cruz, and Solano counties. *New records*: Butte, Colusa, Glenn, Humboldt, Lake, Marin, Mendocino, Napa, Santa Clara, Shasta, Sonoma, Tehama, Trinity, and Yolo cos. (CDFA, FSCA, MCZ, UCB, UCD)

REFERENCES.—Keeton 1960, 1966.

***Tylobolus utahensis* Chamberlin, 1925**

TYPE LOCALITY.—Utah

OCCURRENCE IN CALIFORNIA.—*Published record*: Inyo County. *New records*: None.

REFERENCE.—Shelley and Bauer 1997b.

**Order Spirostreptida**

**Family Cambalidae**

**Genus *Alakene* Chamberlin, 1941**

***Alakene simplex* Chamberlin, 1941**

TYPE LOCALITY.—5 mi (8 km) NE Lemoncove, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Tulare County (known only from the type locality).

REFERENCE.—Chamberlin 1941b.

**Genus *Buwatia* Chamberlin, 1912**

***Buwatia montereae* Chamberlin, 1912**

TYPE LOCALITY.—Pacific Grove, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Monterey County (known only from the type locality).

REFERENCES.—Chamberlin 1912, Loomis 1938.

**Genus *Doilene* Chamberlin, 1941**

***Doilene carmela* Chamberlin, 1941**

TYPE LOCALITY.—Hastings Reservation, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Monterey County (known only from the type locality).

REFERENCE.—Chamberlin 1941a.

**Genus *Endere* Loomis, 1938*****Endere disora* Loomis, 1938**

TYPE LOCALITY.—Sunnyside Mine near Seneca, Plumas County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Plumas County (known only from the type locality).

REFERENCE.—Loomis 1938.

**Genus *Leiodere* Loomis, 1938*****Leiodere angelorum* Chamberlin, 1943**

TYPE LOCALITY.—Los Angeles, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles County (known only from the type locality).

REFERENCE.—Chamberlin 1943a.

***Leiodere dasyura* Loomis, 1938**

TYPE LOCALITY.—Tajiguas, Santa Barbara County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Barbara County (known only from the type locality).

REFERENCE.—Loomis 1938.

***Leiodere nana* Loomis, 1938**

TYPE LOCALITY.—Between Vallejo and Cordelia, Solano County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Solano County (known only from the type locality).

REFERENCE.—Loomis 1938.

***Leiodere torreyana* Loomis, 1938**

TYPE LOCALITY.—Torrey Pines State Beach and Reserve, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County (known only from the type locality).

REFERENCE.—Loomis 1938.

**Genus *Nannolene* Bollman, 1887*****Nannolene burkei* (Bollman, 1887)**

TYPE LOCALITY.—Ukiah, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mendocino County (known only from the type locality).

REFERENCES.—Chamberlin 1922, Loomis 1938.

REMARKS.—Without providing a written account, Chamberlin (1922, pl. 1, figs. 4–10)

published drawings of a male from an unknown locality. As noted by Hoffman (1999), there is no reason to believe that this species is either conspecific or congeneric with the type specimens.

***Nannolene catalina* Chamberlin, 1941**

TYPE LOCALITY.—Hamilton Canyon, Santa Catalina Island, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Catalina Island, Los Angeles County. *New records*: None.

REFERENCE.—Chamberlin 1941a.

***Nannolene corticolens* Chamberlin, 1951**

TYPE LOCALITY.—Base of Mt. Diablo, Contra Costa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Contra Costa County (known only from the type locality).

REFERENCE.—Chamberlin 1951.

***Nannolene dorothea* Chamberlin, 1941**

TYPE LOCALITY.—One of 3 sites in Kern County (Isabella, Kernville, or Squaw Valley) or 1 mi (1.6 km) E Hammond, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern and Tulare counties. *New records*: None.

REFERENCE.—Chamberlin 1941b.

***Nannolene keiferi* Chamberlin, 1943**

TYPE LOCALITY.—Near Sacramento, Sacramento County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Sacramento County (known only from the type locality).

REFERENCE.—Chamberlin 1943b.

***Nannolene minor* Loomis, 1938**

TYPE LOCALITY.—Near Bakersfield, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Kern County (known only from the type locality).

REFERENCE.—Loomis 1938.

***Nannolene personifer* Chamberlin, 1941**

TYPE LOCALITY.—9 mi (14.4 km) N Placerville, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published record*: El Dorado County (known only from the type locality).

REFERENCE.—Chamberlin 1941b.



***Nannolene violacea* Loomis, 1938**

TYPE LOCALITY.—South of Atascadero, San Luis Obispo County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern and San Luis Obispo counties. *New records*: None.

REFERENCE.—Loomis 1938.

**Genus *Odachurus* Loomis, 1938*****Odachurus petasatus* Loomis, 1938**

TYPE LOCALITY.—Torrey Pines State Beach and Reserve, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County (known only from the type locality).

REFERENCE.—Loomis 1938.

**Genus *Paiteya* Chamberlin, 1910*****Paiteya errans* Chamberlin, 1910**

TYPE LOCALITY.—Southern California without further specification.

OCCURRENCE IN CALIFORNIA.—No definite localities known.

REFERENCES.—Chamberlin 1910, Loomis 1938.

**Genus *Pharodere* Loomis, 1938*****Pharodere radiata* Loomis, 1938**

TYPE LOCALITY.—Torrey Pines State Beach and Reserve, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County. *New records*: None.

REFERENCE.—Loomis 1938.

**Genus *Platydere* Loomis, 1938*****Platydere caeca* Loomis, 1938**

TYPE LOCALITY.—Tajiguas, Santa Barbara County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Barbara County (known only from the type locality).

REFERENCE.—Loomis 1938.

**Genus *Tigolene* Chamberlin, 1941*****Tigolene clementinus* Chamberlin, 1941**

TYPE LOCALITY.—San Clemente Island, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Clemente Island, Los Angeles County (known only from the type locality).

REFERENCE.—Chamberlin 1941a.

**Genus *Titsona* Chamberlin, 1912*****Titsona sima* Chamberlin, 1912**

TYPE LOCALITY.—Oroville, Butte County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Butte and Yolo counties. *New records*: None.

REFERENCES.—Chamberlin 1912, Loomis 1938, Chamberlin and Hoffman 1958.

**Genus *Tridere* Loomis, 1938*****Tridere chelopa* Loomis, 1938**

TYPE LOCALITY.—2 mi (3.2 km) “above” Mountain Springs along the road from San Diego to El Centro; inferred by Hoffman (1999) to be in the southwestern corner of Imperial County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Imperial County (known only from the type locality).

REFERENCE.—Loomis 1938.

**Unknown Cambalidae**

OCCURRENCE IN CALIFORNIA.—Alameda, Colusa, Del Norte, Glenn, Los Angeles, Monterey, Napa, Orange, Plumas, Riverside, San Bernardino, Shasta, Stanislaus, Tehama, Trinity, Yolo, and Yuba counties (AMNH, CAS, CDFA, FSCA, LACMNH, NCSM, NMNH, UCB).

REMARKS.—As western Cambalidae have not been revised and the distinctions between genera are unclear, I list here unidentified samples I have seen from other counties in California.

**Superorder Nematophora****Order Chordeumatida****Family Apterouridae****Genus *Apterourus* Loomis, 1966*****Apterourus horizontalis* Loomis, 1966**

TYPE LOCALITY.—Cajon Pass, San Bernardino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Bernardino County (known only from the type locality).

REFERENCES.—Loomis 1966, Shear 1977.

**Family Caseyidae****Genus *Caseya* Cook and Collins, 1895*****Caseya bucketti* Gardner and Shelley, 1989**



TYPE LOCALITY.—22 mi (35.2 km) W Red Bluff, Tehama County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Shasta and Tehama counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya coxalis* Loomis, 1966**

TYPE LOCALITY.—Davenport, Santa Cruz County.

OCCURRENCE IN CALIFORNIA.—*Published records*: San Mateo and Santa Cruz counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya dorada* (Chamberlin, 1941)**

TYPE LOCALITY.—9 mi (14.4 km) N Placer-ville, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador, Calaveras, El Dorado, Nevada, Placer, and Sacramento counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya guttata* Gardner and Shelley, 1989**

TYPE LOCALITY.—4 mi (6.4 km) E Sunny Brae, Humboldt County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Humboldt County. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya heteropa disjuncta* Gardner and Shelley, 1989**

TYPE LOCALITY.—3 mi (4.8 km) W Forest-ville, Sonoma County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Napa, Solano, Sonoma, and Yolo counties. *New record*: Lake Co., Cobb Moun-tain, Kelsey Creek (NMNH).

REFERENCE.—Gardner and Shelley 1989.

***Caseya heteropa heteropa* Cook and Collins, 1895**

TYPE LOCALITY.—An unspecified locality in Marin County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda, Marin, Monterey, San Benito, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya heteropa montana* Gardner and Shelley, 1989**

TYPE LOCALITY.—6 mi (9.6 km) S El Dora-do, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador, Butte, Calaveras, Colusa, El Dorado, Mariposa, and Tuolumne counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya heteropa oraria* Gardner and Shelley, 1989**

TYPE LOCALITY.—5 mi (8 km) NE Mendo-cino, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Humboldt and Mendocino counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya longiloba* Gardner and Shelley, 1989**

TYPE LOCALITY.—1.5 mi (2.4 km) SW Dou-glas City, Trinity County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Trinity County. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya occidentalis* Gardner and Shelley, 1989**

TYPE LOCALITY.—Del Puerto Canyon, 12 mi (19.2 km) W Patterson, Stanislaus County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Stanislaus County (known only from the type locality).

REFERENCE.—Gardner and Shelley 1989.

***Caseya paradoxa* Gardner and Shelley, 1989**

TYPE LOCALITY.—2 mi (3.2 km) E Brice-burg, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mariposa County. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya prionota* Gardner and Shelley, 1989**

TYPE LOCALITY.—14 mi (22.4 km) E Brice-burg, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Fresno, Madera, and Mariposa coun-ties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya sequoia* Chamberlin, 1941**

TYPE LOCALITY.—12 mi (19.2 km) NE Ham-mond, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Tulare County. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya shastensis* Gardner and Shelley, 1989**

TYPE LOCALITY.—18 mi (28.8 km) W Redding, Shasta County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Shasta County. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya similis* Causey, 1952**

TYPE LOCALITY.—Tehachapi Pass, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern and Los Angeles counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya taliae* Gardner and Shelley, 1989**

TYPE LOCALITY.—10 mi (16 km) NE Auberry, Fresno County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Fresno and Madera counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Caseya* sp.**

OCCURRENCE IN CALIFORNIA.—*New records*: Riverside Co., Rubidoux (LACMNH). Santa Barbara Co., San Marcos Pass (NMNH). Ventura Co., Wheeler Springs (LACMNH).

REMARKS.—For completion I cite here additional counties from which unidentifiable specimens of *Caseya* have been collected.

**Genus *Ochrogramma* Gardner and Shelley, 1989*****Ochrogramma haigi* Gardner and Shelley, 1989**

TYPE LOCALITY.—5 mi (8 km) SW Gasquet, Del Norte County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Del Norte County. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

**Genus *Opiona* Chamberlin, 1951*****Opiona berryessae* Gardner and Shelley, 1989**

TYPE LOCALITY.—12 mi (19.2 km) W Winters, Napa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Napa County (known only from the type locality).

REFERENCE.—Gardner and Shelley 1989.

***Opiona bifurcata* Gardner and Shelley, 1989**

TYPE LOCALITY.—Russian Gulch State Park, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mendocino County. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Opiona communis angusta* Gardner and Shelley, 1989**

TYPE LOCALITY.—6 mi (9.6 km) SSE Santa Rosa, Sonoma County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Marin and Sonoma counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Opiona communis communis* Gardner and Shelley, 1989**

TYPE LOCALITY.—3 mi (4.8 km) N Kenwood, Sonoma County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Santa Cruz, Solano, and Sonoma counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Opiona communis prolixa* Gardner and Shelley, 1989**

TYPE LOCALITY.—7 mi (11.2 km) W Oakville, Napa County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Napa and Sonoma counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Opiona distincta* Gardner and Shelley, 1989**

TYPE LOCALITY.—2.5 mi (4.0 km) SE Guerneville, Sonoma County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Sonoma County (known only from the type locality).

REFERENCE.—Gardner and Shelley 1989.

***Opiona exigua* Gardner and Shelley, 1989**

TYPE LOCALITY.—Russian Gulch State Park, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Mendocino and Sonoma counties. *New records*: None.

REFERENCE.—Gardner and Shelley 1989.

***Opiona fisheri* Gardner and Shelley, 1989**

TYPE LOCALITY.—Oregon.

OCCURRENCE IN CALIFORNIA.—*Published records*: None. *New record*: Siskiyou Co., 8 mi (12.8 km) S Dunsmuir (UCB).

REFERENCE.—Gardner and Shelley 1989.

REMARKS.—*Opiona fisheri* is a new record for California.

***Opiona siliquae* Causey, 1963**

TYPE LOCALITY.—Fault Rock Cave near Spy Rock, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mendocino County (known only from the type locality).

REFERENCE.—Gardner and Shelley 1989.

**Genus *Speoseya* Causey, 1963**

***Speoseya grahami* Causey, 1963**

TYPE LOCALITY.—Shaw's Cave, Calaveras County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Calaveras County (known only from the type locality).

REFERENCE.—Causey 1963.

**Family Conotylidae  
Subfamily Conotylinae  
Genus *Plumatyla* Shear, 1971**

***Plumatyla humerosa* (Loomis, 1943)**

TYPE LOCALITY.—Sunnyside Mine, 3 mi (4.8 km) SW Seneca, Plumas County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Plumas and Siskiyou counties. *New records*: None.

REFERENCE.—Shear 1971.

**Genus *Taiyutyla* Chamberlin, 1952**

***Taiyutyla extorris* (Shear, 1971)**

TYPE LOCALITY.—1 mi (1.6 km) S Grass Valley, Nevada County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Nevada County (known only from the type locality).

REFERENCES.—Shear 1971, 1976.

***Taiyutyla francisca* Shear, 1971**

TYPE LOCALITY.—1 mi (1.6 km) SE Inverness, Marin County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Marin County (known only from the type locality).

REFERENCES.—Shear 1971, 1976.

***Taiyutyla napa* Shear, 1971**

TYPE LOCALITY.—Mount St. Helena, Napa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Napa County (known only from the type locality).

REFERENCES.—Shear 1971, 1976.

**Family Rhiscosomididae  
Genus *Rhiscosomides* Silvestri, 1909**

***Rhiscosomides acovescor* Shear, 1972**

TYPE LOCALITY.—Samuel P. Taylor State Park, Marin County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Marin County (known only from the type locality).

REFERENCE.—Shear 1973.

***Rhiscosomides montereum* Chamberlin, 1910**

TYPE LOCALITY.—Pacific Grove, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Monterey County (known only from the type locality).

REFERENCE.—Shear 1973.

***Rhiscosomides trinitarium* Shear, 1973**

TYPE LOCALITY.—Butter Creek, 12 mi (19.2 km) SE Hyampom, Trinity County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Trinity County (known only from the type locality).

REFERENCE.—Shear 1973.

***Rhiscosomides* sp.**

OCCURRENCE IN CALIFORNIA.—Del Norte County, Jeddediah Smith State Park (UID). San Mateo County, summit of La Honda grade (FSCA) and 6 mi (9.6 km) SE Half Moon Bay (NMNH). Santa Clara County, 5.2 mi (8.3 km) SW Stevens Creek Dam (UCD). Santa Cruz County, Empire Cave (FSCA) and mountains between Santa Cruz and Holy City (NMNH).

REFERENCE.—None.

REMARKS.—I have not attempted to identify these tiny millipeds, and so I combine under this category all samples of *Rhiscosomides* that I have seen from California.

**Family Striariidae  
Genus *Striaria* Bollman, 1888**

***Striaria californica* Cook, 1899**

TYPE LOCALITY.—California without further specification; said to be near Sausalito, Marin County, by Hoffman (1999).

OCCURRENCE IN CALIFORNIA.—*Published records*: Marin, Santa Cruz, and Solano counties. *New records*: None.

REFERENCES.—Cook 1899, Loomis 1936.

***Striaria carmela* Chamberlin, 1947**

TYPE LOCALITY.—Hastings Reservation, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Monterey County (known only from the type locality).

REFERENCE.—Chamberlin 1947.

***Striaria eldora* Chamberlin, 1953**

TYPE LOCALITY.—Crystal Cosumnes Cave, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published record*: El Dorado County (known only from the type locality).

REFERENCE.—Chamberlin 1953.

***Striaria eutypa* (Chamberlin, 1941)**

TYPE LOCALITY.—9 mi (14.4 km) N Placerville, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published record*: El Dorado County (known only from the type locality).

REFERENCE.—Chamberlin 1941b.

***Striaria nana* Loomis, 1936**

TYPE LOCALITY.—Altamont Pass above Niles, Alameda County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Alameda and Santa Cruz counties. *New records*: None.

REFERENCE.—Loomis 1936.

***Striaria* sp.**

OCCURRENCE IN CALIFORNIA.—*Published record*: Contra Costa County. *New records*: Alameda, El Dorado, Humboldt, Los Angeles, Marin, Mendocino, Sacramento, San Francisco, San Mateo, Santa Cruz, Shasta, Solano, Sonoma, Stanislaus, and Trinity cos. (AMNH, CAS, CDFA, FSCA, LACMNH, NCSM, NMNH, UCB, UCD).

REFERENCE.—Causey 1958.

REMARKS.—As *Striaria* has not been revised, it is impossible to identify forms at the species level. I therefore combine under this category all samples of *Striaria* that I have seen from California.

**Genus *Speostriaria* Causey, 1960**

***Speostriaria shastae* (Causey, 1958)**

TYPE LOCALITY.—Samwel Cave, Shasta County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Shasta County (known only from the type locality).

REFERENCES.—Causey 1958, 1960.

**Genus *Vaferaria* Causey, 1958**

***Vaferaria imberbis* (Loomis, 1936)**

TYPE LOCALITY.—South of Atascadero, San Luis Obispo County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Luis Obispo County (known only from the type locality).

REFERENCES.—Loomis 1936, Causey 1958.

**Order Callipodida**

**Family Schizopetalidae**

**Subfamily Tynommatinae**

**Tribe Colactidini**

**Genus *Colactis* Loomis, 1937**

***Colactis protenta* Loomis, 1937**

TYPE LOCALITY.—Baja California Norte, Mexico.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Diego County. *New records*: None.

REFERENCE.—Shelley 1996b.

***Colactis tiburona* (Chamberlin, 1923)**

TYPE LOCALITY.—Sonora, Mexico.

OCCURRENCE IN CALIFORNIA.—*Published record*: Imperial County. *New records*: None.

REFERENCE.—Shelley 1996b.

**Genus *Heptium* Loomis, 1937**

***Heptium carinellum* Loomis, 1937**

TYPE LOCALITY.—2 mi (3.2 km) E “Indian Head,” presumably along California highway 86, Imperial County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Imperial and Riverside counties. *New records*: None.

REFERENCE.—Shelley 1996b.

***Heptium scamillatum* Loomis, 1937**

TYPE LOCALITY.—Between Perris and Elsinore, Riverside County.



OCCURRENCE IN CALIFORNIA.—*Published records*: Riverside and San Bernardino counties. *New records*: None.

REFERENCE.—Shelley 1996b.

**Tribe Diactidini**  
**Genus *Caliactis* Shelley, 1996**

***Caliactis bistolata* Shelley, 1996**

TYPE LOCALITY.—Mission Viejo, Orange County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Orange County (known only from the type locality).

REFERENCE.—Shelley 1996b.

**Genus *Diactis* Loomis, 1937**

***Diactis amniscela* Shelley, 1996**

TYPE LOCALITY.—Banning, Riverside County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Riverside County (known only from the type locality).

REFERENCE.—Shelley 1996b.

***Diactis cupola* Shelley, 1996**

TYPE LOCALITY.—3 mi (4.8 km) from Santa Monica, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles County. *New records*: None.

REFERENCE.—Shelley 1996b.

***Diactis frondifera* Loomis, 1937**

TYPE LOCALITY.—Torrey Pines State Beach and Reserve, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Los Angeles and San Diego counties. *New records*: None.

REFERENCE.—Shelley 1996b.

***Diactis jacinto* Shelley, 1996**

TYPE LOCALITY.—San Jacinto Mountains south of Banning, Riverside County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Riverside County (known only from the type locality).

REFERENCE.—Shelley 1996b.

***Diactis procera* Shelley, 1996**

TYPE LOCALITY.—Silverado Canyon ca 11 mi (17.6 km) N Mission Viejo, Orange County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Orange County (known only from the type locality).

REFERENCE.—Shelley 1996b.

***Diactis soleata* Loomis, 1937**

TYPE LOCALITY.—Along Temescal Canyon Road ca 10.2 mi (16.3 km) S Corona, Riverside County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Los Angeles and Riverside counties. *New records*: None.

REFERENCE.—Shelley 1996b.

***Diactis strumella* Shelley, 1996**

TYPE LOCALITY.—Laguna Beach, Orange County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Orange County (known only from the type locality).

REFERENCE.—Shelley 1996b.

***Diactis triangula* Loomis, 1937**

TYPE LOCALITY.—Ca 46 mi (73.6 km) E San Diego, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Los Angeles, San Bernardino, and San Diego counties. *New records*: None.

REFERENCE.—Shelley 1996b.

**Genus *Florea* Shelley, 1996**

***Florea sinuata* Shelley, 1996**

TYPE LOCALITY.—Trabuco Ranger District, Cleveland National Forest, Orange County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Orange County (known definitely only from the paratype locality).

REFERENCE.—Shelley 1996b.

**Tribe Tynommatini**

**Genus *Tynomma* Loomis, 1937**

***Tynomma magnum* Buckett and Gardner, 1969**

TYPE LOCALITY.—7 mi (11.8 km) E Monterey, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Monterey County. *New records*: None.

REFERENCE.—Shelley 1996b.

***Tynomma mutans* (Chamberlin, 1910)**

TYPE LOCALITY.—Stanford, Santa Clara County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda, Contra Costa, Marin, San



Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma counties. *New records*: Monterey/San Benito cos., between Salinas and San Juan Bautista (UCD). Napa Co., 7 mi (11.2 km) W Oakville (UCD).

REFERENCE.—Shelley 1996b.

***Tynomma schlingeri* Gardner, 1973**

TYPE LOCALITY.—Frank Raines Park, Del Puerto Canyon, Stanislaus County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Santa Clara and Stanislaus counties. *New records*: None.

REFERENCES.—Gardner 1973, Shelley 1996b.

REMARKS.—As explained by Hoffman (1999), Shelley (1996b) redescribed this species based on the type specimens of *T. schlingeri* and renamed it *T. gardneri*, a rare example of an objective synonym.

**Superorder Merocheta**

**Order Polydesmida**

**Family Fuhrmannodesmidae**

**Genus *Phreatodesmus* Loomis, 1960**

***Phreatodesmus cooki* Loomis, 1960**

TYPE LOCALITY.—Tehachapi Pass, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Kern County (known only from the type locality).

REFERENCE.—Loomis 1960.

***Phreatodesmus dentatus* Loomis, 1960**

TYPE LOCALITY.—Cajon Pass, San Bernardino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Bernardino County (known only from the type locality).

REFERENCE.—Loomis 1960.

***Phreatodesmus hastingsus* (Chamberlin 1941)**

TYPE LOCALITY.—Hastings Reservation, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Monterey County (known only from the type locality).

REFERENCES.—Loomis 1960, Shelley 1997b.

REMARKS.—Shelley (1997b) outlined the confusion that surrounds this species, and, as noted by Hoffman (1999), placement in *Phreatodesmus* is entirely speculative.

***Phreatodesmus torreyanus* Loomis, 1960**

TYPE LOCALITY.—Torrey Pines State Beach and Reserve, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Riverside and San Diego counties. *New records*: None.

REFERENCE.—Loomis 1960.

**Genus *Tidesmus* Chamberlin, 1943**

***Tidesmus episcopus* Chamberlin, 1943**

TYPE LOCALITY.—Bishop's Road, Reservoir Hill, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Los Angeles County (known only from the type locality).

REFERENCE.—Chamberlin 1943c.

**Family Nearctodesmidae**

**Genus *Harpogonopus* Loomis, 1960**

***Harpogonopus confluentus* Loomis, 1960**

TYPE LOCALITY.—45 mi (72 km) E San Diego, San Diego County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Los Angeles, Orange, San Diego, Santa Barbara, and Ventura counties. *New records*: None.

REFERENCES.—Loomis 1960, Shelley 1993a, 1994b.

REMARKS.—Buckett (1964) spelled the genus correctly, but Hoffman (1980, 1999) and Shelley (1993a) misspelled it as "*Harpagonopus*." Shelley (1993a) followed Hoffman (1980) in considering the genus of uncertain family position in the Trichopolydesmoidea, but the following year he (Shelley 1994b) assigned it to the Nearctodesmidae.

**Genus *Nearctodesmus* Silvestri, 1910**

***Nearctodesmus cerasinus* (Wood, 1864)**

TYPE LOCALITY.—Oregon.

OCCURRENCE IN CALIFORNIA.—*Published records*: Del Norte, Humboldt, Mendocino, and Siskiyou counties. *New records*: None.

REFERENCE.—Shelley 1994b.

***Nearctodesmus salix* Chamberlin, 1949**

TYPE LOCALITY.—12 mi (19.2 km) W Willow Creek (town), Humboldt County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Humboldt, Marin, Mendocino, Sonoma, and Trinity counties. *New records*: None.

REFERENCE.—Shelley 1994b.

**Family Paradoxosomatidae**

**Tribe Australiosomatini**

**Genus *Akamptogonus* Attems, 1914**

***Akamptogonus novarae* (Humbert and DeSaussure, 1869)**

TYPE LOCALITY.—New Zealand.

OCCURRENCE IN CALIFORNIA.—*Published records*: Mendocino, Napa, San Diego, San Francisco, Santa Barbara, and Sonoma counties. *New records*: Mendocino Co., Mendocino Woodlands (CAS). Napa/Sonoma cos., locality not specified (CAS). San Diego Co., Torrey Pines State Beach and Reserve (NMNH). Santa Barbara Co., Accli Garden (NMNH).

REFERENCES.—Hoffman 1979, Shelley et al. 1998.

REMARKS.—Shelley et al. (1998) recorded California counties for this species, to which I now add locality details.

**Tribe Sulciferini**

**Genus *Oxidus* Cook, 1911**

***Oxidus gracilis* (C. L. Koch, 1847)**

TYPE LOCALITY.—Austria (from a greenhouse).

OCCURRENCE IN CALIFORNIA.—*Published records*: None. *New records*: Alameda, Contra Costa, Fresno, Los Angeles, Nevada, Orange, Riverside, Sacramento, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Shasta, and Yolo cos. (AMNH, BMNH, CAS, CDFA, LACMNH, MCZ, NMNH, TMM, UCB, UCD, UCR).

REFERENCE.—Buckett 1964.

REMARKS.—Buckett (1964) stated that this introduced, synanthropic diplopod occurs throughout the western United States. It is one of the few millipeds with a common name, the hothouse or greenhouse milliped, and unquestionably occurs in urban environments in all counties of California.

**Family Polydesmidae**

**Genus *Bidentogon* Buckett and Gardner, 1968**

***Bidentogon californicus* (Chamberlin, 1918)**

TYPE LOCALITY.—Sacramento, Sacramento County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Sacramento County (known only from the type locality).

REFERENCE.—Shear 1972.

***Bidentogon helferorum* Buckett and Gardner, 1968**

TYPE LOCALITY.—1 mi (1.6 km) N Mendocino, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda and Mendocino counties. *New records*: Marin Co., Stinson Beach (NCSM), 1 mi (1.6 km) W Olema (UCB), and Point Reyes Station and 2 mi (3.2 km) E Point Reyes Station (FSCA, NCSM). Santa Clara Co., Milpitas (NMNH), Stanford University (NMNH), and Mt. Madonna (FSCA). Santa Cruz Co., Ben Lomond (UCB). San Mateo Co., near junction of Portola and San Gregorio roads (FSCA).

REFERENCES.—Buckett and Gardner 1968a, Shear 1972.

**Genus *Calianotus* Shelley, 1997**

***Calianotus bituberculatus* (Loomis, 1960)**

TYPE LOCALITY.—Niles Canyon, Alameda County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda and Contra Costa counties. *New records*: None.

REFERENCE.—Shelley 1997b.

***Calianotus sastianus* (Chamberlin, 1910)**

TYPE LOCALITY.—8 mi (12.8 km) S Dunsuir, Shasta County (neotype locality).

OCCURRENCE IN CALIFORNIA.—*Published records*: Shasta and Siskiyou counties. *New records*: None.

REFERENCE.—Shelley 1997b.

***Calianotus yosemitensis* (Causey, 1954)**

TYPE LOCALITY.—Vernal Falls, Yosemite National Park, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Calaveras, Madera, Mariposa, Tulare, and Tuolumne counties. *New records*: None.

REFERENCE.—Shelley 1997b.

**Genus *Scytonotus* C. L. Koch, 1847**

***Scytonotus simplex* Chamberlin, 1941**

TYPE LOCALITY.—Oregon.

OCCURRENCE IN CALIFORNIA.—*Published records*: Del Norte, Humboldt, Marin, Mendocino, San Joaquin, Sonoma, and Trinity counties. *New records*: None.

REFERENCE.—Shelley 1993b.

**Family Xystodesmidae**  
**Subfamily Xystodesminae**  
**Tribe Chonaphini**  
**Genus *Selenocheir* Shelley, 1994**

***Selenocheir arcuata* Shelley, 1994**

TYPE LOCALITY.—18.8 mi (30.1 km) NE Red Bluff, Tehama County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Humboldt, Lake, Mendocino, and Tehama counties. *New records*: None.

REFERENCE.—Shelley 1994c.

***Selenocheir directa* Shelley, 1994**

TYPE LOCALITY.—7 mi (11.2 km) NE Gasquet, Del Norte County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Del Norte County. *New records*: None.

REFERENCE.—Shelley 1994c.

***Selenocheir sinuata* Shelley, 1994**

TYPE LOCALITY.—2 mi (3.2 km) SW Dales, Tehama County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Butte, El Dorado, Humboldt, Placer, Shasta, and Tehama counties. *New records*: None.

REFERENCE.—Shelley 1994c.

**Tribe Sigmocheirini**  
**Genus *Ochthocelata* Shelley, 1995**

***Ochthocelata adynata* Shelley, 1995**

TYPE LOCALITY.—4 mi (6.4 km) E Glenville, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Kern County. *New records*: Kern Co., Live Oak Picnic Grounds (FSCA), and Kern R. Canyon, County Picnic Grounds, along Stork Creek (FSCA, NCSM).

REFERENCE.—Shelley 1995b.

**Genus *Sigmocheir* Chamberlin, 1951**

***Sigmocheir calaveras* Chamberlin, 1951**

TYPE LOCALITY.—Crystal-Stanislaus Cave, ca 3 mi (4.8 km) W Columbia, Calaveras County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Calaveras, Mariposa, and Tuolumne counties. *New records*: None.

REFERENCE.—Shelley 1995b.

***Sigmocheir furcata* Shelley, 1995**

TYPE LOCALITY.—Williams Cave, ca 1 mi (1.6 km) N Murphys, Calaveras County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador, Calaveras, El Dorado, Placer, and Sacramento counties. *New records*: None.

REFERENCE.—Shelley 1995b.

***Sigmocheir maculifer* (Chamberlin, 1941)**

TYPE LOCALITY.—9 mi (14.4 km) N Woodlake, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Fresno and Tulare counties. *New records*: None.

REFERENCE.—Shelley 1995b.

**Tribe Xystocheirini**  
**Genus *Anombrocheir* Buckett and Gardner, 1969**

***Anombrocheir bifurcata* Gardner and Buckett, 1969**

TYPE LOCALITY.—8.5 mi (13.6 km) NW Rumsey, Colusa County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Colusa and Yolo counties. *New records*: None.

REFERENCE.—Gardner and Buckett 1969.

***Anombrocheir spinosa* Buckett and Gardner, 1969**

TYPE LOCALITY.—3.5 mi (5.6 km) N Leesville, Colusa County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Colusa and Glenn counties. *New records*: None.

REFERENCES.—Buckett and Gardner 1969, Gardner and Buckett 1969.

**Genus *Motyxia* Chamberlin, 1941**

***Motyxia kerna* Chamberlin, 1941**

TYPE LOCALITY.—7 mi (11.2 km) N Glenville, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern and Tulare counties. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia monica* Chamberlin, 1944**

TYPE LOCALITY.—Madelia Canyon, Sherman Oaks, Los Angeles County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern and Los Angeles counties. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia pior* Chamberlin, 1941**

TYPE LOCALITY.—12 mi (19.2 km) NE Hammond, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia porrecta* Causey and Tiemann, 1969**

TYPE LOCALITY.—Stork Creek picnic site, Kern River Canyon, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia sequoia alia* Causey and Tiemann, 1969**

TYPE LOCALITY.—Along California highway 198 at Horseshoe Creek, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia sequoia sequoia* (Chamberlin, 1941)**

TYPE LOCALITY.—10 mi (16 km) E Hammond, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia sequoia intergrades***

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia sequoiae* (Loomis and Davenport, 1951)**

TYPE LOCALITY.—Above Camp Nelson, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia tiemanni* Causey, 1960**

TYPE LOCALITY.—Shirley Meadows, Kern County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Kern County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia tularea ollae* Causey and Tiemann, 1969**

TYPE LOCALITY.—5.4 mi (8.6 km) W of Tule River Indian Reservation, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1997c.

***Motyxia tularea tularea* (Chamberlin, 1949)**

TYPE LOCALITY.—Sugarloaf Mountain, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1997c.

**Genus *Parcipromus* Shelley, 1995*****Parcipromus cooki* (Causey, 1955)**

TYPE LOCALITY.—Kings River Canyon, Fresno County (neotype locality).

OCCURRENCE IN CALIFORNIA.—*Published records*: Fresno and Tulare counties. *New records*: None.

REFERENCE.—Shelley 1995c.

***Parcipromus gigantoarboricolus* Shelley, 1995**

TYPE LOCALITY.—Giant Forest, Sequoia National Park, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1995c.

***Parcipromus tiemanni* Shelley, 1995**

TYPE LOCALITY.—11.2 mi (17.9 km) S Camp Nelson, Tulare County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Tulare County. *New records*: None.

REFERENCE.—Shelley 1995c.

**Genus *Wamokia* Chamberlin, 1941*****Wamokia dentata* Buckett and Gardner, 1968**

TYPE LOCALITY.—3 mi (4.8 km) NW Somerset, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published record*: El Dorado County (known only from the type locality).

REFERENCE.—Buckett and Gardner 1968b.



***Wamokia discordis* Buckett and Gardner, 1968**

TYPE LOCALITY.—1 mi (1.6 km) E Auburn, Placer County.

OCCURRENCE IN CALIFORNIA.—*Published records*: El Dorado and Placer counties. *New records*: None.

REFERENCE.—Buckett and Gardner 1968b.

***Wamokia falcata* Buckett and Gardner, 1968**

TYPE LOCALITY.—Camino, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published record*: El Dorado County (known only from the type locality).

REFERENCE.—Buckett and Gardner 1968b.

***Wamokia hoffmani* Buckett and Gardner, 1968**

TYPE LOCALITY.—1 mi (1.6 km) N Shingle Springs, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador and El Dorado counties. *New records*: None.

REFERENCE.—Buckett and Gardner 1968b.

***Wamokia placera* Chamberlin, 1941**

TYPE LOCALITY.—9 mi (14.4 km) N Placerville, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published records*: El Dorado County. *New records*: None.

REFERENCE.—Buckett and Gardner 1968b.

***Wamokia remota* Buckett and Gardner, 1968**

TYPE LOCALITY.—8 mi (12.8 km) NE Auburn, Placer County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Placer County. *New records*: None.

REFERENCE.—Buckett and Gardner 1968b.

***Wamokia sierrae* Buckett and Gardner, 1968**

TYPE LOCALITY.—1 mi (1.6 km) SW Grass Valley, Nevada County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Nevada County (known only from the type locality).

REFERENCE.—Buckett and Gardner 1968b.

**Genus *Xystocheir* Cook, 1904*****Xystocheir bistipita* Shelley, 1996**

TYPE LOCALITY.—1 mi (1.6 km) N San Luis Obispo, San Luis Obispo County.

OCCURRENCE IN CALIFORNIA.—*Published record*: San Luis Obispo County (known only from the type locality).

REFERENCE.—Shelley 1996c.

***Xystocheir brachymacris* Shelley, 1996**

TYPE LOCALITY.—1 mi (1.6 km) NE Pacific House, El Dorado County.

OCCURRENCE IN CALIFORNIA.—*Published records*: El Dorado County. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir dissecta dissecta* (Wood, 1867)**

TYPE LOCALITY.—Probably near San Francisco or San Jose, San Francisco or Santa Clara counties.

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Sonoma counties. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir dissecta microrama* Shelley, 1996**

TYPE LOCALITY.—2 mi (3.2 km) W Cordelia, Solano County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda, Contra Costa, Sacramento, and Solano counties. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir dissecta taibona* Chamberlin, 1912**

TYPE LOCALITY.—Pacific Grove, Monterey County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Monterey, San Benito, Santa Clara, and Santa Cruz counties. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir dissecta intergrades***

OCCURRENCE IN CALIFORNIA.—*Published records*: Alameda, Contra Costa, Lake, Mendocino, Napa, Solano, Sonoma, Stanislaus, and Yolo counties. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir modestior haerens* Shelley, 1996**

TYPE LOCALITY.—Along California highway 180, ca 28 mi (44.8 km) E Fresno, Fresno County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Fresno County. *New records*: None.

REFERENCE.—Shelley 1996c.



***Xystocheir modestior modestior* (Chamberlin, 1941)**

TYPE LOCALITY.—4–7 mi (6.4–11.2 km) N Badger, Fresno/Tulare counties.

OCCURRENCE IN CALIFORNIA.—*Published records*: Fresno, Madera, and Tulare counties. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir prolixorama* Shelley, 1996**

TYPE LOCALITY.—5 mi (8 km) N Cloverdale, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mendocino County. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir reducta* (Causey, 1955)**

TYPE LOCALITY.—2.1 mi (3.4 km) E Briceburg, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Amador, Calaveras, Mariposa, and Tuolumne counties. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir solenofurcata* Shelley, 1996**

TYPE LOCALITY.—2 mi (3.2 km) N Plymouth, Amador County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Amador County. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir stenomacris* Shelley, 1996**

TYPE LOCALITY.—15 mi (24 km) N Ahwahnee, Mariposa County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Mariposa County. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir stolonifera stolonifera* Shelley, 1996**

TYPE LOCALITY.—2 mi (3.2 km) S Tollhouse, Fresno County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Fresno County. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir stolonifera uncinata* Shelley, 1996**

TYPE LOCALITY.—3 mi (4.8 km) S Coarsegold, Madera County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Fresno and Madera counties. *New records*: None.

REFERENCE.—Shelley 1996c.

***Xystocheir stolonifera intergrades***

OCCURRENCE IN CALIFORNIA.—*Published record*: Madera County. *New records*: None.

REFERENCE.—Shelley 1996c.

**Tribe Xystodesmini****Genus *Harpaphe* Cook, 1904*****Harpaphe haydeniana cummingsiensis* (Verhoeff, 1944)**

TYPE LOCALITY.—Cummings, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Humboldt, Mendocino, and Sonoma counties. *New records*: None.

REFERENCE.—Buckett and Gardner 1968c.

***Harpaphe haydeniana haydeniana* (Wood, 1864)**

TYPE LOCALITY.—Oregon (neotype locality).

OCCURRENCE IN CALIFORNIA.—*Published records*: Marin County. *New records*: None.

REFERENCE.—Buckett and Gardner 1968c.

***Harpaphe haydeniana inlignea* Chamberlin, 1949**

TYPE LOCALITY.—Inwood, Shasta County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Shasta County. *New records*: None.

REFERENCE.—Buckett and Gardner 1968c.

***Harpaphe haydeniana lanceolata* Buckett and Gardner, 1968**

TYPE LOCALITY.—Mount St. Helena, Napa County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Lake and Napa counties. *New records*: None.

REFERENCE.—Buckett and Gardner 1968c.

***Harpaphe haydeniana maurogona* Buckett and Gardner, 1968**

TYPE LOCALITY.—2 mi (3.2 km) E Baxter, Nevada County.

OCCURRENCE IN CALIFORNIA.—*Published record*: Nevada County (known only from the type locality).

REFERENCE.—Buckett and Gardner 1968c.

***Harpaphe haydeniana scotia* (Chamberlin, 1941)**

TYPE LOCALITY.—12 mi (19.2 km) S Los Gatos, Santa Clara County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Monterey, Santa Clara, and Santa Cruz counties. *New records*: Alameda Co., Berkeley (UCB). San Mateo Co., County Memorial Park (CAS).

REFERENCE.—Buckett and Gardner 1968c.

#### *Harpaphe pottera* Chamberlin, 1949

TYPE LOCALITY.—Potter Creek, Mendocino County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Humboldt and Mendocino counties. *New records*: None.

REFERENCE.—Buckett and Gardner 1968c.

#### *Harpaphe telodonta* Chamberlin, 1943

TYPE LOCALITY.—Arcata, Humboldt County.

OCCURRENCE IN CALIFORNIA.—*Published records*: Del Norte and Humboldt counties. *New records*: None.

REFERENCES.—Buckett and Gardner 1968c, 1968d.

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