

A Preliminary Checklist to the Spiders (Arachnida: Araneae) of Minnesota (U.S.A.) with Annotations

Chad J. Heins: Biology Department, Bethany Lutheran College, Mankato, Minnesota

Associate Professor of Biology
Bethany Lutheran College
700 Luther Drive
Mankato, MN 56001

Abstract

This is a list of spider species for Minnesota (U.S.A.). It includes species that have been recorded in Minnesota as well as those which have ranges that suggest they are likely to be found in the state in the future. The checklist is a compilation of records from the literature, museums, and personal collection efforts by the author. Each species is annotated with a select reference or references and a comment if necessary. This list represents several new state records and expansions of several species' known ranges.

Key Terms: Minnesota, Araneae

INTRODUCTION

Spiders are an abundant component of terrestrial arthropod assemblages. Over 3,800 species of spiders have been documented in North America north of Mexico (Bradley 2013). They present interesting subjects for the study of behavior, taxonomy, and ecology and it has been suggested that they may serve as important ecological indicators (Clausen 1986; Churchill 1997). Their abundance, ease of capture, and limited expense to study make them ideal subjects for study at the undergraduate level and an interest in such applications sent the author in search of a list of Minnesota spiders. The only faunal list for Minnesota that could be located was limited to the family-level (Cutler 1976).

Several states and provinces in North America have developed such spider faunal lists. In the Upper Midwest, such lists have been created for Michigan (Snider 1991), Illinois/Indiana (Beatty 2002), Wisconsin (Levi & Field 1954), and Manitoba (Benell-Aitchison & Dondale 1990). A regional checklist was assembled for the Great Lakes states but excluded Minnesota (Sierwald et al. 2005). Partial lists can be found for Iowa (Abraham 1996; Stiles & Detwiler 1939; Stiles & Stevens 1941) and South Dakota (Pfeiffer 2012).

While some spider collection has occurred historically in Minnesota, most notably by Willis J. Gertsch (1930s), Daniel T. Jennings (1960s), Bruce Cutler (1970-90s), and more recently William J. Ehmann (1996-2015), such collections were often focused on one taxon (Cutler 1977; Cutler & Jennings 1992; Ehmann 2002, 2011; Ehman & Boyd 1997), limited in their geographic scope (Cutler et al. 1975; Heimer et al. 1984) or both (Jennings & Cutler 1996). As a result, significant

gaps remain in the knowledge of not only which species occur in Minnesota, but how they are distributed within the state. This checklist is an attempt to take the first step in filling that void.

Minnesota lies at the intersection of three major biomes in North America (prairie, boreal forest, and eastern deciduous forest). It occupies an area of about 225,181 km² which ranks it as the twelfth largest state in the United States (About Minnesota). Aaseng et al. (2011) recognized 104 native plant communities in Minnesota distributed within four ecological provinces: Laurentian Mixed Forest, Eastern Broadleaf Forest, Tallgrass Aspen Parklands, and Prairie Parkland. Such habitat diversity should support a diverse spider fauna.

METHODS

Records of Minnesota spiders were gleaned from a number of different sources. Treatments of North American taxa provided the bulk of the records but records were also gleaned from other literature sources, museum collections (Denver Museum of Nature and Science, New Mexico State University, Harvard Museum of Comparative Zoology, University of Minnesota), BugGuide (www.bugguide.net), iNaturalist (www.inaturalist.org), personal collection efforts, and communication with other araneologists.

RESULTS

This checklist consists of 685 spider species. It contains species that have been documented in the state, species that are likely to be found with future survey work and species that are listed in the literature/museum records but have been removed for various reasons. The

checklist is comprised of 41 families, 215 genera, and 543 species with confirmed records in Minnesota and an additional 2 families, 29 genera and 126 spider species that may well occur in the state but for which no records could be found. These hypothetical species are classified as such for a number of reasons. Most have published ranges that are geographically proximate to Minnesota while others are likely to occur in the state as accidental introductions. Still others are represented by specimens in the University of Minnesota or that are lacking proper collection data and/or represent species with a Palearctic distribution (suggesting misidentification and direction for future efforts). A breakdown of family distribution can be found in Table 1.

The list of spiders for Minnesota is contained in Table 2. Select references follow each species for verification as well as other notes in some cases. BugGuide reference numbers represent voucher specimens collected by the author (except for the record of *Metaltella simoni*). Additional records from iNaturalist also have a reference number. Nomenclature and taxonomy follow the World Spider Catalog. Please notify the author of any corrections or additions that can be made to the list. The appendix contains records for 14 species that occur in the literature record but are omitted for various reasons. Rationale is provided for each of these omissions.

Table 1: Intrafamily distribution of taxa for confirmed and hypothetical spider species in Minnesota

	Confirmed		Hypothetical	
	Genera	Species	Genera	Species
Mygalomorphae				
Atypidae	1	1	0	0
Theraphosidae	0	0	0	0
Araneomorphae				
Agelenidae	4	13	0	1
Amaurobiidae	3	4	1	1
Anyphaenidae	3	4	0	0
Araneidae	17	45	1	5
Cheiracanthidae	1	1	0	1
Cicurinidae	1	6	0	0
Clubionidae	2	14	0	5
Corinnidae	1	4	0	1
Ctenidae	1	1	0	0
Desidae	1	1	0	0
Dolomedidae	1	4	0	1
Dictynidae	6	23	1	7
Dysderidae	1	1	0	0
Gnaphosidae	13	37	2	11
Hahniidae	3	5	0	0
Linyphiidae	45	91	12	46
Liocranidae	2	3	0	0
Lycosidae	12	49	1	11
Mimetidae	2	4	0	0
Mysmenidae	1	1	0	0
Nesticidae	0	0	1	1
Oecobiidae	1	1	0	0
Oxyopidae	2	3	0	0
Philodromidae	5	27	0	3
Pholcidae	4	6	0	0
Phrurolithidae	2	6	0	0
Pisauridae	1	1	0	1
Salticidae	34	77	1	7
Segestriidae	0	0	1	1
Sicariidae	1	1	0	0
Sparassidae	1	1	0	0
Tetragnathidae	6	18	0	4
Theridiidae	22	46	3	8
Theridiosomatidae	1	1	0	0
Thomisidae	8	37	4	8
Titanoecidae	1	1	0	1
Trechaleidae	1	1	0	0
Trachelidae	1	1	1	1
Uloboridae	2	2	0	1
Zoropsidae	1	1	0	0
TOTALS	215	543	29	126

Table 2: Spiders of Minnesota--Hypothetical species are indicated by *. Non-native species that have become well established are indicated by †. Species that are accidental from introductions, stowaways, etc. and occur at best as highly localized populations are indicated by ^.

Mygalomorphae

Atypidae

Sphodros niger (Hentz, 1842)

BugGuide #794224; Gertsch & Platnick 1980

Theraphosidae

Indeterminate genera^

Cutler 1973

Araneomorphae

Agelenidae

Agelenopsis actuosa (Gertsch & Ivie, 1936)*

Chamberlin & Ivie 1941; Gertsch & Ivie 1936

Agelenopsis emertoni Chamberlin & Ivie, 1935

Cutler 1973

Agelenopsis kastoni Chamberlin & Ivie, 1941

Denver Museum of Nature and Science (#ZA.35177)

Agelenopsis naevia (Walckenaer, 1841)

University of Minnesota (#V Ce 34.2, 34.22, 34.23)

Agelenopsis oklahoma (Gertsch, 1936)

University of Minnesota (#V Ce 34.36)

Agelenopsis pennsylvanica (C. L. Koch, 1843)

Chamberlin & Ivie 1941

Agelenopsis potteri (Blackwall, 1846)

Chamberlin & Ivie 1941; Denver Museum of Nature and Science (#ZA.6963)

Agelenopsis utahana (Chamberlin & Ivie, 1933)

Benell-Aitchison & Dondale 1990; Cutler 1973; Levi & Field 1954

Coras juvenilis (Keyserling 1881)

Roth & Brown 1986

Coras lamellosus (Keyserling, 1887)

Muma 1946

Coras medicinalis (Hentz, 1821)

Heimer et al. 1984; Muma 1946

Coras montanus (Emerton, 1889)

Muma 1946

Tegenaria domestica (Clerck, 1757)†

BugGuide #741474; Cutler 1973

Wadotes calcaratus (Keyserling, 1887)

Muma 1947

Amaurobiidae

Amaurobius borealis Emerton, 1909

Leech 1972

Arctobius agelenoides (Emerton, 1919)*

Leech, 1972

Callobius bennetti (Blackwall, 1846)

Heimer et al. 1984; Leech 1972

Cybaeopsis euopla (Bishop & Crosby, 1935)

Heimer et al. 1984

Cybaeopsis tibialis (Emerton, 1888)

Heimer et al. 1984

Anyphaenidae

Anyphaena celer (Hentz, 1847)

Cutler 1981

Anyphaena pectorosa L. Koch, 1866

BugGuide #964215

Hibana gracilis (Hentz, 1847)

Dondale & Redner 1982; Platnick 1974

Wulfilia saltabundus (Hentz, 1847)

BugGuide #790302, #790307; Cutler 1976

Araneidae

Acanthepeira stellata (Walckenaer, 1805)

Dondale et al. 2003

Araneus bicentenarius (McCook, 1888)

Dondale et al. 2003; Heimer et al. 1984

Araneus bivittatus (Walckenaer, 1841)

iNaturalist #175263528

Araneus cingulatus (Walckenaer, 1841)

iNaturalist #30508573

Araneus corticarius (Emerton, 1884)

Dondale et al. 2003; Heimer et al. 1984

<i>Araneus diadematus</i> Clerck, 1757 ‡	iNaturalist #4036137--limited primarily to Twin Cities and Rochester areas
<i>Araneus gemmoides</i> Chamberlin & Ivie, 1935	Archer 1951a; Chamberlin & Ivie 1935; Dondale et al. 2003; Levi 1951
<i>Araneus groenlandicola</i> (Strand, 1906)	Dondale et al. 2003; Levi 1971a
<i>Araneus guttulatus</i> (Walckenaer, 1841)	Levi 1981b
<i>Araneus iviei</i> (Archer, 1951)	iNaturalist #4103054; Levi 1971a
<i>Araneus juniperi</i> (Emerton, 1884)	iNaturalist #175263528
<i>Araneus marmoreus</i> Clerck, 1757	Dondale et al. 2003; Heimer et al. 1984
<i>Araneus nordmanni</i> (Thorell, 1870)	Dondale et al. 2003
<i>Araneus pratensis</i> (Emerton, 1884)	BugGuide #966138
<i>Araneus saevus</i> (L. Koch, 1872)	Dondale et al. 2003; Levi 1971a
<i>Araneus thaddeus</i> (Hentz, 1847)	Dondale et al. 2003; Levi 1973
<i>Araneus trifolium</i> (Hentz, 1847)	Dondale et al. 2003
<i>Araniella displicata</i> (Hentz, 1847)	Dondale et al. 2003; Stratton et al. 1979
<i>Argiope aurantia</i> Lucas, 1833	Dondale et al. 2003
<i>Argiope trifasciata</i> (Forsskål, 1757)	Dondale et al. 2003
<i>Cercidia prominens</i> (Westring, 1851)	iNaturalist #79871444
<i>Cyclosa conica</i> (Pallas, 1772)	Dondale et al. 2003
<i>Cyclosa turbinata</i> (Walckenaer, 1841)	Levi 1977a; BugGuide #2386771
<i>Eustala anastera</i> (Walckenaer, 1841)	Dondale et al. 2003; Heimer et al. 1984
<i>Eustala cepina</i> (Walckenaer, 1841)	BugGuide #724968, #966148
<i>Gea heptagon</i> (Hentz, 1850)	Levi 1968, iNaturalist #27405410
<i>Hypsosinga funebris</i> (Keyserling, 1892)*	Dondale et al. 2003
<i>Hypsosinga pygmaea</i> (Sundevall, 1831)	Cutler 1971; Dondale et al. 2003
<i>Hypsosinga rubens</i> (Hentz, 1847)*	Levi 1971b
<i>Hypsosinga singaeformis</i> (Scheffer, 1904)*	Levi 1971b
<i>Larinia borealis</i> (Banks, 1894)	Dondale et al. 2003
<i>Larinioides cornutus</i> (Clerck, 1757)	Dondale et al. 2003
<i>Larinioides patagiatus</i> (Clerck, 1757)	Denver Museum of Nature and Science (#ZA.7531); Dondale et al. 2003
<i>Larinioides scolopetarius</i> (Clerck, 1757)	Heimer et al. 1984
<i>Mangora gibberosa</i> (Hentz, 1847)	Dondale et al. 2003; Levi 1975a
<i>Mangora maculata</i> (Keyserling, 1865)	Dondale et al. 2003; Levi 1975a, iNaturalist #234379329
<i>Mangora placida</i> (Hentz, 1847)	Cutler 1971; Dondale et al. 2003; Heimer et al. 1984
<i>Mastophora hutchinsoni</i> Gertsch, 1955	Dondale et al. 2003; Levi 1977b
<i>Metepeira labyrinthea</i> (Hentz, 1847)*	Levi 1977b
<i>Metepeira palustris</i> Chamberlin & Ivie, 1941*	Dondale et al. 2003; Levi 1977b
<i>Micrathena gracilis</i> (Walckenaer, 1805)	BugGuide #459591
<i>Micrathena mitrata</i> (Hentz, 1850)	BugGuide #899678
<i>Micrathena sagittata</i> (Walckenaer, 1841)	Dondale et al. 2003
<i>Neoscona arabesca</i> (Walckenaer, 1842)	Cutler 1971; Dondale et al. 2003; Heimer et al. 1984
<i>Neoscona crucifera</i> (Lucas, 1838)	BugGuide #965216
<i>Neoscona domicillorum</i> (Hentz, 1847)	iNaturalist #132456201

<i>Neoscona pratensis</i> (Hentz, 1847)	Berman & Levi 1971; Dondale et al. 2003
<i>Singa eugeni</i> Levi, 1972	BugGuide #790264, 794361
<i>Singa keyserlingi</i> McCook, 1893	Dondale et al. 2003; Museum of Comparative Zoology (MCZ#85551)
<i>Zygiella nearctica</i> Gertsch, 1964*	Dondale et al. 2003; Gertsch 1964a; Levi 1974
<i>Zygiella x-notata</i> (Clerck, 1757)‡	Heimer et al. 1984
Cheiracanthiidae	
<i>Cheiracanthium inclusum</i> (Hentz, 1841)*	Dondale & Redner 1982
<i>Cheiracanthium mildei</i> L. Koch, 1864‡	Cutler 1981
Cicurinidae	
<i>Cicurina arcuata</i> Keyserling, 1887	Chamberlin & Ivie 1940
<i>Cicurina brevis</i> (Emerton, 1890)	Exline 1936
<i>Cicurina intermedia</i> Chamberlin & Ivie, 1933	Exline 1936
<i>Cicurina itasca</i> Chamberlin & Ivie, 1940	Chamberlin & Ivie 1940; Heimer et al. 1984
<i>Cicurina minnesota</i> Chamberlin & Ivie, 1940	Chamberlin & Ivie 1940; Heimer et al. 1984
<i>Cicurina robusta</i> Simon, 1886	Exline 1936
Clubionidae	
<i>Clubiona abboti</i> L. Koch, 1866	Edwards 1958
<i>Clubiona bishopi</i> Edwards, 1958*	Dondale & Redner 1982
<i>Clubiona bryantae</i> Gertsch, 1941*	Dondale & Redner 1982
<i>Clubiona canadensis</i> Emerton, 1890	Cutler et al. 1975; Edwards 1958
<i>Clubiona chippewa</i> Gertsch, 1941*	Dondale & Redner 1982
<i>Clubiona furcata</i> Emerton, 1919*	Dondale & Redner 1982
<i>Clubiona johnsoni</i> Gertsch, 1941	BugGuide #1251801
<i>Clubiona kastoni</i> Gertsch, 1941	Cutler et al. 1975; Dondale & Redner 1982; Heimer et al. 1984
<i>Clubiona kulczynskii</i> Lessert, 1905	Dondale & Redner 1982; BugGuide #1861550
<i>Clubiona maritima</i> L. Koch, 1867	Denver Museum of Nature and Science (#ZA.8849)
<i>Clubiona mixta</i> Emerton, 1890	Heimer et al. 1984
<i>Clubiona moesta</i> Banks, 1896	Heimer et al. 1984
<i>Clubiona norvegica</i> Strand, 1900	Heimer et al. 1984
<i>Clubiona obesa</i> Hentz, 1847	Heimer et al. 1984
<i>Clubiona opeongo</i> Edwards, 1958*	Dondale & Redner 1982
<i>Clubiona quebecana</i> Dondale & Redner, 1976	Denver Museum of Nature & Science (#ZA.36381)
<i>Clubiona riparia</i> L. Koch, 1866	Edwards 1958; Heimer et al. 1984
<i>Clubiona trivialis</i> C. L. Koch, 1843	Dondale & Redner 1982
<i>Elaver excepta</i> (L. Koch, 1866)	Dondale & Redner 1982
Corinnidae	
<i>Castianeira amoena</i> (C. L. Koch, 1841)	University of Minnesota (#V Ce 33.37)
<i>Castianeira cingulata</i> (C. L. Koch, 1841)	Cutler et al. 1975
<i>Castianeira descripta</i> (Hentz, 1847)	BugGuide #826975, 826978; Reiskind 1969
<i>Castianeira longipalpus</i> (Hentz, 1847)	BugGuide #899974
<i>Castianeira trilineata</i> (Hentz, 1847)*	Reiskind 1969

Ctenidae

Ctenus sp.[^]

Cutler 1973

Cybaeidae

Cryphoea montana Emerton, 1909*

Cybaeota calcarata (Emerton, 1911)*

Bennet 1988

Desidae

Metaltella simoni (Keyserling, 1878)[^]

BugGuide #1481716

Dictynidae

Argenna obesa Emerton, 1911

Chamberlin & Gertsch 1958

Dictyna bellans Chamberlin, 1919

Chamberlin & Gertsch 1958; University of Minnesota (#V Ce 8.9)

Dictyna bostoniensis Emerton, 1888

Chamberlin & Gertsch 1958; University of Minnesota (#V Ce 8.10, 8.11)

Dictyna brevitarsa Emerton, 1915

BugGuide #1260403; Chamberlin & Gertsch 1958

Dictyna coloradensis Chamberlin, 1919

Cutler 1971; University of Minnesota (#V Ce 8.14, 8.15)

Dictyna foliacea (Hentz, 1850)

Chamberlin & Gertsch 1958; University of Minnesota (#V Ce 8.16, 8.17)

Dictyna formidolosa Gertsch & Ivie, 1936*

Chamberlin & Gertsch 1958

Dictyna longispina Emerton, 1888

University of Minnesota (#V Ce 8.51)

Dictyna major Menge, 1869

BugGuide #1728319; Chamberlin & Gertsch 1958

Dictyna minuta Emerton, 1888

Gertsch 1946a; Gertsch & Ivie 1936; Cutler 1971

Dictyna quadrispinosa Emerton, 1919*

Chamberlin & Gertsch 1958

Dictyna sancta Gertsch, 1946

Cutler 1971

Dictyna terrestris Emerton, 1911*

Chamberlin & Gertsch 1958

Dictyna volucripes Keyserling, 1881

Chamberlin & Gertsch 1958; University of Minnesota (#V Ce 8.24, 8.27)

Emblyna annulipes (Blackwall, 1846)

Denver Museum of Nature and Science (#ZA.14176); Gertsch & Ivie 1936

Emblyna completoides (Ivie, 1947)*

Chamberlin & Gertsch 1958

Emblyna consulta (Gertsch & Ivie, 1936)

Gertsch & Ivie 1936

Emblyna cruciata (Emerton, 1888)*

Chamberlin & Gertsch 1958

Emblyna decaprinii (Kaston, 1945)

BugGuide #2366300

Emblyna hentzi (Kaston, 1945)

Chamberlin & Gertsch 1958

Emblyna horta (Gertsch & Ivie, 1941)

Gertsch & Ivie 1936; Heimer et al. 1984

Emblyna manitoba (Ivie, 1947)

Cutler 1971; Heimer et al. 1984

Emblyna maxima (Banks, 1892)*

Chamberlin & Gertsch 1958

Emblyna phylax (Gertsch & Ivie, 1936)

Cutler 1971; Gertsch & Ivie 1936; Heimer et al. 1984

Emblyna rascida (Hentz, 1850)

Chamberlin & Gertsch 1958

Emblyna sublata (Hentz, 1850)

Heimer et al. 1984

Lathys foxi (Marx, 1891)

Chamberlin & Gertsch 1958

Lathys pallida (Marx, 1891)*

Chamberlin & Gertsch 1958

Phantyna bicornis (Emerton, 1915)

Gertsch 1946; Gertsch & Ivie 1936

Tricholathys spiralis Chamberling & Ivie, 1935

iNaturalist #227004021

Dolomedidae

Dolomedes scriptus Hentz, 1845

Dondale & Redner 1990; Heimer et al. 1984

Dolomedes striatus Giebel, 1869

Cutler 1981; Dondale & Redner 1990; Heimer et al. 1984

<i>Dolomedes tenebrosus</i> Hentz, 1844	Dondale & Redner 1990; Heimer et al. 1984
<i>Dolomedes triton</i> (Walckenaer, 1837)	Dondale & Redner 1990; Heimer et al. 1984
<i>Dolomedes vittatus</i> Walckenaer, 1837*	iNaturalist #170923967/#90351010 in nearby WI
Dysderidae	
<i>Dysdera crocata</i> C. L. Koch, 1838 ‡	Cutler 1973
Gnaphosidae	
<i>Callilepis imbecilla</i> (Keyserling, 1887)	University of Minnesota (#V Ce 19.22, 19.25)
<i>Callilepis pluto</i> Banks, 1896	Platnick 1975
<i>Cesonia bilineata</i> (Hentz, 1847)	Platnick & Shadab 1980b; iNaturalist #219129391
<i>Drassodes auriculoides</i> Barrows, 1919*	Platnick & Dondale 1992
<i>Drassodes neglectus</i> (Keyserling, 1887)	Platnick & Shadab 1976
<i>Drassodes saccatus</i> (Emerton, 1890)	Platnick & Shadab 1976; University of Minnesota (#V Ce 19.29)
<i>Drassyllus depressus</i> (Emerton, 1890)	Platnick & Shadab 1982
<i>Drassyllus fallens</i> Chamberlin, 1922*	Platnick & Shadab 1982
<i>Drassyllus niger</i> (Banks, 1896)	Cutler et al. 1975; Platnick & Shadab 1982
<i>Drassyllus rufulus</i> (Banks, 1892)*	Platnick & Dondale 1992
<i>Drassyllus socius</i> Chamberlin, 1922*	Platnick & Shadab 1982
<i>Gnaphosa brumalis</i> Thorell, 1875	University of Minnesota (#V Ce 19.41)
<i>Gnaphosa fontinalis</i> Keyserling, 1887	Platnick & Shadab 1975a; BugGuide #2256281
<i>Gnaphosa muscorum</i> (L. Koch, 1866)	Platnick & Shadab 1975a
<i>Gnaphosa parvula</i> (Banks, 1896)	Cutler et al. 1975; Platnick & Shadab 1975a
<i>Gnaphosa sericata</i> (L. Koch, 1866)	Cutler et al. 1975a
<i>Haplodrassus bicornis</i> (Emerton, 1909)	Platnick & Shadab 1975b
<i>Haplodrassus eunis</i> Chamberlin, 1922	BugGuide #2320213
<i>Haplodrassus hiemalis</i> (Emerton, 1909)	Cutler et al. 1975; Heimer et al. 1984; Platnick & Shadab 1975b
<i>Haplodrassus signifer</i> (C. L. Koch, 1939)	Platnick & Shadab 1975b
<i>Herpyllus ecclesiasticus</i> Hentz, 1832	Denver Museum of Nature and Science (#ZA.8522); Platnick & Shadab 1977
<i>Micaria aenea</i> Thorell, 1871*	Platnick & Dondale 1992
<i>Micaria emertoni</i> Gertsch, 1935*	Platnick & Dondale 1992
<i>Micaria gertschi</i> Barrows & Ivie, 1942	Platnick & Shadab 1988
<i>Micaria longipes</i> Emerton, 1890	Platnick & Shadab 1988
<i>Micaria longispina</i> Emerton, 1911*	Cutler et al. 1975; Platnick & Shadab 1988
<i>Micaria pulicaria</i> (Sundevall, 1831)	Platnick & Shadab 1988
<i>Micaria riggsi</i> Gertsch, 1942	Platnick & Shadab 1988
<i>Micaria rossica</i> Thorell, 1875	Platnick & Shadab 1988
<i>Nodocion floridanus</i> (Banks, 1896)*	Platnick & Shadab 1980a
<i>Nodocion rufithoracicus</i> Worley, 1928	Denver Museum of Nature and Science (#ZA.8848)
<i>Orodassus canadensis</i> Platnick & Shadab, 1975*	Platnick & Dondale 1992
<i>Orodassus coloradensis</i> Emerton, 1877*	Platnick & Dondale 1992
<i>Sergiolus bicolor</i> Banks, 1900	Platnick & Shadab 1981
<i>Sergiolus capulatus</i> (Walckenaer, 1837)	Platnick & Shadab 1981

<i>Sergiolus decoratus</i> Kaston, 1945	Platnick & Shadab 1981
<i>Sergiolus montanus</i> (Emerton, 1890)	Platnick & Shadab 1981
<i>Sergiolus ocellatus</i> (Walckenaer, 1837)	Platnick & Shadab 1981
<i>Sergiolus tennesseensis</i> Chamberlin, 1922	Platnick & Dondale 1992; iNaturalist
<i>Sosticus insularis</i> (Banks, 1895)	Platnick & Dondale 1992
<i>Sosticus loricatus</i> (L. Koch, 1866)	Platnick & Dondale 1992
<i>Urozelotes rusticus</i> (L. Koch, 1872)	Platnick & Murphy 1984
<i>Zelotes exiguoides</i> Platnick & Shadab, 1983*	Platnick & Dondale 1992
<i>Zelotes fratris</i> Chamberlin, 1920	BugGuide #748605; Platnick & Shadab 1983
<i>Zelotes hentzi</i> Barrows, 1945	Platnick & Shadab 1983
<i>Zelotes pullus</i> (Bryant, 1936)	Heimer et al. 1984
<i>Zelotes puritanus</i> Chamberlin, 1945	Platnick & Shadab 1983
<i>Zelotes subterraneus</i> (C. L. Koch, 1833)	Cutler et al. 1975
Hahnidae	
<i>Antistea brunnea</i> (Emerton, 1909)	Heimer et al. 1984
<i>Hahnia cinerea</i> (Emerton, 1890)	Heimer et al. 1984
<i>Hahnia ononidum</i> Simon, 1875	Denver Musuem of Nature & Science (#ZA.35403)
<i>Neoantistea agilis</i> (Keyserling, 1887)	Denver Museum of Nature & Science (#ZA.32222, ZA.32234)
<i>Neoantistea magna</i> (Keyserling, 1887)	Opell & Beatty 1976
Linyphiidae	
<i>Agyneta amersaxatilis</i> Saaristo & Koponen, 1998*	Dupérré 2013
<i>Agyneta barrowsi</i> (Chamberlin & Ivie, 1944)*	Dupérré 2013
<i>Agyneta evadens</i> (Chamberlin, 1925)	Dupérré 2013, BugGuide #2439187
<i>Agyneta fabra</i> (Keyserling, 1886)	Cutler 1971; Dupérré 2013
<i>Agyneta girardi</i> Dupérré, 2013*	Dupérré 2013
<i>Agyneta jacksoni</i> (Braendegaard, 1937)*	Dupérré 2013
<i>Agyneta llanoensis</i> (Gertsch & Davis, 1936)*	Dupérré 2013
<i>Agyneta micaria</i> (Emerton, 1882)*	Dupérré 2013
<i>Agyneta olivacea</i> (Emerton, 1882)*	Dupérré 2013
<i>Agyneta protrudens</i> (Chamberlin & Ivie, 1933)	Dupérré 2013
<i>Agyneta serrata</i> (Emerton, 1909)*	Dupérré 2013
<i>Agyneta simplex</i> (Emerton, 1926)	Dupérré 2013
<i>Agyneta spicula</i> Dupérré, 2013*	Dupérré 2013
<i>Agyneta subtilis</i> (Emerton, 1882)*	Dupérré 2013
<i>Agyneta unimaculata</i> (Banks, 1892)	Dupérré 2013
<i>Allomengea dentisetis</i> (Grube, 1861)	Heimer et al. 1984
<i>Baryphyma trifrons</i> (O. P.-Cambridge, 1863)	Cutler 1971
<i>Bathyphantes albiventris</i> (Banks, 1892)	BugGuide #1035328
<i>Bathyphantes brevis</i> (Emerton, 1911)	Ivie 1969
<i>Bathyphantes canadensis</i> (Emerton, 1882)	Cutler 1971
<i>Bathyphantes gracilis</i> (Blackwall, 1841)	Cutler 1971

<i>Bathyphantes pallidus</i> (Banks, 1892)	Heimer et al. 1984; Ivie 1969
<i>Centromerus sylvaticus</i> (Blackwall, 1841)	Heimer et al. 1984
<i>Ceraticelus atriceps</i> O. P.-Cambridge, 1874)	BugGuide #1672632
<i>Ceraticelus bryantae</i> Kaston, 1945	Heimer et al. 1984
<i>Ceraticelus emertoni</i> (O. P.-Cambridge, 1874)	Heimer et al. 1984
<i>Ceraticelus fissiceps</i> (O. P.-Cambridge, 1874)	BugGuide #754180, #802593, #867594
<i>Ceraticelus laetabilis</i> (O. P.-Cambridge, 1874)	Crosby & Bishop 1925
<i>Ceraticelus laetus</i> (O.P.-Cambridge, 1874)	Cutler 1971
<i>Ceraticelus minutus</i> (Emerton, 1882)	Crosby & Bishop 1925
<i>Ceraticelus paschalis</i> Crosby & Bishop, 1925	Heimer et al. 1984
<i>Ceraticelus similis</i> (Banks, 1892)	BugGuide #1465002
<i>Ceratinella brunnea</i> Emerton, 1882	Crosby & Bishop 1925
<i>Ceratinella buna</i> Chamberlin, 1949*	Chamberlin 1949
<i>Ceratinella diversa</i> Chamberlin, 1949	Chamberlin 1949
<i>Ceratinops crenatus</i> (Emerton, 1882)	BugGuide #1048124; Crosby & Bishop 1933
<i>Ceratinops inflatus</i> (Emerton, 1923)	Cutler 1971
<i>Ceratinopsis nigriceps</i> Emerton, 1882	Heimer et al. 1984
<i>Ceratinopsis nigripalpis</i> Emerton, 1882	Heimer et al. 1984
<i>Collinsia plumosa</i> (Emerton, 1882)	Chamberlin 1949; Cutler 1971
<i>Diplocentria bidentata</i> (Emerton, 1882)*	Chamberlin & Ivie 1935; Millidge 1984
<i>Diplocentria rectangulata</i> (Emerton, 1915)*	Millidge 1984
<i>Diplocephalus subrostratus</i> (O. P.-Cambridge, 1873)	BugGuide #1464954
<i>Diplostyla concolor</i> Wider, 1834	BugGuide #800425; Denver Museum of Nature and Science (#ZA.14971)
<i>Dismodicus decemoculatus</i> (Emerton, 1882)	Denver Museum of Nature and Science (#ZA.15336, #ZA.15323)
<i>Drapetisca alteranda</i> Chamberlin, 1909	BugGuide #344559
<i>Emertongone montifer</i> (Emerton, 1882)	BugGuide #728927
<i>Eridantes erigonoides</i> (Emerton, 1882)	Crosby & Bishop 1933
<i>Erigone atra</i> Blackwall, 1833	Cutler 1971; Heimer et al. 1984
<i>Erigone autumnalis</i> Emerton, 1882	BugGuide #901281
<i>Erigone blaesae</i> Crosby & Bishop, 1928	BugGuide #1101144
<i>Erigone dentigera</i> O. P.-Cambridge, 1874	BugGuide #799758
<i>Erigone dentosa</i> O. P.-Cambridge, 1894	BugGuide #1082133
<i>Frontinella pyramitela</i> (Walckenaer, 1841)	Blauvelt 1936; Heimer et al. 1984; Stratton et al. 1979
<i>Glyphesis scopulifer</i> (Emerton, 1882)	BugGuide #1672488
<i>Gnathonaroides pedalis</i> (Emerton, 1923)*	Emerton 1923
<i>Gonatium crassipalpus</i> Bryant, 1933	BugGuide #1261357; Millidge 1981c; Heimer et al. 1984
<i>Grammonota angusta</i> Dondale, 1959	Dondale 1959; BugGuide #971912
<i>Grammonota gentilis</i> Banks, 1898	Bishop & Crosby 1932; Buckle et al. 2001; Paquin & Dup��rr�� 2003
<i>Grammonota gigas</i> (Banks, 1896)*	Bishop & Crosby 1932
<i>Grammonota inornata</i> Emerton, 1882	BugGuide #1707495
<i>Grammonota ornata</i> (O. P.-Cambridge, 1875)	Heimer et al. 1984

Grammonota pictilis (O. P.-Cambridge, 1875)
Grammonota semipallida Emerton, 1919*
Grammonota vittata Barrows, 1919
Helophora insignis (Blackwall, 1841)
Hypomma marxi (Keyserling, 1886)*
Hypselistes florens (O. P.-Cambridge, 1875)
Islandiana flaveola (Banks, 1892)
Islandiana longisetosa (Emerton, 1882)*
Islandiana princeps Braendegaard, 1932
Jacksonella falconerii (Jackson, 1908)
Kaestneria pullata (O. P.-Cambridge, 1863)
Lepthyphantes leprosus (Ohlert, 1865)†
Lepthyphantes turbatrix (O. P.-Cambridge, 1877)
Maso sundevallii (Westring, 1851)
Megalepthyphantes nebulosus (Sundevall, 1830)
Mermessus contortus (Emerton, 1882)*
Mermessus maculatus (Banks, 1892)
Mermessus mediocris (Millidge, 1987)
Mermessus trilobatus (Banks, 1896)
Mermessus undulatus (Emerton, 1914)
Microlinyphia mandibulata (Emerton, 1882)
Microlinyphia pusilla (Sundevall, 1830)
Microneta viaria (Blackwall, 1841)
Nerienne clathrata (Sundevall, 1829)
Nerienne radiata (Walckenaer, 1841)
Nerienne variabilis (Banks, 1892)
Ostearius melanopygius (O. P.-Cambridge, 1879)*
Pelecopsis sculpta (Emerton, 1917)*
Pityohyphantes costatus (Hentz, 1850)
Pityohyphantes limitaneus (Emerton, 1915)*
Pityohyphantes phrygianus (C. L. Koch, 1836)*
Pocadicnemis americana Millidge, 1976*
Satlatlas arenarius (Emerton, 1911)
Satlatlas marxi Keyserling, 1886
Sciastes truncatus (Emerton, 1882)*
Scirites pectinatus (Emerton, 1911)*
Scotinotylus pallidus (Emerton, 1882)
Scotinotylus vernalis (Emerton, 1882)*
Scylaceus pallidus (Emerton, 1882)
Sisicottus montanus (Emerton, 1882)*
Souessa spinifera (O. P.-Cambridge, 1874)*

Heimer et al. 1984
 Bishop 1933
 Denver Museum of Nature and Science (#ZA.14970)
 Heimer et al. 1984
 Crosby & Bishop 1933
 BugGuide #796935; University of Minnesota (#V Ce 27.15, 27.16)
 BugGuide #899879; Ivie 1965
 Ivie 1965
 Ivie 1965
 Heimer et al. 1984
 Cutler 1971; Heimer et al. 1984
 BugGuide #803352; University of Minnesota (#V Ce 27.20)
 BugGuide #1468163
 Bishop & Crosby 1935c; Heimer et al. 1984
 University of Minnesota (#V Ce 27.21)
 University of Minnesota (#V Ce 27.47)--no collection data
 Millidge 1987
 Millidge 1987
 Cutler 1971, Millidge 1987
 Millidge 1987
 Blauvelt 1936; Denver Museum of Nature and Science (#ZA.14966)
 University of Minnesota (#V Ce 27.17)
 Heimer et al. 1984
 Heimer et al. 1984; Helsdingen 1969
 Heimer et al. 1984; Helsdingen 1969
 Blauvelt 1936; BugGuide #519422, 519425
 Millidge 1985
 University of Minnesota (#V Ce 44.3)--no collection data
 Stratton et al. 1979
 Blauvelt 1936
 Blauvelt 1936
 Millidge 1976
 Cutler 1971; Millidge 1981b
 Millidge 1981b
 Millidge 1984
 Dupérré & Paquin 2007
 Millidge 1981a; BugGuide #1861592
 Millidge 1981a
 Bishop & Crosby 1938
 Miller 1999
 Crosby & Bishop 1936

<i>Sougambus bostoniensis</i> (Emerton, 1882)*	Crosby & Bishop 1936
<i>Soulgas corticarius</i> (Emerton, 1909)	BugGuide #1699540
<i>Stemonyphantes blauveltae</i> Gertsch, 1951*	Helsdingen 1968
<i>Styloctetor purpureus</i> (Keyserling, 1886)	BugGuide #790309, #1048333
<i>Tapinocyba cameroni</i> Dupérré & Paquin, 2007	BugGuide #2142654
<i>Tapinocyba minuta</i> (Emerton, 1909)*	Dupérré & Paquin 2005
<i>Tapinocyba simplex</i> (Emerton, 1882)	BugGuide #1074965
<i>Tapinopa bilineata</i> Banks, 1893	BugGuide #971779
<i>Tennesseellum formica</i> (Emerton, 1882)	Dupérré 2013
<i>Tenuiphantes zebra</i> (Emerton, 1882)	Heimer et al. 1984
<i>Tmeticus ornatus</i> (Emerton, 1914)	Cutler 1971
<i>Tunagyna debilis</i> (Banks, 1892)	Heimer et al. 1984
<i>Vermontia thoracica</i> (Emerton, 1913)*	Millidge 1984
<i>Walckenaeria anceps</i> Millidge, 1983*	Millidge 1983
<i>Walckenaeria atrotibialis</i> (O. P.-Cambridge, 1878)*	Millidge 1983
<i>Walckenaeria auranticeps</i> (Emerton, 1882)*	Millidge 1983
<i>Walckenaeria brevicornis</i> (Emerton, 1882)	Millidge 1983
<i>Walckenaeria castanea</i> (Emerton, 1882)	Millidge 1983; University of Minnesota (#V Ce 27.6)
<i>Walckenaeria communis</i> (Emerton, 1882)*	Millidge 1983
<i>Walckenaeria cuspidata brevicula</i> (Crosby & Bishop, 1931)*	Millidge 1983
<i>Walckenaeria digitata</i> (Emerton, 1913)	BugGuide #2035449
<i>Walckenaeria directa</i> (O. P.-Cambridge, 1874)*	Millidge 1983
<i>Walckenaeria exigua</i> Millidge, 1983*	Millidge 1983
<i>Walckenaeria lepida</i> (Kulczynski, 1885)*	Millidge 1983
<i>Walckenaeria minuta</i> (Emerton, 1882)	Crosby & Bishop 1931; Millidge 1983
<i>Walckenaeria pallida</i> (Emerton, 1882)	Millidge 1983
<i>Walckenaeria palustris</i> Millidge, 1983*	Millidge 1983
<i>Walckenaeria redneri</i> Millidge, 1983*	Millidge 1983
<i>Walckenaeria spiralis</i> (Emerton, 1882)	Millidge 1983
<i>Walckenaeria subdirecta</i> Millidge, 1983*	Millidge 1983
<i>Walckenaeria subpallida</i> Millidge, 1983*	Millidge 1983
<i>Walckenaeria subspiralis</i> Millidge, 1983*	Millidge 1983
<i>Walckenaeria tibialis</i> (Emerton, 1882)	Millidge 1983
<i>Walckenaeria vigilax</i> (Blackwall, 1853)	Heimer et al. 1984
Liocranidae	
<i>Agroeca ornata</i> Banks, 1892	Cutler et al. 1975; Denver Museum of Nature and Science (#ZA.11870)
<i>Agroeca pratensis</i> Emerton, 1890	Cutler et al. 1975
<i>Liocranoeca emertoni</i> (Kaston, 1938)	Cutler et al. 1975
Lycosidae	
<i>Allocosa funerea</i> (Hentz, 1844)*	iNaturalist #6470379--adjacent WI
<i>Alopecosa aculeata</i> (Clerck, 1757)	Gertsch 1934a; Heimer et al. 1984

<i>Alopecosa kochii</i> (Keyserling, 1877)	Gertsch & Wallace 1935
<i>Arctosa alpigena</i> (Doleschall, 1852)*	Dondale & Redner 1990
<i>Arctosa emertoni</i> Gertsch, 1934	Gertsch 1934a
<i>Arctosa littoralis</i> (Hentz, 1844)	Weber 2002
<i>Arctosa raptor</i> (Kulczynski, 1885)	Dondale & Redner 1990; BugGuide #2162863
<i>Arctosa rubicunda</i> (Keyserling, 1877)	BugGuide #732119
<i>Geolycosa missouriensis</i> (Banks, 1895)	Wallace 1942; Dondale & Redner 1990
<i>Geolycosa turricola</i> (Treat, 1880)	Denver Museum of Nature and Science (#ZA.24849)
<i>Geolycosa wrighti</i> (Emerton, 1912)	Wallace 1942; Dondale & Redner 1990
<i>Gladicosa gulosa</i> (Walckenaer, 1837)	Brady 1987; Dondale & Redner 1990
<i>Hogna baltimoriana</i> (Keyserling, 1877)	Dondale & Redner 1990
<i>Hogna carolinensis</i> (Walckenaer, 1805)*	Dondale & Redner 1990
<i>Hogna frondicola</i> (Emerton, 1885)	Dondale & Redner 1990
<i>Pardosa atlantica</i> Emerton, 1913	Denver Museum of Nature and Science (#ZA.12760)
<i>Pardosa concinna</i> (Thorell, 1877)	Heimer et al. 1984
<i>Pardosa distincta</i> (Blackwall, 1846)	Gertsch 1934a; Vogel 1964
<i>Pardosa dorsuncata</i> Lowrie & Dondale 1981*	Denver Museum of Nature and Science (#ZA.36438)
<i>Pardosa dromaea</i> (Thorell, 1878)	Dondale & Redner 1990; Dondale 1999
<i>Pardosa fuscula</i> (Thorell, 1875)	Dondale & Redner 1987; Dondale & Redner 1990
<i>Pardosa groenlandica</i> (Thorell, 1872)	Dondale & Redner 1990; Dondale 1999
<i>Pardosa hyperborea</i> (Thorell, 1872)	Dondale & Redner 1987; Dondale & Redner 1990; BugGuide #1685741
<i>Pardosa lapidicina</i> Emerton, 1885	Dondale & Redner 1990
<i>Pardosa littoralis</i> (Banks, 1896)	Heimer et al. 1984--This may be a dubious record
<i>Pardosa mackenziana</i> (Keyserling, 1877)	Dondale & Redner 1990
<i>Pardosa milvina</i> (Hentz, 1844)	Heimer et al. 1984
<i>Pardosa modica</i> (Blackwall, 1846)	Dondale & Redner 1990; Gertsch 1934a
<i>Pardosa moesta</i> Banks, 1892	Dondale & Redner 1987; Gertsch 1934a; Heimer et al. 1984
<i>Pardosa mulaiki</i> Gertsch, 1934*	Dondale & Redner 1986
<i>Pardosa ontariensis</i> Gertsch, 1933*	Dondale & Redner 1990
<i>Pardosa saxatilis</i> (Hentz, 1844)	Dondale & Redner 1990; Heimer et al. 1984
<i>Pardosa tesquorum</i> (Odenwall, 1901)*	Dondale & Redner 1990
<i>Pardosa uintana</i> Gertsch, 1933*	Dondale & Redner 1990
<i>Pardosa xerampelina</i> (Keyserling, 1877)	Heimer et al. 1984
<i>Pirata aspirans</i> Chamberlin, 1904	Wallace & Exline 1978
<i>Pirata gigantea</i> (Gertsch, 1934)*	Dondale & Redner 1990
<i>Pirata montanoides</i> Banks, 1892	BugGuide #1102972; Dondale & Redner 1990
<i>Pirata montanus</i> Emerton, 1885	Heimer et al. 1984
<i>Pirata piraticus</i> (Clerck, 1757)	Heimer et al. 1984; Wallace & Exline 1978
<i>Pirata praedo</i> Kulczyński, 1885	Dondale & Redner 1990
<i>Pirata sedentarius</i> Montgomery, 1904	Cutler 1971
<i>Piratula canadensis</i> (Dondale & Redner, 1981)	BugGuide #1073908; Dondale & Redner, 1990

<i>Piratula cantralli</i> Wallace & Exline, 1978	Dondale & Redner 1990; BugGuide #1861574
<i>Piratula insularis</i> (Emerton, 1885)	Cutler 1971; Heimer et al. 1984
<i>Piratula minuta</i> (Emerton, 1885)	Wallace & Exline 1978
<i>Rabidosia rabida</i> (Walckenaer, 1837)	Brady & McKinley 1994
<i>Schizocosa avida</i> (Walckenaer, 1837)	University of Minnesota (#V Ce 36.15, 36.16, 36.157, 36.159)
<i>Schizocosa bilineata</i> (Emerton, 1885)*	Dondale & Redner 1990
<i>Schizocosa crassipalpa</i> Roewer, 1951	Dondale & Redner 1978; Dondale & Redner 1990
<i>Schizocosa crassipes</i> (Walckenaer, 1837)	University of Minnesota (#V Ce 36.89, 36.90)
<i>Schizocosa mccoeki</i> (Montgomery, 1904)	BugGuide #811932; Dondale & Redner 1990
<i>Schizocosa minnesotensis</i> (Gertsch, 1934)	Gertsch 1934b
<i>Schizocosa ocreata</i> (Hentz, 1844)	Dondale & Redner 1987; Dondale & Redner 1990
<i>Schizocosa saltatrix</i> (Hentz, 1844)	Dondale & Redner 1987; Dondale & Redner 1990
<i>Tigrosa aspersa</i> (Hentz, 1844)	Dondale & Redner 1990; BugGuide #2248320
<i>Tigrosa helluo</i> (Walckenaer, 1837)	Brady 2012
<i>Trochosa ruficollis</i> (De Geer, 1778)	BugGuide #1608648
<i>Trochosa terricola</i> Thorell, 1856	Brady 1980; Dondale & Redner 1990; Gertsch 1934b; Heimer et al. 1984
<i>Varacosa avara</i> (Keyserling, 1877)*	Dondale & Redner 1990
Mimetidae	
<i>Ero canionis</i> Chamberlin & Gertsch, 1935	Cutler 1976
<i>Mimetus epeiroides</i> Emerton, 1882	Mott (unpublished data)
<i>Mimetus notius</i> Chamberlin, 1923	Heimer et al. 1984
<i>Mimetus puritanus</i> Chamberlin, 1923	Mott (unpublished data)
Mysmenidae	
<i>Microdipoena guttata</i> Banks, 1892	BugGuide #2376685
Nesticidae	
<i>Eidmennella pallida</i> (Emerton, 1875)*	Gertsch 1984
Oecobiidae	
<i>Oecobius navus</i> Blackwall, 1849^	Cutler 1973--misidentified <i>O. annulipes</i> Lucas, 1846 (per Cutler)
Oxyopidae	
<i>Oxyopes salticus</i> Hentz, 1845	BugGuide #759446; Cutler 1976
<i>Oxyopes scalaris</i> Hentz, 1845	Brady 1964; Dondale & Redner 1990
<i>Peucetia viridans</i> (Hentz, 1832)^	iNaturalist #27343077
Philodromidae	
<i>Ebo iviei</i> Sauer & Platnick, 1972*	Dondale & Redner 1978
<i>Ebo pepinensis</i> Gertsch, 1933	Sauer & Platnick 1972; Schick 1969
<i>Ebo latithorax</i> Keyserling, 1884	University of Minnesota (#V Ce 31.155)
<i>Philodromus cespitum</i> (Walckenaer, 1802)	Denver Museum of Nature and Science (#ZA.9218); Jennings & Cutler 1996
<i>Philodromus exilis</i> Banks, 1892	Dondale & Redner 1968
<i>Philodromus imbecillus</i> Keyserling, 1880	Dondale & Redner 1968; Jennings & Cutler 1996
<i>Philodromus infuscatus</i> Keyserling, 1880	Denver Museum of Nature and Science (#ZA.23260)
<i>Philodromus keyserlingi</i> Marx, 1890	Jennings & Cutler 1996

<i>Philodromus marxi</i> Keyserling, 1880	Dondale & Redner 1968
<i>Philodromus minutus</i> Banks, 1892	Dondale & Redner 1968
<i>Philodromus oneida</i> Levi, 1951	Denver Museum of Nature and Science (#ZA.31386)
<i>Philodromus peninsulanus</i> Gertsch, 1934	BugGuide #1464972 ; Dondale & Redner 1968
<i>Philodromus pernix</i> Blackwall, 1846	Jennings & Cutler 1996
<i>Philodromus placidus</i> Banks, 1892	Jennings & Cutler 1996
<i>Philodromus praelustris</i> Keyserling, 1880	BugGuide #1065696; Dondale & Redner 1978
<i>Philodromus rufus</i> Walckenaer, 1826	University of Minnesota (#V Ce 31.50, 31.89, 31.102)
<i>Philodromus rufus quartus</i> Dondale & Redner, 1968	Dondale & Redner 1978; Spaulding (unpublished data)
<i>Philodromus rufus vibrans</i> Dondale, 1967	Dondale & Redner 1968; Jennings & Cutler 1996
<i>Philodromus vulgaris</i> (Hentz, 1847)	Jennings & Cutler 1996
<i>Rhysodromus alascensis</i> (Keyserling, 1884)	Dondale & Redner 1978; University of Minnesota (#V Ce 31.39; 31.40)
<i>Rhysodromus histrio</i> (Latreille, 1819)	Jennings & Cutler 1996
<i>Thanatus formicinus</i> (Clerck, 1757)	Jennings & Cutler 1996
<i>Thanatus coloradensis</i> Keyserling, 1880	University of Minnesota (#V Ce 31.56, 31.57)
<i>Thanatus rubicellus</i> Mello-Leitão, 1929	BugGuide #2140432
<i>Thanatus striatus</i> (C. L. Koch, 1845)	Jennings & Cutler 1996
<i>Thanatus vulgaris</i> Simon, 1870*	Dondale & Redner 1978
<i>Tibellus asiaticus</i> Kulczinski, 1908*	Dondale & Redner 1978
<i>Tibellus duttoni</i> (Hentz, 1847)	Jennings & Cutler 1996
<i>Tibellus maritimus</i> Simon, 1875	Cutler 1971; Cutler et al. 1975; Jennings & Cutler 1996
<i>Tibellus oblongus</i> (Walckenaer, 1802)	Jennings & Cutler 1996
Pholcidae	
<i>Crossopriza lyoni</i> (Blackwall, 1867)†^	iNaturalist #94814509
<i>Pholcophora americana</i> Banks, 1896	BugGuide #2252841
<i>Pholcus manuei</i> Gertsch, 1937†	Cutler 2007
<i>Pholcus opilionoides</i> (Schrank, 1781)†	BugGuide #765731
<i>Pholcus phalangioides</i> (Fuesslin, 1775)†	BugGuide #789233
<i>Spermophora senoculata</i> (Dugès, 1836)†	Roth 1993
Phrurolithidae	
<i>Phrurotimpus alarius</i> (Hentz, 1847)	Dondale & Redner 1982; University of Minnesota (#V Ce 33.39)
<i>Phrurotimpus borealis</i> (Emerton, 1911)	BugGuide #1103002; Dondale & Redner 1982
<i>Phrurotimpus certus</i> Gertsch, 1941	BugGuide #2134291; Dondale & Redner 1982
<i>Phrurotimpus palustris</i> (Banks, 1892)	Platnick, 2019
<i>Scotinella minnetonka</i> (Chamberlin & Gertsch, 1930)	Chamberlin & Gertsch 1930
<i>Scotinella pugnata</i> (Emerton, 1890)	Dondale & Redner 1982; BugGuide #2126997
Pisauridae	
<i>Pisaurina brevipes</i> (Emerton, 1911)*	iNaturalist #203305797 in adjacent Wisconsin
<i>Pisaurina mira</i> (Walckenaer, 1837)	Dondale & Redner 1990; Heimer et al. 1984
Salticidae	
<i>Admestina wheeleri</i> (Peckham & Peckham, 1888)	Heimer et al. 1984; Richman et al. 2012

<i>Attidops youngi</i> Peckham & Peckham, 1888	Stratton et al. 1979
<i>Attinella concolor</i> (Banks, 1895)	Prószyński 1973a
<i>Attinella dorsatus</i> (Banks, 1895)*	Richman et al. 2012
<i>Attulus ammophilus</i> (Thorell, 1875)	iNaturalist #175451934
<i>Attulus cutleri</i> (Prószyński, 1980)	Prószyński 1980; Richman et al. 2012
<i>Attulus fasciger</i> (Simon, 1880)‡	BugGuide #749285; Richman et al. 2012
<i>Attulus finschi</i> (L. Koch, 1879)	Heimer et al. 1984
<i>Attulus floricola</i> (C. L. Koch, 1837)	Cutler 1971; Ehmann 2002; Heimer et al. 1984
<i>Attulus striatus</i> (Emerton, 1911)	Cutler 1971; Prószyński 1980
<i>Chalcoscirtus diminutus</i> (Banks, 1896)	Edwards 2003a; Richman et al. 2012
<i>Colonus puerpera</i> (Hentz, 1846)^	Richman et al. 2012
<i>Eris flava</i> (Peckham & Peckham, 1888)	Richman et al. 2012, iNaturalist #92440282
<i>Eris militaris</i> (Hentz, 1835)	Ehmann 2002; Ehmann & Boyd 1997; Richman et al. 2012
<i>Euophrys monadnock</i> Emerton, 1891	Richman et al. 2012
<i>Evarcha hoyi</i> (Peckham & Peckham, 1883)	Ehmann & Boyd 1997; Marusik & Logunov 1998; Richman et al. 2012
<i>Evarcha prozynykii</i> Marusik & Logunov, 1998*	Marusik & Logunov 1998; Richman et al. 2012
<i>Ghelnia canadensis</i> (Banks, 1897)	Ehmann & Boyd 1997; Richman et al. 2012
<i>Habronattus altanus</i> (Gertsch, 1934)*	Richman et al. 2012
<i>Habronattus americanus</i> (Keyserling, 1884)	Griswold 1987; Richman et al. 2012
<i>Habronattus borealis</i> (Banks, 1895)	Richman et al. 2012; University of Minnesota (#V Ce 39.110, 39.234)
<i>Habronattus calcaratus maddisoni</i> Griswold, 1987	Ehmann 2011
<i>Habronattus captiosus</i> (Gertsch, 1934)	Gertsch 1934b; Griswold 1987; Heimer et al. 1987
<i>Habronattus cognatus</i> (Peckham & Peckham, 1901)	Griswold 1987; Ehmann 2002; Ehmann & Boyd 1997
<i>Habronattus cuspidatus</i> Griswold, 1987	Griswold 1987; Ehmann 2015 season--personal communication
<i>Habronattus decorus</i> (Blackwall, 1846)	Griswold 1987; Richman et al. 2012
<i>Habronattus texanus</i> (Chamberlin, 1924)	Minnesota DNR 1995; Richman et al. 2012
<i>Habronattus viridipes</i> (Hentz, 1846)	Griswold 1987; Ehmann 2002; Ehmann & Boyd 1997
<i>Hentzia mitrata</i> (Hentz, 1847)	Richman 1989; Richman et al. 2012
<i>Hentzia palmarum</i> (Hentz, 1832)	Heimer et al. 1984; Richman 1989
<i>Lyssomanes viridis</i> (Walckenaer, 1837)^	BugGuide #1243070
<i>Maevia inclemens</i> (Walckenaer, 1837)	Ehmann 2002; Ehmann & Boyd 1997
<i>Marpissa formosa</i> (Banks, 1892)	Ehmann 2002
<i>Marpissa grata</i> (Gertsch, 1936)	Barnes 1958; Cutler 1971; Gertsch 1936; Ehmann & Boyd 1997
<i>Marpissa lineata</i> (C. L. Koch, 1848)	Richman et al. 2012
<i>Marpissa pikei</i> (Peckham & Peckham, 1888)	Ehmann 2002; Ehmann & Boyd 1997
<i>Menemerus bivittatus</i> (Dufour, 1831)^	Cutler 1990; Richman et al. 2012
<i>Naphrys pulex</i> (Hentz, 1846)	Richman 1981; Richman et al. 2012
<i>Neon ellamae</i> Gertsch & Ivie, 1955	Cutler 1977; Richman et al. 2012
<i>Neon nelli</i> Peckham & Peckham, 1889	Cutler et al. 1975; Ehman & Boyd 1997
<i>Paradamoetas fontanus</i> (Levi, 1951)	Cutler 1981; Ehmann & Boyd 1997; Minnesota DNR 1995
<i>Peckhamia picata</i> (Hentz, 1846)	Cutler 1977; Richman et al. 2012

<i>Peckhamia scorpionia</i> (Hentz, 1846)	University of Minnesota (#V Ce 39.61)
<i>Pelegrina arizonensis</i> (Peckham & Peckham, 1901)	Cutler & Jennings 1992; Ehmann 2002; Ehmann & Boyd 1997
<i>Pelegrina exigua</i> (Banks, 1892)	Cutler 1977; Ehmann 2015 season--personal communication
<i>Pelegrina flavipes</i> (Peckham & Peckham, 1888)	Cutler & Jennings 1992; Ehmann 2002
<i>Pelegrina galathea</i> (Walckenaer, 1837)	BugGuide #2247481
<i>Pelegrina insignis</i> (Banks, 1892)	Cutler & Jennings 1992; Ehmann & Boyd 1997; Heimer et al. 1984
<i>Pelegrina montana</i> (Emerton, 1891)*	Richman et al. 2012
<i>Pelegrina proterva</i> (Walckenaer, 1837)	Cutler 1981; Cutler & Jennings 1992; Ehmann 2002
<i>Pellenattus peninsularis</i> (Emerton, 1925)	Richman et al. 2012
<i>Pellenes lapponicus</i> (Sundevall, 1833)*	Richman et al. 2012
<i>Phidippus apacheanus</i> Chamberlin & Gertsch, 1929	Minnesota DNR 1995; Richman et al. 2012
<i>Phidippus audax</i> (Hentz, 1845)	Edwards 2004
<i>Phidippus borealis</i> Banks, 1895	Edwards 2004
<i>Phidippus californicus</i> Peckham & Peckham, 1901^	iNaturalist #231102205
<i>Phidippus clarus</i> Keyserling, 1884	Cutler 1981; Edwards 2004; Ehmann 2002; Ehmann & Boyd 1997
<i>Phidippus cryptus</i> Edwards, 2004	Edwards 2004
<i>Phidippus insignarius</i> C. L. Koch, 1846	Edwards 2004
<i>Phidippus johnsoni</i> (Peckham & Peckham, 1883)^	iNaturalist #253469055
<i>Phidippus otiosus</i> (Hentz, 1846)^	Edwards 2004; Richman et al. 2012
<i>Phidippus pius</i> Scheffer, 1906	Minnesota DNR 1995
<i>Phidippus princeps</i> (Peckham & Peckham, 1883)	Edwards 2004; Ehmann & Boyd 1997; Heimer et al. 1984
<i>Phidippus purpuratus</i> Keyserling, 1884	Edwards 2004; Heimer et al. 1984
<i>Phidippus regius</i> C. L. Koch, 1846^	Cutler 1977
<i>Phidippus whitmani</i> Peckham & Peckham, 1909	Edwards 2004; Heimer et al. 1984
<i>Phlegra hentzi</i> (Marx, 1890)	Richman et al. 2012
<i>Platycryptus undatus</i> (DeGeer, 1778)	Barnes 1958
<i>Plexippus paykulli</i> (Audouin, 1826)^	BugGuide #2377923
<i>Poultonella alboimmaculata</i> (Peckham & Peckham, 1883)*	Richman et al. 2012
<i>Salticus scenicus</i> (Clerck, 1757)‡	Cutler 1973
<i>Sassacus cyaneus</i> (Hentz, 1846)*	Richman et al. 2012
<i>Sassacus papenhoei</i> Peckham & Peckham, 1895	Minnesota DNR 1995; Richman 2008
<i>Sibianor aemulus</i> (Gertsch, 1934)	Gertsch 1934b; Heimer et al. 1984
<i>Synageles noxiosus</i> (Hentz, 1850)	Richman et al. 2012
<i>Synageles occidentalis</i> Cutler, 1987	Cutler 1987; Museum of Comparative Zoology (MCZ#24842, MCZ#24843)
<i>Synomesyna formica</i> Hentz, 1846	Richman et al. 2012
<i>Talavera minuta</i> (Banks, 1895)	BugGuide #408080; Richman et al. 2012
<i>Tutelina elegans</i> (Hentz, 1846)	Richman et al. 2012
<i>Tutelina formicaria</i> (Emerton, 1891)	Ehmann 2002; Richman et al. 2012
<i>Tutelina harti</i> (Emerton, 1891)	BugGuide #536384; Richman et al. 2012
<i>Tutelina similis</i> (Banks, 1895)	Cutler 1981; Ehmann 2002; Ehman & Boyd 1997; Heimer et al. 1984
<i>Zygoballus nervosus</i> (Peckham & Peckham, 1888)	Richman et al. 2012

<i>Zygoballus rufipes</i> Peckham & Peckham, 1885	Richman et al. 2012
Segestriidae	
<i>Ariadna bicolor</i> (Hentz, 1842)*	University of Minnesota (#V Ce 16.3)--No collection data
Sicariidae	
<i>Loxosceles reclusa</i> Gertsch & Mulaik, 1940^	Museum of Comparative Zoology (MCZ#52657); Weber 2002
Sparassidae	
<i>Heteropoda venatoria</i> (Linnaeus, 1767)^	Cutler 1973
Tetragnathidae	
<i>Glenognatha foxi</i> (McCook, 1894)	Levi 1980; BugGuide #1707503
<i>Leucauge venusta</i> (Walckenaer, 1841)	Levi 1980
<i>Meta ovalis</i> (Gertsch, 1933)	Levi 1980
<i>Metallina curtisi</i> Chamberlin & Ivie, 1941	Levi 1980
<i>Pachygnatha autumnalis</i> Marx, 1884*	Dondale et al. 2003; Weber 2002
<i>Pachygnatha brevis</i> Keyserling, 1884*	BugGuide #1344805
<i>Pachygnatha clercki</i> Sundevall, 1823*	Dondale et al. 2003
<i>Pachygnatha dorothea</i> McCook, 1884	Heimer et al. 1984
<i>Pachygnatha tristriata</i> C. L. Koch, 1845	Heimer et al. 1984
<i>Pachygnatha xanthostoma</i> C. L. Koch, 1845	Levi 1980
<i>Tetragnatha caudata</i> Emerton, 1884	Cutler 1971; Heimer et al. 1984
<i>Tetragnatha dearmata</i> Thorell, 1873	Levi 1981a
<i>Tetragnatha elongata</i> Walckenaer, 1842	Heimer et al. 1984
<i>Tetragnatha extensa</i> (Linnaeus, 1758)	Levi 1981a
<i>Tetragnatha guatemalensis</i> O. P.-Cambridge, 1889	Levi 1981a
<i>Tetragnatha laboriosa</i> Hentz, 1850	Cutler 1971; Denver Museum of Nature and Science (#ZA.9533)
<i>Tetragnatha pallescens</i> F. O. P.-Cambridge, 1903	BugGuide #1454409 ; Levi 1981a
<i>Tetragnatha shoshone</i> Levi, 1981*	Dondale et al. 2003
<i>Tetragnatha straminea</i> Emerton, 1884	Levi 1981a
<i>Tetragnatha vermiformis</i> Emerton, 1884*	Levi 1981a
<i>Tetragnatha versicolor</i> Walckenaer, 1842	Heimer et al. 1984
<i>Tetragnatha viridis</i> Walckenaer, 1841	Heimer et al. 1984
Theridiidae	
<i>Asagena americana</i> (Emerton 1882)	BugGuide #749287
<i>Canalidion montanum</i> (Emerton 1882)	Levi 1957a
<i>Chrysso</i> sp. (undescribed)	BugGuide #1084981
<i>Coleosoma floridanum</i> Banks 1900	Cutler 1973
<i>Crustulina altera</i> Gertsch & Archer 1942	Levi 1957b
<i>Crustulina sticta</i> (O. P.-Cambridge 1861)	Levi 1957b
<i>Cryptachaea rupicola</i> (Emerton 1882)*	Levi 1955
<i>Dipoena nigra</i> (Emerton 1882)	Heimer et al. 1984
<i>Enoplognatha caricis</i> (Hickert 1876)	Levi 1957a
<i>Enoplognatha intrepida</i> (Sørensen 1898)	Levi 1957a
<i>Enoplognatha marmorata</i> (Hentz 1850)	Heimer et al. 1984; Levi 1957a

<i>Enoplognatha ovata</i> (Clerck 1757)‡	BugGuide #1107973, #1107977; Levi 1957a--eastern part of state, moving west
<i>Euryopis argentea</i> Emerton 1882*	Levi 1954a
<i>Euryopis funebris</i> (Hentz 1850)	Levi 1954a; Levi 1963a
<i>Euryopis pepini</i> Levi 1954*	Levi 1954b
<i>Euryopis saukea</i> Levi, 1951	Heimer et al. 1984; Levi 1954b
<i>Hentziectypus globosus</i> (Hentz, 1850)	Cutler 1971; Levi 1955
<i>Lasaeola prona</i> (Menge, 1868)*	Levi 1963a
<i>Latrodectus geometricus</i> C. L. Koch, 1841^	iNaturalist #144272479
<i>Latrodectus hesperus</i> Chamberlin & Ivie, 1935^	Cutler 1973; Denning 1937?
<i>Latrodectus mactans</i> (Fabricius, 1775)^	Cutler 1973; Denning 1937
<i>Latrodectus variolus</i> Walckenaer, 1837*	Levi 1959c
<i>Neospintharus trigonum</i> (Hentz, 1850)	Exline & Levi 1962
<i>Neottiura bimaculata</i> (Linnaeus, 1767)	iNaturalist #226352246
<i>Parasteatoda tabulata</i> (Levi, 1980)	BugGuide #802604, #966161
<i>Parasteatoda tepidariorum</i> (C. L. Koch, 1841)	Levi 1963b
<i>Pholcomma hirsutum</i> Emerton, 1882*	Levi 1957c
<i>Platnickina alabamensis</i> (Gertsch & Archer, 1942)	BugGuide #1826189 ; Levi 1957a
<i>Rhomphaea fictilium</i> (Hentz, 1850)	Heimer et al. 1984; Weber 2002
<i>Robertus banksi</i> (Kaston, 1946)*	Kaston 1946
<i>Robertus eremophilus</i> Chamberlin, 1928	BugGuide #1073922
<i>Robertus fuscus</i> (Emerton, 1894)	Kaston 1946
<i>Robertus riparius</i> (Keyserling, 1886)	Kaston 1946
<i>Robertus spinifer</i> (Emerton, 1909)*	Kaston 1946
<i>Rugathodes aurantius</i> (Emerton, 1915)	BugGuide #1860503
<i>Rugathodes sexpunctatus</i> (Emerton, 1882)	Levi 1957a
<i>Steatoda albomaculata</i> (DeGeer, 1778)	Levi 1957b
<i>Steatoda borealis</i> (Hentz, 1850)	Heimer et al. 1984; Levi 1957b
<i>Steatoda triangulosa</i> (Walckenaer, 1802)‡	BugGuide #726341
<i>Theonoe stridula</i> Crosby, 1906*	Levi 1955
<i>Theridion albidum</i> (Banks, 1895)	BugGuide #716703
<i>Theridion differens</i> Emerton, 1882	Levi 1957a
<i>Theridion frondeum</i> (Hentz, 1850)	Heimer et al. 1984; Levi 1957a
<i>Theridion glaucescens</i> Becker, 1879	BugGuide #964119, #964123; Levi 1957a
<i>Theridion hemerobium</i> Simon, 1914	Levi 1957a
<i>Theridion murarium</i> Emerton, 1882	Heimer et al. 1984; Levi 1957a
<i>Theridion petraeum</i> L. Koch, 1872	BugGuide #1558851
<i>Theridion pictum</i> (Walckenaer, 1802)	Denver Museum of Nature and Science (#ZA.15336); Heimer et al. 1984
<i>Theridion pierre</i> Levi & Platnick, 2013	BugGuide #2140618
<i>Theridula emertoni</i> Levi, 1954	Denver Museum of Nature & Science (#ZA.35348); Levi 1966
<i>Theridula opulenta</i> (Walckenaer, 1841)	Heimer et al. 1984
<i>Thymoites minnesota</i> Levi, 1964	Levi 1964b

<i>Thymoites unimaculatus</i> (Emerton, 1882)	Cutler 1971; Levi 1957a
<i>Yunohamella lyrica</i> (Walckenaer, 1841)	BugGuide #726055
Theridiosomatidae	
<i>Theridiosoma gemmosum</i> (L. Koch, 1877)	Coddington 1986; Dondale et al. 2003; Gertsch 1953
Thomisidae	
<i>Bassaniana utahensis</i> (Gertsch, 1932)	Bowling & Sauer 1975
<i>Bassaniana versicolor</i> (Keyserling, 1880)	Gertsch 1939b; Heimer et al. 1984
<i>Coriarachne brunneipes</i> Banks, 1893*	Bowling & Sauer 1975
<i>Mecaphesa asperata</i> (Hentz, 1847)	Gertsch 1939b; Heimer et al. 1984; Jennings & Cutler 1996
<i>Mecaphesa carletonica</i> (Dondale & Redner, 1976)	Denver Museum of Nature & Science (#ZA.23520)
<i>Mecaphesa celer</i> (Hentz, 1847)	Gertsch 1939b; Jennings & Cutler 1996
<i>Misumena vatia</i> (Clerck, 1757)	Gertsch 1939b; Heimer et al. 1984; Jennings & Cutler 1996
<i>Misumenoides formosipes</i> (Walckenaer, 1837)	Gertsch 1939b; Jennings & Cutler 1996
<i>Misumessus oblongus</i> (Keyserling, 1880)	BugGuide #1105894
<i>Modysticus modestus</i> (Scheffer, 1904)*	Gertsch 1953
<i>Ozyptila americana</i> Banks, 1895	Gertsch 1939b; Heimer et al. 1984
<i>Ozyptila conspurcata</i> Thorell, 1877	Cutler et al. 1975; Dondale & Redner 1975; Gertsch 1939b
<i>Ozyptila curvata</i> Dondale & Redner, 1975	Dondale & Redner 1975
<i>Ozyptila georgiana</i> Keyserling, 1880	Dondale & Redner 1975
<i>Ozyptila gertschi</i> Kurata, 1944*	Dondale & Redner 1978
<i>Ozyptila monroensis</i> Keyserling, 1884	Dondale & Redner 1978; Gertsch 1939b
<i>Ozyptila praticola</i> (C. L. Koch, 1837)	BugGuide #2252856
<i>Ozyptila sincera canadensis</i> Dondale & Redner, 1975	Dondale & Redner 1975
<i>Spiracme triangulosus</i> (Emerton, 1894)*	Dondale & Redner 1978
<i>Tmarus angulatus</i> Simon, 1875	Gertsch 1939b; Heimer et al. 1984; Jennings & Cutler 1996
<i>Xysticus acquiescens</i> Emerton, 1919*	Gertsch 1953
<i>Xysticus alboniger</i> Turnbull Dondale & Redner, 1965	Heimer et al. 1984; Jennings & Cutler 1996
<i>Xysticus ampullatus</i> Turnbull Dondale & Redner, 1965	Heimer et al. 1984; Jennings & Cutler 1996
<i>Xysticus auctificus</i> Keyserling, 1880	Dondale & Redner 1978
<i>Xysticus banksi</i> Bryant, 1931	Jennings & Cutler 1996
<i>Xysticus bicuspis</i> Keyserling, 1887	Jennings & Cutler 1996
<i>Xysticus britcheri</i> Gertsch, 1934*	Dondale & Redner 1978
<i>Xysticus canadensis</i> Gertsch, 1934	Denver Museum of Nature & Science (#ZA.24105)
<i>Xysticus chippewa</i> Gertsch, 1953	Jennings & Cutler 1996
<i>Xysticus discursans</i> Keyserling, 1880	Cutler 1971; Jennings & Cutler 1996
<i>Xysticus elegans</i> Keyserling, 1880	Cutler et al. 1975; Gertsch 1939b; Jennings & Cutler 1996
<i>Xysticus ellipticus</i> Turnbull Dondale and Redner, 1965	Cutler et al. 1975
<i>Xysticus emertoni</i> Keyserling, 1880	Gertsch 1939b; Heimer et al. 1984; Jennings & Cutler 1996
<i>Xysticus ferox</i> (Hentz, 1847)	Cutler et al. 1975; Gertsch 1939b; Jennings & Cutler 1996
<i>Xysticus fervidus</i> Gertsch, 1953	BugGuide #715012
<i>Xysticus fraternus</i> Banks, 1895	Dondale & Redner 1978; Gertsch 1939b

<i>Xysticus gulosus</i> Keyserling, 1880	Gertsch 1939b; Jennings & Cutler 1996
<i>Xysticus luctans</i> (C. L. Koch, 1845)	Gertsch 1939b; Jennings & Cutler 1996
<i>Xysticus luctuosus</i> (Blackwall, 1836)	Cutler et al. 1975; Gertsch 1939b
<i>Xysticus montanensis</i> Keyserling, 1887*	Dondale & Redner 1978
<i>Xysticus obscurus</i> Collett, 1877	Cutler et al. 1975; Jennings & Cutler 1975
<i>Xysticus pallax</i> O. P.-Cambridge, 1894	Jennings & Cutler 1996
<i>Xysticus posti</i> Sauer, 1968*	Dondale & Redner 1978
<i>Xysticus punctatus</i> Keyserling, 1880	Heimer et al. 1984; Jennings & Cutler 1996
<i>Xysticus triguttatus</i> Keyserling, 1880	Gertsch 1939b; Heimer et al. 1984; Jennings & Cutler 1996
Titanoecidae	
<i>Titanoeca americana</i> (Emerton, 1888)	Leech 1972; University of Minnesota (#V Ce 8.33)
<i>Titanoeca nigrella</i> (Chamberlin, 1919)*	Leech 1972
Trechaleidae	
<i>Cupiennius salei</i> (Keyserling, 1877)^	Cutler 1973
Trachelidae	
<i>Meriola decepta</i> (Banks, 1895)*	Platnick & Shadab 1974
<i>Trachelas tranquillus</i> (Hentz, 1847)	BugGuide #732101, 732114
Uloboridae	
<i>Hyptiotes cavatus</i> (Hentz, 1847)	Muma & Gertsch 1964; iNaturalist #31305854
<i>Hyptiotes gertschi</i> Chamberlin & Ivie, 1935*	Muma & Gertsch 1964
<i>Uloborus glomosus</i> (Walckenaer, 1842)	Heimer et al. 1984
Zoropsidae	
<i>Zoropsis spinimana</i> (Dufour, 1820)^	iNaturalist #100813987

DISCUSSION

County-level distributions have also been assembled, but are not detailed here in the interest of space. Regardless, a brief overview provides some understanding of how little is known about Minnesota's spider fauna. A total of 530 species of the 543 with known occurrence in the state are represented by county-level data (97.6%). The number of species records in each of Minnesota's 87 counties ranges from 13-233 with an average of 59.3 species per county and a median of 49 species. Two counties have records of 20 spider species or fewer and eight counties have records of over 100 species. Dakota (115), Washington (124), Anoka (148), Ramsey (180) and Hennepin (233) Counties are part of the Twin Cities greater

metropolitan area. That has resulted in above average collecting (due to the University of Minnesota) and greater participation in the Spiders of Minnesota Project on iNaturalist. St. Louis County (170) has Minnesota's fifth largest city (Duluth) and is the largest county in Minnesota; it also has experienced higher than average collection efforts by the author. Clearwater County (157) contains the Itasca Field Station associated with the University of Minnesota which served for the site of the most thorough Minnesota spider survey that could be found (Heimer et al. 1984). Blue Earth County (193) has experienced greater collection efforts due to the fact that the author resides there.

Several notable species were collected by the author during the development of this checklist (and are deposited in the collection at Bethany Lutheran College). Since the distribution of spiders in North America is so poorly understood, many of the records contained in this paper expand the known distribution for several species. A few are highlighted below:

A female *Pholcus opilionoides* Schrank was collected from a woodland on the campus of Bethany Lutheran College in Mankato; this represented one of the first records of this species in North America. The voucher specimen can be viewed on BugGuide (<http://bugguide.net/node/view/765731>). Surprisingly, more females were collected in Sandstone, MN (Pine County) during the summer of 2015 and now is known from 12 counties in Minnesota.

A specimen of an undescribed member of *Chrysso* (Theridiidae) was collected in June 2015 near Jessenland, MN (<http://bugguide.net/node/view/1084981/bgpage>) during a bioblitz with the U. S. Fish and Wildlife Service. This specimen is deposited in the collection at Bethany Lutheran College awaiting formal description.

Several other collected specimens represented significant range expansions beyond that indicated in the literature: *Singa eugeni* Levi, *Anyphaena pectorosa* L. Koch, *Parasteatoda tabulata* Levi, and *Emblyna decapriini* (Kaston) to name a few. A male *Sphodros niger* Hentz was collected during a bioblitz and was the first confirmed naturally occurring mygalomorph for the state; this species is likely a resident in counties bordering the Mississippi River south of Minneapolis/St. Paul.

The challenge that involved the genus *Latrodectus* Walckenaer is worthy of being detailed here. Bruce Cutler (1973) indicates that *L. hesperus* (Chamberlin & Ivie 1935) and *L. mactans* (Fabricius 1775) occur as accidental introductions in imports. Denning (1937) indicates a collection of three female *Latrodectus* with one identified by R. V. Chamberlain as *L. mactans texanus*. The World Spider Catalog indicates synonymy of this name with *L. hesperus* which suggests this species may naturally occur. However, Levi (1959) indicates records of *L. variolus* Walckenaer, 1837 (as *L. curacaviensis* Muller 1776) from Wisconsin and South Dakota. He also indicates that the ranges of the other species do not approach Minnesota, suggesting that *L. variolus* is actually the most likely species to occur naturally in the state. A few photographs of

Latrodectus variolus have been sent to the author seem to confirm this assumption. Further efforts to collect specimens is warranted.

In conclusion, this checklist is intended to be a starting point for those wishing to know more about Minnesota's spider fauna. New species have been added to the list regularly as a result of collecting efforts which suggests that while extensive, this list is far from complete. In addition to further survey work, an effort should be made to confirm the identities of specimens held at the University of Minnesota. Please direct any corrections to the author.

ACKNOWLEDGEMENTS

I am most grateful for all the support that I received during the development of this checklist. Special thanks must be given to Dr. William J. Ehmann who was very helpful with Salticidae, permitted me the opportunity to join him in the field a couple of times, and read early drafts of this paper. I am also thankful for the encouragement I received from Bruce Cutler (who also read an earlier draft), Ron Huber, Kevin Pfeiffer, Dr. Daniel Mott of Texas A&M International University, Sparky Stensaas, Larry Weber and all the helpful araneologists at BugGuide. Thanks also to the UMSP insect collection for sharing their data. Thanks also needs to go to Bethany Lutheran College which has financially supported my research and given me time to work on it. Finally, thanks also must be expressed to my family who has collected spiders with me, supported me, and heard much more Latin from my mouth than they cared to. *Soli Deo Gloria*.

APPENDIX--Omissions

***Zygiella dispar* (Kulczynski, 1885)**—Records found in Gertsch 1964a and Levi 1974. Both of these authors suggested synonymy of *Z. dispar* with *Zygiella nearctica* Gertsch 1964 which is the likely species for Minnesota according to published ranges (Dondale et al. 2003). In this checklist is recorded as the latter.

***Bathyphantes nigrinus* (Westring, 1851)**—Record found in University of Minnesota collection (#V Ce 27.1). This specimen was collected in Stillwater, MN on 15 July 1933. Due to the strictly Palearctic distribution of this species, it has been excluded at this time and assumed to be a misidentification.

***Gonatium rubens* (Blackwall, 1833)**—Record found in Heimer et al., 1984. This species has a Palearctic distribution and this record is likely a case of a misidentified *G. crassipalpus* and has been recorded as such in this checklist.

***Mimetes syllepsicus* Hentz, 1832**—Records found in University of Minnesota collection (#V Ce 30.1, 30.2). These specimens were collected on 28-29 May 1934 in Itasca State Park. This species has a more southern distribution in North America and after conversations with Dr. Daniel Mott, it was concluded that they were likely misidentified. This species is omitted for now.

***Oecobius annulipes* Lucas, 1846**—Record found in Cutler, 1973. Personal communication with

Bruce Cutler has resolved that this specimen was initially misidentified. The checklist includes the correctly identified specimen as *O. navus* Blackwall, 1849.

***Philodromus aureolus* (Clerck, 1757)**—Numerous records were found in University of Minnesota collection (#V Ce 31.104, 31.147, 31.157, 31.158, 31.159, 31.160, 31.161, 31.162, 31.163, 31.41, 31.87, 31.89). This species has a Palearctic distribution and therefore these records likely represent misidentified specimens. This species is omitted for now.

***Admestina tibialis* (C. L. Koch, 1846)**—Record found in Heimer et al. 1984. Richman et al. 2012 has a range map that suggest this record was incorrect. In this checklist the record has been assigned to the more likely *Admestina wheeleri* (Peckham & Peckham 1888).

***Habronattus agilis* (Banks, 1893)**—Record found in Cutler 1977 and Ehmann & Boyd 1997. Richman et al. 2012 has a range map that indicates this species has a distribution along the Atlantic Coast of North America from Maine to North Carolina. This paper includes Cutler as an author and is assumed to be a correction of Cutler 1977. New Mexico State University has a specimen (#NMSUACA0001868) from 6 August 1977 collected by Cutler and is assumed to be the specimen in question. Ehmann has indicated his records were erroneous as well (personal communication).

***Neon plutonus* Gertsch & Ivie, 1955** –Record found in Richman & Cutler 1978. Richman et al.

2012 indicates possible synonymy with *N. ellamae* Gertsch & Ivie 1955 and indicates the latter has been recorded in Minnesota. It is assumed that this is a correction of the 1978 list.

***Phlegra fasciata* (Hahn, 1826)** –Record found in Cutler 1977. Richman et al. 2012 which

includes Bruce Cutler in its list of authors does not include this Palearctic species in the North American fauna but does include *P. hentzi* (Marx, 1890); this is simply a taxonomic change.

***Crustulina guttata* (Wider, 1934)** –Two records found in the University of Minnesota collection

(#V Ce 26.44, V Ce 26.45). This species has a Palearctic distribution according to the World Spider Catalog and therefore these records likely represent misidentified specimens. This species is omitted for now.

LITERATURE CITED

Aaseng, N. E., Almendinger, J. C., Dana, R. P., Hanson, D. S., Lee, M.D., Rowe, E. R., Rusterholz, K. A. and D. S. Wovcha. 2011. Minnesota's native plant community classification: A statewide classification of terrestrial and wetland vegetation based on numerical analysis of plot data. Biological Report No. 108. Minnesota County Biological Survey,

Ecological Land Classification Program, and Natural Heritage and Nongame Research Program. St. Paul: Minnesota Department of Natural Resources.

About Minnesota. Minnesota.gov. Accessed on 8 March 2013.

<http://mn.gov/portal/about-minnesota/>

Abraham, Barbara J. 1996. An annotated checklist of the spiders of northwestern Iowa and the Loess Hills of Western Iowa. *Journal of the Iowa Academy of Science*, 103:46-51.

Archer, Allan F. 1951a. Studies in the Orbweaving spiders (Argiopidae) 1. American Museum Novitates 1487: 1-52.

_____. 1951b. Studies in the Orbweaving spiders (Argiopidae) 2. American Museum Novitates 1502: 1-34.

Barnes, Robert D. 1958. North American jumping spiders of the subfamily Marpissinae (Araneae, Salticidae). American Museum Novitates 1867: 1-50.

Beatty, Joseph A. 2002. The Spiders of Illinois and Indiana, their geographic affinities, and an annotated checklist. *Proceedings of the Indiana Academy of Science* 1:77-94.

Bennett, R. G. 1988. The spider genus *Cybaeota* (Araneae, Agelenidae). *Journal of Arachnology* 16: 103-119.

Benell-Aitchison, C.W. and C.D. Dondale. 1990. A Checklist of Manitoba Spiders (Araneae) With Notes on Geographic Relationships. *Naturaliste canadien* 117:215-237. Northern Prairie Wildlife Research Center Online.
<http://www.npwrc.usgs.gov/resource/insects/spiders/index.htm> (Version 16JUL97).

Berman, J. D. & Herbert W. Levi. 1971. The orb weaver genus *Neoscona* in North America (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology at Harvard College* 141: 465-500.

Bishop, S. C. 1933. Studies in American spiders: The genus *Grammonota*. *Journal of the New York Entomological Society* 40:393-421.

Bishop, S.C. & C.R. Crosby. 1932. Studies in American spiders: The genus *Grammonota*. *Journal of the New York Entomological Society* 40: 393-421.

_____. 1935c. Studies in American spiders: miscellaneous genera of Erigoneae, part I. *Journal of the New York Entomological Society* 43 (2):217-281.

_____. 1938. Studies in American spiders: Miscellaneous genera of Erigoneae, Part II. *Journal*

of the New York Entomological Society 46 (1):55-107.

Blauvelt, H. H. 1936. The comparative morphology of the secondary sexual organs of *Linyphia* and some related genera, including a revision of the group. Festschrift zum 60: Geburtstag von Professor Dr. Embrik Strand 2: 81-171.

Bowling, T. A. & R. J. Sauer. 1975. A taxonomic revision of the crab spider genus *Coriarachne* (Araneida, Thomisidae) for North America north of Mexico. Journal of Arachnology 2:183-193.

Bradley, Richard A. 2013. Common Spiders of North America. University of California Press. 271 pages.

Brady, A. R. 1964. The lynx spiders of North America, north of Mexico (Araneae: Oxyopidae). Bulletin of the Museum of Comparative Zoology at Harvard College 131: 429-518.

_____. 1980. Nearctic species of the wolf spider genus *Trochosa* (Aranea: Lycosidae). Psyche 86: 167-212.

_____. 1987. Nearctic species of the new wolf spider genus *Gladicosa* (Araneae: Lycosidae). Psyche 93: 285-319.

_____. 2012. Nearctic species of the new genus *Tigrosa* (Araneae: Lycosidae). *Journal of Arachnology* 40 (2): 182-208.

Brady, A. R. & K. S. McKinley. 1994. Nearctic species of the wolf spider genus *Rabidosa* (Araneae: Lycosidae). *The Journal of Arachnology* 22: 138-160.

Buckle, D. J., D. Carroll, R. L. Crawford, & V. D. Roth. 2001. Linyphiidae and Pimoidae of America north of Mexico: checklist, synonymy, and literature. *Faberies*, Supplement 10: 89-191.

BugGuide. Identification, Images, & Information for Insects, Spiders & Their Kin for the United States and Canada. <http://www.bugguide.net>

Chamberlin, Ralph V. 1949. On some American spiders of the family Erigonidae. *Annals of the Entomological Society of America* 41: 483-562.

Chamberlin, Ralph V. & Willis J. Gertsch. 1930. On Fifteen New North American Spiders. *Proceedings of the Biological Society of Washington* 43:137-144.

_____. 1958. The spider family Dicytnidae in America north of Mexico. *Bulletin of the American Museum of Natural History* 116 (1):1-152.

Chamberlin, Ralph V. & W. Ivie. 1935. Miscellaneous new American spiders. *Bulletin of the University of Utah* 26(4): 1-79.

_____. 1940. Agelenid spiders of the genus *Cicurina*. *Bulletin of the University of Utah* 30(18): 1-108.

_____. 1941. North American Agelenidae of the genera *Agelenopsis*, *Calilena*, *Ritalena* and *Tortolena*. *Annals of the Entomological Society of America* 34: 585-628.

Churchill, Tracey B. 1997. Spiders as ecological indicators: an overview for Australia. *Memoirs of the Museum of Victoria*, 56(2):331-337.

Clausen, I.H.S. 1986. The use of spiders (Araneae) as ecological indicators. *British Arachnological Society*, 7(3):83-86.

Coddington, J. A. 1986. The genera of the spider family Theridiosomatidae. *Smithsonian Contributions to Zoology* 422: 1-96.

Crosby, C. R. & S. C. Bishop. 1925. Studies in New York spiders: Genera: *Ceratinella* and *Ceraticelus*. *New York State Museum Bulletin* 264:1-71.

_____. 1931. Studies in American spiders: genera *Comicularia*, *Paracornicularia*, *Tigellnus*, *Walckenaera*, *Epiceraticelus*, and *Pelecopsis* with descriptions of new genera and species. Journal of the New York Entomological Society 39:359-403.

_____. 1933. American spiders: Erigoneae, males with cephalic pits. Annals of the Entomological Society of America 26: 105-172.

_____. 1936. Studies in American spiders: Miscellaneous genera of Erigoneae. Festschrift für Professor Dr. Embrik Strand 2: 52-64.

Cutler, Bruce. 1971. Spiders from heading Blue Grass (*Poa pratensis* L.) in Roseau County, Minnesota. Michigan Entomologist 4:123-127.

_____. 1973. Synanthropic spiders (Araneae) of the Twin Cities area. Journal of the Minneosta Academy of Science 39:38-39.

_____. 1976. An annotated list of the spider families of Minnesota. Newsletter of the Association of the Minnesota Entomologists 9 (1, 2):7-8.

_____. 1977. Preliminary checklist of the Salticidae of Minnesota. Peckhamia 1(3):40.

_____. 1981. Noteworthy Minnesota spider records in 1980-81. Newsletter of the Association

of the Minnesota Entomologists 14 (3):14.

_____. 1987. A revision of the American species of the antlike jumping spider genus *Synageles* (Araneae, Salticidae). The Journal of Arachnology 15:321-348.

_____. 1990. Synanthropic Salticidae of the Northeast United States. Peckhamia 2(6):91-92.

_____. 2007. The identity of the small, widespread, synanthropic *Pholcus* (Araneae, Pholcidae) species in the northeastern United States. Transactions of the Kansas Academy of Science 110:129-131.

Cutler, Bruce, Grim, L.H. & H.M. Kulman. 1975. A study in the summer phenology of dionychious spiders from northern Minnesota. The Great Lakes Entomologist 8 (3):99-104.

Cutler, Bruce & Daniel T. Jennings. 1992. Habitat segregation by species of *Metaphidippus* (Araneae: Salticidae) in Minnesota. The Journal of Arachnology 20:88-93.

Denning, Donald. 1937. First record of the black widow spider in Minnesota. Science 86 (2233):350.

Denver Museum of Nature and Science. Colorado Spider Survey Database. Accessed 27 June

2012. <http://spiders.dmns.org/spiderlist.aspx>.

Dondale, Charles D. 1959. Definition of the genus *Grammonota* (Araneae: Erigonidae), with descriptions of seven new species. The Canadian Entomologist 91: 232-242.

_____. 1999. Revision of the *Groenlandica* subgroup of the genus *Pardosa* (Araneae, Lycosidae). The Journal of Arachnology 27:435-448.

Dondale, Charles D. & James H. Redner. 1968. The *imbecillus* and *rufus* groups of the spider genus *Philodromus* in North America (Araneida: Thomisidae). Memoirs of the Entomological Society of Canada 55: 1-78.

_____. 1975. The genus *Ozyptila* in North America (Araneida, Thomisidae). The Journal of Arachnology 2: 129-181.

_____. 1976. A rearrangement of the North American species of *Clubiona*, with descriptions of two new species (Araneida: Clubionidae). The Canadian Entomologist 108:1155-1165.

_____. 1978. The insects and arachnids of Canada, Part 5. The crab spiders of Canada and Alaska, Araneae: Philodromidae and Thomisidae. Research Branch, Agriculture Canada 1663:1-255.

_____. 1982. The insects and arachnids of Canada. Part 9: The Sac Spiders of Canada and Alaska (Araneae: Clubionidae and Anyphaenidae). Research Branch, Agriculture Canada 1724:1-194.

_____. 1986. The *coloradensis*, *xeramelina*, *laponica*, and *tesquorum* groups of the genus *Pardosa* (Araneae: Lycosidae) in North America. The Canadian Entomologist 118 (8):815-835.

_____. 1987. The *atrata*, *cubana*, *ferruginea*, *moesta*, *monticola*, *saltuaria*, and *solitude* groups of the spider genus *Pardosa* in North America (Araneae: Lycosidae). The Canadian Entomologist 119:1-19.

_____. 1990. The insects and arachnids of Canada, Part 17. The wolf spiders, nurseryweb spiders, and lynx spider of Canada and Alaska, Araneae: Lycosidae, Pisauridae, and Oxyopidae. Research Branch, Agriculture Canada, Publications 1856:1-383.

Dondale, Charles D., James H. Redner, P. Paquin & H. W. Levi. 2003. The insects and arachnids of Canada. Part 23: The orb-weaving spiders of Canada and Alaska (Araneae: Uloboridae, Tetragnathidae, Araneidae, Theridiosomatidae). NRC Research Press, Ottawa, 371 pages.

Dupérré, Nadine. 2013. Taxonomic revision of the spider genera *Agyneta* and *Tennesseeellum*

(Araneae, Linyphiidae) of North America north of Mexico with a study of the embolic division within Micronetinae *sensu* Saaristo & Tanasevitch 1996. Zootaxa 3674 (1): 1-189.

Dupérré, Nadine & Pierre Paquin. 2005. A new species of *Tapinocyba* (Araneae, Linyphiidae) with a redescription of *Tapinocyba minuta* (Emerton). Zootaxa 1069:33-45.

_____. 2007. Revision of the North American genus *Scirites* (Araneae, Linyphiidae). Zootaxa 1460:47-58.

Edwards, Robert J. 1958. The spider subfamily Clubioninae of the United States, Canada and Alaska (Araneae: Clubionidae). Bulletin of the Museum of Comparative Zoology at Harvard College 118:365-436.

Edwards, G. B. 2003a. A review of the Nearctic jumping spiders (Araneae: Salticidae) of the subfamily Euophryinae north of Mexico. Insecta Mundi 16: 65-75.

_____. 2004. Revision of the jumping spiders of the genus *Phidippus* (Araneae: Salticidae). Occasional Papers of the Florida State Collection of Arthropods 11:1-156.

Ehmann, W. J. 2002. Conservation biology of special concern jumping spiders (Araneae:

Salticidae) of Minnesota. Final Report submitted to the Natural Heritage and Nongame Research Program, Minnesota Department of Natural Resources, 11 pages. Viewed at http://files.dnr.state.mn.us/eco/nongame/projects/consgrant_reports/2002/2002_ehm_ann.pdf

_____. 2011. Reconnaissance for State-Listed Jumping Spiders (Araneae: Salticidae) in St. Louis and Lake Counties, Minnesota. Contractor report to Minnesota County Biological Survey, Department of Natural Resources, St. Paul. 11 pages.

_____. 2015. Personal communication 23 December 2015.

Ehmann, W. J. & Barbara E. Boyd. 1997. Surveys for Proposed Special Concern Jumping Spiders of Minnesota. Final report submitted to the Minnesota Department of Natural Resources, 17 pages. Viewed at http://files.dnr.state.mn.us/eco/nongame/projects/consgrant_reports/1998/1998_ehm_ann.pdf

Emerton, J. H. 1923. New spiders from Canada and the adjoining states, No. 3. The Canadian Entomologist 55:238-243.

Exline, Harriet. 1936. Nearctic spiders of the genus *Cicurina* Menge. American Museum Novitates 1850:1-25.

Exline, Harriet & Herbert W. Levi. 1962. American spiders of the genus *Argyrodes* (Araneae Theridiidae). Bulletin of the Museum of Comparative Zoology at Harvard College 127 (2):75-204.

Gertsch, Willis J. 1934a. Notes on American Lycosidae. American Museum Novitates 693:1-25.

_____. 1934b. Further notes on American spiders. American Museum Novitates 726: 1-26.

_____. 1936. Further diagnoses of new American spiders. American Museum Novitates 852:1-27.

_____. 1939b. A revision of the typical crab spiders (Misumeninae) of America north of Mexico. Bulletin of the American Museum of Natural History 76:277-442.

_____. 1946a. Notes on American spiders of the family Dictynidae. American Museum Novitates 1319:1-21.

_____. 1953. The spider genera *Xysticus*, *Coriarachne* and *Oxyptila* (Thomisidae, Misumeninae) in North America. Bulletin of the American Museum of Natural History 102:415-482.

_____. 1955. The North American bolas spiders of the genera *Mastophora* and *Agatostichus*.
Bulletin of the American Museum of Natural History 106 (4):221-254.

_____. 1964a. The Spider Genus *Zygiella* in North America (Araneae, Argiopidae). American
Museum Novitates 2188: 1-21.

_____. 1984. The spider family Nesticidae (Araneae) in North America, Central America, and
the West Indies. Bulletin of the Texas Memorial Museum, 31: 1-91.

Gertsch, Willis J. & Wilton Ivie. 1936. Descriptions of new American spiders. American Museum
Novitates 858: 1-25.

Gertsch, Willis J. & Norman I. Platnick. A revision of the American spiders of the family
Atypidae (Araneae, Mygalomorphae). American Museum Novitates 2704:1-39.

Gertsch, Willis J. & H. K. Wallace. 1935. Further notes on American Lycosidae. American
Museum Novitates 794:1-22.

Griswold, C. E. 1987. A revision of the jumping spider genus *Habronattus* F. O. P.-Cambridge
(Araneae; Salticidae), with phenetic and cladistic analyses. University of California
Publications in Entomology 107: 1-344.

Heimer, S., W. Nentwig, and Bruce Cutler. 1984. The spider fauna of the Itasca State Park (Minnesota, USA). *Faunistische Abhandlungen, Staatliches Museum für Tierkunde in Dresden* 11:119-124.

Helsdingen, P. J. Van. 1968. Comparative notes on the species of the Holarctic genus *Stemonyphantes* Menge (Araneida, Linyphiidae). *Zoologische Mededelingen, Rijksmuseum Van Natuurlijke Historie te Leiden* 43:117-139.

_____. 1969. A reclassification of the species of *Linyphia* Latreille based on the functioning of the genitalia (Araneida, Linyphiidae), Part I. *Zoologische Verhandelingen, Rijksmuseum Van Natuurlijke Historie te Leiden* 111:1-302.

iNaturalist. Connect to Nature. Last visited 10 November 2017. <http://www.inaturalist.org>

Ivie, Wilton. 1965. The spiders of the genus *Islandiana* (Linyphiidae, Erigoninae). *American Museum Novitates* 2221:1-25.

_____. 1969. North American spiders of the genus *Bathyphantes* (Araneae, Linyphiidae). *American Museum Novitates* 2364:1-70.

Jennings, Daniel T. & Bruce Cutler. 1996. Crab Spiders (Araneae: Philodroidae, Thomisidae) of

Ramsey County, Minnesota. United States Department of Agriculture, Report NC-185.
42 pages.

Kaston, B. J. 1946. North American spiders of the genus *Ctenium*. American Museum
Novitates 1306:1-19.

Leech, Robin E. 1972. A revision of the Nearctic Amaurobiidae (Arachnida: Araneida). Memoirs
of the Entomological Society of Canada 84:1-182.

Levi, Herbert W. 1951. New and rare spiders from Wisconsin and adjacent states. American
Museum Novitates 1501:1-41.

_____. 1954b. Spiders of the genus *Euryopsis* from North and Central America (Araneae,
Theridiidae). American Museum Novitates 1666:1-48.

_____. 1955. The spider genera *Coressa* and *Achaeearanea* in America north of Mexico
(Araneae, Theridiidae). American Museum Novitates 1718:1-33.

_____. 1957a. The spider genera *Enoplognatha*, *Theridion*, and *Paidisca* in America north of
Mexico (Araneae, Theridiidae). Bulletin of the American Museum of Natural History
112:1-124.

_____. 1957b. The spider genera *Crustulina* and *Steatoda* in North America, Central America, and the West Indies (Araneae, Theridiidae). Bulletin of the Museum of Comparative Zoology at Harvard College 117:367-424.

_____. 1957c. The North American spider genera *Paratheridula*, *Tekellina*, *Pholcomma* and *Archerius* (Araneae: Theridiidae). Transactions of the American Microscopical Society 76:105-115.

_____. 1959c. The spider genus *Latrodectus* (Araneae: Theridiidae). Transactions of the American Microscopical Society 78:7-43.

_____. 1963a. American spiders of the genera *Audifia*, *Euryopsis* and *Dipoena* (Araneae: Theridiidae). Bulletin of the Museum of Comparative Zoology at Harvard College 129:121-185.

_____. 1963b. American spiders of the genus *Achaeearanea* and the new genus *Echinotheridion* (Araneae, Theridiidae). Bulletin of the Museum of Comparative Zoology at Harvard College 129:187-240.

_____. 1964b. The spider genus *Thymoites* in America (Araneae: Theridiidae). Bulletin of the Museum of Comparative Zoology at Harvard College 130:445-471.

_____. 1966. American spider genera *Theridula* and *Paratheridula* (Araneae: Theridiidae). *Psyche* 78:123-130.

_____. 1968. The spider genera *Gea* and *Argiope* in America (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology at Harvard College* 136:319-352.

_____. 1971a. The *diadematus* group of the orb-weaver genus *Araneus* north of Mexico (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology at Harvard College* 141:131-179.

_____. 1971b. The orb-weaver genera *Singa* and *Hypsosinga* in America (Araneae: Araneidae). *Psyche* 78:229-256.

_____. 1973. Small Orb-Weavers of the Genus *Araneus* North of Mexico (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology at Harvard College* 145 (9):473-552.

_____. 1974a. The Orb-weaver genus *Zygiella* (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology at Harvard College* 146 (5):267-290.

_____. 1975a. The American orb-weaver genera *Larinia*, *Cercidia* and *Mangora* north of

Mexico (Araneae, Araneidae). Bulletin of the Museum of Comparative Zoology at Harvard College 147:101-135.

_____. 1975b. Additional notes on the orb-weaver genera *Araneus*, *Hypsosinga* and *Singa* north of Mexico (Araneae, Araneidae). Psyche 82: 265-274.

_____. 1977a. The American orb-weaver genera *Cyclosa*, *Metazygia* and *Eustala* north of Mexico (Araneae, Araneidae). Bulletin of the Museum of Comparative Zoology at Harvard College 148: 61-127.

_____. 1977b. The orb-weaver genera *Metepeira*, *Kaira* and *Aculepeira* in America north of Mexico (Araneae, Araneidae). Bulletin of the Museum of Comparative Zoology at Harvard College 148:185-238.

_____. 1980. The orb-weaver genus *Mecynogea*, the subfamily Metinae and the genera *Pachygnatha*, *Glenognatha* and *Azilia* of the subfamily Tetragnathinae north of Mexico (Araneae: Araneidae). Bulletin of the Museum of Comparative Zoology at Harvard College 149:1-74.

_____. 1981a. The American orb-weaver genera *Dolichognatha* and *Tetragnatha* north of

Mexico (Araneae: Araneidae, Tetragnathinae). Bulletin of the Museum of Comparative Zoology at Harvard College 149:271-318.

_____. 1981b. More on the genus *Araneus* from North America. Bulletin of the American Museum of Natural History 170:254-256.

Levi, Herbert W. & Howard M. Field. 1954. The Spiders of Wisconsin. American Midland Naturalist 51 (2):440-467.

Marusik, Yu. M. & D. V. Logunov. 1998. Taxonomic notes on the *Evarcha falcata* species complex (Aranei Salticidae). Arthropoda Selecta 6(3/4):95-104.

Miller, Jeremy A. 1999. Revision and cladistic analysis of the erigonine spider genus *Sisicottus* (Araneae, Linyphiidae, Erigoninae). The Journal of Arachnology 27:553-603.

Millidge, A. F. 1976. Re-examination of the erigonine spiders "*Micrargus herbigradus*" and "*Pocadicnemis pumila*" (Araneae: Linyphiidae). Bulletin of the British Arachnological Society 3:145-155.

_____. 1981a. The erigonine spiders of North America. Part 3: The genus *Scotinotylus* Simon (Araneae: Linyphiidae). The Journal of Arachnology 9:167-213.

_____. 1981b. The erigonine spiders of North America. Part 5: The genus *Satilatlas* (Araneae, Linyphiidae). Bulletin of the American Museum of Natural History 170:242-253.

_____. 1981c. A revision of the genus *Gonatium* (Araneae: Linyphiidae). Bulletin of the British Arachnological Society 5:253-277.

_____. 1983. The erigonine spiders of North America. Part 6: The genus *Walckenaeria* Blackwall (Araneae, Linyphiidae). The Journal of Arachnology 11:105-200.

_____. 1984. The erigonine spiders of North America. Part 7: Miscellaneous genera. Journal of Arachnology 12:121-169.

_____. 1985. Some linyphiid spiders from South America (Araneae, Linyphiidae). American Museum Novitates 2836:1-78.

_____. 1987. The erigonine spiders of North America. Part 8: The genus *Eperigone* Crosby and Bishop (Araneae, Linyphiidae). American Museum Novitates 2885:1-75.

Minnesota DNR, 1995. Statement of Need and Reasonableness in the Matter of Proposed Amendment of Minnesota Rules, Chapter 6134: Endangered and Threatened Species. Pages 108-116.

Muma, M. H. 1946. North American Agelenidae of the genus *Coras* Simon. American Museum Novitates 1329: 1-20.

_____. 1947. North American Agelenidae of the genus *Wadotes* Chamberlin. American Museum Novitates 1334: 1-12.

Museum of Comparative Zoology. MCZBase: The Database of the Zoological Collections.

Accessed 5 March 2013. <http://mczbase.mcz.harvard.edu/SpecimenSearch.cfm>

Opell, Brent. D. & Joseph A. Beatty. 1976. The Nearctic Hahniidae (Arachnida: Araneae). Bulletin of the Museum of Comparative Zoology at Harvard College 147:393-433.

Paquin, Pierre & Nadine Dupérré. 2003. Guide d'identification des araignées de Québec. Fabriques, Supplément 11: 1-251.

Pfeiffer, Kevin. 2012. Spiders of South Dakota. Accessed most recently on 21 April 2017. <http://spiders-of-south-dakota.tiros.net/>

Platnick, Norman I. 1974. The spider family Anyphaenidae in America North of Mexico. Bulletin of the Museum of Comparative Zoology, 146 (4):205-266.

_____. 1975. A revision of the Holarctic spider genus *Callilepis* (Araneae, Gnaphosidae). American Museum Novitates 2573:1-32.

_____. 2019. The Guardstone Spiders of the *Phrurotimpus palustris* Group (Araneae, Phrurolithidae). *American Museum Novitates* 3944:1-29.

Platnick, Norman I. & Charles D. Dondale. 1992. The insects and arachnids of Canada, Part 19: The ground spiders of Canada and Alaska (Araneae: Gnaphosidae). Research Branch, Agriculture Canada, 1875:1-297.

Platnick, Norman I. & John A. Murphy. 1984. A revision of the spider genera *Trachyzelotes* and *Urozelotes* (Araneae, Gnaphosidae). American Museum Novitates 2792:1-30.

Platnick, Norman I. & M. U. Shadab. 1974. A revision of the *tranquillus* and *speciosus* groups of the spider genus *Trachelas* (Araneae, Clubionidae) in North and Central America. American Museum Novitates 2553:1-34.

_____. 1975a. A revision of the spider genus *Gnaphosa* (Araneae, Gnaphosidae) in America. Bulletin of the American Museum of Natural History 155:1-66.

_____. 1975b. A revision of the spider genera *Haplodrassus* and *Orodrassus* (Araneae, Gnaphosidae) in North America. American Museum Novitates 2583:1-40.

- _____. 1976. A revision of the spider genera *Drassodes* and *Tivodrassus* (Araneae, Gnaphosidae) in North America. American Museum Novitates 2593:1-29.
- _____. 1977. A revision of the spider genera *Herpyllus* and *Scotophaeus* (Araneae, Gnaphosidae) in North America. Bulletin of the American Museum of Natural History 159:1-44.
- _____. 1980a. A revision of the North American spider genera *Nodocion*, *Litopyllus*, and *Synaphosus* (Araneae, Gnaphosidae). American Museum Novitates 2691:1-26.
- _____. 1980b. A revision of the spider genus *Cesonia* (Araneae, Gnaphosidae). Bulletin of the American Museum of Natural History 165:335-386.
- _____. 1981. A revision of the spider genus *Sergiolus* (Araneae, Gnaphosidae). American Museum Novitates 2717:1-41.
- _____. 1982. A revision of the American spiders of the genus *Drassyllus* (Araneae, Gnaphosidae). Bulletin of the American Museum of Natural History 173:1-97.
- _____. 1983. A revision of the American spiders of the genus *Zelotes* (Araneae, Gnaphosidae). Bulletin of the American Museum of Natural History 174:97-192.

_____. 1988. A revision of the American spiders of the genus *Micaria* (Araneae, Gnaphosidae). American Museum Novitates 2916:1-64.

Prószyński, J. 1973a. Revision of the spider genus *Sitticus* Simon, 1901 (Aranei, Salticidae), III, *Sitticus penicillatus* (Simon, 1875) and related forms. Annales Zoologici 30:71-95.

_____. 1980. A revision of the spider genus *Sitticus* Simon, 1901 (Aranei, Salticidae), IV, *Sitticus floricola* (C.L. Koch) group. Annales Zoologici 36:1-35.

Reiskind, Jonathan. 1969. The spider subfamily Castianeirinae of North and Central America (Araneae, Clubionidae). Bulletin of the Musuem of Comparative Zoology at Harvard College 138:163-325.

Richman, David. B. 1981. A revision of the genus *Habrocestum* (Araneae, Salticidae) in North America. Bulletin of the American Museum of Natural History 170:197-206.

_____. 1989. A revision of the genus *Hentzia* (Araneae, Salticidae). The Journal of Arachnology 17:285-344.

_____. 2008. Revision of the jumping spider genus *Sassacus* (Araneae, Salticidae, Dendryphantinae) in North America. The Journal of Arachnology 36:26-48.

Richman, David B. & Bruce Cutler. 1978. A List of the Jumping Spiders (Araneae: Salticidae) of the United States and Canada. *Peckhamia* 1 (5):82-110.

Richman, David B., Bruce Cutler, & David E. Hill. 2012. Salticidae of North America, including Mexico. *Peckhamia* 95.3.

Roth, V. D. & W. L. Brown, 1986. Catalog of Nearctic Agelenidae. *Occasional Papers of the Museum of Texas Tech University* 99: 1-21.

Sauer, R. J. & Norman I. Platnick. 1972. The crab spider genus *Ebo* (Araneida: Thomisidae) in the United States and Canada. *The Canadian Entomologist* 104: 35-60.

Schick, Robert X. 1969. The crab spiders of California (Araneida, Thomisidae). *The Bulletin of the American Museum of Natural History* 129 (1): 1-180.

Sierwald, Petra, Draney, Michael L., Prentice, Thomas, Pascoe, Frank, Sandlin, Nina, Lehman, Elizabeth M., Medland, Vicki, & James Louderman. 2005. The spider species of the Great Lakes states. *Proceedings of the Indiana Academy of Science* 114 (2):111-206.

Snider, R. J. 1991. A Preliminary List of the Spiders of Michigan. *Michigan Academician* XXIV, 201-246.

Stiles, Karl & Beulah Detwiler. 1939. Progress report on a survey of the spiders of Iowa.

Proceedings of the Iowa Academy of Sciences, 45:285-287.

Stiles, Karl & V. G. Stevens. 1941. Studies of eastern Iowa spiders. Proceedings of the Iowa Academy of Science, 47:333-342.

Stratton, G.E., G.W. Uetz & D. G. Dillery. 1979. A comparison of the spiders of three coniferous tree species. The Journal of Arachnology 6:219-226.

Ubick, D., P. Paquin, P.E. Cushing, and V. Roth (eds). 2005. *Spiders of North America: an identification manual*. American Arachnological Society. 377 pages.

University of Minnesota. Insect Collection—Spider Collection Card Catalog.

<http://www.insectcollection.org/>. Digitized card catalog was supplied by Dr.

Ralph Holzenthal, curator.

Vogel, Beatrice R. 1964. A taxonomic revision of the *distincta* group of the wolf spider genus *Pardosa* in America north of Mexico (Araneida, Lycosidae). Postilla 82: 1-30.

Weber, Larry. 2002. Spiders of the North Woods. Kollath-Stensaas Publishing, 216 pages.

Wallace, H. K. 1942. A study of the *lenta*-group of the genus *Lycosa* with descriptions of new

species. American Museum Novitates 1185: 1-21.

Wallace, H. K. & H. Exline. 1978. Spiders of the genus *Pirata* in North America, Central America and the West Indies (Araneae: Lycosidae). The Journal of Arachnology 5: 1-112.

World Spider Catalog (2015). World Spider Catalog. Natural History Museum Bern, online at <http://wsc.nmbe.ch>, version 16, accessed on 8 August 2019.