

The Araneology of Indiana

F. R. ELLIOTT, Valparaiso University

The aim of the present paper is two-fold. First to list the literature pertaining to the Araneology of Indiana, accompanying the same with a brief description of the nature and content of each work, and second to revise the list of known spiders of Indiana to include all species identified since the last revision (Elliott) in 1931.

I. The Literature

The literature pertaining to the Indiana araneae (spiders) is exceedingly scattered in different publications and no resumé has been prepared that will at once put in the possession of the student the always welcome information regarding the status of the subject.

Recorded observations on spiders of the North American fauna had been made as early as 1800. Bosc left an unpublished manuscript and a list of 25 species of spiders collected in North Carolina. Thomas Abbot had prepared a series of illustrations of Georgian spiders accompanied by a manuscript of notes and observations on the drawings of spiders of Georgia. The list of spiders of Bosc was published by Baron Walckenaer in 1805 and descriptions and notes of both Bosc and Abbot were included in Walckenaer's "Apteres" published in 1835. Nicholas Marcellus Hentz began his studies of spiders in 1821 and his publications in the Journal of the Boston Society of Natural History to 1867 included 250 species of spiders of which 199 were from the southern states, chiefly North Carolina and Alabama.

Although much progress had been made in American araneology and a large number of species had been described, these were principally from southern states, hence the paper by Dr. Thorell in 1877 on the araneae collected in Colorado in 1875 by A. S. Packard was almost the first west of the Mississippi. This condition was to a considerable extent also true for Indiana, however, descriptions of a few spiders from this region had appeared some years earlier. The Araneology of Indiana had its beginnings in the work of Hentz in 1847 with the description of a single species, *Agalena naevia*. Since that time some 33 papers pertaining to the Araneology of Indiana have been published.

While it is not possible to classify the papers on the Araneology definitely on basis of the aspect of study they can be roughly grouped under three headings, biology, ecology and taxonomy as follows:

Biology

Moenkhaus, The spinning of the egg-sac in *Lycosa*; Petrunkevitch, The sense of sight in spiders; McIndoo, The biology of the Shawnee Cave spiders, and notes on some Arachnids from Ohio Valley Caves; Andrews, The digestion of a mouse by a *Tarentula*; Kintner, Some spiders of the genus *tetragnatha*; and Minton, Injuries of venomous animals in Indiana.

Ecology

Cope, The Wyandotte Cave and its fauna, and observations on Wyandotte Cave and its fauna; Emerton, Notes on the spiders from caves of Kentucky, Virginia and Indiana; Packard, The invertebrate cave fauna of Kentucky and adjoining states and The cave fauna of North America with remarks on the anatomy and origin of the blind species; Blatchley, Caves and their fauna; Banta, The fauna of Mayfields Cave; Elliott, An ecological study of the spiders of the beech-maple forest; Lowrie, The ecology of the spiders of the xeric dunelands in the Chicago area and the ecological succession of the spiders of the Chicago area dunes.

Taxonomy

Hentz, Descriptions and figures of araneids of the United States; Marx, Catalogue of the described araneae of temperate North America; Fox, A list of spiders from Indiana; Banks, A preliminary list of the Arachnida of Indiana with keys to families and genera, and a catalogue of nearctic spiders; Petrunkevitch, Synonymic Index—Catalogue of spiders of North, Central and South America with all adjacent islands, Systema Araneorum, and Catalogue of American spiders Part 1; Comstock, The Spider Book; Weninger, Notes on Miranda; and Elliott, Revision and additions to the list of Araneae of Indiana.

As is evident from the above titles the greater part of the literature on spiders of Indiana deals with the identification of the species. Of the papers listed biology, those of McIndoo and Kintner devote considerable attention to structural features and determination of species. Of the papers listed ecology each, in addition to description of the ecological relations, includes taxonomic material and lists the species of spiders.

A brief characterization of the papers follows.

Hentz—Descriptions and Figures of the Araneae of the United States, 1847, describes one species *Agelena naevia*, 1850, describes four species, *Micrathena sagittata* (*Epeira spinea*), *Micrathena gracilis* (*Epeira rugosa*), *Theridion tepidarorum* (*Theridion vulgare*) and *Enoplognatha marmorata* (*Theridion marmoratus*), 1867, describes one species, *Dendryphantes tripunctatus* (*Attus tripunctatus*). All species are from Indianapolis but collector is not named.

Cope (1872) and (1878) Wyandotte Cave and its fauna and observations on Wyandotte Cave and its fauna.

This paper was published in 1872 and a revision of same in the Indiana State Geological Report in 1878. However no change was made with reference to the fauna. The author reports collection of 16 species of animals, one being a true spider which due to impurity of the preserving fluid was destroyed hence not identified.

Emerton (1875) Spiders from caves of Kentucky, Virginia and Indiana.

The spiders collected by A. S. Packard consisted of specimens comprising eleven species, three being from Indiana caves. They were *Nesticus carteri*, *Phanetta subterranea* (*Linyphia subterranea*) and *Meta menardi*.

Packard (1875) The invertebrate cave fauna of Kentucky and adjoining states. (1886) The cave fauna of North America.

Specimens of the fauna were observed and collected from Wyandotte, Bradford, Connelly, Buzzard, Blue Spring and Donnelsons caves. The spiders from these collections were identified and described by Emerton in the previous paper. The cave fauna was extended culminating in the paper, cave fauna of North America. Notes from descriptions of the spiders were incorporated therein and one or two observations made by Packard. However no additional species were described.

Marx (1889) Catalogue of described Araneae of Temperate North America.

The author lists eight spiders for Indiana and records the source of the description of each. These are *Castaneria trilineata* (*Thargala lineata*), *Nesticus carteri*, *Linyphia weyeri*, *Antrobia mammouthia*, *Troglophantes cavernicolus* (*Willibaldi cavernicola*), *Phanetta subterranea*, *Micrathena* sp. (*Acrosoma* sp.) and *Lycosa nidicola*.

Fox (1892) A list of spiders from Indiana.

The list of spiders was from a collection of Frederick Test sent for identification. The paper was presented at a meeting of Washington Entomological Society. Fox states, "My reason for presenting them to the Society is that they are from a locality that has never been collected in before." The list includes 77 species. These are identified by the letter F. in the list of Indiana Spiders included herein.

Blatchley (1896) Indiana caves and their fauna.

This includes faunal collections from nineteen of the most important caves of Indiana. It consists of discussion of the formation of caves, short description of each cave, descriptions of new species found, notes on occurrence, habits, and inter-relations of the various cave animals. The spiders are enumerated for each cave. The list includes seven species as follows: *Tegenaria cavicola*, *Meta menardi*, *Dolomedes urinator*, *The ridion porteri*, *Tmeticus tridentatus*, *Nesticus carteri*, and *Phanetta subterranea*.

Moenkhaus (1901) Spinning of the egg-sac in *Lycosa*.

The paper discusses the manner of construction of the egg-sac, the laying of the eggs and the enclosure of the egg-sac within the cocoon. The entire process takes place in a little more than a half hour. In the process the sheet-like web upon which the eggs are laid is cut loose and rolled up with the mandibles and palpi. This edge appears as a rather prominent equatorial band around the cocoon at the line of attachment of the sheet. The author states that examination of the egg-sac of more than fifty species of *Lycosidae* shows an equatorial band hence it would seem that all the species adopt in general the same plan of constructing the egg-sac.

Banks (1906) Preliminary list of the Arachnidae of Indiana.

The material was collected by Blatchley and his assistants, also spiders from Professor Moenkhaus, Banta and Dr. Mel Cook. The paper includes a table for the families and a key to the genera represented. It also gives reference to the description of the species. The list includes the names of 148 species, the collectors and localities.

Petrunkevitch (1906) The Sense of Sight in Spiders.

This was read by title only at the Indiana Academy of Science and was revised and published elsewhere later. It discusses briefly the structure and type of eyes, light and dark adaptations, etc.

Banta (1907) The Fauna of Mayfields Cave.

This paper is the result of an attempt at a detailed study of the fauna of a small cave, observing its inhabitants throughout the year and in all conditions to which they are normally subjected. Temperature and air currents were observed, collections made, habitats noted, life histories worked out, etc. Some species were added from Truitts and neighboring caves. Seventeen species of spiders were identified and their distribution noted. The species are not listed here but may readily be determined by the designation Ba in the List of Spiders of Indiana included in this paper.

Banks (1910) Catalogue of Nearctic Spiders.

This lists five species of spiders as occurring in Indiana and gives reference to the Indiana State Geological Report containing the descriptions. All species had been previously reported.

McIndoo (1910) Biology of Shawnee Cave Spiders.

Two species of spiders were studied in detail as to habitat, locomotion, webs and snares, food, enemies, moulting habits, cocoon spinning, etc. The species were *Troglophantes cavernicola* (Willabaldi) and *Meta menardi*.

McIndoo (1911) Notes on some arachnids from Ohio Valley Caves.

This includes collections from Marengo, Spring, Wyandotte, Little Wyandotte, Seberts Well, and Salt Peter Caves in Indiana and Mammoth Cave in Kentucky. Five species of spiders were identified from Indiana caves and the abundance, habitat, distribution and reaction to light, etc., studied. The species were *Linyphia weyeri*, *Phanetta subterranea*, *Meta menardi*, *Theridion porteri* and *Erigone infernalis*.

Petrunkevitch (1911) A Synonymic Index—Catalogue of Spiders of North, Central and South America with all adjacent islands, Greenland, Bermuda, West Indies, Terra Del Fuego, Galapagos, etc.

This voluminous work consists of an extensive 1. Bibliography. 2. A list of species with synonyms and references. 3. An alphabetical index to synonyms. This catalogue lists 64 species of spiders as having been reported or described from Indiana. These had been reported previously in other papers so are not enumerated here.

Comstock (1912) *The Spider Book*.

An excellent general text book dealing with the spiders and near relatives, the external and internal anatomy of the spider, life cycle, egg laying, and the structure and spinning of the web, descriptions and illustrations of many species of spiders are included. This lists two species of spiders as occurring in Indiana. There are *Geolycosa pikei* and *Tegevaria* sp.

Wenninger (1921) *Notes on Miranda aurantia*.

This discusses the structural features, habits, habitats and general features of *Miranda*.

Petrunkevitch (1928) *Systema Araneorum*.

This work is an attempt, to group the genera of spiders in a natural system, to bring the knowledge of spiders up to date, and to facilitate further study. It includes a key to the families of recent spiders, keys to the sub-families, a list of the genera of recent spiders alphabetically arranged within each sub-family, an alphabetical list of synonyms of recent genera, and indices to the genera listed and to families.

Andrews (1929) *The Digestion of a Mouse by a Tarentula*.

Kept *Tarentula* two years feeding same a number of different animals as insects, etc. A very young mouse was put in the cage at 3:45 p. m. By 8 a. m. the next day the mouse had completely disappeared. A second larger mouse was introduced into the cage at 2 p. m. At 5:30 p. m. the *Tarentula* succeeded in striking the mouse which died within a minute. The spider did not offer to eat the mouse.

Elliott (1930) *An Ecological Study of Spiders of the Beech-Maple Forest*.

An eighty-acre beech-maple forest known as Lewis Woods near Richmond, Indiana, was selected for intensive observation and study of spiders. Collections were made every two weeks for 16 months. Investigation was conducted along three lines. 1. Taxonomic, with a view to collection and identification of spiders. 2. Quantitative, to learn the representation of each species in the area. 3. Ecological, including a study of the species as to habitat, distribution in same, migration, hibernation and annual and seasonal succession. The paper includes description of the forest, distribution within the habitat such as Ground, Herb, Shrub and Herb-Shrub species, specificity of the species for the association, and annual and seasonal succession, etc. Ninety-nine species of spiders were present in this area.

Elliott (1931) *Revision and additions to the list of Araneae (spiders) of Indiana*.

The paper includes 1. the enumeration of the species, 2. additions of known species to the list, and 3. a uniform arrangement of species in a system that most nearly represents the present knowledge of the group. The list of species given includes collector, names and localities. Seventy species were added to the list of 148 species reported by Banks (1906) giving a total of 218 known Indiana spiders.

Kintner (1934) Some Spiders of the Genus *Tetragnatha*.

The paper describes the tribe *Tetragnatha* as to habitat, body shape, legs, Chelicerae, and colors and position of the legs and body when at rest. Egg laying and cocoon formation were also observed. The paper reports six species of *Tetragnatha*, three of these for the first time in Indiana. The species reported are *Tetragnatha elongata*, *Tetragnatha laboriosa*, *Tetragnatha extensa*, *Tetragnatha vermiformis*, *Eugnatha straminea* (*Tetragnatha straminea*) and *Tetragnatha pallidula*.

Petrunkévitch (1939) Catalogue of American Spiders, Part 1.

This includes the first two sub-orders of spiders namely the *Liphistomorphae* and the *Mygalomorphae*. The author had hoped, with the aid of collaborating specialists, to include the *Arachnomorphae*. Sub-orders I and II are represented in Indiana by only two species, *Apostichus flavipes* and *Atypus milberti*.

Wenninger (1939) Notes on *Miranda*.

The abstract only was presented at the meeting of the Indiana Academy of Science (1939). The peculiar position of the eyes, some prominences, some internal features, mating, egg laying and distribution of the nest are noted. The author states that *Miranda* is the name that should be used although at least 28 writers mention neither the genus nor the species.

Lowrie (1942) The ecology of the spiders of the xeric duneslands in the Chicago area and (1948) the ecological succession of spiders of the Chicago area dunes.

Much of the work, particularly of the first paper, was done in Illinois. The spiders present are represented in the more comprehensive list of the succeeding paper. In addition to collecting in the Indiana-Michigan dunes area, collections included the black oak and foredunes of Waukegan, the black oak dunes of Kankakee, the climax forests of Saugatuck, various woods in Michigan, and at Smith, Indiana.

The associates discussed are those of Cowles, namely, the beach, the foredune, the cottonwood dune, the pine, the black oak-white oak, and the beech-maple climax. Stratification, biotic factors, and physical factors as temperature, evaporation, soil moisture and light, are discussed. Tables list the spiders of the different areas, the number of species found and give an analysis of the herbaceous based upon one hundred sweep units and the number of specimens collected. A total of 170 species is reported for the dunes area of Indiana.

Minton (1950) Injuries by venomous animals in Indiana.

Of venomous animals only the spiders and snakes are represented in the midwest by potentially dangerous species. The black widow spider, *Latrodectus mactans*, is described as to, coloration and markings. distribution in Indiana and habitat. Report on cases of bite by the spider includes symptoms and methods of treatment.

II. Revision of the List of Spiders of Indiana

In this as in the revision by the writer (1931) the order of the Families and Genera is that given in the *Systema Araneorum* by Petrunkevitch (1928). The species name likewise, except that given after 1911, is the one given in the *Synonymic Index-Catalogue* (1911) by the same author. That new genera have been added and that many changes have been made in those already in use the writer is well aware, however since no subsequent *Index-Catalogue* of spiders, except the *Catalogue of American Spiders Part 1* Petrunkevitch 1939 which includes the Sub-orders Liphistiomorphae and Mygalomorphae only, has been published, it is thought best to follow the arrangement above indicated rather than that of revisions of different families by various arachnologists.

In instances where a species has been given different names by different writers such names if synonyms are included in parenthesis following the *Index-Catalogue* name. Otherwise no attempt has been made to give a Synonymy. In some instances a spider is best known and is most frequently described by American students under such names. Confusion likely to result from the nomenclature here given is however compensated by advantages from adherence to the rule of priority.

The arrangement of the families and genera, as stated, is that of the *Systema Araneorum*, Petrunkevitch (1928). A classification of recent spiders to family, as per this work, precedes the list of species herein given. The three Sub-orders of the Order Araneae (Spiders) are represented in the present list as follows: Sub-order I Liphistiomorphae, spiders with segmented abdomen, none; Sub-order II Mygalomorphae, spiders with four lungs, Family Ctenizidae one, *Apostichus flavipes*, and Family Atypidae one, *Atypus nublerti*; Sub-order III Arachnomorphae, spiders with two lungs, is represented by 301 species. Of the forty-six families comprising the Arachnomorphae eighteen are represented. The number of species ranges from 1 in four families to 41, 44 and 49 in the families Attidae, Linyphiidae and Argiopidae respectively.

No localities or collectors are given for spiders reported for Indiana by general publications such as the *Descriptions of spiders of the U. S.* by Hentz, *Catalogue of Spiders of the U. S.* by Marx, *The Spider Book* by Comstock, *The Catalogue of Spiders* by Banks and *Index-Catalogue* and *Systema Araneorum* by Petrunkevitch since neither collector nor locality is indicated. Collectors' or authors' names and localities are indicated for the following: Fox, list of spiders of Indiana; Cope, Wyandotte Cave; Packard, cave fauna of North America; Blatchley, fauna of Indiana caves; Banks, spiders of Indiana; Banta, Mayfields Cave; McIndoo, Shawnee Cave and arachnids of Ohio Valley Caves; Elliott, spiders of beech-maple forest and Revisions and additions to the list of Indiana spiders; Kintner, some spiders of the genus *tetragnatha*; and Lowrie, ecological succession of spiders of Chicago area dunes. The collector or author, except where represented by a very small number of species, is indicated by the first letter or letters of the name.

The revision and additions to the list of spiders of Indiana, Elliott (1931), included 218 species. The present list is augmented by 87 species making a total of 303 known Indiana spiders.

CLASSIFICATION OF RECENT SPIDERS
(To Family Only)

- Order ARANEAE
- I—Sub-Order Liphistiomorphae
1. Family Liphistiidae
- II—Sub-Order Mygalomorphae
- First Branch Nelipoda
2. *Family Ctenizidae* 1
3. *Family Atypidae* 1
4. Family Migidae
5. Family Dipluridae
6. Family Paratropididae
7. Family Pycnothelidae
- Second Branch Hypodemata
8. Family Barychelidae
9. Family Theraphosidae
- III—Sub-Order Arachnomorphae
- First Branch Tetrasticta
10. Family Hypochilidae
11. Family Filistatidae
12. *Family Dysderidae* 1
13. Family Oonopidae
14. Family Hadrotarsidae
15. Family Telemidae
16. Family Caponiidae
- Second Branch Trionycha
17. Family Oecobiidae
18. Family Urocteidae
19. Family Psechridae
20. Family Tengellidae
21. *Family Amaurobidae* 3
22. *Family Agelenidae* 18
23. Family Hersilliidae
24. Family Zodariidae
25. Family Palpimanidae
26. Family Eresidae
27. *Family Pisauridae* 6
28. *Family Lycosidae* 30
29. *Family Oxyopidae* 1
30. Family Senoculidae
31. Family Leptonetidae
32. *Family Sicariidae* 1
33. *Family Dictynidae* 10
34. *Family Theridiidae* 26
35. *Family Pholcidae* 1
36. *Family Linyphiidae* 44
37. Family Archaeidae
38. *Family Uloboridae* 2
39. Family Dinopidae
40. *Family Argiopidae* 49
41. *Family Mimetidae* 2
- Third Branch Dionycha
42. Family Zoropsidae
43. Family Acauthoctenidae
44. *Family Ctenidae* 1
45. *Family Drassidae* 13
46. Family Ammoxenidae
47. Family Prodidomidae
48. Family Homalonychidae
49. Family Sparassidae
50. Family Selenopidae
51. Family Platoridae
52. *Family Thomisidae* 31
53. Family Aphantochilidae
54. *Family Clubionidae* 21
55. *Family Attidae* 41

List of Spiders of Indiana

3. Atypidae
1. *Apostiches flavipes*, Petrunkevitch.
Petrunkevitch synonymic Index-Catalogue as for Ind.
2. *Atypus milberti*, Walck.
B. Wyandotte Cave, New Harmony, (Dransfield).
12. Dysderidae
3. *Ariadna bicolor*, Hentz.
B. Wyandotte Cave, Mitchell, Mecca; E. Richmond, Crooked Lake, Valparaiso; F. Lafayette.
21. Amaurobidae
4. *Amaurobius americanus*, Em. (*Titanoeca americana*, Em.).
E. Richmond, Dunes Park; L. Dunes Acres.
5. *Amaurobius bennetti*, Blackwall. (*Cinifo bennetti*, Blackwall).
Ba. Mayfields Cave, Truitts Cave; E. Richmond, Crooked Lake; L. Smith.
6. *Amaurobius ferox*, Walck.
F. Lafayette.
22. Agelenidae
7. *Agelena naevia*, Walck. (*Agelenopsis pennsylvanica*, Koch).
B. Tippecanoe Lake, Vincennes, North Vernon, New Albany, Clear Lake, Greencastle, Huntington; E. Richmond, Crooked Lake, Nashville, Valparaiso; F. Lafayette; Hentz. Indianapolis; L. Dunes Acres, Smith.
8. *Agelenopsis utahana*, Chamb. & Ivie.
L. Ogden Dunes, Smith.
9. *Cicurina arcuata*, Keys. (*Cicurina complicata*, Em.)
B. Bass Lake; E. Richmond, Dunes Park; F. Lafayette.

10. *Cicurina brevis*, Em.
B. Bass Lake; E. Richmond,
Dunes Park; L. Dunes Acres,
Smith.
11. *Cicurina pallida*, Keys.
B. Bass Lake, Wyandotte Cave,
Putnam County; Ba. Mayfield's
Cave, Truitts Cave; E. Rich-
mond; L. Smith.
12. *Coelotes hybridus*, Em.
E. Richmond.
13. *Coelotes longitarsus*, Em. (*Coelotes calcaratus*, Keys.).
B. New Harmony; E. Rich-
mond; F. Lafayette.
14. *Coelotes montanus*, Em.
E. Richmond.
15. *Coras medicinalis*, Hentz. (*Coelotes medicinalis*, Em.).
B. Putnam County; E. Rich-
mond; F. Lafayette.
16. *Coras juvenalis*, Keys.
L. Smith.
17. *Coras lamellosus*, Keys.
L. Ogden Dunes, Smith.
18. *Tegenaria cavicola*, B.
B. Salt Peter, Crawford County;
Bl. Salt Peter Cave, Crawford
County, McIndoo, Shawnee Cave.
19. *Tegenaria domestica*, Clerck.
(*Tegenaria derhama*, Scopoll).
B. Wyandotte Cave, Greencas-
tle; Ba. Mayfield's Cave, Twin
Cave; E. Richmond, Crooked
Lake, Valparaiso; F. Lafayette.
20. *Wadotes calcaratus*, Keys.
L. Smith.
21. *Neoantistea riparia radula*,
Keys.
L. Smith.
22. *Hahnia agilis*, Keys.
E. Richmond, Crooked Lake.
23. *Hahnia cinerea*, Em.
E. Richmond, Crooked Lake; L.
Ogden Dunes.
24. *Hahnia radula*, Em.
E. Richmond.
27. Pisauridae
25. *Pisaurina brevipes*, Em.
L. Smith.
26. *Pisaurina mira*, Walck. (*Pisaurina undata*, B.)
B. Arlington, Bass Lake, Shoals,
Culver, Greencastle, Hunting-
burg; E. Richmond, Crooked
Lake, Valparaiso, Nashville,
Dunes Park; L. Dunes Acres,
Ogden Dunes, Smith.
27. *Pisaurina subinflata*, Hentz.
B. New Harmony, North Vernon.
28. *Dolomedes tenebrosus*, Hentz.
(*Dolomedes striatus*, Becker)
(*Dolomedes scriptus*, Hentz).
B. Wyandotte Cave, Bass Lake,
Mitchell, Medora, Cypress
Swamp, Knox County, Lake
Maxinkuckee, Gibson County,
Wilders, Greencastle; Ba. May-
field's Cave; E. Richmond,
Crooked Lake, Valparaiso, Nash-
ville, Dunes Park; F. Lafayette;
L. Dunes Acres, Smith.
29. *Dolomedes triton serpunctatus*,
Walck. (*Dolomedes serpunc-
tatus*, Hentz).
B. Tippecanoe Lake, Greencas-
tle; F. Lafayette; L. Dunes
Acres.
30. *Dolomedes urinator*, Hentz.
B. Mitchell, Donnelson's Cave;
Bl. Donnelson's Cave.
28. Lycosidae
31. *Alloccosa funere*, Hentz.
B. Knox County; E. Richmond.
32. *Arctosa cinerea*, Fabricus (*Trochosa cinerea*, Fabricus) (*Arctosa litteralis*, Hentz).
B. Hammond, Grand Chain,
Pine, Greencastle; L. Dunes
Acres, Ogden Dunes, Miller.
33. *Arctosa rubicanda*, Keys. (*Lycosa polita*, Em.)
F. Lafayette.
34. *Geolycosa fatifera*, Hentz (*Lycosa fatifera*, Hentz).
B. Wyandotte Cave, New Har-
mony, Culver, Marion County.
35. *Geolycosa missouriensis*, B.
L. Dunes Acres.
36. *Geolycosa wrightii*, Em.
E. Dunes Park; L. Ogden Dunes,
Dunes Acres.
37. *Lycosa aspera*, Hentz (*Lycosa tigrina*, McCook).
E. Dunes Park; F. Lafayette;
L. Dunes Acres, Ogden Dunes,
Miller.
38. *Lycosa avara*, Keys. (*Trahosa avara*, Keys.)
B. North Vernon; F. Lafayette;
L. Dunes Acres.
39. *Lycosa avida*, Walck. (*Lycosa communis*, Em.) (*Lycosa erratica*) (*Schizocosa avida*, Walck.).
B. Hammond; E. Richmond;
Dunes Park; F. Lafayette; L.
Dunes Acres, Miller, Ogden
Dunes.
40. *Lycosa baltimoriana*, Keys.
L. Dunes Acres.

41. *Lycosa carolinensis*, Walck. (*Lycosa georgiana*, Walck.) (*Trachosa avara*, Keys.).
B. Wyandotte Cave, North Vernon, LaPorte County; F. Lafayette.
42. *Lycosa frondicola*, Em. (*Lycosa nigrocentrus*, Em.) (*Lycosa modesta*, Thorell).
B. Mitchell, North Vernon, New Albany, Huntingburg; E. Dunes Park; F. Lafayette; L. Ogden Dunes, Dunes Acres, Miller.
43. *Lycosa gulosa*, Walck. (*Lycosa kochii*, Em.) (*Atopecosa kochii*, Keys.).
B. Tippecanoe Lake, Huntingburg, Bass Lake, Medora, Grand Chain; E. Richmond; L. Smith.
44. *Lycosa helluo*, Walck. (*Lycosa nidicola*, Em.)
B. Tippecanoe Lake, Arlington, Bass Lake, Mitchell, Grand Chain, Medora, Mecca, Jeffersonville, Marlon County, Huntingburg; E. Dunes Park; Em. Indiana; F. Lafayette.
45. *Lycosa permunda*, Chamb.
L. Smith.
46. *Lycosa pratensis*, Em.
B. Vincennes, Wyandotte Cave, Bass Lake, Medora, Pine.
47. *Lycosa punctulata*, Hentz.
B. North Vernon, Greencastle.
48. *Lycosa rabida*, Walck. (*Lycosa scutulata*, Hentz)
B. Mitchell, Greencastle, Huntingburg; E. Richmond, Dunes Park; L. Ogden Dunes, Dunes Acres, Smith.
49. *Pirata febriculosus*, Becker.
E. Richmond.
50. *Pirata insularis*, Em.
B. Hammond; E. Valparaiso; L. Ogden Dunes, Smith.
51. *Pirata minutus*, Em.
E. Richmond; F. Lafayette.
52. *Pirata marxi*, Stone. (*Pirata piratica*, Clerck).
B. Clear Lake, Knox County; E. Richmond, Dunes Park; L. Smith.
53. *Schizocosa bilineata*, Em.
E. Richmond, Valparaiso.
54. *Schizocosa crassipes*, Walck. (*Lycosa ocreata*, Hentz).
B. Tippecanoe Lake, Mitchell, Vawter Park, LaPorte County; E. Valparaiso; F. Lafayette; L. Dunes Acres, Smith.
55. *Schizocosa saltatrix*, Hentz (*Lycosa gracilis*, B.).
B. Wyandotte Cave; E. Dunes Park; F. Lafayette; L. Dunes Acres, Smith.
56. *Pardosa flavipalpis*, F. Camb. (*Pardosa flavipes*, Keys.).
57. *Pardosa lapidicina*, Em.
B. Bass Lake, Jeffersonville, Huntingburg.
58. *Pardosa milvina*, Hentz (*Pardosa nigropalpis*, Em.).
E. Richmond, Dunes Park; F. Lafayette; L. Ogden Dunes, Dunes Acres, Miller, Smith.
59. *Paradosa modica*, Blackwall (*Paradosa fuscula*, Thorell).
L. Dunes Acres.
60. *Pardosa moesta*, B.
L. Dunes Acres.
29. Oxyopidae
61. *Oxyopes salticus*, Hentz.
E. Richmond; L. Dunes Acres.
32. Sicariidae
62. *Scytodes thoracia*, Latr.
E. Richmond.
33. Dictynidae
63. *Dictyna arundinaceoides*, Em.
F. Lafayette.
64. *Dictyna bicornis*, Em.
L. Ogden Dunes.
65. *Dictyna bostontiensis*, Em.
L. Dunes Acres, Ogden Dunes.
66. *Dictyna foliaca*, Hentz.
E. Richmond, Crooked Lake, Valparaiso, Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.
67. *Dictyna frondea*, Em.
B. Hammond, Arlington, Marshall County; E. Dunes Park; L. Dunes Acres, Ogden Dunes.
68. *Dictyna minuta*, Em.
E. Richmond, Crooked Lake, Valparaiso.
69. *Dictyna sublata*, Hentz.
B. Tippecanoe Lake, Grand Chain, Vawter Park; E. Richmond, Crooked Lake, Valparaiso.
70. *Dictyna volucripes*, Keys.
L. Dunes Acres, Smith.
71. *Lathys foxii*, Marx. (*Dictynia foxii*, B.)
E. Richmond.
72. *Lathys pallida*, Em.
E. Richmond.
34. Therididae
73. *Asagena americana*, Em.
B. Wyandotte Cave; E. Richmond; F. Lafayette.

74. *Pedanostethus riparius*, Keys.
B. Knox County; E. Richmond.
75. *Pedanostethus primulus*, Em.
E. Richmond.
76. *Crustulina guttata*, Wider.
E. Richmond, Crooked Lake,
Valparaiso; L. Ogden Dunes.
77. *Robertus riparius*, Keys.
L. Ogden Dunes.
78. *Sidusa borealis*, B.
E. Dunes Park; L. Dunes Acres.
79. *Steatoda borealis*, Hentz.
B. Greencastle; E. Richmond,
Valparaiso; F. Lafayette; L.
Ogden Dunes, Smith.
80. *Teutana triangulosus*, Hentz.
F. Lafayette.
81. *Latrodectus mactans*, Fabr.
B. Wyandotte Cave, Mitchell,
North Vernon, Shoals, New Al-
bany, Greencastle, Hunting-
burg; F. Lafayette.
82. *Argyrodes tigrum*, Hentz.
Ba. Mayfield's Cave.
83. *Euryopsis argentea*, Em.
E. Dunes Park; L. Ogden Dunes.
84. *Euryopsis funebris*, Hentz.
B. New Harmony; E. Rich-
mond; F. Lafayette; L. Smith.
85. *Theridion cinereum*, Em.
L. Smith.
86. *Theridion differens*, Em.
B. Arlington, Bass Lake; E.
Richmond, Crooked Lake, Val-
paraiso, Nashville, Dunes Park;
L. Dunes Acres, Ogden Dunes.
87. *Theridion frondeum*, Hentz.
B. Vincennes, Grand Chain; E.
Richmond, Crooked Lake, Val-
paraiso, Dunes Park; L. Dunes
Acres, Ogden Dunes, Smith.
88. *Theridion albomaculatum*, Camb.
L. Smith.
89. *Theridion kentuckyensis*, Keys.
B. Mayfield's Cave, Twin Cave;
Ba. Mayfield's Cave, Truitt's
Cave.
90. *Enoplognatha marmorata*,
Hentz. (*Theridion marmorat-
um*, Hentz).
Hentz. Indianapolis.
91. *Theridion murarium*, Em.
B. Hammond, Arlington; E.
Dunes Park; F. Lafayette; L.
Dunes Acres, Ogden Dunes,
Smith.
92. *Theridion pennsylvanicum*, Em.
E. Richmond, Crooked Lake.
93. *Theridion porteri*, B.
B. Porter's Cave, Truitt's Cave;
Ba. Mayfield's Cave, Truitt's
Cave; Bl. Porter's Cave, Truitt's
Cave; McIndoo. Porter's Cave,
Mayfield's Cave.
94. *Theridion rupicola*, Em.
L. Smith.
95. *Theridion spirale*, Em.
B. Pine, Lake County.
96. *Theridion teptidariorum*, C.
Koch (*Theridion vulgare*)
B. Kosciusko County, Greencas-
tle; E. Richmond, Valparaiso;
Em. Wyandotte Cave; F. Lafa-
yette; Hentz. Indianapolis; L.
Smith.
97. *Theridula opulenta*, Walck.
E. Richmond.
98. *Nesticus carteri*, Em.
B. Bradford Cave, Porter Cave,
Marengo Cave; Ba. Mayfield's
Cave, Truitt's Cave; Bl. Porter
Cave, Coon Cave, Marengo
Caves; Em. Bradford Cave.
99. *Pholcus phalangoides*, Fuesslin.
E. Richmond, Crooked Lake.
36. Linyphiidae
100. *Bathyphantes canadensis*, Em.
E. Richmond.
101. *Bathyphantes formica*, Em.
L. Dunes Acres.
102. *Bathyphantes micara*, Em.
E. Richmond.
103. *Bathyphantes nigrinus*, West-
ring (*Linyphia nigrina*, West-
ring).
Ba. Mayfield's Cave; E. Rich-
mond; F. Lafayette; L. Dunes
Acres.
104. *Bathyphantes unimaculatus*, B.
E. Valparaiso.
105. *Bathyphantes zebra*, Em.
E. Richmond.
106. *Linyphia clathrata*, Sundervall.
E. Richmond; L. Ogden Dunes,
Smith.
107. *Linyphia communis*, Hentz
(*Frontinella communis* Hentz).
L. Smith.
108. *Linyphia conferta*, Hentz.
E. Richmond, Crooked Lake,
Valparaiso.
109. *Linyphia lineata*, Linnaeus (*Lt-
nyphia bucculenta*, Clerck)
(*Bolyphantes lineata*, Keys.).
B. Greencastle; E. Richmond;
F. Lafayette.
110. *Linyphia maculata*, Em.
L. Smith.
111. *Linyphia marginata*, C. Koch
(*Linyphia marmoratus*, Hentz).
B. Arlington, Wyandotte Cave,
Greencastle; Ba. Mayfield's

- Cave; E. Richmond, Crooked Lake, Valparaiso; F. Lafayette; L. Smith.
112. *Linyphia phrygiaaa*, C. Koch.
B. Culver; E. Richmond, Crooked Lake, Nashville.
113. *Pityophantes phrygiaaa*, C. Koch.
L. Dunes Acres, Ogden Dunes, Smith.
114. *Linyphia pusilla*, Sundervall (*Linyphia mandibulata*, Em.).
E. Richmond; F. Lafayette; L. Dunes Acres.
115. *Linyphia weyeri*, Em.
Em. Wyandotte Cave; McIndoo, Marengo Cave; Packard, Wyandotte Cave.
116. *Microneta cornupalpis*, Camb.
E. Richmond.
117. *Trogolophantes cavernicolus*, Keys. (*Willibaldi cavernicola*, Keys.).
B. Donnelson's Cave; Ba. Mayfield's Cave, Donnelson's Cave, Twin Caves, Mitchell; Em. Wyandotte Cave; McIndoo, Shawnee Cave.
118. *Trogolophantes incertus*, Em. (*Linyphia incerta*, Em.).
Em. Wyandotte Cave.
119. *Ceraticulus emertoni*, Camb.
E. Richmond; L. Dunes Acres, Ogden Dunes, Smith.
120. *Ceraticulus fissiceps*, O. P. Camb.
E. Dunes Park; L. Dunes Acres, Ogden Dunes.
121. *Ceraticulus homologicus*, Crosby & Bishop.
L. Dunes Acres, Ogden Dunes.
122. *Ceraticulus minuta*, Em.
E. Richmond, Crooked Lake, Valparaiso; L. Ogden Dunes.
123. *Ceratinella brunnea*, Em.
E. Richmond, Crooked Lake, Valparaiso.
124. *Anthobia mammothia*, Tellkampff.
C. Wyandotte Cave; Em. Wyandotte Cave.
125. *Gongylidiellum pallidum*, Em.
E. Richmond, Crooked Lake.
126. *Oedothorax bidentatus*, Em. (*Gongylidiellum tridentatus*, Em.).
B. Porter Cave, Owen County.
127. *Oedothorax montiferus*, Em.
E. Richmond.
128. *Oedothorax platyrhinus*, Crosby.
E. Richmond.
129. *Oedothorax probatus*, Camb.
E. Richmond, Crooked Lake, Valparaiso.
130. *Prosopetheca minuta*, Em.
E. Richmond.
131. *Tmeticus aestivalis*, Em.
E. Richmond, Crooked Lake, Valparaiso.
132. *Ceratinopsis anglicana*, Hentz.
E. Dunes Park; L. Dunes Acres.
133. *Ceratinopsis interpres*, Camb.
E. Richmond, Crooked Lake, Valparaiso, Nashville.
134. *Diptocephalus caiguus*, B.
E. Richmond.
135. *Erigone autumnalis*, Em.
L. Dunes Acres.
136. *Erigone dentigera*, Camb.
L. Dunes Acres.
137. *Erigone infernalis*, Keys.
Ba. Mayfield's Cave, Twin Cave; McIndoo, Mayfield's Cave.
138. *Erigone longipalpis*, Sundervall.
B. Arlington.
139. *Erigone tridentatus*, Em. (*Tmeticus tridentatus*, Em.).
Bl. Porter Cave.
140. *Grammonota inornata*, Em. (*Erigone inornata*, Em.).
E. Richmond; F. Lafayette.
141. *Hyposelistes flavens*, O. P. Camb.
L. Dunes Acres, Smith.
142. *Phanetta subterranea*, Keys. (*Linyphia subterranea*, Em.).
Ba. Wyandotte Cave, Truitt's Cave; Bl. Wyandotte Cave; Em. Wyandotte Cave, Bradford Cave; McIndoo, Spring Cave, Little Wyandotte, Salt Peter Cave.
143. *Trachelocamptus rostratus*, Em.
E. Richmond, Crooked Lake.
38. Uloboridae
144. *Uloborus americana*, Walck.
E. Richmond, Crooked Lake, Valparaiso; L. Ogden Dunes, Smith.
145. *Hyptiotes cavaticus*, Hentz.
E. Richmond, Crooked Lake; F. Lafayette; L. Ogden Dunes, Smith.
40. Argiopidae
146. *Argiope aurantia*, Lucas (*Argiope copinkharia*, Walck).
B. Greencastle, Lake Maxinkuckee; E. Richmond, Valparaiso, Nashville, Dunes Park, Crooked Lake; F. Lafayette; L. Dunes Acres.

147. *Argiope trifasciata*, Forskal (*Argiope transversa*, Em.) (*Argyropsis*, Walck).
B. Greencastle; E. Richmond, Valparaiso, Nashville, Dunes Park; F. Lafayette; L. Dunes Acres.
148. *Acaccia foliata*, Hentz.
B. Grand Chain, Greencastle; E. Richmond.
149. *Araneus angulatus*, Clerck (*Esperia angulata*, Clerck).
B. Greencastle; E. Richmond; L. Smith.
150. *Araneus arabesca*, Walck (*Epeira arabesca*, Walck) (*Necosoma arabesca*, Walck) (*Aranea trinitatta*, Keys.) (*Epeira trinitatta*, Keys.).
B. Tippecanoe Lake, Hammond, Vincennes, Arlington, Wyandotte, Bass Lake, Culver, Wilder, Greencastle; E. Richmond, Crooked Lake, Valparaiso, Dunes Park; F. Lafayette; L. Dunes Acres, Ogden Dunes, Smith.
151. *Araneus arenatus*, Walck (*Epeira verrucosa*, Hentz) (*Mohadana verrucosa*, Camb.).
B. Vincennes, Wyandotte, Montezuma, Knox County, Greencastle; E. Richmond, Crooked Lake; F. Lafayette.
152. *Aranea benjaminus*, Walck (*Epeira benjamina*, Walck) (*Necosona benjamina*, Walck) (*Epeira domiciliorum*, Hentz).
E. Richmond.
153. *Araneus cavaticus*, Keys.
E. Richmond.
154. *Araneus cornutus*, Clerck (*Epeira cornuta*, Clerck) (*Epeira strix*, Hentz).
B. Tippecanoe Lake, Vincennes, Arlington, Grand Chain, Vawter Park, Culver, Knox County, Jeffersonville, Greencastle; E. Richmond; F. Lafayette.
155. *Araneus cucurbitinus*, Clerck (*Aranea displicata*, Hentz) (*Epeira displicata*, Hentz).
B. Tippecanoe Lake, Grand Chain, Attica, Shoals, Vawter Park.
156. *Araneus ectypus*, Walck (*Epeira infumata*, Hentz)
B. Grand Chain; E. Richmond.
157. *Aranea foliata*, Foureroy.
L. Dunes Acres.
158. *Araneus hentzi*, B. (*Singa hentzi*, B.).
B. Cannelton.
159. *Araneus labyrinthicus*, Hentz (*Epeira labyrinthica*, Hentz) (*Metaepeira labyrinthica*, Hentz).
B. Greencastle; L. Smith.
160. *Araneus marmoreus*, Clerck (*Epeira insularis*, Hentz).
B. Vincennes, Mitchell, Montezuma, Marion County, Greencastle; E. Richmond, Crooked Lake, Valparaiso, Nashville; F. Lafayette.
161. *Araneus miniatus*, Walck.
L. Smith.
162. *Araneus nigripes*, Keys. (*Singa nigripes*, Keys.).
B. Grand Chain.
163. *Araneus pegnia*, Walck (*Epeira globosa*, Keys.) (*Araneus globosa*, Keys.).
B. Greencastle; F. Lafayette.
164. *Araneus pratensis*, Hentz (*Neoscona pratense*, Hentz).
E. Dunes Park; L. Dunes Acres.
165. *Aranea raja*, Scopoli.
L. Ogden Dunes, Smith.
166. *Araneus sericatus*, Clerck (*Epeira scolopetaria*, Clerck) (*Epeira plectana*, Clerck).
B. Greencastle; F. Lafayette.
167. *Araneus stellatus*, Walck (*Plectana stellata*, Hentz) (*Epeira stellata*, Walck) (*Acanthoepeira stellata*, Walck).
B. Vincennes, Bass Lake, Grand Chain, North Vernon, Greencastle; E. Dunes Park; F. Lafayette; L. Dunes Acres.
168. *Araneus thaddeus*, Hentz (*Epeira thaddeus*, Hentz)
B. Greencastle; E. Dunes Park; L. Dunes Acres, Smith.
169. *Araneus trifolium*, Hentz (*Epeira trifolium*, Hentz).
B. Culver, Greencastle; E. Richmond, Crooked Lake, Valparaiso, Dunes Park; F. Lafayette; L. Dunes Acres, Smith.
170. *Araneus varians*, Em. (*Singa variabilis*, Em.).
B. Tippecanoe Lake.
171. *Cyclosa turbinata*, Walck (*Cyclosa caudata*, Hentz)
B. Greencastle; E. Dunes Park; F. Lafayette; L. Dunes Acres.
172. *Eustala anastera*, Walck (*Epeira eustala*, Walck) (*Epeira prompta*, Hentz).

- B. Tippecanoe Lake, Hammond, Vincennes, Arlington, Wyandotte, Bass Lake, Grand Chain, Attica, Vawter Park, Pine, Culver, Knox County; E. Richmond, Valparaiso, Dunes Park; F. Lafayette; L. Dunes Acres, Ogden Dunes, Smith.
173. *Hentzii mitrata*, Hentz.
L. Dunes Acres, Ogden Dunes, Smith.
174. *Hentzii palmarum*, Hentz.
L. Dunes Acres, Ogden Dunes.
175. *Mangora gibberosa*, Hentz.
E. Richmond, Valparaiso, Nashville, Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.
176. *Mangora maculata*, Keys.
L. Dunes Acres, Ogden Dunes, Smith.
177. *Mangora placida*, Hentz.
B. Wyandotte, New Harmony.
178. *Glyptocranium bisaccatum*, Em. (*Ordgarius bisaccatum*, Em.).
E. Richmond.
179. *Glyptocranium cornigerum*, Hentz (*Ordgarius cornigerum*, Hentz).
B. Greencastle; F. Lafayette.
180. *Meta menardi*, Latr.
B. Mitchell, Greencastle; Ba. Strong's Cave, Twin Cave, Lower Twin Cave at Mitchell; Bl. Mayfield's, Strong's, Donnehue's, Donnelson's, Clifty, Wyandotte, Salt Peter Caves; Em. Bradford Cave, Wyandotte Cave; F. Lafayette; McIndoo. Shawnee Cave, Spring Cave, Salt Peter Cave.
181. *Nephila clavipes*, Linnaeus.
E. Richmond.
182. *Eucta vermiformis*, Em. (*Tetragnatha vermiformis*, Em.).
Kintner. Winona Lake.
183. *Leucauge venusta*, Walck (*Leucauge hortorum*, Hentz) (*Argyrepeira hortorum*, Hentz).
B. Arlington, Grand Chain, Greencastle; E. Richmond, Crooked Lake, Valparaiso, Dunes Park; F. Lafayette; L. Dunes Acres, Ogden Dunes, Smith.
184. *Pachygnatha tristriata*, C. Koch (*Pachygnatha brevis*, Koch).
B. New Harmony; E. Richmond; F. Lafayette.
185. *Pachygnatha xanthostoma*, C. Koch.
E. Richmond.
186. *Tetragnatha elongator*, Walck (*Tetragnatha grillator*, Hentz).
B. Tippecanoe Lake, Arlington, Kosciusko County, Huntingburg; E. Richmond, Crooked Lake, Valparaiso; F. Lafayette; Kintner. Winona Lake.
187. *Tetragnatha extensa*, Linnaeus.
B. Tippecanoe Lake, Vincennes, Grand Chain, Culver, Knox County.
188. *Tetragnatha laboriosa*, Hentz.
B. Tippecanoe Lake, Hammond, Arlington, Wyandotte, Mitchell, Greencastle, Grand Chain, Attica, Vawter Park, Pine, Lake County, Wilders; Ba. Donaldson's Cave, Twin Caves at Mitchell; E. Richmond, Crooked Lake, Nashville, Dunes Park; F. Lafayette; Kintner, Winona Lake; L. Dunes Acres, Ogden Dunes, Smith.
189. *Eugnatha pallescens*, F. Camb. (*Eugnatha pallidula*, B.) (*Tetragnatha pallidula*, Camb.).
Kintner. Winona Lake; L. Dunes Acres.
190. *Eugnatha straminea*, Em. (*Tetragnatha straminea*, Em.).
B. Tippecanoe Lake; E. Dunes Park; Kintner. Winona Lake; L. Dunes Acres, Smith.
191. *Theridiosoma gemmosum*, Koch (*Theridiosoma radiosum*, McCook).
Ba. Mayfield's Cave; L. Smith.
192. *Micrathena gracilis*, Walck (*Acrosoma gracilis*, Walck) (*Acrosoma rugosa*, Hentz) (*Epeira rugosa*, Hentz).
E. Richmond, Valparaiso; F. Lafayette; Hentz. Indianapolis.
193. *Microthema rediviana*, Walck (*Acrosoma mitrata*, Hentz).
B. Greencastle.
194. *Microthema sagittata*, Walck (*Epeira spinea*, Walck) (*Acrosoma sagittatum*, Walck) (*Acrosoma spinea*, Hentz).
B. Wyandotte, Mitchell, Greencastle; E. Richmond, Valparaiso, Dunes Park; F. Lafayette; Hentz. Indianapolis; L. Dunes Acres, Ogden Dunes, Smith.
41. Memetidae
195. *Ero furcatus*, Villers.
E. Richmond; F. Lafayette; L. Ogden Dunes.
196. *Mimetus interfeotor*, Hentz.
B. Shoals; E. Dunes Park.

44. Ctenidae
 197. *Anihita punctulata*, Hentz (*Otenus punctulata*, Hentz).
 B. Wyandotte.
45. Drassidae
 198. *Callilepis imbecilla*, Keys.
 L. Dunes Acres, Ogden Dunes.
 199. *Gmophosa bicolor*, Hentz (*Gmophosa sericata*, B.).
 E. Dunes Park; L. Ogden Dunes.
 200. *Drassodes neglectus*, Keys. (*Drassus neglectus*, Keys.).
 E. Dunes Park; L. Dunes Acres.
 201. *Drassodes robestus*, Em. (*Drassylus robestus*, B.).
 F. Lafayette.
 202. *Drassylus rufulus*, B.
 L. Smith.
 203. *Haplodrassus bicornus*, Em.
 L. Smith.
 204. *Haplodrassus signifer*, Em.
 L. Dunes, Miller, Smith.
 205. *Herpyllus vasifer*, Walck (*Herpyllus ecclesiasticus*, Hentz) (*Prothesima ecclesiaticus*, Hentz).
 B. Greencastle; E. Richmond, Valparaiso; F. Lafayette; L. Dunes Acres, Ogden Dunes.
 206. *Nodocion* sp.
 E. Richmond.
 207. *Segiolus variegatus*, Hentz.
 B. Tippecanoe Lake; E. Richmond, Valparaiso.
 208. *Sosticus insularis*, B.
 E. Dunes Park; L. Dunes Acres.
 209. *Zelotes ater*, Hentz.
 B. Wyandotte; E. Richmond, Crooked Lake, Valparaiso.
 210. *Zelotes depressa*, Em. (*Prothesima depressa*, Em.).
 F. Lafayette.
52. Thomisidae
 211. *Ebo latithorax*, Keys.
 E. Dunes Park; L. Dunes Acres.
 212. *Ebo pepimensis*, Gertsch.
 L. Ogden Dunes.
 213. *Philodromus alasciensis*, Keys.
 E. Dunes Park; L. Dunes Acres, Ogden Dunes.
 214. *Philodromus aureolus*, Clerck.
 B. Hammond, Vincennes, Knox County; L. Dunes Acres, Ogden Dunes.
 215. *Philodromus minutus*, B.
 E. Richmond.
 216. *Philodromus ornatus*, B.
 B. Arlington, Wilders; L. Smith.
 217. *Philodromus pernix*, Blackwall (*Philodromus vulgaris*, Hentz).
 B. Tippecanoe Lake, Bass Lake, Vincennes, Pine, Knox County, Greencastle; E. Richmond, Dunes Park; L. Dunes Acres, Ogden Dunes.
 218. *Philodromus placidus*, B.
 B. Vincennes, Arlington, Grand Chain, Pine, Culver.
 219. *Philodromus rufus*, Walck.
 B. Tippecanoe Lake, Arlington; L. Dunes Acres.
 220. *Philodromus thorelli*, Marx.
 L. Dunes Acres.
 221. *Tibellus martimus*, Menge.
 E. Dunes Park; L. Dunes Acres.
 222. *Tibellus oblongus*, Walck (*Tibellus duttoni*, Keys.).
 B. Pine, Lake County, Kosciusko County, Greencastle; E. Richmond, Valparaiso, Nashville; L. Dunes Acres, Smith.
 223. *Misumenoides aleatorius*, Hentz (*Runcinia aleatorius*, Hentz).
 B. Lake James, Hammond, Vincennes, Greencastle; E. Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.
 224. *Misumenops americana*, Keys. (*Misumena americana*, Keys.).
 B. Bass Lake, Grand Chain, Attica, Culver, Knox County, Greencastle; E. Valparaiso.
 225. *Misumenops asperatus*, Hentz (*Misumessus asperatus*, Hentz).
 B. Wyandotte, New Harmony, Pine, Huntingburg; E. Richmond, Valparaiso, Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.
 226. *Misumenops oblongus*, Keys. (*Misumessus oblongus*, Keys.).
 B. Veedersburg, Vawter Park, Greencastle; E. Richmond, Crooked Lake, Valparaiso; L. Dunes Acres, Ogden Dunes, Smith.
 227. *Oxyptila americana*, B.
 L. Smith.
 228. *Oxyptila conspurcata*, Thorell.
 B. Cypress Swamp, Pine, Knox County.
 229. *Oxyptila monroensis*, Keys.
 E. Richmond.
 230. *Synaena parvulum*, Keys.
 B. Arlington, Grand Chain, Veedersburg, Culver.
 231. *Tmarus angulatus*, Walck.
 E. Richmond, Crooked Lake, Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.

232. *Xysticus banksi*, Bryant.
L. Smith.
233. *Xysticus elegans*, Keys.
L. Smith.
234. *Xysticus ferox*, Hentz' (*Xysticus stomachosus*, Keys.).
B. Vincennes, Arlington, Wyandotte, Bass Lake, Culver, Greencastle; E. Richmond, Valparaiso; L. Smith.
235. *Xysticus fraternis*, B.
E. Richmond, Crooked Lake, Valparaiso; L. Dunes Acres, Ogden Dunes, Smith.
236. *Xysticus gulosa*, Keys.
B. Wilder, Greencastle; E. Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.
237. *Xysticus luctans*, C. Koch (*Xysticus quadrilineatus*, C. Koch).
B. Kosciusko County.
238. *Xysticus nervosus*, B.
B. Tippecanoe, Culver, Greencastle; E. Richmond, Valparaiso.
239. *Xysticus transversus*, B.
B. New Harmony.
240. *Xysticus triguttatus*, Keys.
B. Hammond, Wilder; E. Richmond, Valparaiso, Dunes Park; L. Dunes Acres, Ogden Dunes.
241. *Xysticus versicolor*, Keys. (*Coriarachne versicolor*, Keys.).
B. Wyandotte, Vincennes, Mecca, New Albany, Greencastle; L. Dunes Acres, Ogden Dunes, Smith.
54. Clubionidae
242. *Chiracanthium inclusium*, Hentz.
B. Vincennes.
243. *Clubiona abbotii*, L. Koch (*Clubiona rubra*, Keys.).
B. Arlington, Marshall County; F. Lafayette.
244. *Clubiona obesa*, Hentz.
E. Richmond, Valparaiso; L. Ogden Dunes, Smith.
245. *Clubiona pallens*, Hentz.
E. Richmond, Valparaiso; L. Dunes Acres, Smith.
246. *Clubiona tribola*, B.
B. Wyandotte.
247. *Anyphaena celer*, Hentz (*Clubiona celer*, Hentz) (*Anyphaena incerta*).
E. Dunes Park; L. Ogden Dunes, Smith.
248. *Anyphaena gracilis*, Hentz (*Microrthena gracilis*, Walck) (*Acrosoa gracilis*, Walck) (*Epeira rugosa*).
B. Hammond, Veedersburg.
249. *Anyphaena pectorosa*, L. Koch.
E. Richmond; L. Smith.
250. *Anyphaena rubra*, Em.
F. Lafayette.
251. *Anyphaena saltabunda*, Hentz.
E. Richmond, Valparaiso, Nashville.
252. *Aysha gracilis*, Hentz.
L. Dunes Acres, Ogden Dunes, Smith.
253. *Agroeca minuta*, B.
E. Richmond, Crooked Lake; L. Ogden Dunes.
254. *Agroeca pratensis*, Em.
B. Arlington, Marshall County.
255. *Phrurolithus alarius*, Hentz (*Phrurolithus palustris*, B.).
B. Grand Chain, Posey County; E. Richmond, Crooked Lake; L. Ogden Dunes.
256. *Phrurolithus similis*, B.
E. Richmond.
257. *Trachelas tranquillus*, Hentz (*Trachelas ruber*, Hentz).
B. Tippecanoe Lake, Greencastle, Huntingburg; E. Richmond, Valparaiso, Dunes Park; F. Lafayette; L. Dunes Acres.
258. *Castaneira cingulata*, C. Koch.
E. Richmond, Crooked Lake, Valparaiso, Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.
259. *Castaneira descripta*, Hentz (*Tharagla crocata*, B.).
B. Greencastle; F. Lafayette.
260. *Castaneira longipalpis*, Hentz.
B. Tippecanoe Lake, Knox County; E. Richmond; L. Smith.
261. *Castaneira trilineata*, C. Koch (*Tharaglia trilineata*, B.).
F. Lafayette; Hentz. Indiana; L. Dunes Acres.
262. *Micraria aurata*, Hentz (*Micraria longipes*, Hentz).
E. Dunes Park; L. Dunes Acres.
55. Attidae
263. *Synemosyna formica*, Hentz.
B. Arlington, Culver; E. Richmond.
264. *Thiodina sylvana*, Hentz (*Thiodina retarius*, Hentz).
B. Wyandotte, Grand Chain, Huntingburg.
265. *Maevia vittata*, Hentz.
B. Arlington, New Albany; E. Richmond, Crooked Lake, Valparaiso, Nashville, Dunes Park; L. Dunes Acres, Ogden Dunes, Smith.

266. *Zygoballus bettini*, Packham.
B. Knox County; E. Dunes Park; L. Dunes Acres, Ogden Dunes.
267. *Zygoballus nervosus*, Peckham.
E. Dunes Park.
268. *Evarcha hoyi*, Peckham.
L. Dunes Acres.
269. *Habrocestum pulcx*, Hentz.
B. Wyandotte; E. Richmond, Valparaiso; F. Lafayette; L. Ogden Dunes, Smith.
270. *Pellenes agilis*, B.
E. Dunes Park; L. Dunes Acres, Ogden Dunes.
271. *Pellenes arizonenses*, B. (*Saites pulcx*, Hentz).
L. Ogden Dunes.
272. *Pellenes borealis*, B.
E. Crooked Lake, Dunes Park; L. Dunes Acres, Ogden Dunes.
273. *Pellenes calcaratus*, B.
E. Dunes Park; L. Dunes Acres, Ogden Dunes.
274. *Pellenes roscus*, Hentz.
E. Crooked Lake, Valparaiso.
275. *Phlegra fasciata*, Hohn (*Phlegra leopardus*, Hohn).
B. New Harmony.
276. *Tutelina elegans*, Hentz (*Dendryphantes elegans*, Hentz).
B. Hammond, Arlington, Bass Lake, Shoals, Culver, Knox County; F. Lafayette; L. Dunes Acres, Smith.
277. *Admestina tibialis*, C. L. Koch.
E. Dunes Park; L. Ogden Dunes, Smith.
278. *Agassa cyanea*, Hentz (*Homolatus cyanea*, Hentz).
B. Hammond.
279. *Dendryphantes (Phidippus) audax*, Hentz (*Phidippus morsi-tans*, Peckham) (*Phidippus audax*, Peckham) (*Attus tri-punctatus*, Hentz).
B. Arlington, Bass Lake, New Harmony, Grand Chain, Attica, N. Vernon, Culver, Greencastle, Huntingburg; E. Richmond, Crooked Lake, Valparaiso, Dunes Park; F. Lafayette; Hentz, Indianapolis; L. Dunes Acres, Ogden Dunes, Smith.
280. *Dendryphantes (Paraphidippus) aurantius*, Lucas (*Phidippus multicolor*, Peckham).
B. Vincennes, Wyandotte, Grand Chain, Shoals, Greencastle.
281. *Dendryphantes (Metaphidippus) capitatus*, Hentz (*Dendryphantes octavius*, Hentz).
B. Hammond, Arlington, Wyandotte, Bass Lake, Grand Chain, Attica, Shoals, Veedersburg, Vawter Park, Pine, New Albany, Culver; E. Richmond, Crooked Lake, Valparaiso, Nashville; F. Lafayette.
282. *Dendryphantes (Phidippus) clarus*, Keys.
E. Richmond, Nashville; L. Dunes Acres, Ogden Dunes, Smith.
283. *Dendryphantes (Phidippus) cardinalis*, Hentz.
B. Mount Vernon.
284. *Dendryphantes (Phidippus) deceptus*. (*Phidippus brunnea*, E. Cambridge).
L. Dunes Acres, Smith.
285. *Dendryphantes (metaphidippus) flavus*, Peckham.
L. Dunes Acres.
286. *Dendryphantes (Phidippus) formosus*, Peckham. (*Philaeus rimator*, Peckham).
B. Greencastle.
287. *Dendryphantes (Phidippus) insignarius*, C. Koch.
B. Hammond, Arlington; L. Dunes Acres, Ogden Dunes, Smith.
288. *Dendryphantes (Paraphidippus) marginatus*, Walck (*Dendryphantes militaris*, Em.).
B. Wyandotte, Mitchell; L. Dunes Acres, Ogden Acres, Smith.
289. *Dendryphantes (Phidippus) McCooki*.
L. Dunes Acres.
290. *Dendryphantes (metaphidippus) protervus*, Walck.
L. Smith.
291. *Dendryphantes (Phidippus) purpuratus*, Keys.
L. Ogden Dunes.
292. *Dendryphantes (Phidippus) putnami*, Peckham. (*Phidippus putnami*, Peckham).
B. Knox County, Grand Chain.
293. *Dendryphantes rarus*, Hentz.
B. Greencastle.
294. *Dendryphantes (Phidippus) whitmanni*, Peckham. (*Dendryphantes rufus*, Hentz) (*Phidippus rufus*, Peckham).

- B. Vincennes, Wyandotte, Bass Lake, Grand Chain, Wilder, Huntingburg; F. Lafayette.
295. *Icius hartii*, Em.
E. Richmond, Nashville.
296. *Talavera minuta*, B.
L. Ogden Dunes.
297. *Neon nelli*, Peckham.
E. Richmond, Crooked Lake, Valparaiso, Nashville.
298. *Hyctia pikei*, Peckham.
E. Richmond.
299. *Sitticus palustris*, Peckham.
E. Dunes Park; L. Dunes Acres, Ogden Dunes.
300. *Marpissa undata*, DeGeer (*Marpissa familiaris*, Hentz).
B. Greencastle, Huntingburg; L. Smith.
301. *Wala mitrata*, Hentz (*Icius mitrata*, Hentz).
B. Arlington, Grand Chain, Shoals, Veedersburg, Vawter Park.
302. *Wala palmarum*, Hentz.
B. Hammond, Arlington, Pine.
303. *Salticus scenicus*, Clerck (*Epiblem scenicus*, Clerck).
E. Richmond.

Literature Cited

- ANDREWS, J. S. 1929. The digestion of a mouse by a tarentula. Proc. Ind. Acad. Sci., 39:305.
- BANKS, NATHAN. 1906. A preliminary list of the Arachnida of Ind. with keys to families and genera of spiders. Ind. Dept. Geol. and Nat. Resources, Indianapolis, 31:715-747.
- . 1910. Catalogue of Nearctic Spiders. U. S. Nat. Museum Bull., Wash., D. C., 72:1-80.
- BANTA, ARTHUR. 1907. The fauna of Mayfield's Cave. Carnegie Institute, 67:1-114.
- BLATCHLEY, WALTER. 1896. Indiana caves and their fauna: Arachnida Portion. 21st Ann. Rep. Dept. Geol. and Nat. Resources, 202-204.
- COMSTOCK, JOHN H. 1912. The spider book. Doubleday, Doran and Co.
- COPE, ED. 1872. On the Wyandotte Cave and its fauna. Am. Nat., 6:406-422.
- . 1878. Observations on Wyandotte Cave and its fauna. Geol. Sur. Ind.
- EMERTON, J. H. 1875. Notes on spiders from caves of Kentucky, Virginia and Indiana. Am. Nat., 9:278-281.
- ELLIOTT, F. R. 1930. An ecological study of the spiders of the Beech-Maple forest. Ohio Jour. Sci., 30:1-22.
- . 1931. Revision and additions to the list of Araneae (Spiders) of Indiana. Proc. Ind. Acad. Sci., 41:419-430.
- FOX, WM. H. 1892. A list of the spiders from Indiana. Proc. Entomolog. Soc. Wash., D. C., 11 (2):224.
- HENTZ, NICHOLAS MARCELLUS. 1847. Descriptions and figures of the Araneids of the United States. Jour. Bost. Soc. Nat. Hist., 5:444-478.
- . 1850. Descriptions and figures of the Araneids of the United States. Jour. Bost. Soc. Nat. Hist., 6:18-35, 271-295.
- , ed. SAMUEL H. SCUDDER, 1867. Supplement to the descriptions and figures of the Araneids of the United States. Proc. Bost. Soc. Nat. Hist., 103-111.
- , ed. EDWARD BURGESS. 1875. Spiders of the U. S. Coll. Arachnological writings of Hentz, Nicholas Marcellus, with Notes and Descriptions by J. Emerton. Occ. Papers Bost. Soc. Nat. Hist., 2:1-171.
- KINTNER, EDWARD. 1934. Some spiders of the Genus Tetragnatha. Proc. Ind. Acad. Sci., 44:207-209.
- LOWRIE, D. C. 1942. The ecology of the spiders of the Xeric Dunelands in the Chicago area. Bull. Chic. Acad. Sci., 6:161-189.
- . 1948. The ecological succession of spiders of the Chicago area dunes. Ecology, 29 (3):334-351.
- MARX, GEO. 1889. Catalogue of the described Araneae of temperate N. A. Proc. U. S. Nat. Mus., 12:497-594.

- McINDOO, NORMAN E. 1910. Biology of the Shawnee Cave Spiders. Biol. Bull., Woods Hole, Mass., 19:303-323.
- . 1911. Notes on some arachnids from Ohio Valley Caves. Biol. Bull., Woods Hole, Mass., 3:183-186.
- MINTON, SHERMAN A. 1950. Injuries by venomous animals in Indiana. Proc. Ind. Acad. Sci., 60:315-324.
- MOENKHAUS, W. J. 1901. Arachnida—Cave Fauna: The spinning of the egg-sac in *Lycosa*. Proc. Ind. Acad. Sci., 113-114.
- PACKARD, A. S. 1875. The Invertebrate Cave Fauna of Kentucky and Adjoining States. Am. Nat., 9:274.
- . 1886. The cave fauna of North America (with remarks on the anatomy of the brain and origin of the blind species). Nat. Acad. Sci.—First Memoir, 4:3-156.
- PETRUNKEVITCH, A. 1906. The sense of sight in spiders. Proc. Ind. Acad. Sci., 21.
- . 1911. Synonymic index-catalogue of spiders of North, Central and South America with all adjacent islands. Bull. Am. Mus. Nat. Hist., 29:1-791.
- . 1928. Systema Araneorum. Trans. Conn. Acad. Arts & Sci., 29 (1):1-270.
- . 1939. Catalogue of American Spiders, Part 1. Conn. Acad. Arts & Sci., New Haven, Conn., 33:133-338.
- WENNINGER, F. 1921. Notes on *Miranda Aurantica*. Am. Midland Nat., Notre Dame, 5:141-7.
- . 1939. Abstract only—Notes on *Miranda Aurantica*. Proc. Ind. Acad. Sci., 49:201.