

# A CHECKLIST OF INDIANA COLLEMBOLA (HEXAPODA)

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**ABSTRACT:** Two hundred seventeen species of Collembola are reported from Indiana; forty species are reported for the first time. Original reference citations to first reports are provided as well as updated taxonomic citations. *Multivesicula harti* Rusek is newly combined in *Tullbergia* as *Tullbergia harti* (Rusek), **comb. nov.**

**KEYWORDS:** Checklist, Collembola, Indiana, *Multivesicula*, new combination, *Tullbergia*.

## INTRODUCTION

The first collembolan described from Indiana was *Sinella cavernarum* (Packard), which was discovered as part of a cave life study (Packard, 1888). Since that time, numerous species have been described from this State, largely through the collected efforts of Indiana workers such as R.F. Wilkey, L.P. Pedigo, J.W. Hart, and R.D. Waltz. Indiana may well be distinguished for having produced more Collembola workers than any other State.

This paper contains a checklist of the Indiana Collembola assembled through twenty-five years of research. Most of this work took place in east-central Indiana centered in and around Wayne County. However, collections from throughout the State have been studied and continue to form the basis for our mutual work. Much remains to be done.

Two hundred seventeen species are listed from Indiana; forty of the records are new. Several new species are awaiting description as of this writing, and as additional collections continue to be worked and studied, additional species will certainly be added to this checklist. Workers interested in collembolan biology should refer to the excellent works of Christiansen (1964), Maynard (1951), and Snider (1967). Papers have also been written on individual Indiana species (Fjellberg, 1987; Hart, 1979; Hart and Waltz, 1995; Pedigo, 1966, 1967, 1968, 1970a, 1970b; Waltz and Hart, 1987, 1995a, 1995c). Several other papers have been derived, at least in part, from the work in Indiana, including papers by Hart and Allamong (1979), Waltz (1997, in press), Waltz and Hart (1995b), and Waltz and McCafferty (1979).

Distributional county records are not provided in this report due to the authors' shared opinion that distributional records of Collembola, at this stage

of our knowledge, are artifacts of active collecting and have little biogeographic significance or other informational content. The taxonomy of many species is in flux, making comparisons of regional faunas based on earlier records of doubtful value. Furthermore, some species reported herein are not generally known from the Nearctic (e.g., *Stenacidia violacea* Reuter (in New York, Alberta, and Indiana) and *Hypogastrura palustris* Martynova (a Palearctic species)). Why these species should be reported from Indiana and not elsewhere in the Nearctic is not easily explained except as collecting artifacts. Christiansen (1990) and Christiansen and Bellinger (1980, 1981, 1992) provide the best treatment of species distributions in the Nearctic based on current taxonomic understandings.

Voucher specimens are deposited in either the Purdue Entomological Research Collection at Purdue University, West Lafayette, Indiana, or in the collection of R.D. Waltz, Indianapolis. Voucher specimens previously cited as being held at Earlham College in Richmond, Indiana, are now housed in the Purdue Entomological Research Collection.

#### CLASSIFICATION AND ANNOTATIONS

Some species, which appeared in the earlier literature, are not included in the current checklist (e.g., *Friesea pentacantha* Mills (Hart, 1971), *Isotomurus palustris* L. (Mills, 1934), *Hypogastrura armata* (Nicolet) (Wilkey, 1951), and many of the species listed by Arnett (1969)). These species either could not be verified due to a lack of voucher specimens, were misidentified, or have been the subjects of significant taxonomic revisions, placing the unvouchered original report in doubt because the specimen might represent any one of several newly recognized species.

The taxonomy of the Tullberginae is especially volatile, with many new genera being described from all parts of the world. The authors chose to use a conservative nomenclature for Nearctic *Tullbergia* Lubbock until a more synchronous and phyletically justified nomenclature becomes available. Therefore, *Multivesicula harti* Rusek has been placed in the genus *Tullbergia*, resulting in the new combination, *Tullbergia harti* (Rusek), **comb. nov.**

The checklist of Indiana Collembola follows closely the higher classification adopted by Christiansen and Bellinger (1980, 1981, 1992). Changes in nomenclature and new species described since Christiansen and Bellinger (1980, 1981, 1992) are reported. Junior subjective synonyms previously used for the Indiana species are cited beneath their current, nomenclaturally accepted senior synonym and form. Subgenera are indicated only when these genera are other than the most strict application of the genus (i.e., *sensu stricto*).

Several of the species identified are in doubt either because not enough material was available to reconcile the morphological differences discovered, or because the species are based on older records of ubiquitous species that are possibly inclusive of additional and more recently recognized taxa.

## CHECKLIST OF INDIANA COLLEMBOLA (HEXAPODA)

**Suborder Arthropleona****Superfamily Hypogastruroidea****Family Onychiuridae****Subfamily Tullbergiinae**

<i>Tullbergia ampla</i> Christiansen and Bellinger, 1980	Christiansen and Bellinger, 1980
<i>Tullbergia clavata</i> Mills, 1934	Hart, 1970
<i>Tullbergia granulata</i> Mills, 1934	Hart, 1970
<i>Tullbergia harti</i> (Rusek), 1991, <b>comb. nov.</b>	Rusek, 1991
<i>Tullbergia macrochaeta</i> (Rusek), 1976	Christiansen and Bellinger, 1980
<i>Tullbergia mala</i> Christiansen and Bellinger, 1980	Herein
<i>Tullbergia nulla</i> Christiansen and Bellinger, 1980	Christiansen and Bellinger, 1980
<i>Tullbergia pacifica</i> (Rusek), 1976	Christiansen and Bellinger, 1980
<i>Tullbergia ruseki</i> Christiansen and Bellinger, 1980	Christiansen and Bellinger, 1980
<i>Tullbergia yosiii</i> Rusek, 1976	Christiansen and Bellinger, 1980

**Subfamily Onychiurinae**

<i>Onychiurus (Protaphorura) bimus</i> Christiansen and Bellinger, 1980	Christiansen and Bellinger, 1980
<i>Onychiurus (Protaphorura) casus</i> Christiansen and Bellinger, 1980	Herein
<i>Onychiurus (Protaphorura) encarpatus</i> Denis, 1931	Hart, 1970
<i>Onychiurus fimetarius</i> group	Herein
<i>Onychiurus folsomi</i> (Schäffer), 1900	Herein
<i>Onychiurus opus</i> Christiansen and Bellinger, 1980	Christiansen and Bellinger, 1980
<i>Onychiurus (Protaphorura) parvicornis</i> Mills, 1934	Christiansen and Bellinger, 1980
<i>Onychiurus (Protaphorura) pseudarmatus</i> Folsom, 1917	Herein
<i>Onychiurus pseudofimetarius</i> Folsom, 1917	Christiansen and Bellinger, 1980
<i>Onychiurus ramosus</i> Folsom, 1917	Wilkey, 1950
<i>Onychiurus reluctus</i> Christiansen, 1961	Christiansen and Bellinger, 1980

<i>Onychiurus (Protaphorura) reus</i> Christiansen and Bellinger, 1980	Herein
<i>Onychiurus (Protaphorura) similis</i> Folsom, 1917	Christiansen and Bellinger, 1980
<i>Onychiurus (Protaphorura) subtenuis</i> Folsom, 1917	Hart, 1970
<b>Family Hypogastruridae</b>	
<i>Hypogastrura assimilis</i> (Krausbauer), 1898	Hart and Waltz, 1995
<i>Hypogastrura (Ceratoophysella) boletivora</i> (Packard), 1873	* Christiansen and Bellinger, 1980
<i>Hypogastrura cf. concolor</i> (Carpenter), 1900	Herein
<i>Hypogastrura (Ceratoophysella) denticulata</i> (Bagnall), 1941	Hart, 1974
<i>Hypogastrura distincta</i> (Axelson), 1902	Hart and Waltz, 1995
<i>Hypogastrura (Schoettella) glasgowi</i> (Folsom), 1916	Christiansen and Bellinger, 1980
<i>Hypogastrura harveyi</i> (Folsom), 1902 [= <i>H. indiana</i> Christiansen and Bellinger as a junior subjective synonym]	Hart and Waltz, 1995
<i>Hypogastrura (Mitchellania) hiawatha</i> (Yosii), 1962	Christiansen and Bellinger, 1980
<i>Hypogastrura (Mucrella) hibernica</i> Fjellberg, 1987	Fjellberg, 1987
<i>Hypogastrura (Mitchellania) horrida</i> Yosii, 1960	Waltz and Hart, 1987
<i>Hypogastrura itaya</i> Kinoshita, 1916	Christiansen and Bellinger, 1980
<i>Hypogastrura (Ceratoophysella) lucifuga</i> (Packard), 1888	Packard, 1888
<i>Hypogastrura manubrialis</i> (Tullberg), 1869	Hart and Waltz, 1995
<i>Hypogastrura matura</i> (Folsom), 1916	Mills, 1934
<i>Hypogastrura nivicola</i> (Fitch), 1847	Barton and Clark, 1920
<i>Hypogastrura packardi</i> (Folsom), 1902 [ <i>H. notha</i> (MacNamara) as junior subjective synonym]	Wilkey, 1950 Waltz and Hart, 1985
<i>Hypogastrura (Ceratoophysella) palustris</i> Martynova, 1978	Herein
<i>Hypogastrura simsi</i> Hart and Waltz, 1995	Hart and Waltz, 1995
<i>Hypogastrura sparta</i> Christiansen and Bellinger, 1980	Hart and Waltz, 1995
<i>Hypogastrura (Ceratoophysella) succinea</i> Gisin, 1949	Herein
<i>Hypogastrura (Schoettella) unguiculata</i> (Tullberg), 1869	Herein
<i>Microgastrura minutissima</i> (Mills), 1934	Herein
<i>Willemia similis</i> Mills, 1934	Hart, 1973

*Xenylla grisea* Axelson, 1900 Hart, 1973

*Xenylla humicola* (O. Fabricius), 1780 Pedigo, 1970b

### Suborder Nearthropleona

#### Family Brachystomellidae

*Brachystomella stachi* Mills, 1934 Pedigo, 1970a

#### Family Neanuridae

*Anurida granaria* (Nicolet), 1847 Hart, 1970

*Anurida (Micranurida) harti* Christiansen and Bellinger, 1980

*Friesea claviseta* Axelson, 1900 Hart, 1970

*Friesea sublimis* MacNamara, 1921 Hart, 1973

*Neanura barberi* (Handschin), 1928  
[as *N. pseudoquadrioculata* Stach] Hart, 1970

*Neanura muscorum* (Templeton), 1835 Christiansen and Bellinger, 1980

*Neanura persimilis* Mills, 1934 Hart, 1973

*Odontella (Xenyllodes) armata* (Axelson), 1903 Christiansen and Bellinger, 1980

*Odontella cornifer* Mills, 1934 Hart, 1971

*Paranura caeca* Folsom, 1916 Hart, 1973

*Paranura colorata* Mills, 1934 Hart, 1973

*Paranura millsii* Christiansen and Bellinger, 1980 Christiansen and Bellinger, 1980

*Pseudachorutes aureofasciatus* (Harvey), 1898 Pedigo, 1970a

*Pseudachorutes indiana* Christiansen and Bellinger, 1980 Christiansen and Bellinger, 1980

*Pseudachorutes lunatus* Folsom, 1916 Hart, 1973

*Pseudachorutes saxatilis* MacNamara, 1920 Pedigo, 1970b

*Pseudachorutes simplex* Maynard, 1951 Christiansen and Bellinger, 1980

*Pseudachorutes subcrassoides* Mills, 1934 Hart, 1973

### Superfamily Entomobryoidea

#### Family Isotomidae

*Agrenia cyanura* Fjellberg, 1986 Herein

*Agrenia bidenticulata* (Tullberg), 1876 Hart, 1973

<i>Anurophorus altus</i> Christiansen and Bellinger, 1980	Herein
<i>Anurophorus septentrionalis</i> Palissa, 1966 [as <i>A. laricis</i> Nicolet, 1842]	Hart, 1970
<i>Cryptopygus thermophilus</i> (Axelson), 1900 [as <i>Isotomina constricta</i> (Folsom), 1937]	Hart, 1970
<i>Dagamaea tenuis</i> (Folsom), 1937 [as <i>Isotomodes tenuis</i> ]	Hart, 1974
<i>Folsomia</i> cf. <i>bisetosa</i> Gisin, 1953	Herein
<i>Folsomia candida</i> Wilem, 1902	Herein
<i>Folsomia diplophthalma</i> (Axelson), 1902	Hart, 1971
<i>Folsomia elongata</i> (MacGillivray), 1896 [as <i>Holotoma elongata</i> ]	Hart, 1971
<i>Folsomia hoffi</i> Scott, 1961	Herein
<i>Folsomia nivalis</i> (Packard), 1873	Herein
<i>Folsomia onychiurina</i> (Denis), 1931	Herein
<i>Folsomia ozeana</i> Yosii, 1954	Herein
<i>Folsomia prima</i> Mills, 1931	Herein
<i>Folsomia quadrioculata</i> (Tullberg), 1871 [Removed Hart, 1973; Reinstated herein]	Hart, 1971
<i>Folsomia regularis</i> Hammer, 1953	Christiansen and Bellinger, 1980
<i>Folsomia stella</i> Grow and Christiansen, 1976	Christiansen and Bellinger, 1980
<i>Folsomides marchicus</i> (Frenzel), 1941 [generic placement questioned by Fjellberg, 1993]	Christiansen and Bellinger, 1980
<i>Folsomides parvulus</i> Stach, 1922 [as <i>F. parvus</i> Folsom, 1934; and <i>F. stachi</i> Folsom, 1934] [regarded as a synonym of <i>F. americana</i> Denis, 1931]	Fjellberg, 1993 Hart, 1971 Christiansen and Bellinger, 1980
<i>Isotoma (Desoria) albella</i> Packard, 1873	Waltz and Hart, 1995a
<i>Isotoma anglicana</i> Lubbock, 1862	Herein
<i>Isotoma (Vertagopus) arborea</i> (L.), 1758	Wilkey, 1950
<i>Isotoma (Vertagopus) arborea nigra</i> (MacGillivray), 1896 [record to be reevaluated = <i>I. (Desoria) sp.?</i> ]	Hart, 1973
<i>Isotoma (Vertagopus) beta</i> Christiansen and Bellinger, 1980	Christiansen and Bellinger, 1980

- Isotoma (Desoria) caeruleatra* Guthrie, 1903  
[as *I. violacea* f. *caeruleatra* (Guthrie), 1903] Wilkey, 1950
- Isotoma carpenteri* Börner, 1909  
[as *Heterisotoma andrei* (Mills), 1934] Hart, 1970
- Isotoma (Desoria) divergens* Axelson, 1900 Herein
- Isotoma (Desoria) fennica* Reuter, 1895 Herein
- Isotoma (Desoria) maxillosa* Fjellberg, 1978 Herein
- Isotoma (Pseudisotoma) monochaeta* Kos, 1942 Herein
- Isotoma (Desoria) nigrifrons* Folsom, 1937 Herein
- Isotoma (Desoria) nixonii* Fjellberg, 1978 Herein
- Isotoma (Desoria) notabilis* Schäffer, 1896 Herein
- Isotoma (Desoria) propinqua* Axelson, 1902 Herein
- Isotoma (Vertagopus) pseudocinerea* (Fjellberg), 1975  
[as *I. (V.) cinerea* (Nicolet), 1842] Wilkey, 1950
- Isotoma (Desoria) quadra* Christiansen and Bellinger, 1980 Christiansen and Bellinger, 1980
- Isotoma (Pseudisotoma) sensibilis* (Tullberg), 1876 Wilkey, 1950
- Isotoma (Desoria) subaequalis* Folsom, 1937 Herein
- Isotoma (Desoria) tigrina* Nicolet, 1842  
[as *I. tigrina olivacea* (Tullberg), 1871] Hart, 1973
- Isotoma (Desoria) torildae* Fjellberg, 1978 Herein
- Isotoma (Desoria) trispinata* MacGillivray, 1896 Pedigo, 1970a
- Isotoma (Desoria) truncata* Waltz and Hart, 1995 Waltz and Hart, 1995c
- Isotoma (Desoria) uniens* Christiansen and Bellinger, 1980 Herein
- Isotoma* cf. *variodontata* Dunger, 1982 Herein
- Isotoma viridis* Bourlet, 1839  
[also as *I. viridis* f. *catena* (Guthrie), 1903] Hart, 1971  
[*Spinisotoma dispersa* Wray, 1952, ecomorph] Folsom, 1937  
Hart, 1973 (*vide* Cassagnau, 1986)
- Isotomiella minor* (Schäffer), 1896 Hart, 1970
- Isotomodes falsus* Christiansen and Bellinger, 1980 Herein
- Isotomurus bimus* Christiansen and Bellinger, 1980  
[as *I. palustris balteatus* (Reuter)] Hart, 1974
- Isotomurus palustroides* Folsom, 1937 Wilkey, 1950

<i>Isotomurus (Hydroisotoma) schaefferi</i> (Krausbauer), 1898	Hart, 1971
<i>Isotomurus tricolor</i> (Packard), 1873	Herein
<i>Metisotoma grandiceps</i> (Reuter), 1891 [as <i>M. capitona</i> Maynard, 1951]	Hart, 1973
<i>Micrisotoma achromata</i> Bellinger, 1952	Christiansen and Bellinger, 1980
<i>Proisotoma (Appendisotoma) bulbosa</i> Folsom, 1937	Herein
<i>Proisotoma (Ballistura) ewingi</i> James, 1933	Christiansen and Bellinger, 1980
<i>Proisotoma (Ballistura) laticauda</i> Folsom, 1937	Herein
<i>Proisotoma minima</i> (Absolon), 1901 [as <i>P. americana</i> Mills, 1934]	Hart, 1971
<i>Proisotoma minuta</i> (Tullberg), 1871	Pedigo, 1970b
<i>Proisotoma (Ballistura) tuberculata</i> Stach, 1947 [as <i>P. nr. hankoi</i> Stach]	Hart, 1974
<i>Proisotoma (Appendisotoma) veca</i> (Wray), 1952	Herein
<i>Proisotoma (Ballistura) vernoga</i> (Wray), 1958	Hart, 1974
<i>Proisotoma (Appendisotoma) vesiculata</i> Folsom, 1937	Hart, 1978

#### Family Entomobryidae

##### Subfamily Entomobryinae

<i>Entomobrya assuta</i> Folsom, 1924	Wilkey, 1950
<i>Entomobrya atrocincta</i> Schött, 1896 [as f. <i>millsi</i> Bonet, 1942]	Hart, 1971
<i>Entomobrya clitellaria</i> Guthrie, 1903	Hart, 1973
<i>Entomobrya (Entomobryoides) dissimilis</i> Moniez, 1894	Christiansen and Bellinger, 1980
<i>Entomobrya gisini</i> Christiansen, 1958	Hart, 1973
<i>Entomobrya griseoolivata</i> (Packard), 1873	Pedigo, 1970b
? <i>Entomobrya marginata</i> (Tullberg), 1871	Wilkey, 1950
? <i>Entomobrya multifasciata</i> (Tullberg), 1872	Hart, 1971
? <i>Entomobrya nivalis</i> (L.), 1758	Wilkey, 1950
<i>Entomobrya (Entomobryoides) purpurascens</i> (Packard), 1873	Wilkey, 1950
<i>Lepidocyrtus cinereus</i> Folsom, 1924 [as <i>L. cyaneus</i> f. <i>cinereus</i> Folsom, 1924]	Pedigo, 1967



<i>Lepidocyrtus curvicollis</i> Bourlet, 1839	Pedigo, 1970a
<i>Lepidocyrtus cyaneus</i> Tullberg, 1871	Pedigo, 1970a
<i>Lepidocyrtus helenae</i> Snider, 1967	Christiansen and Bellinger, 1980
<i>Lepidocyrtus lanuginosus</i> (Gmelin), 1790	Pedigo, 1970a
<i>Lepidocyrtus lignorum</i> (Fabricius), 1775	Christiansen and Bellinger, 1980
<i>Lepidocyrtus pallidus</i> Reuter, 1890	Christiansen and Bellinger, 1980
<i>Lepidocyrtus</i> near <i>pallidus</i> Reuter, 1890	Pedigo, 1970b
<i>Lepidocyrtus paradoxus</i> Uzel, 1890	Pedigo, 1970b
<i>Lepidocyrtus unifasciatus</i> James, 1933	Hart, 1973
<i>Lepidocyrtus violaceus</i> Fourcroy, 1785	Christiansen and Bellinger, 1980
<i>Orchesella ainsliei</i> Folsom, 1924	Wilkey, 1950
<i>Orchesella flora</i> Christiansen and Tucker, 1977	Christiansen and Bellinger, 1980
<i>Orchesella folsomi</i> Maynard, 1933	Hart, 1974
<i>Orchesella hexfasciata</i> Harvey, 1895	Wilkey, 1950
<i>Orchesella zebra</i> Guthrie, 1903	Wilkey, 1950
<i>Pseudosinella argentea</i> Folsom, 1902	Christiansen and Bellinger, 1980
<i>Pseudosinella collina</i> Wray, 1952	Christiansen and Bellinger, 1980
<i>Pseudosinella rolfsi</i> Mills, 1932	Wilkey, 1950
<i>Pseudosinella violenta</i> (Folsom), 1924 [as <i>P. petterseni</i> Börner, 1901]	Wilkey, 1950 Pedigo, 1970a
<i>Sinella alata</i> Christiansen, 1960	Christiansen and Bellinger, 1980
<i>Sinella barri</i> Christiansen, 1960	Christiansen and Bellinger, 1980
<i>Sinella</i> ( <i>Coecobrya</i> ) <i>caeca</i> (Schött), 1896	Hart, 1973
<i>Sinella cavernarum</i> (Packard), 1888	Packard, 1888
<i>Willowsia buski</i> (Lubbock), 1870	Herein
<i>Willowsia nigromaculata</i> (Lubbock), 1873	Yosii, 1956
<b>Subfamily Paronellinae</b>	
<i>Salina banksii</i> MacGillivray, 1894	Pedigo, 1968

**Subfamily Tomocerinae**

<i>Tomocerus (Pogonognathellus) bidentatus</i> Folsom, 1913	Christiansen and Bellinger, 1980
<i>Tomocerus (Pogonognathellus) elongatus</i> Maynard, 1951	Pedigo, 1970a
<i>Tomocerus (Pogonognathellus) flavescens</i> (Tullberg), 1871 [as <i>T. flavescens separatus</i> Folsom, 1913]	Folsom, 1913 Hart, 1971
<i>Tomocerus (Tomocerina) lamelliferus</i> Mills, 1934	Hart, 1971
<i>Tomocerus minor</i> (Lubbock), 1862	Arnett, 1969
<i>Tomocerus vulgaris</i> (Tullberg), 1871	Hart, 1971

**Family Poduridae**

<i>Podura aquatica</i> L., 1758	Folsom, 1916
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**Suborder Symphypleona****Family Neelidae**

<i>Neelus (Neelides) minutus</i> (Folsom), 1901	Hart, 1973
<i>Neelus (Megalothorax) incertus</i> (Börner), 1903 [as <i>M. incertoides</i> Mills, 1936]	Hart, 1973

**Family Sminthuridae****Subfamily Sminthuridinae**

<i>Sminthurides aquaticus</i> (Bourlet), 1841	Hart, 1973
<i>Sminthurides aureolus</i> Maynard, 1951	Christiansen and Bellinger, 1981
<i>Sminthurides bifidus</i> Mills, 1934	Christiansen and Bellinger, 1981
<i>Sminthurides globocerus</i> Folsom and Mills, 1938	Hart, 1973
<i>Sminthurides hyogramme</i> Pedigo, 1966	Pedigo, 1966
<i>Sminthurides lepus</i> Mills, 1934	Pedigo, 1970a
<i>Sminthurides malmgreni</i> (Tullberg), 1876	Graves, 1960
<i>Sminthurides occultus</i> Mills, 1936	Hart, 1973
<i>Sminthurides pseudassimilis</i> Stach, 1956	Pedigo, 1970a
<i>Sminthurides weichseli</i> Christiansen and Bellinger, 1981	Christiansen and Bellinger, 1981
<i>Sphaeridia pumilis</i> (Krausbauer), 1898	Graves, 1960
<i>Stenacidia</i> cf. <i>violaceus</i> Reuter, 1881	Herein

**Subfamily Katianninae**

<i>Arrhopalites bimus</i> Christiansen, 1966	Christiansen, 1966
<i>Arrhopalites caecus</i> (Tullberg), 1871	Hart, 1973
<i>Arrhopalites whitesidei</i> Jacot, 1938	Christiansen and Bellinger, 1981
<i>Sminthurinus elegans</i> (Fitch), 1863	Pedigo, 1970a
<i>Sminthurinus elegans cancellus</i> Maynard, 1951	Hart, 1973
<i>Sminthurinus henshawi</i> (Folsom), 1896 [as <i>S. aureus</i> (Lubbock), 1862] [as <i>S. similitortus</i> Maynard, 1951] [as <i>S. aureus novus</i> Mills, 1934]	Wilkey, 1950 Pedigo, 1970a Hart, 1974
<i>Sminthurinus (Polykatiannina) intermedius</i> Snider, 1978	Christiansen and Bellinger, 1981
<i>Sminthurinus (Katiannina) macgillivrayi</i> (Banks), 1897	Wilkey, 1950
<i>Sminthurinus (Polykatiannina) polygonius</i> Snider, 1978	Christiansen and Bellinger, 1981
<i>Sminthurinus quadrimaculatus</i> (Ryder), 1878 [as <i>S. minutus</i> (MacGillivray), 1894] [as <i>S. niger</i> (Lubbock), 1868]	Hart, 1974 Hart, 1973 Hart, 1973

**Subfamily Sminthurinae**

<i>Bourletiella hortensis</i> (Fitch), 1863	Gould, 1945
<i>Bourletiella millsii</i> Pedigo, 1968	Pedigo, 1968
<i>Bourletiella (Deuterosminthurus) repandus</i> (Agren), 1903	Hart, 1973
<i>Bourletiella (Deuterosminthurus) russata</i> Maynard, 1951	Christiansen and Bellinger, 1981
<i>Bourletiella savona</i> Maynard, 1951	Christiansen and Bellinger, 1981
<i>Bourletiella (Pseudobourletiella) spinata</i> (MacGillivray), 1893 [as <i>P. chandleri</i> Pedigo, 1968]	Pedigo, 1968
<i>Bourletiella (Deuterosminthurus) yumanensis</i> Wray, 1967	Wray, 1967
<i>Neosminthurus clavatus</i> (Banks), 1987 [as <i>Sphyrotheca curvisetis</i> (Guthrie), 1903]	Graves, 1960
<i>Neosminthurus richardsi</i> Snider, 1978	Christiansen and Bellinger, 1981
<i>Sminthurus banksi</i> Christiansen and Bellinger, 1981 [as <i>S. dorsalis</i> Banks, 1899 nec Fitch, 1863]	Hart, 1974
<i>Sminthurus fitchi</i> Folsom, 1896 [as <i>S. trilineatus</i> Banks, 1903]	Pedigo, 1966
<i>Sminthurus medialis</i> Mills, 1934	Pedigo, 1970a

*Sminthurus sylvestris* Banks, 1899  
[as *S. fascialis* Banks, 1903]

Hart, 1973

*Sphyrotheca minnesotensis* (Guthrie), 1903

Pedigo, 1970a

#### Subfamily Dicyrtominae

*Dicyrtoma (Ptenothrix) atra* (Linne), 1758  
[as *P. unicolor* (Harvey), 1893]

Wilkey, 1950

*Dicyrtoma flammea* Maynard, 1951

Hart, 1973

*Dicyrtoma hageni* (Folsom), 1896

Christiansen and Bellinger, 1981

*Dicyrtoma (Ptenothrix) marmorata* (Packard), 1873  
[as *P. oswegatchiensis* Maynard, 1951]

Pedigo, 1970a  
Hart, 1973

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