List of the Pseudoscorpions of North America
North of Mexico
BY C. CLAYTON HOFF

The present list of the species of pseudoscorpions of North America north of Mexico was begun during a survey of the literature in connection with taxonomic and ecological studies (aided by National Science Foundation Grant G112) of the pseudoscorpions of New Mexico. During a review of the literature, it became evident that at least in part a lack of interest in the North American pseudoscorpion fauna results from the relative unavailability of suitable reference materials. For example, since the publication of a list of North American Pseudoscorpionida by Coolidge in 1908, there has been published no resumé or list of North American species except in the world-wide monograph by Beier (1932a, 1932b) and in the very similar account by Roewer (1936, 1937, 1940).

The chief purpose of the present list is to make readily available information that may serve to stimulate and to facilitate work in what is certainly one of our more inadequately known animal groups. For general information relative to morphology, classification, and ecology, reference should be made to one or more of the general publications by Chamberlin (1931), Beier (1932a, 1932b, 1932c), Roewer (1936, 1937, 1940), Hoff (1949), and Vachon (1949). For American investigators, works by Chamberlin (1931) and Hoff (1949) will furnish the basic information needed to use the key to higher categories and genera included in this publication. In connection with the key, it must be kept in mind that only genera reported from North America north of

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Mexico are included, that some undescribed genera may occur in our area, and that inadequate information precludes certain generic assignment of a number of our species. Keys to species are not included because information is not sufficient to permit construction of satisfactory keys in some of the larger genera. Even if keys to species were included, the serious student would find it necessary, because of the possibility of encountering undescribed species, to check his specimens carefully against species descriptions in the literature.

In this list a serious attempt has been made to avoid including undue and often cumbersome detail and yet, at the same time, to retain a high degree of usefulness. *Nomina nuda* have not been included, but an effort has been made to preserve as many published species names as possible by including *nomina dubia* that ultimately may be reassociated with the proper species by a reexamination of type specimens or by a study of topotypes. In the listing of locality records, restricted localities are not included, because to give locality records more detailed than state or province would make the list longer without contributing to its usefulness. For a given species, the localities are listed in alphabetic order, with the provinces of Canada and the Territory of Alaska following the states of the United States. In cases in which the type locality of a species occurs in North America north of Mexico, this locality is indicated by an asterisk after the name of the state or province. Under each genus, the species are arranged in order of the date of the original description, with species of doubtful or uncertain generic assignment placed at the end of each list. As considerable interest may be associated with a résumé of species found in individual states or provinces, alphabetic lists of species for each geographical area follow the systematic list. Species for which type localities occur within a state or province are indicated by an asterisk after the species name.

Included under each species is a short synonymy. These synonymies are not intended to be complete, the citations being selected to include the original species description, important redescriptions or discussions of species, and pertinent publications containing important locality records.

Unfortunately it is impossible to verify the accuracy of many of the published locality records upon which this list to a large extent depends. This is to be expected, because many species records are based wholly on reports published more than 25 and often as many as 50 years ago. In instances in which errors in published locality records are either evident or highly probable, the records have been omitted from
the present listing. For the most part, however, these unacceptable and rejected records are mentioned or even discussed in accompanying notes. In spite of definite and concerted efforts to assure completeness and accuracy, there are no doubt numerous errors in the present list. An attempt will be made to correct all errors called to the writer's attention.

SUBORDER HETEROSPHYRONIDA CHAMBERLIN
FAMILY TRIDENCHTHONIIDAE BALZAN
VERRUCADITHA CHAMBERLIN
1. Verrucaditha spinosa (Banks)

_Chthonius spinosus_ Banks, 1893, Canadian Ent., vol. 25, p. 67.

Florida,* Illinois, Indiana, Louisiana, Mississippi, Missouri, North Carolina, Ohio.

FAMILY CHTHONIIDAE HANSEN, _SENSU STRICTO_
TRIBE CHTHONIINI CHAMBERLIN
CHTHONIUS C. KOCH
1. _Chthonius_ (Chthonius) _ischnocheles_ (Hermann)

_Chthonius Pensylvanicus_ Hagen, 1869, Record of American entomology for the year 1868, p. 52.

Connecticut, Florida, Illinois, Minnesota, New Jersey, New York, North Carolina, Pennsylvania. The only Illinois and Minnesota records are by Ewing and may be based on incorrect determinations. The single North Carolina record is by Pearse and is possibly based on specimens of _Kewochthonius paludis_.

2. _Chthonius_ (Ephippiochthonius) _tetrachelatus_ (Preyssler)

_Chthonius longipalpus_ Banks, 1891, Canadian Ent., vol. 23, p. 164.


3. Chthonius (Ephippiochthonius) californicus Chamberlin


California.*

4. Chthonius (Globochthonius?) virginicus Chamberlin


Chthonius (Globochthonius) virginicus, Beier, 1932, Das Tierreich, vol. 57, p. 55.

District of Columbia, Maryland, North Carolina, Virginia.*

5. Chthonius? packardi (Hagen)


Indiana (Wyandotte Cave*), Kentucky. As the type specimens appear to be lost, it will be necessary to obtain topotypes before a correct generic assignment can be made. Most records appear to be based, at least in part, on specimens not conspecific with the type specimens.

6. Chthonius? coecus Packard


Virginia (Weyer's Cave*). Proper generic assignment depends upon a reëxamination of type specimens or, if the types are lost, a study of topotypes.
KEWOCHTHONIUS CHAMBERLIN

1. Kewochthonius stanfordianus (Chamberlin), new combination


California.*

2. Kewochthonius paludis (Chamberlin)


Georgia,* Mississippi, North Carolina, Tennessee. Gering's record from Utah is probably based on an incorrect determination.

MUNDOCHTHONIUS CHAMBERLIN

1. Mundochthonius erosidens Chamberlin


California.*

2. Mundochthonius montanus Chamberlin


Colorado,* New Mexico.

3. Mundochthonius magnus Chamberlin


California.*

4. Mundochthonius rossi Hoff


Illinois,* Iowa, North Dakota, Wisconsin.
5. *Mundochthonius sandersoni* Hoff


Illinois.*

*APOCHTHONIUS CHAMBERLIN*

1. *Apochthonius moestus* (Banks)

*Chthonius moestus* Banks, 1891, Canadian Ent., vol. 23, p. 165.


Arkansas, District of Columbia, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, New Mexico, New York,* North Carolina, Pennsylvania, Tennessee, Texas, Virginia. Report of this species from Washington (Beier, 1932a) is apparently an error based on the published record from Washington in the District of Columbia. The Tennessee record, based on specimens collected by Lewis J. Stannard in the vicinity of Reelfoot Lake, was inadvertently omitted from a previous publication in which a general statement of distribution was given in lieu of state records.

2. *Apochthonius intermedius* Chamberlin


Washington.*

3. *Apochthonius occidentalis* Chamberlin


Oregon.*

4. *Apochthonius magnanimus* Hoff


New Mexico.*
HOFF: PSEUDOSCORPIONS

KLEPTOCHTHONIUS CHAMBERLIN

1. Kleptochthonius crosbyi (Chamberlin)

_Apochthonius (Heterochthonius) crosbyi_ Chamberlin, 1929, Canadian Ent., vol. 61, p. 153.


North Carolina.*

2. Kleptochthonius multispinosus (Hoff)


Alabama, Illinois, Kentucky, Mississippi, Missouri, North Carolina,*

Tennessee.

CHAMBERLINOCHTHONIUS VACHON

1. Chamberlinochthonius henroti Vachon


West Virginia.*

TRIBE LECHYTIINI CHAMBERLIN

_LECHYRIA_ BALZAN

1. Lechytia pacifica (Banks)

_Roncus pacificus_ Banks, 1893, Canadian Ent., vol. 25, p. 66.


California, New Mexico, Utah, Washington.*

SUBORDER DIPLOSPHYRONIDA CHAMBERLIN

SUPERFAMILY NEOBISIOIDEA CHAMBERLIN

FAMILY NEOBISIIDAE CHAMBERLIN

SUBFAMILY NEOBISIINAE CHAMBERLIN

NEOBISIUM CHAMBERLIN

1. Neobisium (Neobisium) carolinense (Banks)


Georgia, Kentucky, North Carolina, Pennsylvania, Tennessee, Virginia. While Banks apparently based the original species description on specimens from both North Carolina and Virginia, there is some advantage in herewith restricting the type locality to North Carolina, especially as the locality record for North Carolina precedes that for Virginia in the original description of the species. The advisability of recognizing as subspecies the two varieties described by Chamberlin may be questioned, especially as intergrades are said to occur. Specimens from Georgia and North Carolina have in part been definitely assigned to N. (N.) carolinense carolinense, while specimens assigned to N. (N.) carolinense tenue have been reported from Kentucky, North Carolina, and Tennessee.* The statement by Hoff and Bolsterli that N. (N.) carolinense tenue occurs in Georgia is apparently not supported by valid records.

2. Neobisium (Parobisium) hesperum Chamberlin


Oregon.*

MICROBISIUM CHAMBERLIN

1. Microbisium brunneum (Hagen)

Microbisium brunneum Hagen, 1869, Record of American entomology for the year 1868, p. 52.


District of Columbia, Georgia, Illinois, Iowa, Maine, Massachusetts, Michigan, Missouri, New York, North Carolina, Ohio, Virginia, Wisconsin; Manitoba (Churchill area). In general this species appears to be distributed over a large area north of the Carolinas and east of the
Great Plains. Records from the District of Columbia, Georgia, and Virginia are based on nymphs and are of doubtful validity. Records from Utah and Arkansas are no doubt based on misidentifications as may be also, in part at least, the records from Iowa and Michigan. Beier's record from Washington is no doubt based on a questionable report of the species from the District of Columbia. The record from Manitoba is probably based on *M. brunneum*, although the species was determined by Chamberlin and reported by McClure as "near *brunneum*.

2. *Microbisium parvulum* (Banks)


Colorado, New Mexico, * Oklahoma, Utah. The original source of the type specimens is unknown. Obviously Banks was in error when he thought that the type specimens were from Florida. Records of this species from Minnesota, New York, and North Carolina are probably based on specimens of *M. confusum*. As the locality of Banks's specimens is not known, Bernalillo County, New Mexico, is declared the designated type locality.

3. *Microbisium confusum* Hoff


*Microbisium brunneum* Hoff (non Hagen), 1945, Trans. Amer. Micros. Soc., vol. 64, p. 34.

Arkansas, Colorado, Illinois, * Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, New York, North Carolina, North Dakota, Ohio, Tennessee, Wisconsin. The New York record is new, being based on specimens (often accompanied by specimens of *M. brunneum*) collected by Roy Latham on Long Island.

**SUBFAMILY IDEOBISIIINAE CHAMBERLIN**

**HALOBISIUM CHAMBERLIN**

1. *Halobisium occidentale* Beier


California.*

**MICROCREAGRIS BALZAN**

1. *Microcreagris theveneti* (Simon)


Arizona, California,* Oregon, Washington. Except for the type locality, it is possible that at least some records are based on incorrectly determined specimens.

2. *Microcreagris macilenta* (Simon)


California.*

3. *Microcreagris rufula* (Banks)


District of Columbia,* Kentucky, Texas, Virginia. The Texas record by Banks may be based on a misidentification.

4. *Microcreagris tacomensis* (Ellingsen)


Washington.*
5. *Microcreagris magna* (Banks)


California.*

6. *Microcreagris sequoiae* Chamberlin


California.*

7. *Microcreagris cingara* Chamberlin


Utah.* An Oregon record based on the tentative identification of a somewhat atypical female and a Washington record based wholly on nymphs probably pertain to other species of *Microcreagris.*

8. *Microcreagris atlantica* Chamberlin


Mississippi, North Carolina.*

9. *Microcreagris hespera* Chamberlin


California.*

10. *Microcreagris phyllisae* Chamberlin


California.*

11. *Microcreagris thermophila* Chamberlin


California.*
12. *Microcreagris laurae* Chamberlin


California.*

13. *Microcreagris chamberlini* Beier


California.*

14. *Microcreagris ozarkensis* Hoff


Arkansas.*

15. *Microcreagris lata* Hoff


North Carolina.*

16. *Microcreagris nigrescens* Chamberlin


California.*

17. *Microcreagris laudabilis* Hoff


New Mexico.*


Virginia (New Market Cave*).
19. *Microcreagris? californica* (Banks)


California.*

20. *Microcreagris? tibialis* (Banks)


Colorado.*


California.* If it is verified that both Ewing’s *Blothrus magnus* and Banks’s *Ideobisium magnum* are assignable to the genus *Microcreagris*, then *M. magna* (Ewing) is a junior secondary homonym and *magna* in this combination must be replaced by a new name.

FAMILY SYARINIDAE CHAMBERLIN

SUBFAMILY SYARININAE CHAMBERLIN

*SYARINUS* CHAMBERLIN

1. *Syarinus obscurus* (Banks)


California, Montana, New Mexico, Washington,* Wyoming; British Columbia.

2. *Syarinus granulatus* Chamberlin


Hoff, 1956, Amer. Mus. Novitates, no. 1780, p. 16.

Colorado,* New Mexico, Wisconsin.
3. Syarinus honestus Hoff


New Mexico.*

**HYARINUS CHAMBERLIN**

1. *Hyarinus hesperus* Chamberlin


California.*

**SUBFAMILY CHITRELLINAE BEIER**

**CHITRELLA BEIER**

1. *Chitrella transversa* (Banks)


New Mexico.*

2. *Chitrella cala* (Chamberlin)


California.*

**AGLAOCHITRA CHAMBERLIN**

1. *Aglaochitra rex* Chamberlin


California.*

**FAMILY IDEORONCIDAE CHAMBERLIN**

**SUBFAMILY IDEORONCINAE CHAMBERLIN**

**ALBIORIX CHAMBERLIN**

1. *Albiorix mexicanus* (Banks)


California, Utah.
2. Albiorix parvidentatus Chamberlin


California.*

3. Albiorix edentatus Chamberlin


California.*

4. Albiorix retrodentatus Hoff


New Mexico.

SUPERFAMILY GARYPOIDEA CHAMBERLIN

FAMILY GARYPIDAE HANSEN

SUBFAMILY GARYPINAE SIMON

GARYPUS L. KOCH

1. Garypus floridensis Banks


Florida.*

2. Garypus californicus Banks


California.*

LARCA CHAMBERLIN

1. Larca granulata (Banks)

*Garypus granulatus* BANKS, 1891, Canadian Ent., vol. 23, p. 163. 


ARCHEOLARCA HOFF AND CLAWSON

1. Archeolarca rotunda Hoff and Clawson


New Mexico, Utah.*
Family Olpiidae Chamberlin
Subfamily Olpiinae Banks
Pachyolpium Beier

1. Pachyolpium? obscurum (Banks)

Olpium obscurum Banks, 1893, Canadian Ent., vol. 25, p. 65.

Florida.*

2. Pachyolpium? minutum (Banks)


Texas.*

Hesperolpium Chamberlin

1. Hesperolpium sleveni (Chamberlin)


California.

Subfamily Garypininae Daday
Neoamblyolpium Hoff

1. Neoamblyolpium alienum Hoff


New Mexico.*

Pseudogarypinus Beier

1. Pseudogarypinus mariana (Chamberlin)


California,* Utah.

2. Pseudogarypinus? frontalis (Banks)

New Mexico.* It is possible that Garypinus marianae Chamberlin is a synonym of Olpium frontalis Banks, but this cannot be established until Banks's type specimens have been critically examined.

**SERIANUS CHAMBERLIN**

1. *Serianus serianus* (Chamberlin)


Utah. The Utah record is based on a single male that may be incorrectly determined.

2. *Serianus dolosus* Hoff

*Serianus dolosus* Hoff, 1956, Amer. Mus. Novitates, no. 1780, p. 35.

New Mexico.*

**FAMILY MENTHIDAE CHAMBERLIN**

**MENTHUS CHAMBERLIN**

1. *Menthus californicus* Chamberlin


California.*

**SUBORDER MONOSPHYRONIDA CHAMBERLIN**

**SUPERFAMILY FEAELLOIDEA CHAMBERLIN**

**FAMILY PSEUDOGARYPIDAE CHAMBERLIN**

**PSEUDOGARYPUS ELLINGSEN**

1. *Pseudogarypus bicornis* (Banks)


Wyoming.* Ellingsen's record from California is probably based on a specimen of Cerogarypus agassizi. The record from Utah is based on a misidentified specimen that has been taken by Jacot as the type of
Cerogarypus agassizi. The Idaho record is no doubt based on an error in identification. It has been impossible to locate the original report on which Beier based his record of this species from Colorado.

2. *Pseudogarypus hesperus* Chamberlin


Washington.*

3. *Pseudogarypus banksi* Jacot


New Hampshire.*

*CEROGARYPUS JACOT*

1. *Cerogarypus agassizi* Jacot


Idaho, Utah.* Ellingsen’s record of *Pseudogarypus bicornis* from California is probably based on a specimen of *Cerogarypus agassizi*.

SUPERFAMILY CHEIRIDIOIDEA CHAMBERLIN

FAMILY CHEIRIDIIDAE CHAMBERLIN

*CHEIRIDUM MENGE*

1. *Cheiridium insperatum* Hoff and Clawson


Utah.*

2. *Cheiridium firmum* Hoff


Illinois.*
APOCHEIRIDUM CHAMBERLIN

1. Apocheiridium ferumoides Chamberlin


California,* Utah.

2. Apocheiridium mormon Chamberlin


Idaho,* Utah.

3. Apocheiridium inexpectum Chamberlin

*Apocheiridium inexpectum* Chamberlin, 1932, Pan-Pacific Ent., vol. 8, p. 139.

California.*

4. Apocheiridium stannardi Hoff


Illinois.*

FAMILY STERNOPHORIDAE CHAMBERLIN

STERNOPHORUS CHAMBERLIN

1. Sternophorus paludis Chamberlin


Arkansas, Florida* (holotype), Georgia (allotype), Illinois, Mississippi. It appears advantageous to restrict the type locality to the locality of the holotype.

GARYOPS BANKS

1. Garyops depressa Banks

*Garyops depressa* Banks, 1909, Canadian Ent., vol. 41, p. 305.

Florida.*
SUPERFAMILY CHELIFEROIDEA CHAMBERLIN
FAMILY ATEMNIDAE CHAMBERLIN
SUBFAMILY ATEMNINAE BEIER

1. *Paratemnus* elongatus (Banks)
   
   

   Florida.*

FAMILY CHERNETIDAE MENGE
SUBFAMILY LAMPROCHERNETINAE BEIER

1. *Lamprochernes* oblongus (Say)
   
   
   

   Arkansas, District of Columbia, Florida, Georgia, Illinois,* Indiana, Kentucky, Louisiana, Massachusetts, Michigan, Missouri, Nebraska, New York, North Carolina, Ohio, Pennsylvania, Texas, Virginia. Other than “North America,” Say did not give a locality for his type specimens. In 1949, Hoff designated as the neotype a male from Illinois. Records from California are no doubt based on misidentifications.

2. *Lamprochernes godfreyi* (Kew)
   
   

   Indiana, Kansas.

3. *Lamprochernes ellipticus* Hoff
   

   New Mexico.
4. Lamprochernes minor Hoff


Illinois,* Minnesota, North Dakota, Wisconsin.

**LUSTROCHERNES BEIER**

1. *Lustrochernes grossus* (Banks)


Arizona, Colorado,* New Mexico.

2. *Lustrochernes pennisylvanicus* (Ellingsen)


Louisiana, Mississippi, Pennsylvania.*

3. *Lustrochernes? acuminatus* (Simon)


California,* Washington.

4. *Lustrochernes? floridanus* (Tullgren)


Florida.*

**PYCNOCHERNES BEIER**

1. *Pycnochernes lindsdalei* Chamberlin


California.*
2. Pycnochernes foxi Chamberlin


Idaho.*

**GENUS?**

1. Genus? hirsutus (Banks)


California.* From Banks's figure, the species probably belongs to an undescribed genus in the Lamprochernetinae.

**SUBFAMILY CHERNETINAE BEIER**

1. *Hesperochernes sanborni* (Hagen)

*Chernes Sanborni* Hagen, 1869, Record of American entomology for the year 1868, p. 51.


Massachusetts,* New York. Records by Coolidge for Indiana and by Ewing for Illinois are very probably based on incorrectly identified specimens.

2. *Hesperochernes pallipes* (Banks)


California.* Reports of this species from Colorado are probably based on an error made by Coolidge.

3. *Hesperochernes unicolor* (Banks)


Texas.*
4. **Hesperochernes laurae** Chamberlin

*Hesperochernes laurae* Chamberlin, 1924, Pan-Pacific Ent., vol. 1, p. 90.

California.*

5. **Hesperochernes tamiae** Beier


Maine, New York,* Vermont.

6. **Hesperochernes montanus** Chamberlin


Montana.*

7. **Hesperochernes canadensis** Hoff


Alberta.*

8. **Hesperochernes thomomysi** Hoff


California.*

9. **Hesperochernes utahensis** Hoff and Clawson


New Mexico, Utah.*

10. **Hesperochernes riograndensis** Hoff and Clawson


New Mexico.*

11. **Hesperochernes mimulus** Chamberlin


California.*
12. *Hesperochernes molestus* Hoff


New Mexico.*

13. *Hesperochernes? paludis* (Moles), new combination


California.*

**PSEUDOZAONA BEIER**

1. *Pseudozaona mirabilis* (Banks)


Kentucky (Indian Cave,* Barren County), Virginia.

2. *Pseudozaona occidentalis* Hoff and Bolsterli


Arkansas.*

**CHELANOPS GERVAIS**

1. *Chelanops affinis* Banks


Florida.*

2. *Chelanops? corticis* Ewing


Illinois.*
ILLINICHERNES HOFF

1. Illinichernes distinctus Hoff


Illinois,* Indiana, Maryland.

REGINACHERNES HOFF

1. Reginachernes ewingi Hoff


Illinois.*

2. Reginachernes lymphatus Hoff


Illinois,* Nebraska. This may be *Chelanops corticus* Ewing.

ACUMINOCHERNES HOFF

1. Acuminochernes crassopalpus (Hoff)


Arkansas,* Illinois, Kansas.

PHOBEROCHERUS CHAMBERLIN

1. Phoberocheirus cribellus Chamberlin


Virginia.*

MIROCHERNES BEIER

1. Mirochernes dentatus (Banks)


Arkansas, Florida?,* Illinois, Indiana, North Carolina, Virginia. Banks thought that the original specimen on which he described the species came from Florida. As the species has not been otherwise reported from Florida, it seems probable that one of the eastern states, perhaps Virginia, is the actual type locality. However, until further studies have indicated clearly that *Mirochernes dentatus* does not occur in Florida, it seems advisable to continue considering Florida as the type locality.

**DINOCHERUS CHAMBERLIN**

1. *Dinocheirus pallidus* (Banks)

*Chernes pallidus* Banks, 1890, Canadian Ent., vol. 22, p. 152.


Coolidge, 1908, Psyche, vol. 5, p. 112.


Arkansas, Illinois, Indiana, New York.*

2. *Dinocheirus tristis* (Banks)

*Chelanops tristis* Banks, 1891, Canadian Ent., vol. 23, p. 163.


New York.*

3. *Dinocheirus tumidus* (Banks)


Florida.*

4. *Dinocheirus validus* (Banks)


California,* New Mexico.
5. *Dinocheirus dorsalis* (Banks)


California.*

6. *Dinocheirus arizonensis* (Banks)


Arizona.*

7. *Dinocheirus aequalis* (Banks)


New Mexico, Texas.*

8. *Dinocheirus obesus* (Banks)


Arizona.*

9. *Dinocheirus partitus* (Banks)

*Chelanops partitus* Banks, 1909, Canadian Ent., vol. 41, p. 304.

Arizona.*

10. *Dinocheirus solus* Hoff


Illinois.*
11. *Dinocheirus stercoreus* Turk


Texas.*

12. *Dinocheirus sicarius* Chamberlin


California,* Utah.

13. *Dinocheirus texanus* Hoff and Clawson


Texas.*

14. *Dinocheirus venustus* Hoff and Clawson


Kansas,* Missouri.

15. *Dinocheirus astutus* Hoff

*Dinocheirus astutus* Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 44.

New Mexico.*

16. *Dinocheirus athleticus* Hoff


New Mexico.*

17. *Dinocheirus imperiosus* Hoff


New Mexico.*

18. *Dinocheirus? serratus* (Moles), new combination


California.*
DENDROCHERNES BEIER

1. Dendrochernes morosus (Banks)


Michigan.*

2. Dendrochernes instabilis (Chamberlin), new combination

*Pachycheirus instabilis* Chamberlin, 1934, Pan-Pacific Ent., vol. 10, p. 126.

Montana.*

3. Dendrochernes crassus Hoff


New Mexico.*

CHRYSOCHERNES HOFF

1. Chrysochernes elatus Hoff

*Chrysochernes elatus* Hoff, 1956, Amer. Mus. Novitates, no. 1800, p. 27.

New Mexico.*

WYOCHERNES HOFF

1. Wyochernes hutsoni Hoff


Wyoming.*

ZAONA CHAMBERLIN

1. Zaona biseriatum (Banks)


Berger, 1905, Ohio Nat., vol. 6, p. 408.


Florida.* Berger's record from Ohio is no doubt based on a misidentification.

PARACHERNES CHAMBERLIN

1. Parachernes latus (Banks)

*Chelans latus* Banks, 1893, Canadian Ent., vol. 25, p. 64.

Florida.*

2. Parachernes latimanus (Banks)


Florida.*

3. Parachernes virginica (Banks)

Brimley, 1942, Supplement to insects of North Carolina, p. 38.

North Carolina, Virginia.*

4. Parachernes tumimanus (Banks)


Texas.*

5. Parachernes pulchellus (Banks)


Texas.*

6. Parachernes diversus (Banks)


Florida.*

7. Parachernes squarrosus Hoff


Arkansas, Illinois,* Indiana.
8. *Parachernes nubilis* Hoff


New Mexico.*

9. *Parachernes? floridae* (Balzani), new combination


Florida.* While this new combination is entirely tentative, assignment of Balzan's species to *Parachernes* appears more logical than assignment to either *Chelanops* or *Neochernes*.

**PSELAPHOCHERNES BEIER**

1. *Pselaphochernes scorpioides* (Hermann)


Kentucky.

2. *Pselaphochernes parvus* Hoff


Arkansas,* Illinois, Tennessee, Wisconsin.

3. *Pselaphochernes becki* Hoff and Clawson


Utah.*

**TYCHOCHERNES HOFF**

1. *Tychochernes inflatus* Hoff


New Mexico.*
FAMILY CHELIFERIDAE HAGEN
SUBFAMILY CHELIFERINAE SIMON
TRIBE CHELIFERINI CHAMBERLIN
CHELIFER GEOFFROY

1. Chelifer cancroides (Linnaeus)

_Acarus cancroides_ Linnaeus, 1758, Systema naturae, ed. 10, p. 616.


California, Colorado, District of Columbia, Georgia, Idaho, Illinois, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Texas, Utah, Wisconsin, Wyoming; British Columbia, Ontario; Alaska.

PARACHELIFER CHAMBERLIN

1. _Parachelifer scabriculus_ (Simon)


Arizona, California,* New Mexico, Oregon, Utah.

2. _Parachelifer hubbardi_ (Banks)


Arizona.*

3. _Parachelifer persimilis_ (Banks)


Arizona, Colorado, Montana, Nebraska, Nevada, New Mexico,* Utah.
4. Parachelifer montanus Chamberlin

*Parachelifer montanus* Chamberlin, 1934, Pan-Pacific Ent., vol. 10, p. 129.

Montana.*

5. Parachelifer longipalpus Hoff


Arkansas,* Illinois, Nebraska.

6. Parachelifer? muricatus (Say)


Alabama, Florida, Kentucky, Massachusetts, New York, Ohio, Texas, Virginia. Say gives North America as the locality. All available records are by early workers and in many instances are probably based on incorrect identifications. Until the species receives additional study, it seems advisable to list all known state records except for the New Mexico record, which apparently is a misidentification of a specimen of *Parachelifer persimilis*.

**XENOCHELIFER CHAMBERLIN**

1. Xenochelifer davidi Chamberlin


California.*

**PAISOCHELIFER HOFF**

1. Paisochelifer callus (Hoff)


Illinois,* Maryland. Through a clerical error, mention in the literature of specimens from New Jersey actually refers to specimens of the collection reported from Maryland.

2. Paisochelifer utahensis Hoff


Utah.*
IDAIOCHELIFER CHAMBERLIN

1. Idiochelifer nigripalpus (Ewing)


Arkansas, Illinois, Indiana, Iowa,* Missouri, Wisconsin.

HYSTEROCHELIFER CHAMBERLIN

1. Hysterochelifer fuscipes (Banks)


California.*

2. Hysterochelifer proprius Hoff


Arizona,* New Mexico.

3. Hysterochelifer urbanus Hoff


New Mexico.*

PHOROCHELIFER HOFF

1. Phorochelifer mundus Hoff


New Mexico.*

LEVICHELIFER HOFF

1. Levichelifer fulvopalpus (Hoff)


New Mexico, Texas.
OCALACHELIFER CHAMBERLIN

1. Ocalachelifer cribratus Chamberlin


Florida.*

HAPLOCHELIFER CHAMBERLIN

1. Haplochelifer philipi (Chamberlin)


Arizona, California,* Colorado, Idaho, Nevada, New Mexico, Oregon, Utah.

TRIBE JUXTACHELIFERINI HOFF

JUXTACHELIFER HOFF

1. Juxtachelifer fructuosus Hoff


New Mexico.*

TRIBE DACTYLOCHELIFERINI BEIER

DACTYLOCHELIFER BEIER

1. Dactylochelifer copiosus Hoff


Arkansas,* Illinois, Kansas, Kentucky, Mississippi, Missouri, Tennessee.

2. Dactylochelifer silvestris Hoff


New Mexico.*

TYRANNOCHELIFER CHAMBERLIN

1. Tyrannochelifer floridanus (Banks)

*Chelifer floridanus* Banks, 1891, Canadian Ent., vol. 23, p. 162.


Florida.*
ELLINGSENIUS CHAMBERLIN

1. Ellingsenius sculpturatus (Lewis)


California. If Chamberlin's record for California is correct, it is probable that this African species has been introduced with honeybees.

SUBFAMILY WITHIINAE CHAMBERLIN

TRIBE WITHIINI CHAMBERLIN

WITHIUS KEW

1. Withius texanus (Banks)

*Chelifer texanus* Banks, 1891, Canadian Ent., vol. 23, p. 162.


Texas.*

2. Withius lagunae (Moles)


California.*

3. Withius vagrans Chamberlin


Texas.*

SPECIES LISTED BY STATES AND PROVINCES

UNITED STATES

ALABAMA: Kleptochthonius multispinosus (Hoff), Parachelifer? muricatus (Say).

ARIZONA: Dinocheirus arizonensis* (Banks), D. obesus* (Banks), D. partitus* (Banks), Haplochelifer philipi (Chamberlin), Hysterochelifer proprius* Hoff, Lustrochernes grossus (Banks), Microcreagris theveneti (Simon), Parachelifer hubbardi* (Banks), P. persimilis (Banks), P. scabriculus (Simon).


CONNECTICUT: *Chthonius (Chthonius) ischnocheles* (Hermann), *C. (Ephippiochthonius) tetrachelatus* (Preyssler).

DELAWARE: None.

DISTRICT OF COLUMBIA: *Apochthonius moestus* (Banks), *Chelifer cancriformis* (Linnaeus), *Echthonius (Ephippiochthonius) tetrachelatus* (Preyssler), *C. (Globochthonius?) virginicus* Chamberlin, *Lamprochernes?
nes oblongus (Say), Microbisium brunneum (Hagen), Microcreagris rufula* (Banks).

**FLORIDA:** Chelanops affinis* Banks, Chthonius (Chthonius) ischnocheles (Hermann), Dinocheirius tumidus* (Banks), Garyops depressa* Banks, Garypus floridensis* Banks, Lamprochernes oblongus (Say), Lustrochernes? floridanus* (Tullgren), Mirochernes dentatus* (Banks), Ocalachelifer cribratus* Chamberlin, Pachyolpium? obscurn* (Banks), Parachelifer? muricatus (Say), Parachernes diversus* (Banks), P.? floridae* (Balzan), P. latimanus* (Banks), P. latus* (Banks), Paratemnus elongatus* (Banks), Sternophorus paludis* Chamberlin, Tyrannochelifer floridanus* (Banks), Verrucaditha spinosa* (Banks), Zona biseriatum* (Banks).

**GEORGIA:** Chelifer cancroides (Linnaeus), Chthonius (Ephippiochthonius) tetrachelatus (Preyssler), Kewochthonius paludis* (Chamberlin), Lamprochernes oblongus (Say), Microbisium brunneum (Hagen), Neobisium (Neobisium) carolinense (Banks), Sternophorus paludis Chamberlin.

**IDAHO:** Apocheiridium mormon* Chamberlin, Cerogarypus agassizi Jacot, Chelifer cancroides (Linnaeus), Haplochelifer philipi (Chamberlin), Pycnochernes foxi* Chamberlin.

**ILLINOIS:** Acuminochernes crassopalpus (Hoff), Apocheiridium stannardi* Hoff, Apocheiridium moestus (Banks), Cheiridium firmum* Hoff, Chelanops? corticis* Ewing, Chelifer cancroides (Linnaeus), Chthonius (Chthonius) ischnocheles (Hermann), C. (Ephippiochthonius) tetrachelatus (Preyssler), Dactylochelifer copiosus Hoff, Dinocheirus pallidus (Banks), D. solus* Hoff, Idiochelifer nigrimalpus (Ewing), Illinichernes distinctus* Hoff, Kleptochthonius multipinonos (Hoff), Lamprochernes minor* Hoff, L. oblongus* (Say), Larca granulata (Banks), Microbisium brunneum (Hagen), M. confusum* Hoff, Mirochernes dentatus (Banks), Mundochthonius rossi* Hoff, M. sandersoni* Hoff, Paisochelifer callus* (Hoff), Parachelifer longipalpus Hoff, Parachernes squarrosus* Hoff, Pselaphochernes parvus Hoff, Reginaichernes ewingi* Hoff, R. lymphatus* Hoff, Sternophorus paludis Chamberlin, Verrucaditha spinosa (Banks).

**INDIANA:** Apocheiridium mormon* Chamberlin, Chthonius (Chthonius) packardi* (Hagen), Chthonius (Ephippiochthonius) tetrachelatus (Preyssler), Dinocheirus pallidus (Banks), Idiochelifer nigrimalpus (Ewing), Illinichernes distinctus Hoff, Lamprochernes godfreyi (Kew), L. oblongus (Say), Microbisium confusum Hoff, Mirochernes dentatus (Banks), Parachernes squarrosus Hoff, Verrucaditha spinosa (Banks).
IOWA: Microbisium brunneum (Hagen), M. confusum Hoff, Mundo-
chthonius rossi Hoff, Idiochelifer nigripalpus* (Ewing).

KANSAS: Acuminocernus crassopalpus (Hoff), Apochothionius moes-
tus (Banks), Chelifer cancrataes (Linnaeus), Dactylocerelifer copiosus
Hoff, Dinocheirus venustus* Hoff and Clawson, Lamprochernes god-
freyi (Kew), Microbisium confusum Hoff.

KENTUCKY: Apochothionius moestus (Banks), Chelifer cancrataes (Lin-
naeus), Chthonius? packardi (Hagen), C. (Ephippiochthonius) tetrachel-
atus (Preyssler), Dactylocerelifer copiosus Hoff, Kleptochthonius
multispinosus (Hoff), Lamprochernes oblongus (Say), Microbisium
confusum Hoff, Microcreagris rufula (Banks), Neobisium (Neobisium)
carolinense (Banks), Parachelifer? muricatus (Say), Pselaphocerels
scropioides (Hermann), Pseudozaona mirabilis* (Banks).

LOUISIANA: Lamprochernes oblongus (Say), Lustrochernes pennsyl-
avicus (Ellingsen), Verrucaditha spinosa (Banks).

MAINE: Chelifer cancrataes (Linnaeus), Chthonius (Ephippiochthon-
ius) tetrachelatus (Preyssler), Hesperochernes tamiae Beier, Microbis-
ium brunneum (Hagen).

MARYLAND: Apochothionius moestus (Banks), Chelifer cancrataes
(Linnaeus), Chthonius (Ephippiochthonius) tetrachelatus (Preyssler),
C. (Globochthonius?) virginicus Chamberlin, Illinichernes distinctus
Hoff, Paisochothionus callus (Hoff).

MASSACHUSETTS: Chelifer cancrataes (Linnaeus), Chthonius (Ephip-
piochthonius) tetrachelatus (Preyssler), Hesperochernes sanborni* (Hagen),
Lamprochernes oblongus (Say), Microbisium brunneum* (Hagen), Param-
chelifer? muricatus (Say).

MICHIGAN: Chelifer cancrataes (Linnaeus), Dendrochernes morosus*
(Banks), Lamprochernes oblongus (Say), Microbisium brunneum (Ha-
gen).

MINNESOTA: Chthonius (Chthonius) ischnocheles (Hermann), Lam-
prochernes minor Hoff.

MISSISSIPPI: Dactylocerelifer copiosus Hoff, Kewochothionus paludis
(Chamberlin), Kleptochthonius multispinosus (Hoff), Lustrochernes
pennsylvanica (Ellingsen), Microcreagris atlantica Chamberlin, Ster-
nophorus paludis Chamberlin, Verrucaditha spinosa (Banks).

MISSOURI: Apochothionius moestus (Banks), Chelifer cancrataes
(Lin-
naeus), Dactylocerelifer copiosus Hoff, Dinocheirus venustus Hoff and
Clawson, Idiochelifer nigripalpus (Ewing), Kleptochthonius multispino-
osus (Hoff), Lamprochernes oblongus (Say), Microbisium brunneum
(Hagen), M. confusum Hoff, Verrucaditha spinosa (Banks).
MONTANA: Chelifer cancroides (Linnaeus), Dendrochernes instabilis* (Chamberlin), Hesperochernes montanus* Chamberlin, Parachelifer montanus* Chamberlin, P. persimilis (Banks), Syarinus obscurus (Banks).

NEBRASKA: Chelifer cancroides (Linnaeus), Lamprochernes oblongus (Say), Microbisium confusum Hoff, Parachelifer longipalpus Hoff, P. persimilis (Banks), Reginachernes lymphatus Hoff.

NEVADA: Chelifer cancroides (Linnaeus), Haplochelifer philipi (Chamberlin), Parachelifer persimilis (Banks).

NEW HAMPSHIRE: Pseudogarypus banksi* Jacot.

NEW JERSEY: Chthonius (Chthonius) ischnocheles (Hermann), C. (Ephippiochthonius) tetrachelatus (Preyssler).

NEW MEXICO: Albiorix retrodentatus Hoff, Apochthonius magnanimus* Hoff, A. moestus (Banks), Archeolarca rotunda Hoff and Clawson, Chelifer cancroides (Linnaeus), Chitrella transversa* (Banks), Chrysocernhes elatus* Hoff, Dactylocelifer silvestris* Hoff, Dendrochernes crassus* Hoff, Dinocheiris aequalis (Banks), D. astutus* Hoff, D. athleticus* Hoff, D. imperiosus* Hoff, D. validus (Banks), Haplochelifer philipi (Chamberlin), Hesperochernes molestus* Hoff, H. riograndensis* Hoff and Clawson, H. utahensis Hoff and Clawson, Hysterochelifer proprius Hoff, H. urbanus* Hoff, Juxtachelifer fructuosus* Hoff, Lamprochernes ellipticus Hoff, Lechytia pacifica (Banks), Lechytia fulvopalpus (Hoff), Lustrochernes grossus (Banks), Microbisium parvulum* (Banks), Microcreagris laudabilis* Hoff, Munnochthioni montanus Chamberlin, Neoamblyoptimum alienum* Hoff, Parachelifer persimilis* (Banks), P. scabriculus (Simon), Parachelires nubilis* Hoff, Phorochelifer mundus* Hoff, Pseudogarypinus? frontalis* (Banks), Serianus dolosus* Hoff, Syarinus granulatus Chamberlin, S. honestus* Hoff, S. obscurus (Banks), Tychochernes inflatus* Hoff.

NEW YORK: Apochthonius moestus* (Banks), Chelifer cancroides (Linnaeus), Chthonius (Chthonius) ischnocheles (Hermann), C. (Ephippiochthonius) tetrachelatus (Preyssler), Dinocheiris pallidus* (Banks), D. tristis* (Banks), Hesperochernes sanborni (Hagen), H. tamiae* Beier, Lamprochernes oblongus (Say), Larca granulata* (Banks), Microbisium brunneum (Hagen), M. confusum Hoff, Parachelifer? muri- catus (Say).

NORTH CAROLINA: Apochthonius moestus (Banks), Chelifer cancroides (Linnaeus), Chthonius (Chthonius) ischnocheles (Hermann), C. (Ephippiochthonius) tetrachelatus (Preyssler), C. (Globochthonius?) virginicus Chamberlin, Kewochthioni paludis (Chamberlin), Kleptochthioni crosbyi* (Chamberlin), K. multispinosus* (Hoff), Lam-
prochosneres oblongus (Say), Microbisium brunneum (Hagen), M. confusum Hoff, Microcreagris atlantica* Chamberlin, M. lata* Hoff, Mirochernes dentatus (Banks), Neobisium (Neobisium) carolinense* (Banks), Pararchernes virginica (Banks), Verrucaditha spinosa (Banks).

NORTH DAKOTA: Chelifer cancriformis (Linnaeus), Lamprochernes minor Hoff, Microbisium confusum Hoff, Mundochthonius rossi Hoff.

OHIO: Chelifer cancriformis (Linnaeus), Chthonius (Ephippiochthonius) tetrachelatus (Preyssler), Lamprochernes oblongus (Say), Microbisium brunneum (Hagen), M. confusum Hoff, Parachelifer? muricatus (Say), Verrucaditha spinosa (Banks).

OKLAHOMA: Microbisium parvulum (Banks).

OREGON: Apochthonius occidentalis* Chamberlin, Chelifer cancriformis (Linnaeus), Haplocelifer philipi (Chamberlin), Microcreagris theveneti (Simon), Neobisium (Parobisium) hesperum* Chamberlin, Parachelifer scabriculus (Simon).

PENNSYLVANIA: Apochthonius moestus (Banks), Chelifer cancriformis (Linnaeus), Chthonius (Chthonius) ischnocheles (Hermann), C. (Ephippiochthonius) tetrachelatus (Preyssler), Lamprochernes oblongus (Say), Lustrochernes pennsylvanicus* (Ellingsen), Neobisium carolinense (Banks).

RHODE ISLAND: None.

SOUTH CAROLINA: None.

SOUTH DAKOTA: None.

TENNESSEE: Apochthonius moestus (Banks), Dactylocelifer copiosus Hoff, Kewochthonius paludis (Chamberlin), Kleptochthonius multispinosus (Hoff), Larca granulata (Banks), Microbisium confusum Hoff, Neobisium (Neobisium) carolinense (Banks), Pselaphochernes parvus Hoff.

TEXAS: Apochthonius moestus (Banks), Chelifer cancriformis (Linnaeus), Dinocheirus aequalis* (Banks), D. stercoratus* Turk, D. texanus* Hoff and Clawson, Hesperochernes unicolor* (Banks), Lamprochernes oblongus (Say), Levichelifer fulvopalpus (Hoff), Microcreagris rufula (Banks), Pachylptium? minutum* (Banks), Parachelifer? muricatus (Say), Pararchernes pulchellus* (Banks), P. tumimanus* (Banks), Withius texanus* (Banks), W. vagrans* Chamberlin.

UTAH: Albiorix mexicanus (Banks), Apocheiridium ferumoides Chamberlin, A. mormon Chamberlin, Archeolocara rotunda* Hoff and Clawson, Cerogarypus agassizi* Jacot, Cheiridium inspexatum* Hoff and Clawson, Chelifer cancriformis (Linnaeus), Dinocheirus sicarius Chamberlin, Haplocelifer philipi (Chamberlin), Hesperochernes utahensis* Hoff and Clawson, Lechytia pacifica (Banks), Microbisium par-
vulum (Banks), Microcreagris cingara* Chamberlin, Paisochelifer utahensis* Hoff, Parachelifer persimilis (Banks), P. scabriculus (Simon), Pselaphochernes becki* Hoff and Clawson, Pseudogarypinus marianae (Chamberlin), Serianus serianus (Chamberlin).

VERMONT: Hesperochernes tamiae Beier.

VIRGINIA: Apochthonius moestus (Banks), Chthonius? coecus* Packard, C. (Ephippiochthonius) tetrachelatus (Preyssler), C. (Globochthonius?) virginicus* Chamberlin, Lamprochernes oblongus (Say), Microbisium brunneum (Hagen), Mirochernes dentatus (Banks), Microcreagris? cavicola* (Packard), M. rufula (Banks), Neobisium (Neobisium) carolinense (Banks), Parachelifer? muricatus (Say), Parachelifer virginica* (Banks), Phoberocheirus cribellus* Chamberlin, Pseudozaona mirabilis (Banks).

WASHINGTON: Apochthonius intermedius* Chamberlin, Lechytia pacifica* (Banks), Lustrochernes? acuminatus (Simon), Microcreagris tacomenis* (Ellingsen), M. theveneti (Simon), Pseudogarypus hesperus* Chamberlin, Syarinus obscurus* (Banks).

WEST VIRGINIA: Chamberlinochthonius henroti* Vachon.

WISCONSIN: Chelifer cancroides (Linnaeus), Idiochelifer nigripalpus (Ewing), Lamprochernes minor Hoff, Microbisium brunneum (Hagen), M. confusum Hoff, Mundochthonius rossi Hoff, Pselaphochernes parvus Hoff, Syarinus granulatus Chamberlin.

WYOMING: Chelifer cancroides (Linnaeus), Pseudogarypus bicornis* (Banks), Syarinus obscurus (Banks), Wyochernes hutsoni* Hoff.

CANADA

ALBERTA: Hesperochernes canadensis* Hoff.

BRITISH COLUMBIA: Chelifer cancroides (Linnaeus), Syarinus obscurus (Banks).

MANITOBA: Microbisium brunneum (Hagen).

ONTARIO: Chelifer cancroides (Linnaeus).

TERRITORY OF ALASKA

ALASKA: Chelifer cancroides (Linnaeus).

KEY TO THE GENERA OF PSEUDOSCORPIONS REPORTED FOR NORTH AMERICA NORTH OF MEXICO

1. Tarsus of first leg with one segment, tarsus of fourth leg subdivided to form two segments; chelal fingers without venom apparatus (suborder Heterosphyronida) ........................................... 2
Tarsi of all legs similar; venom apparatus usually present in at least one chelal finger ......................................................... 9
2. Spiracles obliquely oriented and surrounded anteriorly and laterally by a definite sclerite (family Tridenchthoniidae) .............. Verrucaditha Spiracles transverse in position and not surrounded in part by a separate sclerite (family Chthoniidae) .................................. 5
3. Dorsum of chelal hand with a group of four tactile setae (tribe Lechyiini) ...................................................... Lechytia Dorsum of chelal hand medially with a transverse pair of tactile setae (tribe Chthoniini) .................................................... 4
4. No median intercoxal tubercle between the bases of the third and fourth pedal coxae; coxal spines acuminate and confined to the coxae of the first legs ..................................................... 5
Median intercoxal tubercle between the bases of the third and fourth pedal coxae; coxal spines not confined to the coxae of the first legs .......... 7
5. Marginal teeth of chelal fingers small and contiguous ..... Apochthonius Marginal teeth of chelal fingers well spaced, alternately large and small . 6
6. Fixed cheliceral finger and hand with seven setae; fourth tergite with at least six setae ............................. Kleptochthonius Fixed cheliceral finger and hand with only five setae; fourth tergite with four setae ........................... Chamberlinochthonius 7. Coxal spines (often only a single, deeply incised blade) confined to the second pedal coxae ................................... Mundochthonius Coxal spines on the second and third pedal coxae ......................... 8
8. Marginal teeth of chelal fingers contiguous and blunt ... Kewochthonius Marginal teeth of at least the fixed chelal finger acute and distinctly spaced ......................................................... Cthlonius
9. Tarsi of all legs divided, each leg with three segments distal to the femur (largest segment of the leg) (suborder Diplosphyronida) ............ 10
Tarsi of legs not divided, each leg with only two segments distal to the femur (largest segment of the leg) (suborder Monosphyronida) ...... 27
10. Chelicera with inner margin of movable finger dentate, plates of serrula interior not basally fused, and laminal seta absent; subterminal setae of pedal tarsi almost always dentate or forked (superfamily Neobisioidea) ................................................................. 11
Chelicera with inner margin of movable finger not toothed but having a single (sometimes subdivided) subapical lobe at the distal end of the margin, plates of serrula interior basally fused to form a membranous plate or velum, and a laminal seta present; subterminal setae of pedal tarsi simple (superfamily Garypoidea) .............................................. 19
11. Venom apparatus developed in both chelal fingers, neither finger with a sheathing device to receive the venom tooth or venedens of the opposing finger (family Ideoronicidae, subfamily Ideoronicinae) .......... Albiorix Venom apparatus in only the fixed chelal finger, movable finger with a sheathing device ........................................... 12
12. Pleural membrane of abdomen granulate or strongly granulostriate; articulation between parts of femur of fourth leg nearly perpendicular to the long axis of the femur (family Neobisiidae) ...................... 13
Pleural membrane of abdomen smoothly and longitudinally striate; fem-
oral articulation between parts of femur of fourth leg usually more or less strongly oblique to the long axis of the femur (family Syarinidae). 16

13. Movable cheliceral finger without a galea, spinneret when present reduced to an inconspicuous sclerotic knob or tubercle (subfamily Neobisiinae)

14. Movable cheliceral finger with four tactile setae, fixed finger with eight tactile setae; both males and females known ............................................. Neobisiium

15. Spinneret of movable cheliceral finger consisting of a series of eight to 10 simple galeae; chelal fingers without tactile setae in the distal one-third of their length ........................................ Halobisiium

16. Articulation between parts of the femur of the fourth leg strongly oblique to the long axis of the femur; subterminal setae of pedal tarsi simple and acute; galea present; regularity of the outer margin of the movable cheliceral finger broken (emarginate) at point of insertion of galea (subfamily Syarininae) .................................................. 17

17. Movable chelal finger with marginal teeth spaced and tactile setae t absent ........................................... Hyarinus

18. Tactile seta st of fixed chelal finger nearly as close to isb as to est .................................................. Chitrella

19. Venom apparatus only in fixed chelal finger; movable chelal finger with a receptor venedens to receive the venom tooth of the opposing finger (family Menthidae) ........................................... Menthus

20. Pleural membrane granulohispid or wrinkled plicate; coxal area posteriorly widened; investing setae of palps short and inconspicuous (family Garypadida, subfamily Garypadinae) .......................... 21

21. Arolia of pedal tarsi shorter than tarsal claws .......................... Garypus
Arolia of pedal tarsi longer than tarsal claws ........................................... 22
22. Movable chelal finger with less than four tactile setae ....................... Larca
Movable chelal finger with four tactile setae ....................................... Archeolarca
23. Arolia of pedal tarsi entire; tergites and sternites entire (subfamily Olpiinae) .............................................................. 24
Arolia of pedal tarsi divided or bifurcated; at least some of the anterior tergites and sternites medially divided (subfamily Garypininae) .... 25
24. Venom ducts short, nodus ramosus always distal to tactile seta it in the fixed finger; the length of the movable chelal finger not less than four times the length of the venom duct ........................................... Pachyolpium
Venom ducts long, the nodus ramosus of the fixed chelal finger always proximal to tactile seta it; the length of the movable chelal finger less than four times the distance between the nodus ramosus and the finger tip .......................................................... Hesperolpium
25. First leg with the articulation between parts of the femur virtually immobile and with the pars tibialis longer than the pars basalis ... Serianus
First leg with the femoral articulation partially mobile and with the pars tibialis distinctly shorter than the pars basalis ...................... 26
26. Tactile seta isb of the fixed chelal finger much closer to ib than to ist; marginal teeth of both chelal fingers equally well developed .............. Pseudogarypinus
Tactile seta isb of the fixed chelal finger much closer to ist than to ib; marginal teeth of movable chelal finger more weakly developed than the teeth of the fixed chelal finger ................... Neoamblyolpium
27. With four prominent eyes (superfamily Feaelloidea, family Pseudogarypidae) .............................................................. 28
With two eyes or none ........................................................................ 29
28. Pseudocoaxal spines typically developed on coxa of first leg; posterior eyes protected by a sclerotic shield ............................ Pseudogarypus
Pseudocoaxal spines absent; posterior eyes not protected by a sclerotic shield ............................................................... Cerogarypus
29. Femora of all legs similar in structure (superfamily Cheiridioidea) ....... 30
Femur and femoral articulation of the first leg distinctly different from that of the fourth leg (superfamily Cheliferoida) ......................... 33
30. Femoral articulations never clearly distinct, femora of legs not divided; each leg with five segments (family Cheiridiidae) .............. 31
Femoral articulations well developed, each femur divided into pars basalis and pars tibialis; each leg with six segments (family Sternophoridae) .... 32
31. Movable chelal finger with one tactile seta; 11 tergites visible from above ............................................................. Apocheiridium
Movable chelal finger with two tactile setae; only 10 tergites visible from above ............................................................. Cheiridium
32. Carapace narrowed anteriorly; with a pair of small, eyeless, ocular tuberocities well removed from the anterior margin of the carapace .... Garyops
Carapace not strongly narrowed anteriorly; without the ocular tuberocities described for Garyops ............................................ Sternophorus
33. Venom apparatus developed only in fixed chelal finger (family Atemnidae, subfamily Atemnininae) ...................................... Paratemnus
Venom apparatus developed in both fingers or in the movable finger only

34. Venom apparatus in only the movable chelal finger, occasionally vestigial in the fixed finger; chelal fingers almost always with accessory teeth in addition to marginal teeth (family Chernetidae) ................................................. 35

Venom apparatus equally well developed in both fixed and movable chelal fingers; no accessory teeth on either chelal finger. (In this family, males are often necessary for identification as to genus.) (Family Cheliferidae) ................................................................. 36

35. Tactile seta present on the tibia of the fourth leg; pleural membrane of abdomen smoothly striate, never wrinkled, rugose, or granulate. (If a species with the chelal hand subtriangular in outline in lateral view and almost as deep as long runs to this point, the form may be Atemnus hirsutus Banks, a California species that possibly belongs to an undescribed genus.) (Subfamily Lamprochernetinae) ........................................... 38

No tactile seta on the tibia of the fourth leg; pleural membrane of abdomen not smoothly plicate (subfamily Chernetinae) ............................................. 39

36. Tactile seta it of the fixed chelal finger at least as close to the finger tip as the distance between it and isb. Lustrochernes Tactile seta it of the fixed chelal finger distinctly farther from the finger tip than the distance between it and isb ............................................... 37

37. Tarsal tactile seta of fourth leg basal in position, removed at most from the proximal margin of the tarsus by 0.3 of the total length of the tarsus Lamprochernes Tarsal tactile seta of fourth leg not basal in position, removed from the proximal margin of the tarsus by not less than 0.35 of the total length of the tarsus Pycnochernes ................................................................. 40

38. Flagellum of chelicera with three blades ........................................ 39
Flagellum of chelicera with four blades ........................................... 40

39. Tarsus of fourth leg with a tactile seta ........................................ 41
Tarsus of fourth leg without a tactile seta ........................................ 42

40. Fixed chelal finger with all tactile setae except et confined to the basal one-half of the finger, so that the distance between seta it and the finger tip is at least as much as one-half of the length of the movable chelal finger Parachernes Fixed chelal finger with tactile setae not basally grouped, with the distance between seta it and the finger tip less than one-half of the length of the movable chelal finger ................................................................. 41

41. Tactile seta of tarsus of fourth leg median in position, less than 0.6 of the length of the tarsus from the proximal margin of the tarsus; distance between tactile seta and apical setae appreciably greater than the depth of the tarsus at the level of the tactile seta Pselaphochernes Tactile seta of tarsus of the fourth leg subterminal in position, 0.6 or more of the total length of the tarsus from the proximal tarsal margin; distance between tactile seta and apical setae never appreciably exceeding the depth of the tarsus at the level of the tactile seta .......... 42

42. Cheliceral hand with seta sb subterminally denticulate and seta b acuminate; fixed chelal finger with tactile seta it closer to the level of et than to the level of est. (While Dinocheirus does not belong at this point in
the key, an occasional specimen may lead here because one of the blades of the flagellum has been lost or is hidden by the other blades or because a species has been incorrectly assigned to the genus.) ........Dinocheirus
Cheliceral hand with both setae sb and b bearing a few spinules in the distal one-half; fixed chelal finger with tactile seta it closer to the level of est than to the level of et .........................Tychochernes
43. Palp slender, femur with a length/width ratio of more than 4.0; chelal fingers with at least a few accessory teeth .........................Zaona
Palp fairly stout, femur with length/width ratio of less than 4.0; chelal fingers without accessory teeth .........................44
44. Movable chelal finger with tactile seta st nearer to sb than to t; vestigial venom duct in fixed finger .........................Wyochernes
Movable chelal finger with tactile seta st nearer to t than to sb; vestigial venom duct absent from fixed finger .........................Chrysochernes
45. Tarsus of fourth leg with a tactile seta ........................................46
Tarsus of fourth leg without a tactile seta ........................................50
46. Movable chelal finger with tactile seta st closer to sb than to t ............Dendrochernes
Movable chelal finger with tactile seta st closer to t than to sb ............47
47. Movable chelal finger (properly oriented in lateral view) with distance between tactile setae sb and st 2.5 times the distance between t and st .................Phoberocchernes
Movable chelal finger with distance between tactile setae sb and st appreciably less than 2.5 times the distance between t and st ....................48
48. Cheliceral hand with setae sb and b simple and acuminate ..................Acuminochernes
Cheliceral hand with seta sb denticulate and seta b acuminate ............49
49. Male with strongly developed anvil-shaped process on the inner surface of chelal hand; in female, distance between tactile setae st and sb of movable chelal finger at least a little more than twice the distance between tactile setae t and st ..........................Mirochernes
Male without an anvil-shaped process on the inner surface of the chelal hand; in the female, the distance between tactile setae st and sb on the movable chelal finger seldom more than twice the distance between t and st. (Some females of Dinocheirus may be separated with difficulty from females of Mirochernes and a few may actually run to Mirochernes.) .........................Dinocheirus
50. Chela (exclusive of pedicel) with length/width ratio of 3.1 or more ........51
Chela (exclusive of pedicel) with length/width ratio of 3.0 or less ........52
51. Fixed chelal finger with tactile seta ist distal to the level of est ............Pseudozaona
Fixed chelal finger with tactile seta ist at the level of or a little proximal to the level of est. (While the true identity remains unknown, Chelanops corticis Ewing is certainly not assignable to Chelanops and will not run to this point in the key.) ............................Chelanops
52. Setae of palpi and tergites bilaterally feathered and leaf-like; some fairly long clavate setae (longer than investing setae) near the center of the outer margin of the fixed finger .......................Ilinichernes
Setae of palpi and tergites not bilaterally feathered; no relatively long clavate setae on the outer margin of the fixed chelal finger ............53

53. Cheliceral hand with seta b acuminate to strongly denticulate. (Intragenic variation and the questionable nature of seta b in the type species of *Hesperochernes* suggest that *Reginachernes* is a synonym of *Hesperochernes*.) ........................................... *Hesperochernes*

Cheliceral hand with seta b acuminate. (As one or more species now assigned to *Hesperochernes* may key to this point, specimens with an acuminate seta b should be checked for species in both *Hesperochernes* and *Reginachernes*.). ........................................... *Reginachernes*

54. Femoral articulation of first leg nearly vertical and only slightly mobile; flagellum of chelicera with four blades; median cribiform plate of female not in the form of a relatively slender transverse ribbon with anteriorly curved ends; male with specialized sensory areas on at least some abdominal sternites and lacking a statumen convolutum (subfamily Withinae, tribe Withini) .............................. *Withius*.

Femoral articulation of first leg usually oblique and allowing a moderate degree of movement; flagellum of chelicera usually with three blades; if articulation of femur of first leg is nearly vertical and the flagellum has four blades, then the median cribiform plate of the female is a slender transverse ribbon, with the ends curved anteriorly, and the male has a statumen convolutum; male without specialized sensory areas on sternites, but with a statumen convolutum (subfamily Cheliferae) .......55

55. Male with anterior margin of statumen convolutum never more than slightly invaginated, the invagination never bearing a median, rod-like process; coxal sacs of male, when present, usually with a well-defined atrium; female with a single median cribiform plate that is not in the form of a long transverse ribbon (tribe Dactylocheliferini) .............56

Male with statumen convolutum having a strongly developed anterior invagination that usually contains a rod-like process; male coxal sacs, when present, lacking an atrium; median cribiform plates of female either paired or in the form of a median transverse ribbon ........58

56. Some of the tarsal claws, exclusive of claws of the first leg of the male, bifid or toothed; tarsus of fourth leg with a tactile seta. . *Tyrannochelifer*.

Tarsal claws, exclusive of claws of first leg of male, acute and not toothed; tarsus of fourth leg without a tactile seta .................................57

57. Subterminal setae of tarsus of fourth leg monodentate; movable cheliceral finger with three galeal setae ........................................... *Ellingsenius*.

Subterminal setae of tarsus of fourth leg acute, non-dentate; movable cheliceral finger with a single galeal seta ............ *Dactylochelifer*.

58. Flagellum of chelicera with four blades; ramshorn organs of male absent; median cribiform plate of female in the form of a transverse band (tribe Juxtacheliferini) .............................. *Juxtachelifer*.

Flagellum of chelicera with three blades; ramshorn organs of male virtually always present; median cribiform plates of female paired (tribe Cheliferae) ..........................................................59

59. Male without coxal sacs; each median cribiform plate in the female with a diameter as great as the diameter of the anterior tracheal trunk ........ *Haplochelifer*
Male with coxal sacs; each median cribiform plate of the female with a diameter less than the diameter of the anterior tracheal trunk ...60

60. Subterminal setae of fourth pedal tarsus acuminate ..................61
Subterminal setae of fourth pedal tarsus with one or more subterminal denticulations .................................................................62

61. Male with lateral crests on abdominal tergites, with vestigial or weakly developed apical spine on the tarsus of the first leg, and with coxal sacs lacking a specialized cribrate area on the atrial surface ....Levichelifinter
Male with lateral crests absent or vestigial, without a trace of an apical spine on the tarsus of the first leg, and with coxal sacs having a cribrate area on the surface of the atrium ..Ocalochelifer

62. Tarsal claws of the fourth leg bifid or with an accessory tooth ...63
Tarsal claws of the fourth leg simple, not toothed ......................64

63. Seta sb of cheliceral hand absent .....................................Chelifeter
Seta sb of cheliceral hand present .................................Parachelifeter

64. Movable chelal finger with only two tactile setae .......Xenochelifer
Movable chelal finger with four tactile setae ........................65

65. Male with tarsus of first leg lacking an apical spine; lateral keels of anterior tergites of male poorly developed or vestigial ..........66
Male with tarsus of first leg bearing a well-developed apical spine; lateral keels of anterior abdominal tergites of male at least fairly well developed .................................................................67

66. Male without a lateral spur on the coxa of the fourth leg, tergal keels virtually absent ................Paisochelifer
Male with a lateral spur on the coxa of the fourth leg, weakly developed tergal keels present ............................Idiochelifer

67. Fixed chelal finger with tactile seta it not much closer to est than to et; male with a spur on the coxa of the fourth leg ......Hysterochelifer
Fixed chelal finger with tactile seta it nearly twice as far from et as from est; male without a spur on the coxa of the fourth leg ...Phorochelifer

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