



## Kip Fleming/Misery Bay Alvar Insect Survey

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The following is a synopsis of the activities and findings of the insect survey undertaken in 2010 on Manitoulin Island at the Kip Fleming Tract alvar and the Misery Bay Provincial Park alvar.

### **Collections**

Our collection activities ran from 27 May to the 29 September 2010 at both Kip Fleming and Misery Bay Provincial Park (see Appendices 1 and 2, respectively, for collection activities at each site). Malaise traps were set up at both locations with long-term pan traps below them on the initial visit to the site. An additional two malaise traps and one raised-emergence trap were set at Kip Fleming on 15 June along with an additional set of long term pan traps were set up at Kip Fleming along a fallen log. All of these traps, once set, ran the remainder of the season and were serviced by the collaborative efforts of Stephen Marshall, Steven Paiero, Robert Pivar and Thomas Moore. Opportunistic collections of vegetation sweeps, hand collections, and the use of additional pan traps were also done during visits to the sites. These site visits were especially important in sampling some of the taxa which are not as readily sampled with malaise traps, including some of the aculeate wasp fauna and certain plant-associated species that rarely venture far from their hosts.

### **Activity since the summer**

Since the end of the field season, a significant portion of time has gone into the preparation (drying, mounting, database entry and labeling) of the remaining material so that it may be examined and, in some taxa, sent out for identification by experts in those groups. Rob Pivar and Steve Paiero have been responsible for the larger portion of identifications. The following material was sent to experts outside of the University of Guelph Insect Collection for identification:

Dolichopodidae – Scott Brooks, Canadian National Collection  
Empididae – Jeff Cumming, Canadian National Collection  
Tachinidae – Monty Wood, Canadian National Collection  
Agromyzidae – Owen Lonsdale, Canadian National Collection  
Muscidae/Anthomyiidae – Jade Savage, Bishops University  
Carabidae – Henri Goulet, Canadian National Collection  
Elateridae (only a handful of problem groups) – Hume Douglas, C.F.I.A. (Ottawa)  
Crabronidae/Sphecidae/Pompilidae – Matthias Buck, Royal Alberta Museum  
Proctotrupoidea – Lubomir Masner, Canadian National Collection



### “The Numbers”

In total, 8235 specimens (6209 from Kip Fleming, 2026 from Misery Bay including 165 specimens collected previously) were sampled, mounted and labelled from the various trap residues. Of these, 6688 have been identified to the genus or species level, as of 6 April 2011, and had their identifications entered into the database. An additional 143 specimens (Agromyzidae) have been identified but are being retained for further study and will have their information entered after that material has been returned.

### Species of Interest

A total of 1132 taxa (929 from Kip Fleming, 596 from Misery Bay) have currently been identified (see Appendices 3 and 4 for a complete species list for each site as of 26 Nov 2010). The Agromyzidae have been identified (see Appendix 5 for a species list from both sites combined) and comprise an additional 27 species but are being retained for further study (as these determinations have yet to be included into the BIOTA database, a site specific list of the group is not yet available). Of those species, some of the more notable finds (arranged within Order) are discussed below.

#### *Orthoptera (Grasshoppers and their allies)*

The majority of the orthopteroids collected during this study are widespread and relatively common species encountered in a variety of habitats in Ontario and not of particular note. Two of them (*Trimerotropis verruculata*, *Encotolophus sordidus*) are associated with dry open areas and can occur in large numbers when they are found. The most significant grasshopper found was *Melanoplus dawsoni*, which is uncommon, but not rare, in Ontario and usually found in association with dry native grasslands (such as pine barrens or dry prairies).

#### *Hemiptera (True Bugs)*

*Trichopepla atricornis* (Pentatomidae) is currently unrecorded from Ontario (although it has previously been collected from nearby Barrie Island). It has been collected off a variety of plants (*Daucus carota*, *Zizia aurea*, *Erigeron ramosus*, *Eryngium*, and associations of *Stipa spartea*-*Andropogon scoparius* and *Andropogon furcatus*-*Spartina michauxiana*) but we found it almost exclusively on smoke flower (*Geum triflorum*). It was recorded previously from BC to MB so this is the eastern most record of *T. atricornis* in Canada (in the US, it is known as far east as Michigan and Ohio).

*Orectoderus obliquus* (Miridae) is an widespread ant mimic that are associated with the plant *Penstemon procerus*-*brachycanthus*. Oddly, there are very few records of this species in Ontario although this may be a result of poor sampling.

*Sixenotus insignis* (Miridae), collected from Misery Bay, is a new record for Ontario. It is a rarely collected eastern species that was previously recorded in Quebec. No information on its biology is currently available.

*Malliochiola gagates* (Microphysidae) is a rare species, taken in North America previously from Mexico and Washington D.C.; its collection at the Kip Fleming Tract represents a new Canadian record. Although rare, this species is apparently widespread. Although no biological data is available for this species, other members of this family appear to be associated with lichens.

*Fitchia aptera* (Reduviidae) is known in Ontario only from a handful of grassland sites, both disturbed and natural. Although uncommonly collected, the interesting thing of its occurrence is the abundance of this species on the alvar. Previous collections were largely single specimens but large numbers were collected in pans and also observed beneath rocks.

*Calophya triozmima* (Calophyidae) feeds on aromatic sumac and is not well documented in the east. Its presence in the east is one of debate as is some thought that it has been introduced to the east, having no historical collections from there. The other thought is that it has been here all the time but that it has not been collected due to the resemblance of its host plant with poison ivy and the avoidance of collectors to chance exposure to poison ivy.



*Idiocerus monoliferae* (Cicadellidae) was collected from the Kip Fleming Tract and is an Ontario record (previously recorded from SK and MB). It is recorded as feeding on Eastern Cottonwood (*Populus deltoides*) but may potentially feed on other species of *Populus*.

*Mocuellus americanus* and *Texananus marmor* (Cicadellidae) are both grassland-associated leafhoppers that have been found on several alvar communities on Manitoulin Island. *Mocuellus americanus*, collected at Misery Bay, feeds on Slender Wheatgrass (*Elymus trachycaulus*) and *T. marmor*, collected at Kip Fleming, feeds on Creeping Juniper (*Juniperus horizontalis*).

*Calliodis temnostethoides* (Anthocoridae), collected at the Kip Fleming Tract, is an uncommon to rare species that is usually found under bark where it likely feeds on a variety of small insects.

#### *Coleoptera (Beetles)*

*Chlaenius purpuricollis* (Carabidae) is an alvar associate that was previously known to occur on Manitoulin. It was collected at both sites but was notably more abundant on the Kip Fleming Tract. Discussions with the ground beetle expert whom is identifying the material indicated that there were several great finds but his examination of the material was not yet complete and no species list was available at the time of this report except *C. purpuricollis*.

Of the tiger beetles collected, both *Cicindela longilabris* and *C. purpurea* are notable as being uncommon species. Several specimens of *C. sexguttata* were initially mistaken for *C. denikei* in part due to the habitat association and no specimens of *C. denikei* were collected at either of the sites. The separation of these two species can be problematic but closer examination of the material found that the species was indeed *C. sexguttata*.

Other species of note include *Byrrhus americanus* (Byrrhidae), which was extremely abundant on the alvar (especially under rocks). Usually this species is found in small populations in wet areas but during visits to the site, they were commonly encountered beneath stones. It may be that the periodical rains and saturation of the soil allows the conditions to be favourable to this species.

*Euphoria fulgida* (Scarabaeidae), a bright green scarab, was found at Misery Bay in a few little areas. This species is not rare but is uncommonly encountered in Ontario. It is also a known host of *Pyrgota undata*, a species of fly that is rarely encountered in Ontario and has also been recorded from the alvar survey.

*Agrius amelanchieri* (Buprestidae), collected from Kip Fleming, represents a new Canadian record for this species. The larvae develop on serviceberry (*Amelanchier*) which is not known from the site and makes *A. amelanchieri*'s presence there questionable. The single specimen that was taken has been compared to the literature but needs to be compared to other identified material to verify its identity for certain. It is otherwise known only from Michigan and Pennsylvania.

For an overview of the rove beetles (Staphylinidae) from the survey, see Appendix 6, written up by A. Brunke. Please note that the use of "alvar species #" denotes a morpho-species from this survey project that, currently, is not identified to species. It is not meant to denote that this species is considered an alvar specialist nor does it indicate that this is an undescribed species. This is a comprehensive treatment of all the staphylinids taken during the survey.

#### *Diptera (True Flies)*

Two of the true fruit flies (Tephritidae) collected during this study have only recently been recorded to Ontario and both are known only from a few localities in the province. *Rhagoletis juniperina* is a rarely collected species, known only from the Bruce Peninsula and, now, Manitoulin Island. Its larvae are known to develop in the fruits of junipers. *Neospilota footei* is known from 3 or 4 other localities in Ontario with native grassland affinities and its larvae are known to develop on *Erigeron canadensis* and *Chrysothamnus*.

*Pyrgota undata* (Pyrgotidae) is a parasite of scarabs that is rarely encountered in southern Ontario. It was surprising to find this species this far north and its collection on Manitoulin may represent one of the northernmost records of this species.



Several of the leaf miner flies (Agromyzidae) belong to undescribed species and several more are currently thought to belong to species whose distribution is significantly disjunct from Manitoulin (see appendix 5). Some of these species may represent more widespread species whose distribution and biology is poorly known but the material requires further study before any further conclusions can be drawn.

A few of the uncommonly collected species identified so far include: the windowfly *Metatrichia bulbosa* (Scenopinidae) which is an apparently rarely collected insect in Ontario with only a few scattered collections from the province; *Sciapus delicatus* (Dolichopodidae) is a rarely collected species in Ontario (Scott Brooks, pers. comm.); the flower flies (Syrphidae) *Sericomyia transversa* and *Doros aequalis* are uncommonly collected but are widespread in their distribution.

#### *Hymenoptera (Wasps, sawflies and their relatives)*

Of the parasitic wasps identified presently, a few specimens of the scelionid *Idris* were of note as they were an odd colour variety not previously seen by the Dr. Masner. This genus is undergoing a large revision currently, including many previously undescribed species, and these specimens may represent one of these undescribed species. The specimens are being retained for further study at the Canadian National Collection.

In the aculeate Hymenoptera, several rarely collected crabronid species include *Didineis dilata* (previously only known from one specimen in Ontario), *Crabro snowii* (only three Ontario specimens) and *Lindenius armaticeps*. The thrips hunting *Ammoplannus lenape*, previously known in Ontario only from Barrie Island, was collected in some numbers at Misery Bay (although the specimens may represent another species and are being sent off to an expert, who just revised the group, for confirmation). The spider wasp (Pompilidae) *Priocnemis aequalis* is a northern species that was previously not known this far south in Ontario. The roach hunter, *Ampulex canicularius*, is rarely collected in Ontario and its presence on Manitoulin Island represents one of the northern most records of this species. Finally, the ground-nesting bee *Dufourea maura* is a rarely encountered both in Ontario and throughout its entire range. At the present time, it is not known on the exact number of sites in Ontario it is known from and what flowers it visits (but the literature seems to consider it likely to be an oligolege, which means it visits a restricted range of flowers) but further information this will be available soon as a paper dealing with this genus in Canada is in preparation (Cory Sheffield, pers. comm.).

#### **Identifications Pending**

Of the approximately 1380 specimens still unidentified, ~250 specimens are still on loan to several experts, and 143 have been identified but not entered into the database as the material is being retained for further study. The remaining material consists largely of parasitic Hymenoptera and a few small series of groups that remain to be identified.

Some material has been identified to the generic level and will certainly yield additional taxa but at the present time, the resources (taxonomic keys or expertise) to identify this material farther are not available. The large proportion of unidentified material belongs to the parasitic Hymenoptera.



### Appendix 1. A list of all collection activities at the Kip Fleming Tract.

CollectionCode	DateCollected	DateCollEnd	Habitat/Site	Collection Method	CollectedBy
con02101/20100527b	27/05/2010	29/05/2010	oak savannah/alvar		A. Brunke
con02101/20100527b2	27/05/2010	29/05/2010	oak savannah/alvar	in dung	A. Brunke
con02101/20100527b3	27/05/2010	29/05/2010	oak savannah/alvar	under stones	A. Brunke
con02101/20100527jp	27/05/2010	03/06/2010	oak savannah	pans nr. log	Marshall et al.
con02101/20100527m	27/05/2010	29/05/2010	oak savannah/alvar		S.A. Marshall
con02101/20100527mp	27/05/2010	03/06/2010	oak savannah/alvar	malaise pans	Marshall et al.
con02101/20100527mt1	27/05/2010	29/05/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100527p	27/05/2010	29/05/2010	oak savannah/alvar		S.M. Paiero
con02101/20100527p2	27/05/2010	29/05/2010	oak savannah/alvar	under stones	S.M. Paiero
con02101/20100527pi	27/05/2010	29/05/2010	oak savannah/alvar		R.J. Pivar
con02101/20100528	28/05/2010	00/00/00	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100528pp	28/05/2010	29/05/2010	oak savannah/alvar	pan trap	Paiero & Pivar
con02101/20100529mt1	29/05/2010	15/06/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100603p	03/06/2010	15/06/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100615	15/06/2010	00/00/00	oak savannah/alvar	Sweeps	S.A. Marshall
con02101/20100615m2	15/06/2010	00/00/00	oak savannah/alvar		S.A. Marshall
con02101/20100615mt1	15/06/2010	21/06/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100615mt2	15/06/2010	02/07/2010	oak savannah/alvar	malaise trap 2	Marshall et al.
con02101/20100615mt3	15/06/2010	02/07/2010	alvar	malaise trap 3	Marshall et al.
con02101/20100615p	15/06/2010	21/06/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100615ret	15/06/2010	16/07/2010	oak savannah/alvar	RET over burrow	Marshall et al.
con02101/20100621mt1	21/06/2010	02/07/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100621p	21/06/2010	03/07/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100702asp	02/07/2010	03/07/2010	alvar-savannah transition	yellow pans	Paiero & Pivar
con02101/20100702b	02/07/2010	00/00/00	oak savannah/alvar		K.N. Barber
con02101/20100702ma	02/07/2010	00/00/00	oak savannah/alvar		S.A. Marshall
con02101/20100702mt1	02/07/2010	16/07/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100702mt2	02/07/2010	16/07/2010	oak savannah/alvar	malaise trap 2	Marshall et al.
con02101/20100702mt3	02/07/2010	16/07/2010	alvar	malaise trap 3	Marshall et al.
con02101/20100702pa	02/07/2010	03/07/2010	oak savannah/alvar		S.M. Paiero
con02101/20100702papi	02/07/2010	03/07/2010	alvar	pan trap	Paiero & Pivar
con02101/20100702papiep	02/07/2010	03/07/2010	alvar/savannah edge	yellow pans	Paiero & Pivar
con02101/20100702pi	02/07/2010	03/07/2010	oak savannah/alvar		R.J. Pivar
con02101/20100702sp	02/07/2010	03/07/2010	oak savannah	yellow pans	Paiero & Pivar
con02101/20100702wp	02/07/2010	03/07/2010	oak savannah/alvar	white pans	Paiero & Pivar
con02101/20100703lp	03/07/2010	12/07/2010	oak savannah/alvar	pans nr. log	Marshall et al.
con02101/20100703p	03/07/2010	12/07/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100712lp	12/07/2010	16/07/2010	oak savannah/alvar	pans nr. log	Marshall et al.
con02101/20100712mp	12/07/2010	16/07/2010	oak savannah/alvar	malaise pans	Marshall et al.
con02101/20100716ltp	16/07/2010	20/07/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100716ma	16/07/2010	00/00/00	oak savannah/alvar		S.A. Marshall
con02101/20100716ret	16/07/2010	30/08/2010	oak savannah/alvar	RET over burrow	Marshall et al.
con02101/20100720ltp	20/07/2010	29/07/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100727mt1	27/07/2010	05/08/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100727mt2	27/07/2010	05/08/2010	oak savannah/alvar	malaise trap 2	Marshall et al.
con02101/20100727mt3	27/07/2010	05/08/2010	alvar	malaise trap 3	Marshall et al.
con02101/20100729ltp	29/07/2010	05/08/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100805	05/08/2010	00/00/00	oak savannah/alvar		S.M. Paiero
con02101/20100805ltp	05/08/2010	23/08/2010	oak savannah/alvar	pan trap	Marshall et al.
con02101/20100805m2	05/08/2010	30/08/2010	oak savannah/alvar	malaise trap 2	Marshall et al.
con02101/20100805m3	05/08/2010	30/08/2010	alvar	malaise trap 3	Marshall et al.
con02101/20100805mt1	05/08/2010	30/08/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100823lp	23/08/2010	30/08/2010	oak savannah/alvar	pans nr. log	Marshall et al.
con02101/20100823mp	23/08/2010	30/08/2010	oak savannah/alvar	malaise pans	Marshall et al.
con02101/20100830m	30/08/2010	00/00/00	oak savannah/alvar	Sweeps	S.A. Marshall
con02101/20100830mp	30/08/2010	05/09/2010	oak savannah/alvar	Pans	Marshall et al.
con02101/20100830mt1	30/08/2010	29/09/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100830mt2	30/08/2010	29/09/2010	oak savannah/alvar	malaise trap 2	Marshall et al.
con02101/20100830mt3	30/08/2010	29/09/2010	alvar	malaise trap 3	Marshall et al.
con02101/20100830ret	30/08/2010	29/09/2010	oak savannah/alvar	RET over burrow	Marshall et al.
con02101/20100905	05/09/2010	29/09/2010	oak savannah/alvar	malaise pans	Marshall et al.
con02101/20100905mt1	05/09/2010	29/09/2010	oak savannah/alvar	malaise trap 1	Marshall et al.
con02101/20100905mt2	05/09/2010	29/09/2010	oak savannah/alvar	malaise trap 2	Marshall et al.
con02101/20100905mt3	05/09/2010	29/09/2010	alvar	malaise trap 3	Marshall et al.
con02101/20100929	29/09/2010	00/00/00	oak savannah/alvar	ex. sifted litter	S.M. Paiero
con02101/20100929m	29/09/2010	00/00/00	alvar		S.A. Marshall



Appendix 2. A list of all collection activities at Misery Bay Provincial Park.

CollectionCode	DateCollected	DateCollEnd	Habitat/Site	Collection Method	CollectedBy
con02102/20100527	27/05/2010	00/00/00	alvar	under rock	R.J. Pivar
con02102/20100527b	27/05/2010	00/00/00	alvar		A. Brunke
con02102/20100527m	27/05/2010	00/00/00	alvar		S.A. Marshall
con02102/20100527mp	27/05/2010	03/06/2010	alvar	malaise pans	Marshall et al.
con02102/20100527pa	27/05/2010	00/00/00	alvar		S.M. Paiero
con02102/20100527pa2	27/05/2010	00/00/00	in lake nr. shore		S.M. Paiero
con02102/20100528mt	28/05/2010	03/06/2010	alvar	malaise trap	Pivar et al.
con02102/20100603mp	03/06/2010	15/06/2010	alvar	malaise pans	Marshall et al.
con02102/20100603mt	03/06/2010	15/06/2010	alvar	malaise trap	Pivar et al.
con02102/20100615m	15/06/2010	02/07/2010	alvar	malaise trap	Pivar et al.
con02102/20100615ma	15/06/2010	00/00/00	alvar		S.A. Marshall
con02102/20100615ma2	15/06/2010	00/00/00	fen	Sweep	S.A. Marshall
con02102/20100615mp	15/06/2010	21/06/2010	alvar	malaise pans	Marshall et al.
con02102/20100615mt	15/06/2010	02/07/2010	alvar	malaise trap	Pivar et al.
con02102/20100615x	03/06/2010	15/06/2010	alvar	malaise trap	Pivar et al.
con02102/20100621mp	21/06/2010	05/07/2010	alvar	malaise pans	Marshall et al.
con02102/20100702ma	02/07/2010	00/00/00	alvar		S.A. Marshall
con02102/20100704ltp	04/07/2010	11/07/2010	alvar	malaise pan traps	Marshall et al.
con02102/20100704pa	04/07/2010	05/07/2010	alvar		S.M. Paiero
con02102/20100704papiwp	04/07/2010	05/07/2010	alvar	white pans	Paiero & Pivar
con02102/20100704papiyp	04/07/2010	05/07/2010	alvar	yellow pans	Paiero & Pivar
con02102/20100704pi	04/07/2010	05/07/2010	alvar		R.J. Pivar
con02102/20100711ltp	11/07/2010	27/07/2010	alvar	malaise pan traps	Marshall et al.
con02102/20100727ltp	27/07/2010	05/08/2010	alvar	malaise pan traps	Marshall et al.
con02102/20100727mt	27/07/2010	05/08/2010	alvar	malaise trap	Pivar et al.
con02102/20100805	05/08/2010	00/00/00	alvar		S.M. Paiero
con02102/20100805mt	05/08/2010	29/09/2010	alvar	malaise trap	Pivar et al.
con02102/20100805pt	05/08/2010	20/08/2010	alvar	malaise pans	Marshall et al.
con02102/20100820	20/08/2010	05/09/2010	alvar	malaise pans	Marshall et al.
con02102/20100905mp	05/09/2010	29/09/2010	alvar	malaise pans	Marshall et al.
con02102/20100929	29/09/2010	00/00/00	alvar		S.M. Paiero
con02102/20100929m	29/09/2010	00/00/00	alvar		S.A. Marshall





Appendix 3. A list of the species collected at Kip Fleming Tract in 2010 (as of 6 April 2011).

Order	Family	Genus Species/SubSp/Var Author
Coleoptera	Anobiidae	<i>Caenocara</i>
Coleoptera	Anobiidae	<i>Dorcatoma pallicornis</i> LeConte
Coleoptera	Buprestidae	<i>Agrilus amelanichier</i> Knull
Coleoptera	Buprestidae	<i>Agrilus cuprescens</i> Ménétries
Coleoptera	Buprestidae	<i>Agrilus</i>
Coleoptera	Buprestidae	<i>Brachys aerosus</i> Melsheimer, 1845
Coleoptera	Buprestidae	<i>Brachys ovatus</i> (Weber, 1801)
Coleoptera	Buprestidae	<i>Buprestis maculativentris</i> Say, 1824
Coleoptera	Buprestidae	<i>Chrysobothris femorata</i> (Olivier, 1790)
Coleoptera	Buprestidae	<i>Chrysobothris sexsignata</i> (Say, 1839)
Coleoptera	Byrrhidae	<i>Byrrhus americanus</i> LeConte
Coleoptera	Byrrhidae	<i>Cytillus alternatus</i> (Say)
Coleoptera	Cantharidae	<i>Ancistroryncha bilineata</i> (Say)
Coleoptera	Cantharidae	<i>Cantharis rufa</i> Linneus
Coleoptera	Cantharidae	<i>Malthodes</i>
Coleoptera	Cantharidae	<i>Podabrus</i>
Coleoptera	Cantharidae	<i>Rhagonycha excavata</i>
Coleoptera	Cantharidae	<i>Rhagonycha fraxini</i>
Coleoptera	Cantharidae	<i>Rhagonycha imbecillis</i>
Coleoptera	Cantharidae	<i>Rhagonycha recta</i>
Coleoptera	Cantharidae	<i>Rhagonycha</i>
Coleoptera	Carabidae	<i>Agonum muelleri</i> (Herbst)
Coleoptera	Carabidae	<i>Amara aulica</i> (Panzer, 1796)
Coleoptera	Carabidae	<i>Anisodactylus ruscarius</i> Say, 1834
Coleoptera	Carabidae	<i>Badister grandiceps</i> Casey
Coleoptera	Carabidae	<i>Badister notatus</i> Haldeman, 1843
Coleoptera	Carabidae	<i>Badister obtusus</i> LeConte, 1878
Coleoptera	Carabidae	<i>Bembidion graphicum</i> Casey, 1918
Coleoptera	Carabidae	<i>Bembidion nitidum</i> (Kirby)
Coleoptera	Carabidae	<i>Bembidion obtusum</i> Audinet-Serville
Coleoptera	Carabidae	<i>Calathus gregarius</i> (Say)
Coleoptera	Carabidae	<i>Calosoma calidum</i> (Fabricius)
Coleoptera	Carabidae	<i>Carabus serratus</i> Say
Coleoptera	Carabidae	<i>Carabus sylvosus</i> Say, 1925
Coleoptera	Carabidae	<i>Chlaenius purpuricollis</i> Randall, 1838
Coleoptera	Carabidae	<i>Clivina fossor</i> (Linnaeus, 1758)
Coleoptera	Carabidae	<i>Cymindis limbatus</i> (Dejean)
Coleoptera	Carabidae	<i>Dyschirius globulosus</i> Say
Coleoptera	Carabidae	<i>Elaphropus granarius</i> (Dejean)
Coleoptera	Carabidae	<i>Harpalus affinis</i> (Schrank)
Coleoptera	Carabidae	<i>Harpalus fallax</i> LeConte
Coleoptera	Carabidae	<i>Harpalus faunus</i> Say, 1823
Coleoptera	Carabidae	<i>Lebia pumila</i> Dejean
Coleoptera	Carabidae	<i>Poecilus lucublandus</i> (Say, 1823)
Coleoptera	Carabidae	<i>Polyderis laevis</i> Say, 1823
Coleoptera	Carabidae	<i>Pterostichus</i>
Coleoptera	Carabidae	<i>Pterostichus commutabilis</i> (Motsch.)
Coleoptera	Carabidae	<i>Pterostichus melanarius</i> (Illiger)
Coleoptera	Carabidae	<i>Pterostichus novus</i> Straneo
Coleoptera	Carabidae	<i>Pterostichus pennsylvanicus</i> LeConte
Coleoptera	Carabidae	<i>Stenolophus comma</i> (Fabricius)
Coleoptera	Carabidae	<i>Stenolophus conjunctus</i> (Say)
Coleoptera	Carabidae	<i>Syntomus americanus</i> (Dejean, 1831)
Coleoptera	Carabidae	<i>Synuchus impunctatus</i> (Say)
Coleoptera	Carabidae	<i>Trechus quadristriatus</i> (Schrank, 1781)
Coleoptera	Cerambycidae	<i>Clytus ruricola</i> (Olivier)
Coleoptera	Cerambycidae	<i>Saperda candida</i>
Coleoptera	Cerambycidae	<i>Strophiona nitens</i> (Forster)
Coleoptera	Cerambycidae	<i>Trachysida mutabilis</i> (Newman)
Coleoptera	Cerambycidae	<i>Trigonarthris minnesotana</i> (Casey)
Coleoptera	Cerambycidae	<i>Typocerus sparsus</i> LeConte
Coleoptera	Cerambycidae	<i>Typocerus velutinus velutinus</i> (Olivier)
Coleoptera	Cerambycidae	<i>Xylotrechus colonus</i> (Fabricius)
Coleoptera	Chrysomelidae	<i>Altica corni</i> Woods, 1918
Coleoptera	Chrysomelidae	<i>Anomoea laticlavata</i> (Forster)
Coleoptera	Chrysomelidae	<i>Calligrapha multipunctata multipunctata</i> (Say)
Coleoptera	Chrysomelidae	<i>Chrysolina hudsonica</i> Brown
Coleoptera	Chrysomelidae	<i>Cryptocephalus quadruplex</i> Newman
Coleoptera	Chrysomelidae	<i>Disonycha triangularis</i> (Say, 1824)
Coleoptera	Chrysomelidae	<i>Graphops pubescens</i> (Melsheimer, 1847)
Coleoptera	Chrysomelidae	<i>Longitarsus pallescens</i> Blatchley, 1924

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Coleoptera	Chrysomelidae	<i>Neocrepidodera robusta</i> (LeConte, 1874)
Coleoptera	Chrysomelidae	<i>Nodonota puncticollis</i> (Say, 1824)
Coleoptera	Chrysomelidae	<i>Pachybrachis</i>
Coleoptera	Chrysomelidae	<i>Paria fragariae</i> Wilcox, 1954
Coleoptera	Chrysomelidae	<i>Paria</i>
Coleoptera	Chrysomelidae	<i>Phyllobrotica limbata</i> (Linnaeus)
Coleoptera	Chrysomelidae	<i>Psylliodes punctulata</i> Melsheimer
Coleoptera	Chrysomelidae	<i>Psylliodes</i>
Coleoptera	Chrysomelidae	<i>Xanthonia decemnotata</i> (Say, 1827)
Coleoptera	Chrysomelidae	<i>Xanthonia villosula</i> (Melsheimer, 1847)
Coleoptera	Cicindelidae	<i>Cicindela longilabris longilabris</i> Say
Coleoptera	Cicindelidae	<i>Cicindela punctulata punctulata</i> Olivier
Coleoptera	Cicindelidae	<i>Cicindela purpurea purpurea</i> LeConte
Coleoptera	Cicindelidae	<i>Cicindela sexguttata</i> Fabricius
Coleoptera	Cleridae	<i>Cymatodera bicolor</i> (Say)
Coleoptera	Cleridae	<i>Phyllobaenus humeralis difficilis</i> (LeConte)
Coleoptera	Cleridae	<i>Trichodes nutalli</i> (Kirby)
Coleoptera	Coccinellidae	<i>Anatis labiculata</i> (Say)
Coleoptera	Coccinellidae	<i>Brachiacantha ursina</i> Fabricius
Coleoptera	Coccinellidae	<i>Coccinella septempunctata</i> Linné
Coleoptera	Coccinellidae	<i>Cycloneda munda</i> (Say)
Coleoptera	Coccinellidae	<i>Didion punctatum</i> (Melsheimer)
Coleoptera	Coccinellidae	<i>Harmonia axyridis</i> (Pallas)
Coleoptera	Coccinellidae	<i>Hippodamia parenthesis</i> (Say)
Coleoptera	Coccinellidae	<i>Hyperaspis binotata</i> (Say)
Coleoptera	Coccinellidae	<i>Hyperaspis</i>
Coleoptera	Coccinellidae	<i>Propylea quatuordecimpunctata</i> (Linnaeus)
Coleoptera	Coccinellidae	<i>Psyllobora vigintimaculata maculata</i> Say
Coleoptera	Coccinellidae	<i>Scymnus</i>
Coleoptera	Corylophidae	<i>Arthrolips decolor</i> LeConte, 1852
Coleoptera	Corylophidae	<i>Sericoderus lateralis</i> (Gyllenhal)
Coleoptera	Cucujidae	<i>Laemophloeus woodruffi</i> Thomas, 1993
Coleoptera	Curculionidae	<i>Anthonomus signatus</i> Say
Coleoptera	Curculionidae	<i>Apion</i>
Coleoptera	Curculionidae	<i>Barypeithes pellucidus</i> (Boheman)
Coleoptera	Curculionidae	<i>Conotrachelus</i>
Coleoptera	Curculionidae	<i>Curculio</i>
Coleoptera	Curculionidae	<i>Gymnetron pascuorum</i> (Gyllenhal)
Coleoptera	Curculionidae	<i>Hypera postica</i> Gyllenhal
Coleoptera	Curculionidae	<i>Hypera punctata</i> (Fabricius)
Coleoptera	Curculionidae	<i>Mecinus pyrastrer</i> (Herbst)
Coleoptera	Curculionidae	<i>Notaris puncticollis</i> (LeConte, 1876)
Coleoptera	Curculionidae	<i>Odontocorynus scutellum-album</i> Casey, 1920
Coleoptera	Curculionidae	<i>Otiorynchus ovatus</i> (Linnaeus)
Coleoptera	Curculionidae	<i>Phyllobius oblongus</i> (Linnaeus)
Coleoptera	Curculionidae	<i>Phyllotrox ferrugineus</i> LeConte, 1876
Coleoptera	Curculionidae	<i>Polydrusus impressifrons</i> (Gyllenhal)
Coleoptera	Curculionidae	<i>Polydrusus sericeus</i> (Schaller)
Coleoptera	Curculionidae	<i>Pseudoanthonomus</i>
Coleoptera	Curculionidae	<i>Rhynchaenus rufipes</i> (LeConte)
Coleoptera	Curculionidae	<i>Rhynchaenus</i>
Coleoptera	Curculionidae	<i>Sciaphilus asperatus</i> (Bonsdorff)
Coleoptera	Curculionidae	<i>Sitona lepidus</i> Gyllenhal, 1834
Coleoptera	Curculionidae	<i>Stethobaris ovata</i> (LeConte)
Coleoptera	Curculionidae	<i>Tachypterellus quadrigibbus</i> Say, 1831
Coleoptera	Curculionidae	<i>Tychius stephensi</i> Schonherr
Coleoptera	Elateridae	<i>Agriotella bigeminata</i> (Randall)
Coleoptera	Elateridae	<i>Agriotes mancus</i> (Say)
Coleoptera	Elateridae	<i>Ampedus apicautus</i> Say
Coleoptera	Elateridae	<i>Ampedus</i>
Coleoptera	Elateridae	<i>Cardiophorus gages</i> Erichson
Coleoptera	Elateridae	<i>Ctenicera hieroglyphica</i> (Say)
Coleoptera	Elateridae	<i>Ctenicera mediana</i> (Germar)
Coleoptera	Elateridae	<i>Ctenicera propola</i> (LeConte)
Coleoptera	Elateridae	<i>Ctenicera splendens</i> (Ziegler)
Coleoptera	Elateridae	<i>Ctenicera triundulata</i> (Randall)
Coleoptera	Elateridae	<i>Dalopius vagus</i> Brown, 1934
Coleoptera	Elateridae	<i>Dalopius</i>
Coleoptera	Elateridae	<i>Hemicrepidius memnonius</i> (Herbst)
Coleoptera	Elateridae	<i>Limonium aeger</i> LeConte
Coleoptera	Elateridae	<i>Melanotus castanipes</i> (Paykull)



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Coleoptera	Elateridae	<i>Melanotus decumanus</i> (Erichson)
Coleoptera	Elateridae	<i>Melanotus depressus</i> or <i>morosus</i>
Coleoptera	Endomychidae	<i>Lycoperdina ferruginea</i> LeConte, 1824
Coleoptera	Eucinetidae	<i>Eucinetus terminalis</i> LeConte
Coleoptera	Helodidae	<i>Cyphon confusus</i> Brown
Coleoptera	Helodidae	<i>Cyphon padi</i> (Linnaeus)
Coleoptera	Helodidae	<i>Cyphon variabilis</i> (Thunberg)
Coleoptera	Histeridae	<i>Atholus americanus</i> (Paykull)
Coleoptera	Histeridae	<i>Euspilotus assimilis</i> (Paykull)
Coleoptera	Histeridae	<i>Hister furtivus</i> LeConte
Coleoptera	Histeridae	<i>Margarinotus faedatus</i> (LeConte)
Coleoptera	Hydrophilidae	<i>Hydrochus squamifer</i> LeConte, 1855
Coleoptera	Lampyridae	<i>Elychnia corrusca</i> (Linnaeus)
Coleoptera	Lampyridae	<i>Lucidota atra</i> (Olivier)
Coleoptera	Lampyridae	<i>Photinus indicus</i> (LeConte)
Coleoptera	Lampyridae	<i>Photuris pensylvanica</i> (DeGeer)
Coleoptera	Lampyridae	<i>Pyractomena angulata</i> (Say)
Coleoptera	Lampyridae	<i>Pyractomena borealis</i> (Randall)
Coleoptera	Lampyridae	<i>Pyractomena</i>
Coleoptera	Lathridiidae	<i>Corticaria</i>
Coleoptera	Lathridiidae	<i>Lathridius</i>
Coleoptera	Lathridiidae	<i>Melanophthalma</i>
Coleoptera	Lathriidae	<i>Corticaria</i>
Coleoptera	Leiodidae	<i>Catops hornianus</i>
Coleoptera	Leiodidae	<i>Colon oblongum</i> Blatchley
Coleoptera	Leiodidae	<i>Colon</i>
Coleoptera	Leiodidae	<i>Prionochaeta opaca</i> (Say)
Coleoptera	Lucanidae	<i>Platycerus piceus</i> (Kirby)
Coleoptera	Melandryidae	<i>Orchesia castanea</i> (Melsheimer)
Coleoptera	Meloidae	<i>Epicauta murina</i> (LeConte)
Coleoptera	Meloidae	<i>Meloe impressus</i> Kirby
Coleoptera	Melyridae	<i>Collops vittatus</i> (Say)
Coleoptera	Melyridae	<i>Hypebaeus apicalis</i> (Say)
Coleoptera	Mordellidae	<i>Mordella atrata</i> Melsheimer
Coleoptera	Mordellidae	<i>Mordella marginata</i> Melsheimer
Coleoptera	Mordellidae	<i>Mordellistena ambusta</i> LeConte
Coleoptera	Mordellidae	<i>Mordellistena arida</i>
Coleoptera	Mordellidae	<i>Mordellistena aspersa</i> (Melsheimer)
Coleoptera	Mordellidae	<i>Mordellistena bifasciata</i> Ray
Coleoptera	Mordellidae	<i>Mordellistena cervicalis</i> LeConte
Coleoptera	Mordellidae	<i>Mordellistena convicta</i> LeConte
Coleoptera	Mordellidae	<i>Mordellistena lutea</i>
Coleoptera	Mordellidae	<i>Mordellistena morula</i>
Coleoptera	Mordellidae	<i>Mordellistena picilabris</i> Helmuth
Coleoptera	Mordellidae	<i>Mordellistena trifasciata</i> (Say)
Coleoptera	Mordellidae	<i>Mordellistena unicolor</i>
Coleoptera	Mycetophagidae	<i>Mycetophagus flexuosus</i> Say
Coleoptera	Pedilidae	<i>Pedilus elegans</i> (Hentz)
Coleoptera	Phalacridae	<i>Olibrus neglectus</i> Casey, 1890
Coleoptera	Phalacridae	<i>Olibrus semistriatus</i> LeConte
Coleoptera	Scarabaeidae	<i>Aphodius granarius</i> (Linnaeus)
Coleoptera	Scarabaeidae	<i>Aphodius manitobensis</i> Brown, 1928
Coleoptera	Scarabaeidae	<i>Bolboceras falli</i> Wallis, 1928
Coleoptera	Scarabaeidae	<i>Dialytes truncatus</i> (Melsheimer)
Coleoptera	Scarabaeidae	<i>Diplotaxis tristis</i> Kirby
Coleoptera	Scarabaeidae	<i>Geotrupes splendidus</i> Fabricius, 1775
Coleoptera	Scarabaeidae	<i>Onthophagus hecate</i> (Panzer)
Coleoptera	Scarabaeidae	<i>Onthophagus nuchicomis</i> (Linnaeus)
Coleoptera	Scarabaeidae	<i>Phyllophaga drakii</i> (Kirby)
Coleoptera	Scarabaeidae	<i>Serica sericea</i> (Illiger)
Coleoptera	Scarabaeidae	<i>Serica sponsa</i> Dawson, 1919
Coleoptera	Scraptiidae	<i>Anaspis rufa</i> Say
Coleoptera	Scraptiidae	<i>Canifa pallipes</i> (Melsheimer)
Coleoptera	Scraptiidae	<i>Canifa pusilla</i> (Haldeman, 1848)
Coleoptera	Scymaenidae	<i>Euconnus</i>
Coleoptera	Silphidae	<i>Necrophila americana</i> (Linnaeus)
Coleoptera	Silphidae	<i>Nicrophorus orbicollis</i> Say
Coleoptera	Silphidae	<i>Nicrophorus tomentosus</i> Weber
Coleoptera	Sphindidae	<i>Sphindus americanus</i> LeConte
Coleoptera	Staphylinidae	<i>Acrotoma</i>
Coleoptera	Staphylinidae	<i>Aleochara curtula</i> (Goeze)
Coleoptera	Staphylinidae	<i>Aleocharinae unknown genus alvar species 1</i>
Coleoptera	Staphylinidae	<i>Aleocharinae unknown genus alvar species 3</i>
Coleoptera	Staphylinidae	<i>Aleocharinae unknown genus alvar species 4</i>
Coleoptera	Staphylinidae	<i>Amischa</i>
Coleoptera	Staphylinidae	<i>Apocellus alvar species 1</i>
Coleoptera	Staphylinidae	<i>Astenus discopunctatus</i> Say
Coleoptera	Staphylinidae	<i>Atheta annexa</i> Casey, 1910

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Coleoptera	Staphylinidae	<i>Atheta crenuliventris</i> Bernhauer, 1907
Coleoptera	Staphylinidae	<i>Atheta frosti</i> Bernhauer, 1909
Coleoptera	Staphylinidae	<i>Atheta hamphshirensis</i> Bernhauer, 1909
Coleoptera	Staphylinidae	<i>Atheta pseudocrenuliventris</i> Klimaszewski, 2005
Coleoptera	Staphylinidae	<i>Atheta species 1</i>
Coleoptera	Staphylinidae	<i>Atheta species 2</i>
Coleoptera	Staphylinidae	<i>Atheta ventricosa</i> Bernhauer, 1907
Coleoptera	Staphylinidae	<i>Baeocera congener</i> Casey, 1893
Coleoptera	Staphylinidae	<i>Bledius alvar species 1</i>
Coleoptera	Staphylinidae	<i>Bryoporus rufescens</i> LeConte
Coleoptera	Staphylinidae	<i>Carphilinus alvar survey species 1</i>
Coleoptera	Staphylinidae	<i>Carphacis</i>
Coleoptera	Staphylinidae	<i>Dinothenarus badipes</i> (LeConte)
Coleoptera	Staphylinidae	<i>Euaesthetus chantali</i> Puthz, 1998
Coleoptera	Staphylinidae	<i>Falagria dissecta</i> Erichson, 1839
Coleoptera	Staphylinidae	<i>Geostiba</i>
Coleoptera	Staphylinidae	<i>Ischnosoma pictum</i> (Horn, 1877)
Coleoptera	Staphylinidae	<i>Ischnosoma virginicum</i> (Bernhauer)
Coleoptera	Staphylinidae	<i>Lordithon anticus</i> Horn
Coleoptera	Staphylinidae	<i>Mocyta breviscula</i> (Maklin in Mannerheim, 1852)
Coleoptera	Staphylinidae	<i>Mocyta fungi</i> (Gravenhorst, 1806)
Coleoptera	Staphylinidae	<i>Mycetoporus triangulatus</i> Campbell
Coleoptera	Staphylinidae	<i>Myrmoecea lauta</i> (Casey, 1893)
Coleoptera	Staphylinidae	<i>Neohypnus obscurus</i> Erichson
Coleoptera	Staphylinidae	<i>Ortholestes cingulatus</i> (Gravenhorst)
Coleoptera	Staphylinidae	<i>Oxybleptes kiteleyi</i> Smetana
Coleoptera	Staphylinidae	<i>Oxypoda amica</i> Casey, 1906
Coleoptera	Staphylinidae	<i>Oxypoda chantali</i> Klimaszewski, 2006
Coleoptera	Staphylinidae	<i>Oxypoda convergens</i> Casey, 1893
Coleoptera	Staphylinidae	<i>Oxypoda hiemalis</i>
Coleoptera	Staphylinidae	<i>Oxypoda perexilis</i> Casey, 1906
Coleoptera	Staphylinidae	<i>Philonthus fusiformis</i>
Coleoptera	Staphylinidae	<i>Philonthus politus</i> Linnaeus
Coleoptera	Staphylinidae	<i>Philonthus sessor</i> Smetana
Coleoptera	Staphylinidae	<i>Philonthus varians</i> (Paykull)
Coleoptera	Staphylinidae	<i>Platydracus fossator</i> (Gravenhorst)
Coleoptera	Staphylinidae	<i>Quedius laticollis</i>
Coleoptera	Staphylinidae	<i>Rabigus laxellus</i> Casey
Coleoptera	Staphylinidae	<i>Rybaxis</i>
Coleoptera	Staphylinidae	<i>Scopaeus alvar species 1</i>
Coleoptera	Staphylinidae	<i>Sepedophilus testaceus</i> Fabricius
Coleoptera	Staphylinidae	<i>Stenus alvar species 1</i>
Coleoptera	Staphylinidae	<i>Stenus morio</i>
Coleoptera	Staphylinidae	<i>Stenus pauperculus</i>
Coleoptera	Staphylinidae	<i>Sunius confluentus</i> (Say)
Coleoptera	Staphylinidae	<i>Tachinus canadensis</i> Horn
Coleoptera	Staphylinidae	<i>Tachyporus dispar</i> (Paykull)
Coleoptera	Staphylinidae	<i>Tachyporus inornatus</i> Campbell, 1979
Coleoptera	Staphylinidae	<i>Tachyporus nitidulus</i> (Fabricius)
Coleoptera	Staphylinidae	<i>Thamiraeraa brittoni</i> Gusarov 2003
Coleoptera	Synchroidea	<i>Synchroa punctata</i> Newman
Coleoptera	Tenebrionidae	<i>Bolitotherus cornutus</i> (Panzer)
Coleoptera	Tenebrionidae	<i>Hymenorus niger</i> (Melsheimer)
Coleoptera	Tenebrionidae	<i>Neatus tenebrionides</i> (Palisot de Beauvois)
Coleoptera	Throscidae	<i>Aulonothroscus punctatus</i> (Bonvouloir)
Coleoptera	Trogossitidae	<i>Tenebroides corticalis</i> Melsheimer
Dermaptera	Forficulidae	<i>Forficula auricularia</i> Linnaeus, 1758
Diptera	Acroceridae	<i>Pterodontia flavipes</i> Gray, 1832
Diptera	Anisopodidae	<i>Sylvicola</i>
Diptera	Anthomyzidae	<i>Anthomyza species 1A</i>
Diptera	Anthomyzidae	<i>Mumetopia occipitalis</i> Melander
Diptera	Anthomyzidae	<i>Stiphrosoma sabulosum</i> Haliday, 1837
Diptera	Asilidae	<i>Cyrtopogon fallo</i> (Walker, 1849)
Diptera	Asilidae	<i>Dioctria baumhaueri</i> Meigen
Diptera	Asilidae	<i>Holopogon ventralis</i> Say
Diptera	Asilidae	<i>Laphria canis</i> Williston, 1883
Diptera	Asilidae	<i>Laphria flavicollis</i> Say, 1824
Diptera	Asilidae	<i>Laphria sicula</i> McAtee
Diptera	Asilidae	<i>Leptogaster</i>
Diptera	Asilidae	<i>Machimus erythrocnemius</i> (Hine)
Diptera	Asilidae	<i>Machimus notatus</i> (Wiedemann), 1828
Diptera	Asilidae	<i>Machimus paropus</i> (Walker, 1849)
Diptera	Asilidae	<i>Machimus sadyates</i> (Walker, 1849)
Diptera	Asilidae	<i>Machimus snowii</i> (Hine, 1909)
Diptera	Asilidae	<i>Stichopogon trifasciatus</i> (Say)
Diptera	Asilidae	<i>Tipulogaster glabrata</i> (Wiedemann)
Diptera	Bibionidae	<i>Bibio albipennis albipennis</i> Say
Diptera	Bibionidae	<i>Dilophus obesula</i> (Loew)





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Diptera	Bombyliidae	<i>Anthrax picea</i> Marston
Diptera	Bombyliidae	<i>Bombylius mexicanus</i> Wiedemann
Diptera	Bombyliidae	<i>Hemipenthes seminigra</i> Loew
Diptera	Bombyliidae	<i>Hemipenthes sinuosa</i> (Wiedemann)
Diptera	Bombyliidae	<i>Hemipenthes webberi</i> (Johnson)
Diptera	Bombyliidae	<i>Poecilanthrax tegminipennis</i> (Say, 1824)
Diptera	Bombyliidae	<i>Villa arenicola</i> (Johnson)
Diptera	Bombyliidae	<i>Villa nigra</i> Cresson
Diptera	Bombyliidae	<i>Villa nigricauda</i> (Loew)
Diptera	Bombyliidae	<i>Villa</i>
Diptera	Calliphoridae	<i>Calliphora vomitoria</i> (Linnaeus)
Diptera	Calliphoridae	<i>Cynomyia cadaverina</i> (Robineau-Desvoidy)
Diptera	Calliphoridae	<i>Lucilia illustris</i> (Meigen)
Diptera	Calliphoridae	<i>Phormia regina</i> (Meigen)
Diptera	Calliphoridae	<i>Pollenia pediculata</i> Macquart
Diptera	Carnidae	<i>Meoneura</i>
Diptera	Chamaemyiidae	<i>Chamaemyia polystigma</i> (Meigen, 1830)
Diptera	Chamaemyiidae	<i>Chamaemyia</i>
Diptera	Chamaemyiidae	<i>Leucopis</i>
Diptera	Chloropidae	<i>Chlorops</i>
Diptera	Chloropidae	<i>Conioscinella zetterstedti</i> Anderson
Diptera	Chloropidae	<i>Conioscinella</i>
Diptera	Chloropidae	<i>Diplotoxa</i>
Diptera	Chloropidae	<i>Elachiptera</i>
Diptera	Chloropidae	<i>Fiebrigella</i>
Diptera	Chloropidae	<i>Gaurax</i>
Diptera	Chloropidae	<i>Incertella</i>
Diptera	Chloropidae	<i>Liohippелates</i>
Diptera	Chloropidae	<i>Meromyza</i>
Diptera	Chloropidae	<i>Oicella</i>
Diptera	Chloropidae	<i>Oscinisoma alienum</i> (Becker)
Diptera	Chloropidae	<i>Parectecephala</i>
Diptera	Chloropidae	<i>Rhopalopteron</i>
Diptera	Chloropidae	<i>Siphonella oscinina</i> (Fallén)
Diptera	Chloropidae	<i>Thaumatomyia</i>
Diptera	Clusidae	<i>Clusia czernyi</i> Johnson
Diptera	Conopidae	<i>Physocephala furcillata</i> (Williston)
Diptera	Conopidae	<i>Physocephala marginata</i> (Say)
Diptera	Culicidae	<i>Aedes provocans</i> Walker
Diptera	Culicidae	<i>Culex pipiens</i> Linnaeus
Diptera	Dolichopodidae	<i>Chrysotinus</i>
Diptera	Dolichopodidae	<i>Chrysotus species 1</i>
Diptera	Dolichopodidae	<i>Chrysotus species 2</i>
Diptera	Dolichopodidae	<i>Chrysotus</i>
Diptera	Dolichopodidae	<i>Condylostylus caudatus</i> (Wiedemann)
Diptera	Dolichopodidae	<i>Condylostylus</i>
Diptera	Dolichopodidae	<i>Dolichopus bifractus</i> Loew, 1861
Diptera	Dolichopodidae	<i>Dolichopus canadensis</i> VanDuzee, 1921
Diptera	Dolichopodidae	<i>Dolichopus cuprinus</i> Wiedemann, 1830
Diptera	Dolichopodidae	<i>Dolichopus detersus</i> Loew
Diptera	Dolichopodidae	<i>Dolichopus flagellitenens</i> Wheeler, 1890
Diptera	Dolichopodidae	<i>Dolichopus lobatus</i> Loew, 1861
Diptera	Dolichopodidae	<i>Dolichopus nodipennis</i> VanDuzee, 1921
Diptera	Dolichopodidae	<i>Dolichopus pachynemus</i> Loew, 1861
Diptera	Dolichopodidae	<i>Dolichopus plumipes</i> (Scopoli, 1763)
Diptera	Dolichopodidae	<i>Dolichopus</i>
Diptera	Dolichopodidae	<i>Medetera canadensis</i> Bickel, 1985
Diptera	Dolichopodidae	<i>Medetera vittata</i> VanDuzee, 1919
Diptera	Dolichopodidae	<i>Medetera</i>
Diptera	Dolichopodidae	<i>Neurigona tenuis</i> (Loew, 1864)
Diptera	Dolichopodidae	<i>Neurigona</i>
Diptera	Dolichopodidae	<i>Sciapus delicatus</i> (Walker, 1849)
Diptera	Dolichopodidae	<i>Sympycnus lineatus</i> Loew, 1861
Diptera	Dolichopodidae	<i>Thrypticus species 2</i>
Diptera	Dolichopodidae	<i>Thrypticus</i>
Diptera	Dolichopodidae	<i>Xanthochlorus helvinus</i> Loew, 1857
Diptera	Drosophilidae	<i>Drosophila</i>
Diptera	Drosophilidae	<i>Scaptomyza</i>
Diptera	Empididae	<i>Chelipoda elongata</i> (Melander, 1902)
Diptera	Empididae	<i>Crossopalpus</i>
Diptera	Empididae	<i>Drapetis</i>
Diptera	Empididae	<i>Euhybus triplex</i> (Walker, 1849)
Diptera	Empididae	<i>Euthyneura</i>
Diptera	Empididae	<i>Hemerodromia</i>
Diptera	Empididae	<i>Platypalpus albiseta</i> grp
Diptera	Empididae	<i>Platypalpus holosericus</i> Melander, 1924

Order	Family	Genus Species/SubSp/Var Author
Diptera	Empididae	<i>Platypalpus minutus</i> (Meigen, 1804)
Diptera	Empididae	<i>Platypalpus species 02</i>
Diptera	Empididae	<i>Platypalpus trivialis</i> Loew, 1864
Diptera	Empididae	<i>Platypalpus versutus</i> Melander, 1924
Diptera	Empididae	<i>Platypalpus</i>
Diptera	Empididae	<i>Rhaphomyia flexuosa</i> grp. sp 12
Diptera	Empididae	<i>Rhaphomyia plumifera</i> grp
Diptera	Empididae	<i>Rhaphomyia polita</i> grp sp 1
Diptera	Empididae	<i>Rhaphomyia</i>
Diptera	Empididae	<i>Syneches simplex</i> Walker
Diptera	Empididae	<i>Syneches</i>
Diptera	Empididae	<i>Tachypeza fenestrata</i> Say, 1823
Diptera	Ephydriidae	<i>Hydrellia griseola</i> (Fallén)
Diptera	Ephydriidae	<i>Nostima scutellaris</i> Cresson, 1933
Diptera	Ephydriidae	<i>Parydra</i>
Diptera	Ephydriidae	<i>Philygria</i>
Diptera	Ephydriidae	<i>Scatella</i>
Diptera	Heleomyzidae	<i>Amoebalaria sackeni</i> Garrett
Diptera	Heleomyzidae	<i>Sullia barberi</i> (Darlington)
Diptera	Heleomyzidae	<i>Sullia nemorum</i> (Meigen)
Diptera	Heleomyzidae	<i>Sullia plumata</i> (Loew, 1862)
Diptera	Lauxaniidae	<i>Lauxania cylindricornis</i> (Fabricius)
Diptera	Lauxaniidae	<i>Minettia americana</i> Malloch
Diptera	Lauxaniidae	<i>Minettia puncticeps</i> (Coquillett, 1902)
Diptera	Lauxaniidae	<i>Minettia</i>
Diptera	Lauxaniidae	<i>Pseudocalliope</i>
Diptera	Lonchaeidae	<i>Lonchaea</i>
Diptera	Micropezidae	<i>Compsobata univitta</i> (Walker)
Diptera	Milichiidae	<i>Desmommetopa</i>
Diptera	Milichiidae	<i>Eusiphona</i>
Diptera	Milichiidae	<i>Madiza glabra</i>
Diptera	Milichiidae	<i>Milichiella</i>
Diptera	Milichiidae	<i>Neophylomyza</i>
Diptera	Milichiidae	<i>Paramyia nitens</i> (Loew)
Diptera	Milichiidae	<i>Pholeomyia indecora</i> (Loew)
Diptera	Milichiidae	<i>Phyllomyza</i>
Diptera	Muscidae	<i>Stomoxys calcitrans</i> (Linnaeus)
Diptera	Mycetophilidae	<i>Allodia</i>
Diptera	Mycetophilidae	<i>Cordyla</i>
Diptera	Mycetophilidae	<i>Exechia</i>
Diptera	Mycetophilidae	<i>Leia</i>
Diptera	Mycetophilidae	<i>Mycetophila</i>
Diptera	Mycetophilidae	<i>Phronia</i>
Diptera	Mycetophilidae	<i>Sceptonia</i>
Diptera	Opomyzidae	<i>Geomyza apicalis</i> (Meigen, 1830)
Diptera	Opomyzidae	<i>Geomyza tripunctata</i> Fallén 1823
Diptera	Otitidae	<i>Herina narytia</i> (Walker)
Diptera	Otitidae	<i>Herina nigribasis</i> McAlpine, 1951
Diptera	Otitidae	<i>Herina ruficeps</i> Van der Wulp
Diptera	Perisclididae	<i>Stenomicroa angustata</i> Coquillett, 1900
Diptera	Phoridae	<i>Megaselia</i>
Diptera	Piophilidae	<i>Protophila latipes</i> Meigen
Diptera	Pipunculidae	<i>Cephalosphaera</i>
Diptera	Pipunculidae	<i>Chalarus</i>
Diptera	Pipunculidae	<i>Dorylomorpha</i>
Diptera	Pipunculidae	<i>Pipunculus torus</i> Skevington, 1998
Diptera	Pipunculidae	<i>Pipunculus</i>
Diptera	Pipunculidae	<i>Tomosvaryella</i>
Diptera	Pipunculidae	<i>Tomosvaryella</i>
Diptera	Platypozidae	<i>Metaclythia currani</i> Kessel
Diptera	Pyrgotidae	<i>Pyrgota undata</i> Wiedemann
Diptera	Rhagionidae	<i>Rhagio mystaceus</i> (Macquart, 1840)
Diptera	Scathophagidae	<i>Cordylurella</i>
Diptera	Scathophagidae	<i>Spaziphora cincta</i> (Loew)
Diptera	Scenopinidae	<i>Metatrichia bulbosa</i> (Osten Sacken)
Diptera	Sciaridae	<i>Bradysia</i>
Diptera	Sciaridae	<i>Corynoptera</i>
Diptera	Sciomyzidae	<i>Anticheta melanosoma</i> Melander
Diptera	Sciomyzidae	<i>Limnia</i>
Diptera	Sciomyzidae	<i>Tetanocera clara</i> Loew
Diptera	Sciomyzidae	<i>Tetanocera ferruginea</i> Fallén
Diptera	Sciomyzidae	<i>Tetanocera plumosa</i> Loew
Diptera	Sepsidae	<i>Nemopoda nitidula</i> (Fallén)
Diptera	Sepsidae	<i>Saltella sphondylii</i> (Schrank)
Diptera	Sepsidae	<i>Themira annulipes</i> (Meigen)
Diptera	Simuliidae	<i>Simulium</i>
Diptera	Sphaeroceridae	<i>Apteromyia claviventris</i> (Strobl, 1909)
Diptera	Sphaeroceridae	<i>Coproica urbana</i> Richards, 1960
Diptera	Sphaeroceridae	<i>Ischiolepta ischnocnemis</i> Buck & Marshall, 2002
Diptera	Sphaeroceridae	<i>Leptocera erythrocerca</i> (Becker, 1919)

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Order	Family	Genus Species/SubSp/Var Author
Diptera	Sphaeroceridae	<i>Leptocera</i>
Diptera	Sphaeroceridae	<i>Lotophila atra</i> (Meigen)
Diptera	Sphaeroceridae	<i>Minilimosina parva</i> (Malloch, 1913)
Diptera	Sphaeroceridae	<i>Pullimosina pullula</i> (Zetterstedt)
Diptera	Sphaeroceridae	<i>Spelobia brevipteryx</i> Marshall, 1985
Diptera	Sphaeroceridae	<i>Spelobia luteilabris</i> (Rondani, 1880)
Diptera	Sphaeroceridae	<i>Spelobia ochripes</i> (Meigen, 1830)
Diptera	Stratiomyidae	<i>Odontomyia cincta</i> Olivier
Diptera	Stratiomyidae	<i>Odontomyia pubescens</i> Day
Diptera	Stratiomyidae	<i>Stratiomys meigenii</i> Wiedemann, 1830
Diptera	Stratiomyidae	<i>Stratiomys normula</i> Loew
Diptera	Syrphidae	<i>Brachypalpus oarus</i> (Walker)
Diptera	Syrphidae	<i>Chalcosyrphus curvatus</i> Curran
Diptera	Syrphidae	<i>Chalcosyrphus libo</i> (Walker)
Diptera	Syrphidae	<i>Chalcosyrphus nemorum</i> (Fabricius, 1805)
Diptera	Syrphidae	<i>Epistrophe nitidicollis</i> (Meigen)
Diptera	Syrphidae	<i>Eristalis brousi</i> Williston
Diptera	Syrphidae	<i>Eristalis dimidiatus</i> Wiedemann
Diptera	Syrphidae	<i>Eupeodes luniger</i> or <i>neoperplexus</i>
Diptera	Syrphidae	<i>Eupeodes volucris</i> Osten Sacken
Diptera	Syrphidae	<i>Eupeodes</i>
Diptera	Syrphidae	<i>Ferdinandea buccata</i> Loew
Diptera	Syrphidae	<i>Helophilus fasciatus</i> Walker
Diptera	Syrphidae	<i>Heringia salax</i> (Loew)
Diptera	Syrphidae	<i>Melanostoma mellinum</i> (Linnaeus)
Diptera	Syrphidae	<i>Meliscaeva cinctella</i> (Zetterstedt)
Diptera	Syrphidae	<i>Paragus</i>
Diptera	Syrphidae	<i>Parhelophilus laetus</i> Loew
Diptera	Syrphidae	<i>Platycheirus clypeatus</i> or <i>hyperboreus</i>
Diptera	Syrphidae	<i>Platycheirus</i>
Diptera	Syrphidae	<i>Rhingia nasica</i> Say
Diptera	Syrphidae	<i>Sericomyia transversa</i> (Osborn, 1926)
Diptera	Syrphidae	<i>Sphaerophoria contigua</i> Macquart
Diptera	Syrphidae	<i>Sphaerophoria</i>
Diptera	Syrphidae	<i>Syrirta pipiens</i> (Linnaeus)
Diptera	Syrphidae	<i>Syrphus knabi</i> Shannon
Diptera	Syrphidae	<i>Syrphus rectus</i> Osten Sacken
Diptera	Syrphidae	<i>Syrphus ribesii</i> (Linnaeus)
Diptera	Syrphidae	<i>Toxomerus geminatus</i> (Say)
Diptera	Syrphidae	<i>Toxomerus marginatus</i> (Say)
Diptera	Syrphidae	<i>Trichopsomyia recedens</i> (Walker, 1852)
Diptera	Syrphidae	<i>Tropidia quadrata</i> (Say)
Diptera	Syrphidae	<i>Xylota annulifera</i> Bigot
Diptera	Syrphidae	<i>Xylota atlantica</i> Shannon
Diptera	Syrphidae	<i>Xylota confusa</i> Shannon
Diptera	Syrphidae	<i>Xylota quadrimaculata</i> Loew
Diptera	Syrphidae	<i>Xylota subfasciata</i> Loew
Diptera	Tabanidae	<i>Chrysops aestuans</i> Van der Wulp
Diptera	Tabanidae	<i>Chrysops excitans</i> Walker, 1850
Diptera	Tabanidae	<i>Chrysops frigidus</i> Osten Sacken, 1875
Diptera	Tabanidae	<i>Chrysops indus</i> Osten Sacken, 1875
Diptera	Tabanidae	<i>Chrysops mitis</i> Osten Sacken, 1875
Diptera	Tabanidae	<i>Chrysops univittatus</i> Macquart, 1855
Diptera	Tabanidae	<i>Chrysops vittatus</i> Wiedemann, 1821
Diptera	Tabanidae	<i>Hybomitra affinis</i> (Kirby)
Diptera	Tabanidae	<i>Hybomitra epistates</i> (Osten Sacken, 1878)
Diptera	Tabanidae	<i>Hybomitra frontalis</i> (Walker, 1848)
Diptera	Tabanidae	<i>Hybomitra illota</i> (Osten Sacken, 1876)
Diptera	Tabanidae	<i>Hybomitra lasiophthalma</i> (Macquart)
Diptera	Tabanidae	<i>Hybomitra pechumani</i> Teskey and Thomas
Diptera	Tabanidae	<i>Hybomitra trepida</i> (McDunnough)
Diptera	Tabanidae	<i>Tabanus quinquevittatus</i> Wiedemann
Diptera	Tabanidae	<i>Tabanus reinwardtii</i> Wiedemann, 1828
Diptera	Tabanidae	<i>Tabanus similis</i> Macquart
Diptera	Tephritidae	<i>Campiglossa albiceps</i> (Loew)
Diptera	Tephritidae	<i>Neaspilota footei</i> Friedburg & Mathis
Diptera	Tephritidae	<i>Rhagoletis juniperina</i> Marcovitch
Diptera	Tephritidae	<i>Rhagoletis pomonella</i> (Walsh)
Diptera	Tephritidae	<i>Trupanea actinobola</i> (Loew, 1873)
Diptera	Therevidae	<i>Ozodiceromya argentata</i> (Bellardi)
Diptera	Therevidae	<i>Pandivirilia melampodia</i> Loew, 1869
Diptera	Therevidae	<i>Thereva frontalis</i> Say, 1824
Diptera	Tipulidae	<i>Ctenophora apicata</i>
Diptera	Tipulidae	<i>Nephrotoma</i>
Diptera	Tipulidae	<i>Tipula</i>
Hemiptera	Anthocoridae	<i>Calliodis temnostethoides</i> (Reuter)
Hemiptera	Anthocoridae	<i>Cardiastethus borealis</i> Kelton
Hemiptera	Anthocoridae	<i>Orius insidiosus</i> (Say)

Order	Family	Genus Species/SubSp/Var Author
Hemiptera	Anthocoridae	<i>Orius tricolor</i> (White)
Hemiptera	Anthocoridae	<i>Xylocoris cursitans</i> (Fallén)
Hemiptera	Aphididae	<i>Aphidius</i> gen. sp.
Hemiptera	Aradidae	<i>Aradus</i>
Hemiptera	Berytidae	<i>Neoneides muticus</i> (Say)
Hemiptera	Blissidae	<i>Blissus leucopterus</i> (Say)
Hemiptera	Caliscelidae	<i>Brucomorpha dorsata</i> Fitch
Hemiptera	Caliscelidae	<i>Brucomorpha oculata</i> Newman
Hemiptera	Caliscelidae	<i>Peltonotellus histrionicus</i> Stål
Hemiptera	Calophyidae	<i>Calophya triozmima</i> Schwarz
Hemiptera	Cercopidae	<i>Aphrophora cribrata</i> (Walker)
Hemiptera	Cercopidae	<i>Neophilaenus lineatus</i> (Linnaeus)
Hemiptera	Cercopidae	<i>Philaenus spumarius</i> (Linnaeus)
Hemiptera	Cicadellidae	<i>Agallia quadripunctata</i> (Provancher)
Hemiptera	Cicadellidae	<i>Agallopsis ancistra</i> Oman
Hemiptera	Cicadellidae	<i>Amplicephalus inimicus</i> (Say)
Hemiptera	Cicadellidae	<i>Anoscopus flavostrigata</i> (Donovan)
Hemiptera	Cicadellidae	<i>Anoscopus serratae</i> (Fabricius)
Hemiptera	Cicadellidae	<i>Aphrodes costatus</i> (Panzer)
Hemiptera	Cicadellidae	<i>Arboridia</i>
Hemiptera	Cicadellidae	<i>Athysanella longicauda</i> Beirne
Hemiptera	Cicadellidae	<i>Athysanus argentarius</i> Metcalf
Hemiptera	Cicadellidae	<i>Balcanocerus provancheri</i> (Van Duzee 1890)
Hemiptera	Cicadellidae	<i>Balclutha</i>
Hemiptera	Cicadellidae	<i>Ceratagalla humilis</i> (Oman)
Hemiptera	Cicadellidae	<i>Chlorotettix unicolor</i> (Fitch)
Hemiptera	Cicadellidae	<i>Dikraneura</i>
Hemiptera	Cicadellidae	<i>Diplocolenus abdominalis</i> (Fabricius)
Hemiptera	Cicadellidae	<i>Doratura stylata</i> (Boheman)
Hemiptera	Cicadellidae	<i>Elymana inornata</i> (Van Duzee)
Hemiptera	Cicadellidae	<i>Empoasca</i>
Hemiptera	Cicadellidae	<i>Erythroneura comes</i> group (Say, 1825)
Hemiptera	Cicadellidae	<i>Erythroneura maculata</i> group (Gillette, 1898)
Hemiptera	Cicadellidae	<i>Euscelis aemuleus</i> (Kirschbaum)
Hemiptera	Cicadellidae	<i>Euscelis</i>
Hemiptera	Cicadellidae	<i>Fitchana vitellina</i> (Fitch, 1851)
Hemiptera	Cicadellidae	<i>Forcipata calipera</i> DeLong
Hemiptera	Cicadellidae	<i>Forcipata loca</i> DeLong & Caldwell
Hemiptera	Cicadellidae	<i>Idiocerus lachrymalis</i> Fitch
Hemiptera	Cicadellidae	<i>Idiocerus moniliferae</i>
Hemiptera	Cicadellidae	<i>Idiocerus provancheri</i> (Van Duzee, 1890)
Hemiptera	Cicadellidae	<i>Idiocerus</i>
Hemiptera	Cicadellidae	<i>Idiodonus kennicottii</i> (Uhler)
Hemiptera	Cicadellidae	<i>Laevicephalus melsheimerii</i> (Fitch)
Hemiptera	Cicadellidae	<i>Latalus ocellaris</i> (Fallén)
Hemiptera	Cicadellidae	<i>Latalus personatus</i> Beirne
Hemiptera	Cicadellidae	<i>Limotettix divaricatus</i>
Hemiptera	Cicadellidae	<i>Limotettix parallelus</i> (Van Duzee)
Hemiptera	Cicadellidae	<i>Limotettix vaccinii</i> (Van Duzee)
Hemiptera	Cicadellidae	<i>Macrosteles species 1</i>
Hemiptera	Cicadellidae	<i>Macrosteles species 2</i>
Hemiptera	Cicadellidae	<i>Macrosteles</i>
Hemiptera	Cicadellidae	<i>Neocoelidia tumidifrons</i> Gillette & Baker
Hemiptera	Cicadellidae	<i>Norvellina seminuda</i> (Say)
Hemiptera	Cicadellidae	<i>Paraphlepsius fulvidorsum</i> (Fitch)
Hemiptera	Cicadellidae	<i>Ponana pectoralis</i> (Spangberg)
Hemiptera	Cicadellidae	<i>Psammettix lividellus</i> (Zetterstedt)
Hemiptera	Cicadellidae	<i>Scaphoideus</i>
Hemiptera	Cicadellidae	<i>Scaphytopius latus</i> (Baker)
Hemiptera	Cicadellidae	<i>Scaphytopius vaccinum</i>
Hemiptera	Cicadellidae	<i>Typhlocyba casta</i>
Hemiptera	Cicadellidae	<i>Typhlocyba gilletti</i> Van Duzee
Hemiptera	Cicadellidae	<i>Typhlocyba venusta</i> McAtee
Hemiptera	Cicadellidae	<i>Typhlocyba</i>
Hemiptera	Cicadellidae	<i>Xestocephalus brunneus</i> Van Duzee
Hemiptera	Cicadellidae	<i>Xestocephalus pulicaris</i> Van Duzee
Hemiptera	Cicadellidae	<i>Xestocephalus superbus</i> (Provancher)
Hemiptera	Cicadidae	<i>Okanagana rimosa</i> (Say)
Hemiptera	Cydnidae	<i>Amnestus pallidus</i> Zimmer, 1910
Hemiptera	Cydnidae	<i>Amnestus pusillus</i> Uhler, 1876
Hemiptera	Cydnidae	<i>Sehirus cinctus</i> (Palisot)
Hemiptera	Cymidae	<i>Cymus luridus</i> Stål
Hemiptera	Delphacidae	<i>Delphacodes campestris</i> Van Duzee
Hemiptera	Delphacidae	<i>Delphacodes luteolata</i> (Van Duzee)
Hemiptera	Delphacidae	<i>Delphacodes</i>
Hemiptera	Delphacidae	<i>Laccocera vittipennis</i> Van Duzee
Hemiptera	Delphacidae	<i>Liburniella ornata</i> (Stål)
Hemiptera	Derbidae	<i>Cedusa</i>

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Order	Family	Genus Species/SubSp/Var Author
Hemiptera	Geocoridae	<i>Geocoris howardi</i> Montandon
Hemiptera	Geocoridae	<i>Geocoris limbatus</i> Stål
Hemiptera	Geocoridae	<i>Isthmocoris piceus</i> (Say)
Hemiptera	Lygaeidae	<i>Kleidocerys resedae</i> (Panzer)
Hemiptera	Lygaeidae	<i>Lygaeus kalmii</i> Stål
Hemiptera	Lygaeidae	<i>Neortholomus scolopax</i> Say
Hemiptera	Lygaeidae	<i>Nysius</i>
Hemiptera	Membracidae	<i>Campylenchia latipes</i> (Say)
Hemiptera	Membracidae	<i>Cyrtolobus maculifrons</i> (Emmons)
Hemiptera	Membracidae	<i>Glossonotus univittatus</i> (Harris)
Hemiptera	Membracidae	<i>Telamona dubiosa</i> Van Duzee
Hemiptera	Membracidae	<i>Telamona sprete</i> Goding
Hemiptera	Membracidae	<i>Telamona westcottii</i> Goding
Hemiptera	Membracidae	<i>Telamona</i>
Hemiptera	Microphysidae	<i>Mallochiola gagates</i> (McAtee and Malloch, 1924)
Hemiptera	Miridae	<i>Adelphocoris lineolatus</i> (Goeze)
Hemiptera	Miridae	<i>Campylomma verbasci</i> (Meyer-Dür)
Hemiptera	Miridae	<i>Capsus ater</i> (Linnaeus)
Hemiptera	Miridae	<i>Ceratocapsus</i>
Hemiptera	Miridae	<i>Chlamydatus associatus</i> (Uhler)
Hemiptera	Miridae	<i>Chlamydatus pullus</i> (Reuter)
Hemiptera	Miridae	<i>Chlamydatus</i>
Hemiptera	Miridae	<i>Corticoris signatus</i> (Heidemann)
Hemiptera	Miridae	<i>Criocoris saliens</i> (Reuter)
Hemiptera	Miridae	<i>Deraeocoris</i>
Hemiptera	Miridae	<i>Leptopterna dolabrata</i> (Linnaeus)
Hemiptera	Miridae	<i>Litimiris debilis</i> (Uhler)
Hemiptera	Miridae	<i>Lygus lineolaris</i> (Palisot)
Hemiptera	Miridae	<i>Megaloceroea recticornis</i> (Geoffroy)
Hemiptera	Miridae	<i>Neolygus</i>
Hemiptera	Miridae	<i>Orectoderus obliquus</i> Uhler
Hemiptera	Miridae	<i>Orthocephalus coriaceus</i> (Fabricius)
Hemiptera	Miridae	<i>Phytocoris</i>
Hemiptera	Miridae	<i>Pilophorus</i>
Hemiptera	Miridae	<i>Plagiognathus</i>
Hemiptera	Miridae	<i>Stenodema vicina</i> (Provancher)
Hemiptera	Miridae	<i>Stenotus binotatus</i> (Fabricius)
Hemiptera	Miridae	<i>Trigonotylus coelestialium</i> (Kirkaldy)
Hemiptera	Nabidae	<i>Nabicula subcoleoprata</i> Kirby
Hemiptera	Nabidae	<i>Nabis americanus</i> Carayon
Hemiptera	Nabidae	<i>Nabis rufusculus</i> Reuter
Hemiptera	Nabidae	<i>Pagasa fusca</i> (Stein)
Hemiptera	Pachygronthidae	<i>Phlegyas abbreviatus</i> (Uhler)
Hemiptera	Pentatomidae	<i>Apateticus cynicus</i> (Say)
Hemiptera	Pentatomidae	<i>Chlorochroa persimilis</i> Horvath
Hemiptera	Pentatomidae	<i>Coenus delius</i> (Say)
Hemiptera	Pentatomidae	<i>Euschistus servus euschistoides</i> (Vollenhoven)
Hemiptera	Pentatomidae	<i>Euschistus variolarius</i> (Palisot)
Hemiptera	Pentatomidae	<i>Mormidea lugens</i> (Fabricius)
Hemiptera	Pentatomidae	<i>Picromerus bidens</i> (Linnaeus)
Hemiptera	Pentatomidae	<i>Podisus</i>
Hemiptera	Pentatomidae	<i>Trichopepla atricornis</i> Stål
Hemiptera	Psyllidae	<i>Craspedolepta furcata</i> (Caldwell)
Hemiptera	Psyllidae	<i>Craspedolepta sonchi</i>
Hemiptera	Psyllidae	<i>Psylla floccosa</i>
Hemiptera	Reduviidae	<i>Acholla multispinosa</i> (DeGeer)
Hemiptera	Reduviidae	<i>Fitchia aptera</i> Stål
Hemiptera	Reduviidae	<i>Sinea diadema</i> (Fabricius)
Hemiptera	Reduviidae	<i>Zelus tetracanthus</i> Stål
Hemiptera	Rhopalidae	<i>Arhyssus nigristernum</i> (Signoret)
Hemiptera	Rhopalidae	<i>Stictopleurus punctiventris</i> (Dallas)
Hemiptera	Rhyparochromidae	<i>Antillocoris minutus</i> (Bergroth)
Hemiptera	Rhyparochromidae	<i>Antillocoris pilosulus</i> (Stål, 1874)
Hemiptera	Rhyparochromidae	<i>Emblethis vicarius</i> Horvath
Hemiptera	Rhyparochromidae	<i>Eremocoris ferus</i> (Say)
Hemiptera	Rhyparochromidae	<i>Ligyrocoris diffusus</i> (Uhler)
Hemiptera	Rhyparochromidae	<i>Plinthus americanus</i> Van Duzee
Hemiptera	Rhyparochromidae	<i>Scolopstethes thomsoni</i> Reuter
Hemiptera	Rhyparochromidae	<i>Stygnocoris sabulosum</i> (Schilling)
Hemiptera	Rhyparochromidae	<i>Trapezonatus arenarius</i> (Linnaeus)
Hemiptera	Rhyparochromidae	<i>Xestocoris nitens</i> Van Duzee
Hemiptera	Rhyparochromidae	<i>Zeridoneus costalis</i> (Van Duzee)
Hemiptera	Scutelleridae	<i>Eurygaster alternata</i> (Say)
Hemiptera	Scutelleridae	<i>Homaemus aeneifrons</i> (Say)
Hemiptera	Tingidae	<i>Acalypta lillianis</i> Torre-Bueno
Hemiptera	Triozidae	<i>Trioza frontalis</i>
Hymenoptera	Andrenidae	<i>Andrena</i>
Hymenoptera	Apidae	<i>Bombus bimaculatus</i> Cresson
Hymenoptera	Apidae	<i>Bombus borealis</i> Kirby

Order	Family	Genus Species/SubSp/Var Author
Hymenoptera	Apidae	<i>Bombus impatiens</i> Cresson
Hymenoptera	Apidae	<i>Bombus rufocinctus</i> Cresson
Hymenoptera	Apidae	<i>Bombus ternarius</i> Say
Hymenoptera	Apidae	<i>Bombus vagans</i> Smith
Hymenoptera	Apidae	<i>Bombus</i>
Hymenoptera	Apidae	<i>Ceratina calcarata</i> Robertson
Hymenoptera	Apidae	<i>Ceratina dupla</i> Say
Hymenoptera	Apidae	<i>Epeolus scutellaris</i> Say, 1824
Hymenoptera	Apidae	<i>Melissodes agilis</i> Cresson
Hymenoptera	Apidae	<i>Melissodes illata</i> Lovell & Cockerell
Hymenoptera	Apidae	<i>Nomada</i>
Hymenoptera	Aulacidae	<i>Aulacostethus stigmaterus</i> Cresson
Hymenoptera	Ceraphronidae	<i>Ceraphron</i>
Hymenoptera	Chrysididae	<i>Ceratochrysis perpulchra</i> (Cresson, 1865)
Hymenoptera	Chrysididae	<i>Chrysis alectoris</i> Bohart, 1982
Hymenoptera	Chrysididae	<i>Chrysis coerulans</i> Fabricius, 1805
Hymenoptera	Chrysididae	<i>Chrysis nitidula</i> Fabricius, 1775
Hymenoptera	Chrysididae	<i>Cleptus speciosus</i> Aaron, 1885
Hymenoptera	Chrysididae	<i>Omalus aeneus</i> (Fabricius, 1787)
Hymenoptera	Chrysididae	<i>Omalus iridescens</i> (Norton, 1879)
Hymenoptera	Chrysididae	<i>Omalus janus</i> (Haldeman, 1844)
Hymenoptera	Chrysididae	<i>Omalus</i>
Hymenoptera	Chrysididae	<i>Pseudospinolia neglecta</i> (Shuckard, 1837)
Hymenoptera	Chrysididae	<i>Trichrysis doriae</i> (Gribodo, 1874)
Hymenoptera	Colletidae	<i>Colletes brevicornis</i>
Hymenoptera	Colletidae	<i>Colletes inaequalis</i> Say
Hymenoptera	Colletidae	<i>Hylaeus affinis</i> (Smith, 1853)
Hymenoptera	Colletidae	<i>Hylaeus ellipticus</i> (Kirby, 1837)
Hymenoptera	Colletidae	<i>Hylaeus leptocephalus</i> (Morawitz)
Hymenoptera	Colletidae	<i>Hylaeus mesillae cressoni</i> (Cockerell, 1907)
Hymenoptera	Colletidae	<i>Hylaeus modestus</i> Say
Hymenoptera	Crabronidae	<i>Astata leuthstromi</i> Ashmead, 1897
Hymenoptera	Crabronidae	<i>Astata nubecula</i> Cresson, 1865
Hymenoptera	Crabronidae	<i>Bembix americana spinolae</i> Lepeletier, 1845
Hymenoptera	Crabronidae	<i>Cerceris deserta</i> Say, 1824
Hymenoptera	Crabronidae	<i>Crabro advena</i> Smith, 1856
Hymenoptera	Crabronidae	<i>Crabro latipes</i> Smith, 1856
Hymenoptera	Crabronidae	<i>Crabro snowii</i> Fox, 1896
Hymenoptera	Crabronidae	<i>Crossocerus annulipes</i> (Lepeletier & Brullé, 1834)
Hymenoptera	Crabronidae	<i>Crossocerus maculipennis</i> (Smith, 1856)
Hymenoptera	Crabronidae	<i>Crossocerus nigratus</i> (Lepeletier & Brullé, 1835)
Hymenoptera	Crabronidae	<i>Didineis dilata</i> Malloch and Rohwer, 1930
Hymenoptera	Crabronidae	<i>Diodontus bidentatus</i> Rohwer, 1911
Hymenoptera	Crabronidae	<i>Ectemnius arcuatus</i> (Say, 1837)
Hymenoptera	Crabronidae	<i>Ectemnius cephalotes</i> (Olivier, 1792)
Hymenoptera	Crabronidae	<i>Ectemnius continuus</i> (Fabricius, 1804)
Hymenoptera	Crabronidae	<i>Ectemnius dives</i> (Lepeletier & Brullé, 1834)
Hymenoptera	Crabronidae	<i>Ectemnius maculosus</i> (Gmelin, 1790)
Hymenoptera	Crabronidae	<i>Ectemnius ruffifemur</i> (Packard, 1866)
Hymenoptera	Crabronidae	<i>Ectemnius trifasciatus</i> (Say, 1824)
Hymenoptera	Crabronidae	<i>Gorytes atricornis</i> Packard, 1867
Hymenoptera	Crabronidae	<i>Gorytes similimus</i> Smith, 1856
Hymenoptera	Crabronidae	<i>Lestica confluenta</i> (Say, 1837)
Hymenoptera	Crabronidae	<i>Lestica producticollis</i> (Packard, 1866)
Hymenoptera	Crabronidae	<i>Lindenius armaticeps</i> (Fox, 1895)
Hymenoptera	Crabronidae	<i>Lyroda subita</i> (Say, 1837)
Hymenoptera	Crabronidae	<i>Mimesa huron</i> Finnamore, 1980
Hymenoptera	Crabronidae	<i>Mimesa maculipes</i> Fox, 1893
Hymenoptera	Crabronidae	<i>Mimumesa melipes</i> (Say, 1837)
Hymenoptera	Crabronidae	<i>Mimumesa nigra</i> (Packard, 1867)
Hymenoptera	Crabronidae	<i>Miscophus americanus</i> Fox, 1890
Hymenoptera	Crabronidae	<i>Nysson lateralis</i> Packard, 1867
Hymenoptera	Crabronidae	<i>Passaloeus cuspidatus</i> Smith, 1856
Hymenoptera	Crabronidae	<i>Passaloeus monilicornis ithacae</i> Krombein, 1938
Hymenoptera	Crabronidae	<i>Pemphredon foxii</i> Rohwer, 1917
Hymenoptera	Crabronidae	<i>Pemphredon inornata</i> Say, 1824
Hymenoptera	Crabronidae	<i>Pemphredon lethifer</i> (Shuckard, 1837)
Hymenoptera	Crabronidae	<i>Pemphredon menkei</i> Bohart, 1993
Hymenoptera	Crabronidae	<i>Phlanthus bilunatus</i> Cresson, 1865
Hymenoptera	Crabronidae	<i>Phlanthus solivagus</i> Say, 1837
Hymenoptera	Crabronidae	<i>Psenulus pallipes parenosus</i> (Pate, 1944)





Order	Family	Genus Species/SubSp/Var Author
Hymenoptera	Crabronidae	<i>Rhopalum coarctatum</i> (Scopoli, 1763)
Hymenoptera	Crabronidae	<i>Stigmus americanus</i> or <i>fraternus</i>
Hymenoptera	Crabronidae	<i>Tachysphex pompiliiformis</i> (Panzer, 1805)
Hymenoptera	Crabronidae	<i>Trypoxylon attenuatum</i> Smith, 1851
Hymenoptera	Crabronidae	<i>Trypoxylon clavicerum</i> Lepeletier & Serville, 1828
Hymenoptera	Crabronidae	<i>Trypoxylon frigidum</i> Smith, 1856
Hymenoptera	Diapriidae	<i>Aclista</i>
Hymenoptera	Diapriidae	<i>Acropiasta</i>
Hymenoptera	Diapriidae	<i>Basalys</i>
Hymenoptera	Diapriidae	<i>Belyta</i>
Hymenoptera	Diapriidae	<i>Cinetus</i>
Hymenoptera	Diapriidae	<i>Paramesius</i>
Hymenoptera	Diapriidae	<i>Psilus</i>
Hymenoptera	Diapriidae	<i>Trichopria</i>
Hymenoptera	Formicidae	<i>Brachymyrmex</i>
Hymenoptera	Formicidae	<i>Camponotus</i>
Hymenoptera	Formicidae	<i>Creumatogaster</i>
Hymenoptera	Formicidae	<i>Formica subsericea</i> Say, 1836
Hymenoptera	Formicidae	<i>Formica</i>
Hymenoptera	Formicidae	<i>Lasius flavus</i> (Fabricius, 1782)
Hymenoptera	Formicidae	<i>Myrmica</i>
Hymenoptera	Formicidae	<i>Ponera pennsylvanica</i> Buckley
Hymenoptera	Formicidae	<i>Prenolepis imparis</i> (Say)
Hymenoptera	Formicidae	<i>Tapinoma sessile</i> (Say)
Hymenoptera	Formicidae	<i>Ternnothorax</i>
Hymenoptera	Gasteruptionidae	<i>Gasteruption assectator</i> arca Couper, 1870
Hymenoptera	Gasteruptionidae	<i>Rhynchonotus floridanus</i> bradleyi Townes, 1950
Hymenoptera	Halictidae	<i>Augochlorella striata</i> Provancher
Hymenoptera	Halictidae	<i>Evyllaesus</i>
Hymenoptera	Halictidae	<i>Halictus confusus</i> Smith, 1853
Hymenoptera	Halictidae	<i>Halictus ligatus</i> Say, 1837
Hymenoptera	Halictidae	<i>Halictus rubicundus</i> (Christ, 1791)
Hymenoptera	Halictidae	<i>Lasioglossum coriaceum</i> (Smith, 1853)
Hymenoptera	Halictidae	<i>Lasioglossum leucozonium</i> (Schränk, 1781)
Hymenoptera	Halictidae	<i>Lasioglossum zonulum</i> (Smith, 1848)
Hymenoptera	Halictidae	<i>Lasioglossum</i>
Hymenoptera	Halictidae	<i>Sphecodes</i>
Hymenoptera	Megachilidae	<i>Anthidium manicatum</i> Linnaeus
Hymenoptera	Megachilidae	<i>Coelioxys atlantica</i> Mitch
Hymenoptera	Megachilidae	<i>Coelioxys rufitarsus</i> Smith
Hymenoptera	Megachilidae	<i>Coelioxys sodalis</i> Cresson
Hymenoptera	Megachilidae	<i>Heriades carinata</i> Cresson
Hymenoptera	Megachilidae	<i>Hoplitis cylindrica</i> Cresson
Hymenoptera	Megachilidae	<i>Hoplitis pilosifrons</i> Cresson
Hymenoptera	Megachilidae	<i>Hoplitis producta</i> Cresson
Hymenoptera	Megachilidae	<i>Megachile frigide</i> Smith
Hymenoptera	Megachilidae	<i>Megachile gemula</i> Cresson
Hymenoptera	Megachilidae	<i>Megachile latimanus</i> Say
Hymenoptera	Megachilidae	<i>Megachile melanophoea</i> Smith
Hymenoptera	Megachilidae	<i>Megachile relativa</i> Cresson
Hymenoptera	Megachilidae	<i>Megachile texana</i> Cresson
Hymenoptera	Megachilidae	<i>Osmia atriventris</i> Cresson
Hymenoptera	Megachilidae	<i>Osmia proxima</i> Cresson
Hymenoptera	Megachilidae	<i>Osmia subaustralis subaustralis</i> Cockerell
Hymenoptera	Megaspilidae	<i>Conostigmus</i>
Hymenoptera	Megaspilidae	<i>Dendrocerus</i>
Hymenoptera	Megaspilidae	<i>Megaspilus</i>
Hymenoptera	Mutillidae	<i>Dasymutilla vesta vesta</i> (Cresson, 1865)
Hymenoptera	Mutillidae	<i>Ephuta puteola</i> (Blake, 1879)
Hymenoptera	Mutillidae	<i>Myrmosa unicolor</i> Say, 1824
Hymenoptera	Mutillidae	<i>Pseudomethoca frigida</i> (Smith, 1855)
Hymenoptera	Pamphiliidae	<i>Pamphilus</i>
Hymenoptera	Pergidae	<i>Acordulecera</i>
Hymenoptera	Platygasteridae	<i>Platygaster</i>
Hymenoptera	Pompilidae	<i>Agentioideus humilis</i> (Cresson, 1867)
Hymenoptera	Pompilidae	<i>Anoplius illinoensis</i> (Robertson, 1901)
Hymenoptera	Pompilidae	<i>Anoplius imbellis</i> Banks, 1944
Hymenoptera	Pompilidae	<i>Anoplius semirufus</i> (Cresson, 1867)
Hymenoptera	Pompilidae	<i>Anoplius townesi</i> Evans, 1951
Hymenoptera	Pompilidae	<i>Anoplius</i>
Hymenoptera	Pompilidae	<i>Arachnospila apicata</i> (Provancher, 1882)
Hymenoptera	Pompilidae	<i>Arachnospila arcta</i> (Cresson, 1865)
Hymenoptera	Pompilidae	<i>Arachnospila imbecilla</i> (Banks, 1939)

Order	Family	Genus Species/SubSp/Var Author
Hymenoptera	Pompilidae	<i>Arachnospila michiganensis michiganensis</i> (Dreisbach, 1949)
Hymenoptera	Pompilidae	<i>Apulopus caerulescens</i> or <i>nigrellus</i>
Hymenoptera	Pompilidae	<i>Apulopus mellipes varitarsatus</i> (Dalla Torre, 1897)
Hymenoptera	Pompilidae	<i>Callidurgus fasciatellus alienatus</i> (Smith, 1855)
Hymenoptera	Pompilidae	<i>Ceropales maculata fraterna</i> Smith, 1855
Hymenoptera	Pompilidae	<i>Dipogon sayi sayi</i> Banks, 1941
Hymenoptera	Pompilidae	<i>Dipogon</i>
Hymenoptera	Pompilidae	<i>Episyrus biguttatus</i> Fabricius
Hymenoptera	Pompilidae	<i>Evagetes crassicornis</i> (Shuckard, 1837)
Hymenoptera	Pompilidae	<i>Evagetes hyacinthinus</i> (Cresson, 1867)
Hymenoptera	Pompilidae	<i>Evagetes</i> sp. A (= <i>scuderi</i> ?)
Hymenoptera	Pompilidae	<i>Evagetes subangulatus</i> (Banks, 1919)
Hymenoptera	Pompilidae	<i>Evagetes</i>
Hymenoptera	Pompilidae	<i>Minageria congrua</i> (Cresson, 1867)
Hymenoptera	Pompilidae	<i>Priocnemis kevinii</i> Wasbauer, 1986
Hymenoptera	Pompilidae	<i>Priocnemis minorata</i> Banks, 1912
Hymenoptera	Pompilidae	<i>Priocnemis notha notha</i> (Cresson, 1867)
Hymenoptera	Proctotrupidae	<i>Exallonyx</i>
Hymenoptera	Proctotrupidae	<i>Proctotrupes</i>
Hymenoptera	Scelionidae	<i>Amblyaspis</i>
Hymenoptera	Scelionidae	<i>Calliscello</i>
Hymenoptera	Scelionidae	<i>Idris</i>
Hymenoptera	Scelionidae	<i>Teleas</i>
Hymenoptera	Scelionidae	<i>Telenomus</i>
Hymenoptera	Scelionidae	<i>Trimorus</i>
Hymenoptera	Sphécidae	<i>Ammophila evansi</i> Menke, 1964
Hymenoptera	Sphécidae	<i>Ammophila kennedyi</i> (Murray, 1938)
Hymenoptera	Sphécidae	<i>Chalybion californicum</i> (Saussure, 1867)
Hymenoptera	Sphécidae	<i>Podalonia robusta</i> (Cresson, 1865)
Hymenoptera	Tenthredinidae	<i>Macrophya</i>
Hymenoptera	Tenthredinidae	<i>Taxonus</i>
Hymenoptera	Tenthredinidae	<i>Tenthredo basilaris</i> Say, 1824
Hymenoptera	Tenthredinidae	<i>Tenthredo leucostoma</i> Kirby
Hymenoptera	Tiphiidae	<i>Methocha stygia</i> (Say)
Hymenoptera	Tiphiidae	<i>Tiphia</i>
Hymenoptera	Vespidae	<i>Ancistrocerus adiabatus adiabatus</i> (Saussure, 1852)
Hymenoptera	Vespidae	<i>Ancistrocerus antilope antilope</i> (Panzer, 1798)
Hymenoptera	Vespidae	<i>Ancistrocerus waldenii waldenii</i> (Viereck, 1906)
Hymenoptera	Vespidae	<i>Dolichovespula arenaria</i> (Fabricius, 1775)
Hymenoptera	Vespidae	<i>Dolichovespula maculata</i> (Linnaeus, 1763)
Hymenoptera	Vespidae	<i>Eumenes crucifera</i> Provancher, 1888
Hymenoptera	Vespidae	<i>Eumenes verticalis</i> Say, 1824
Hymenoptera	Vespidae	<i>Euodynerus foraminatus foraminatus</i> (Saussure, 1853)
Hymenoptera	Vespidae	<i>Euodynerus leucomelas leucomelas</i> (Saussure, 1855)
Hymenoptera	Vespidae	<i>Euodynerus planitarsis</i> (Bohart, 1945)
Hymenoptera	Vespidae	<i>Parancistrocerus pennsylvanicus pennsylvanicus</i> (Saussure, 1855)
Hymenoptera	Vespidae	<i>Polistes fuscatus</i> (Fabricius, 1793)
Hymenoptera	Vespidae	<i>Stenodynerus anormis</i> (Say, 1824)
Hymenoptera	Vespidae	<i>Symmorphus canadensis</i> (Saussure, 1855)
Hymenoptera	Vespidae	<i>Vespula alascensis</i> (Packard, 1870)
Hymenoptera	Vespidae	<i>Vespula consobrina</i> (Saussure, 1864)
Hymenoptera	Vespidae	<i>Vespula germanica</i> (Fabricius, 1793)
Hymenoptera	Vespidae	<i>Vespula maculifrons</i> (Buysson, 1905)
Mantodea	Mantidae	<i>Mantis religiosa religiosa</i> Linnaeus
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i> Say
Neuroptera	Chrysopidae	<i>Chrysoperla carnea</i> (Stephens)
Neuroptera	Chrysopidae	<i>Chrysoperla harrisi</i> (Fitch)
Neuroptera	Hemerobiidae	<i>Hemerobius humulinus</i> Linnaeus
Neuroptera	Hemerobiidae	<i>Hemerobius stigmaterus</i> Fitch
Neuroptera	Hemerobiidae	<i>Micromus subanticus</i> Walker
Orthoptera	Acrididae	<i>Chloaaltis abdominalis</i> (Thomas)
Orthoptera	Acrididae	<i>Chloaaltis conspersa</i> Harris
Orthoptera	Acrididae	<i>Chorthippus curtipennis</i> (Harris)
Orthoptera	Acrididae	<i>Chortophaga viridifasciata</i> (DeGeer)
Orthoptera	Acrididae	<i>Encoptolophus sordidus</i> (Burmeister)
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i> (Say)
Orthoptera	Acrididae	<i>Melanoplus borealis borealis</i> (Fieber)

[Type text]



Order	Family	Genus Species/SubSp/Var Author
Orthoptera	Acrididae	<i>Melanoplus dawsoni</i> (Scudder)
Orthoptera	Acrididae	<i>Melanoplus femurrubrum femurrubrum</i> (DeGeer)
Orthoptera	Acrididae	<i>Melanoplus keeleri luridus</i> (Dodge)
Orthoptera	Acrididae	<i>Melanoplus sanguinipes sanguinipes</i> (Fabricius)
Orthoptera	Gryllidae	<i>Allonemobius allardi</i> (Alexander & Thomas)
Orthoptera	Gryllidae	<i>Allonemobius fasciatus</i> (DeGeer)
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i> Burmeister
Orthoptera	Gryllidae	<i>Gryllus veletis</i> (Alexander & Bigelow)
Orthoptera	Gryllidae	<i>Oecanthus quadripunctatus</i> Beutenmüller
Orthoptera	Rhaphidophoridae	<i>Ceuthophilus maculatus</i> (Harris)
Orthoptera	Tetrigidae	<i>Tetrix ornata ornata</i> (Say)
Orthoptera	Tettigoniidae	<i>Conocephalus brevipennis</i> (Scudder)
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i> (DeGeer)
Orthoptera	Tettigoniidae	<i>Metriopectera roeselii</i> (Hagen)

Order	Family	Genus Species/SubSp/Var Author
Orthoptera	Tettigoniidae	<i>Neoconocephalus ensiger</i> (Harris)
Orthoptera	Tettigoniidae	<i>Scudderia furcata furcata</i> Brunner von Wattenwyl
Psocoptera	Caeciliidae	<i>Valenzula sp 1</i>
Psocoptera	Caeciliidae	<i>Valenzula sp 2</i>
Psocoptera	Dasydemellidae	<i>Teliapsocus conterminus</i> Walsh
Psocoptera	Lachesillidae	<i>Anomopsocus amabilis</i> (Walsh, 1862)
Psocoptera	Lachesillidae	<i>Lachesilla</i>
Psocoptera	Lepidopsocidae	<i>Echmepteryx hageni</i> (Packard)
Psocoptera	Mesopsocidae	<i>Mesopsocus laticeps</i> (Kolbe, 1880)
Psocoptera	Myopsocidae	<i>Lichenomima lugens</i> (Hagen, 1861)
Psocoptera	Peripsocidae	<i>Peripsocus madidus</i> (Hagen, 1861)
Psocoptera	Peripsocidae	<i>Peripsocus subfasciatus</i> (Rambur)
Psocoptera	Psocidae	<i>Metlyphorus novaescotiae</i> (Walker, 1853)





Appendix 4. A list of the species collected at Misery Bay Provincial Park in 2010 (as of 6 April 2011)

Order	Family	Genus Species/SubSp/Var Author
Blattaria	Blattellidae	<i>Parcoblatta pennsylvanica</i> (DeGeer)
Blattaria	Blattellidae	<i>Parcoblatta virginica</i> (Brunner)
Coleoptera	Anobiidae	<i>Dorcatoma pallicornis</i> LeConte
Coleoptera	Anobiidae	<i>Hemicoeelus carinatus</i> (Say)
Coleoptera	Anthicidae	<i>Ischyropalpus sturmi</i> (LaFerte)
Coleoptera	Buprestidae	<i>Anthaxia inornata</i> (Randall, 1838)
Coleoptera	Buprestidae	<i>Dicerca lugubris</i> LeConte, 1859
Coleoptera	Byrrhidae	<i>Byrrhus americanus</i> LeConte
Coleoptera	Byrrhidae	<i>Byrrhus</i>
Coleoptera	Cantharidae	<i>Ancistronycha bilineata</i> (Say)
Coleoptera	Cantharidae	<i>Cantharis rotundicollis</i> Say
Coleoptera	Cantharidae	<i>Cantharis rufa</i> Linneus
Coleoptera	Cantharidae	<i>Malthodes</i>
Coleoptera	Cantharidae	<i>Podabrus</i>
Coleoptera	Cantharidae	<i>Rhagonycha excavata</i>
Coleoptera	Cantharidae	<i>Rhagonycha fraxini</i>
Coleoptera	Cantharidae	<i>Rhagonycha nigriceps</i>
Coleoptera	Cantharidae	<i>Rhagonycha recta</i>
Coleoptera	Cantharidae	<i>Rhagonycha</i>
Coleoptera	Cantharidae	<i>Silis</i>
Coleoptera	Carabidae	<i>Agonum placidum</i> (Say)
Coleoptera	Carabidae	<i>Bembidion graphicum</i> Casey, 1918
Coleoptera	Carabidae	<i>Calathus gregarius</i> (Say)
Coleoptera	Carabidae	<i>Carabus serratus</i> Say
Coleoptera	Carabidae	<i>Chlaenius purpuricollis</i> Randall, 1838
Coleoptera	Carabidae	<i>Dyschirius globulosus</i> Say
Coleoptera	Carabidae	<i>Harpalus affinis</i> (Schrank)
Coleoptera	Carabidae	<i>Harpalus compar</i> (LeConte)
Coleoptera	Carabidae	<i>Pterostichus novus</i> Straneo
Coleoptera	Cerambycidae	<i>Acmaeops proteus</i> (Kirby)
Coleoptera	Cerambycidae	<i>Clytus ruficola</i> (Olivier)
Coleoptera	Cerambycidae	<i>Monochamus mutator</i> LeConte
Coleoptera	Cerambycidae	<i>Stictoleptura canadensis canadensis</i> (Olivier)
Coleoptera	Cerambycidae	<i>Strophiona nitens</i> (Forster)
Coleoptera	Cerambycidae	<i>Typocerus sparsus</i> LeConte
Coleoptera	Cerambycidae	<i>Xylotrechus undulatus</i> (Say)
Coleoptera	Chrysomelidae	<i>Cryptocephalus venustus</i> Fabricius
Coleoptera	Chrysomelidae	<i>Longitarsus pallescens</i> Blatchley, 1924
Coleoptera	Chrysomelidae	<i>Longitarsus</i>
Coleoptera	Chrysomelidae	<i>Neocrepidodera robusta</i> (LeConte, 1874)
Coleoptera	Chrysomelidae	<i>Nodonota puncticollis</i> (Say, 1824)
Coleoptera	Chrysomelidae	<i>Psyllodes</i>
Coleoptera	Chrysomelidae	<i>Xanthonia decemnotata</i> (Say, 1827)
Coleoptera	Chrysomelidae	<i>Xanthonia villosula</i> (Melsheimer, 1847)
Coleoptera	Cicindelidae	<i>Cicindela hirticollis</i> Say
Coleoptera	Cicindelidae	<i>Cicindela longilabris longilabris</i> Say
Coleoptera	Cicindelidae	<i>Cicindela purpurea purpurea</i> LeConte
Coleoptera	Cicindelidae	<i>Cicindela repanda repanda</i> Dejean
Coleoptera	Ciidae	<i>Ceracis salleri</i> (Mellie, 1848)
Coleoptera	Cleridae	<i>Enoclerus nigrifrons gerhardi</i> Wolcott
Coleoptera	Cleridae	<i>Phyllobaenus humeralis</i>
Coleoptera	Cleridae	<i>Phyllobaenus humeralis difficilis</i> (LeConte)
Coleoptera	Coccinellidae	<i>Brachiacantha ursina</i> Fabricius
Coleoptera	Coccinellidae	<i>Coccinella septempunctata</i> Linné
Coleoptera	Coccinellidae	<i>Coccinella trifasciata</i> Linnaeus, 1758
Coleoptera	Coccinellidae	<i>Harmonia axyridis</i> (Pallas)
Coleoptera	Coccinellidae	<i>Hippodamia variegata</i> (Goeze)
Coleoptera	Coccinellidae	<i>Hyperaspis</i>
Coleoptera	Coccinellidae	<i>Scymnus</i>
Coleoptera	Curculionidae	<i>Acoptus suturalis</i> LeConte
Coleoptera	Curculionidae	<i>Auletobius ater</i> Voss, 1922
Coleoptera	Curculionidae	<i>Cylindrocopturus longulus</i> (LeConte, 1876)
Coleoptera	Curculionidae	<i>Odontocorynus scutellum-album</i> Casey, 1920
Coleoptera	Curculionidae	<i>Otiorynchus ovatus</i> (Linnaeus)
Coleoptera	Curculionidae	<i>Otiorynchus rugistriatus</i> (Goeze, 1777)
Coleoptera	Curculionidae	<i>Otiorynchus sulcatus</i> (Fabricius)
Coleoptera	Curculionidae	<i>Phyllobius oblongus</i> (Linnaeus)
Coleoptera	Curculionidae	<i>Phyxelis rigidus</i> (Say)
Coleoptera	Curculionidae	<i>podapion gallicola</i> Riley, 1883
Coleoptera	Curculionidae	<i>Polydrusus impressifrons</i> (Gyllenhal)
Coleoptera	Curculionidae	<i>Polydrusus sericeus</i> (Schaller)

Order	Family	Genus Species/SubSp/Var Author
Coleoptera	Curculionidae	<i>Rhynchaenus pallicornis</i> Say, 1831
Coleoptera	Curculionidae	<i>Sphenophorus costipennis</i> Horn
Coleoptera	Elateridae	<i>Agriotella bigeminata</i> (Randall)
Coleoptera	Elateridae	<i>Ampedus apicautus</i> Say
Coleoptera	Elateridae	<i>Cardiophorus gagetes</i> Erichson
Coleoptera	Elateridae	<i>Cardiophorus</i>
Coleoptera	Elateridae	<i>Ctenicera appropinquans</i> (Randall)
Coleoptera	Elateridae	<i>Ctenicera mediana</i> (Germar)
Coleoptera	Elateridae	<i>Ctenicera propola</i> (LeConte)
Coleoptera	Elateridae	<i>Ctenicera splendens</i> (Ziegler)
Coleoptera	Elateridae	<i>Ctenicera triundulata</i> (Randall)
Coleoptera	Elateridae	<i>Danasoma brevicornis</i> (LeConte, 1853)
Coleoptera	Elateridae	<i>Elathous discalceatus</i> (Say, 1839)
Coleoptera	Elateridae	<i>Melanotus depressus or morosus</i>
Coleoptera	Elateridae	<i>Melanotus miscellus</i> Quate
Coleoptera	Elateridae	<i>Melanotus</i>
Coleoptera	Helodidae	<i>Cyphon variabilis</i> (Thunberg)
Coleoptera	Histeridae	<i>Hister furtivus</i> LeConte
Coleoptera	Lampyridae	<i>Ellychnia corrusca</i> (Linnaeus)
Coleoptera	Lampyridae	<i>Lucidota atra</i> (Olivier)
Coleoptera	Lampyridae	<i>Photuris pensylvanica</i> (DeGeer)
Coleoptera	Lampyridae	<i>Pyraetomena angulata</i> (Say)
Coleoptera	Lampyridae	<i>Pyropyga nigricans</i> (Say)
Coleoptera	Lathridiidae	<i>Corticarina</i>
Coleoptera	Lathridiidae	<i>Melanophthalma</i>
Coleoptera	Leiodidae	<i>Catops homianus</i>
Coleoptera	Leiodidae	<i>Colon</i>
Coleoptera	Melyridae	<i>Collops tricolor</i> (Say)
Coleoptera	Melyridae	<i>Hypebaeus apicalis</i> (Say)
Coleoptera	Mordellidae	<i>Mordellistena aspersa</i> (Melsheimer)
Coleoptera	Mordellidae	<i>Mordellistena cervicalis</i> LeConte
Coleoptera	Mordellidae	<i>Mordellistena infima</i> LeConte
Coleoptera	Mordellidae	<i>Mordellistena lutea</i>
Coleoptera	Mordellidae	<i>Mordellistena morula</i>
Coleoptera	Mordellidae	<i>Mordellistena picilabris</i> Helmuth
Coleoptera	Mordellidae	<i>Mordellistena sexnotata</i> Dury, 1902
Coleoptera	Mordellidae	<i>Mordellistena trifasciata</i> (Say)
Coleoptera	Mycetophagidae	<i>Litargus tetraspilotes</i> LeConte
Coleoptera	Pediliidae	<i>Pedilus elegans</i> (Hentz)
Coleoptera	Phalacridae	<i>Phalacrus illini</i> Casey, 1916
Coleoptera	Scarabaeidae	<i>Diplotaxis liberta</i> (Germar, 1824)
Coleoptera	Scarabaeidae	<i>Diplotaxis tristis</i> Kirby
Coleoptera	Scarabaeidae	<i>Euphoria fulgida</i> (Fabricius)
Coleoptera	Scarabaeidae	<i>Onthophagus hecate</i> (Panzer)
Coleoptera	Scarabaeidae	<i>Phyllophaga drakii</i> (Kirby)
Coleoptera	Scarabaeidae	<i>Serica campestris</i> Dawson, 1919
Coleoptera	Scarabaeidae	<i>Serica sericea</i> (Illiger)
Coleoptera	Scarabaeidae	<i>Trichiotinus assimilis</i> (Kirby)
Coleoptera	Scrautiidae	<i>Anaspis flavipennis</i> Haldeman
Coleoptera	Scrautiidae	<i>Anaspis rufa</i> Say
Coleoptera	Scrautiidae	<i>Canifa pallipennis</i> LeConte
Coleoptera	Scrautiidae	<i>Canifa pallipes</i> (Melsheimer)
Coleoptera	Scrautiidae	<i>Canifa pusilla</i> (Haldeman, 1848)
Coleoptera	Scymnidae	<i>Euconnus</i>
Coleoptera	Silphidae	<i>Necrophila americana</i> (Linnaeus)
Coleoptera	Staphylinidae	<i>Acrotona</i>
Coleoptera	Staphylinidae	<i>Aleochara verna</i> Say, 1839
Coleoptera	Staphylinidae	<i>Aleocharinae unknown genus alvar species 2</i>
Coleoptera	Staphylinidae	<i>Aleocharinae unknown genus alvar species 3</i>
Coleoptera	Staphylinidae	<i>Aleocharinae unknown genus alvar species 4</i>
Coleoptera	Staphylinidae	<i>Aleocharinae unknown genus alvar survey species 5</i>
Coleoptera	Staphylinidae	<i>Apocellus alvar species 1</i>
Coleoptera	Staphylinidae	<i>Atheta dadopora</i> Thomson, 1867
Coleoptera	Staphylinidae	<i>Atheta frosti</i> Bernhauer, 1909
Coleoptera	Staphylinidae	<i>Bryoporus rufescens</i> LeConte
Coleoptera	Staphylinidae	<i>Carpelimus alvar survey species 1</i>
Coleoptera	Staphylinidae	<i>Eusphalerum pothos</i>
Coleoptera	Staphylinidae	<i>Mocytta breviscula</i> (Maklin in Mannerheim, 1852)
Coleoptera	Staphylinidae	<i>Mycetoporus inquisitus</i>
Coleoptera	Staphylinidae	<i>Oxypoda hiemalis</i>
Coleoptera	Staphylinidae	<i>Platydacus fossator</i> (Gravenhorst)
Coleoptera	Tenebrionidae	<i>Androchirus erythropus</i> (Kirby)

[Type text]



Order	Family	Genus Species/SubSp/Var Author
Coleoptera	Tenebrionidae	<i>Hymenorus niger</i> (Melsheimer)
Coleoptera	Tenebrionidae	<i>Hymenorus obesus</i> Casey
Coleoptera	Tenebrionidae	<i>Isomira quadristriata</i> Couper
Coleoptera	Tenebrionidae	<i>Isomira sericea</i> (Say)
Diptera	Anthomyzidae	<i>Anthomyza</i> sp. 2
Diptera	Anthomyzidae	<i>Anthomyza species 1A</i>
Diptera	Asilidae	<i>Cyrtopogon falto</i> (Walker, 1849)
Diptera	Asilidae	<i>Dioctria baumhaueri</i> Meigen
Diptera	Asilidae	<i>Laphria sacrator</i> Walker, 1849
Diptera	Asilidae	<i>Laphria sericea</i> Say
Diptera	Asilidae	<i>Leptogaster</i>
Diptera	Asilidae	<i>Machimus notatus</i> (Wiedemann), 1828
Diptera	Asilidae	<i>Machimus sadyates</i> (Walker, 1849)
Diptera	Asilidae	<i>Stichopogon trifasciatus</i> (Say)
Diptera	Asilidae	<i>Tipulogaster glabrata</i> (Wiedemann)
Diptera	Bibionidae	<i>Dilophus obesus</i> (Loew)
Diptera	Bombyliidae	<i>Bombylius mexicanus</i> Wiedemann
Diptera	Bombyliidae	<i>Hemipenthes seminigra</i> Loew
Diptera	Bombyliidae	<i>Hemipenthes sinuosa</i> (Wiedemann)
Diptera	Calliphoridae	<i>Calliphora livida</i> Hall
Diptera	Calliphoridae	<i>Calliphora terraenovae</i> Macquart
Diptera	Calliphoridae	<i>Calliphora vicina</i> Robineau-Desvoidy
Diptera	Calliphoridae	<i>Cynomya cadaverina</i> (Robineau-Desvoidy)
Diptera	Calliphoridae	<i>Pollenia pediculata</i> Macquart
Diptera	Chamaemyiidae	<i>Chamaemyia</i>
Diptera	Chamaemyiidae	<i>Leucopsis</i>
Diptera	Chloropidae	<i>Chlorops</i>
Diptera	Chloropidae	<i>Conioscinella</i>
Diptera	Chloropidae	<i>Diplotoxa</i>
Diptera	Chloropidae	<i>Fiebrigella</i>
Diptera	Chloropidae	<i>Gaurax</i>
Diptera	Chloropidae	<i>Incertella</i>
Diptera	Chloropidae	<i>Meromyza</i>
Diptera	Chloropidae	<i>Neoscinella</i>
Diptera	Chloropidae	<i>Parectecephala</i>
Diptera	Chloropidae	<i>Rhopalopteron</i>
Diptera	Chloropidae	<i>Thaumatomyia</i>
Diptera	Clusiidae	<i>Clusia czernyi</i> Johnson
Diptera	Clusiidae	<i>Clusia lateralis</i> (Walker)
Diptera	Clusiidae	<i>Clusiodes melanostomus - complex</i>
Diptera	Conopidae	<i>Physocephala furcillata</i> (Williston)
Diptera	Conopidae	<i>Physocephala texana</i> (Williston)
Diptera	Conopidae	<i>Zodion</i>
Diptera	Culicidae	<i>Aedes vexans</i> (Meigen)
Diptera	Dolichopodidae	<i>Argyra</i>
Diptera	Dolichopodidae	<i>Chrysotinus</i>
Diptera	Dolichopodidae	<i>Chrysotus species 1</i>
Diptera	Dolichopodidae	<i>Chrysotus species 2</i>
Diptera	Dolichopodidae	<i>Chrysotus</i>
Diptera	Dolichopodidae	<i>Condylostylus caudatus</i> (Wiedemann)
Diptera	Dolichopodidae	<i>Condylostylus</i>
Diptera	Dolichopodidae	<i>Dolichopus affinis</i> Walker
Diptera	Dolichopodidae	<i>Dolichopus canadensis</i> VanDuzee, 1921
Diptera	Dolichopodidae	<i>Dolichopus chrysostomus</i> Loew, 1861
Diptera	Dolichopodidae	<i>Dolichopus finitus</i> Walker, 1849
Diptera	Dolichopodidae	<i>Dolichopus flagellitenens</i> Wheeler, 1890
Diptera	Dolichopodidae	<i>Dolichopus setifer</i> Loew, 1861
Diptera	Dolichopodidae	<i>Dolichopus</i>
Diptera	Dolichopodidae	<i>Medetera canadensis</i> Bickel, 1985
Diptera	Dolichopodidae	<i>Medetera vittata</i> VanDuzee, 1919
Diptera	Dolichopodidae	<i>Medetera</i>
Diptera	Dolichopodidae	<i>Neurigona</i>
Diptera	Dolichopodidae	<i>Sciapus delicatus</i> (Walker, 1849)
Diptera	Dolichopodidae	<i>Sympycnus lineatus</i> Loew, 1861
Diptera	Dolichopodidae	<i>Tachytrechus binodatus</i> Loew, 1866
Diptera	Dolichopodidae	<i>Thrypticus species 1</i>
Diptera	Drosophilidae	<i>Drosophila</i>
Diptera	Drosophilidae	<i>Scaptomyza</i>
Diptera	Empididae	<i>Bicellaria</i>
Diptera	Empididae	<i>Drapetis</i>
Diptera	Empididae	<i>Euhybys triplex</i> (Walker, 1849)
Diptera	Empididae	<i>Euthyneura</i>
Diptera	Empididae	<i>Hemerodromia</i>
Diptera	Empididae	<i>Hilara</i>
Diptera	Empididae	<i>Platypalpus holosericus</i> Melander, 1924
Diptera	Empididae	<i>Platypalpus species 02</i>
Diptera	Empididae	<i>Platypalpus</i>
Diptera	Empididae	<i>Rhamphomyia flexuosa</i> grp. sp 12
Diptera	Empididae	<i>Rhamphomyia macilentia</i> Loew, 1864
Diptera	Empididae	<i>Rhamphomyia plumifera</i> grp

Order	Family	Genus Species/SubSp/Var Author
Diptera	Empididae	<i>Rhamphomyia polita</i> grp sp 1
Diptera	Empididae	<i>Rhamphomyia</i>
Diptera	Empididae	<i>Stilpon vockerothi</i> Cumming, 1992
Diptera	Empididae	<i>Tachydromia</i>
Diptera	Empididae	<i>Trichina</i>
Diptera	Ephydriidae	<i>Glenanthe interior</i>
Diptera	Ephydriidae	<i>Glenanthe</i>
Diptera	Ephydriidae	<i>Philygria</i>
Diptera	Ephydriidae	<i>Scatella</i>
Diptera	Heleomyzidae	<i>Suilla nemorum</i> (Meigen)
Diptera	Lauxaniidae	<i>Homoneura melanderi</i> (Johnson)
Diptera	Lauxaniidae	<i>Minettia lupulina</i> (Fabricius)
Diptera	Lauxaniidae	<i>Minettia</i>
Diptera	Lauxaniidae	<i>Pseudocalliope</i>
Diptera	Lonchaeidae	<i>Lonchaea</i>
Diptera	Lonchopteridae	<i>Lonchoptera bifurcata</i> (Fallén)
Diptera	Milichiidae	<i>Paramyia nitens</i> (Loew)
Diptera	Milichiidae	<i>Pholeomyia indecora</i> (Loew)
Diptera	Milichiidae	<i>Phyllomyza</i>
Diptera	Mycetophilidae	<i>Exechia</i>
Diptera	Mycetophilidae	<i>Mycetophila</i>
Diptera	Mycetophilidae	<i>Orfelia</i>
Diptera	Mycetophilidae	<i>Sceptonia</i>
Diptera	Mycetophilidae	<i>Sciophila</i>
Diptera	Mycetophilidae	<i>Zygomia</i>
Diptera	Otitidae	<i>Euxesta notata</i> (Wiedemann)
Diptera	Otitidae	<i>Herina narytia</i> (Walker)
Diptera	Otitidae	<i>Herina nigribasis</i> McAlpine, 1951
Diptera	Otitidae	<i>Herina ruficeps</i> Van der Wulp
Diptera	Otitidae	<i>Pseudotephritis vau</i> (Say)
Diptera	Phoridae	<i>Megaselia</i>
Diptera	Pipunculidae	<i>Tomosvaryella</i>
Diptera	Pipunculidae	<i>Tomosvaryella</i>
Diptera	Platypozidae	<i>Metaclythia currani</i> Kessel
Diptera	Platystomatidae	<i>Rivellia quadrifasciata</i> (Macquart)
Diptera	Rhagionidae	<i>Rhagio mystaceus</i> (Macquart, 1840)
Diptera	Sarcophagidae	<i>Phrosinella</i>
Diptera	Sarcophagidae	<i>Sphenometopa tergata</i> (Coquillett)
Diptera	Sarcophagidae	<i>Tripanurga</i>
Diptera	Scathophagidae	<i>Cordilura</i>
Diptera	Scathophagidae	<i>Cordylurella</i>
Diptera	Scathophagidae	<i>Scathophaga suilla</i> (Fabricius)
Diptera	Scathophagidae	<i>Spaziphora cincta</i> (Loew)
Diptera	Sciariidae	<i>Corynoptera</i>
Diptera	Sciomyzidae	<i>Anticheta melanosoma</i> Melander
Diptera	Sciomyzidae	<i>Dictya</i>
Diptera	Sciomyzidae	<i>Limnia</i>
Diptera	Sepsidae	<i>Themira annulipes</i> (Meigen)
Diptera	Sphaeroceridae	<i>Leptocera erythrocerca</i> (Becker, 1919)
Diptera	Sphaeroceridae	<i>Leptocera</i>
Diptera	Sphaeroceridae	<i>Spelobia luteilabris</i> (Rondani, 1880)
Diptera	Stratiomyidae	<i>Caloparyphus tetraspilus</i> (Loew)
Diptera	Stratiomyidae	<i>Euparyphus brevicornis</i> Loew, 1866
Diptera	Stratiomyidae	<i>Hedriodiscus varipes</i> Loew
Diptera	Stratiomyidae	<i>Nemotelus glaber</i>
Diptera	Stratiomyidae	<i>Stratiomys badia</i> Walker, 1849
Diptera	Stratiomyidae	<i>Stratiomys meigenii</i> Wiedemann, 1830
Diptera	Stratiomyidae	<i>Stratiomys norma</i> Wiedemann
Diptera	Syrphidae	<i>Allograpta obliqua</i> (Say)
Diptera	Syrphidae	<i>Blera badia</i> (Walker)
Diptera	Syrphidae	<i>Brachyopa ferruginea</i> Fallén
Diptera	Syrphidae	<i>Chalcosyrphus curvatus</i> Curran
Diptera	Syrphidae	<i>Chrysotoxum flavifrons</i> Macquart
Diptera	Syrphidae	<i>Doros aequalis</i> Loew, 1863
Diptera	Syrphidae	<i>Eristalis bardus</i> (Say)
Diptera	Syrphidae	<i>Eristalis dimidiatus</i> Wiedemann
Diptera	Syrphidae	<i>Eristalis flavipes</i> Walker
Diptera	Syrphidae	<i>Eristalis transversus</i> Wiedemann
Diptera	Syrphidae	<i>Eupeodes</i>
Diptera	Syrphidae	<i>Heringia salax</i> (Loew)
Diptera	Syrphidae	<i>Heringia</i>
Diptera	Syrphidae	<i>Mallota bautias</i> (Walker)
Diptera	Syrphidae	<i>Melanostoma mellinum</i> (Linnaeus)
Diptera	Syrphidae	<i>Microdon tristis</i> (Loew)
Diptera	Syrphidae	<i>Paragus haemorrhous</i> Meigen
Diptera	Syrphidae	<i>Parasyrphus semiinterruptus</i> (Fluke, 1935)
Diptera	Syrphidae	<i>Platycheirus clypeatus</i> or <i>hyperboreus</i>
Diptera	Syrphidae	<i>Platycheirus confusus</i> (Curran)
Diptera	Syrphidae	<i>Platycheirus obscurus</i> (Say)
Diptera	Syrphidae	<i>Platycheirus quadratus</i> (Say)



Order	Family	Genus Species/SubSp/Var Author
Diptera	Syrphidae	<i>Platycheirus</i>
Diptera	Syrphidae	<i>Sericomyia chrysotoxoides</i> Macquart
Diptera	Syrphidae	<i>Sericomyia lata</i> (Coquillett)
Diptera	Syrphidae	<i>Sericomyia militaris</i> Walker
Diptera	Syrphidae	<i>Sericomyia transversa</i> (Osburn, 1926)
Diptera	Syrphidae	<i>Sphaerophoria brevipilosa</i> or <i>longipilosa</i>
Diptera	Syrphidae	<i>Sphaerophoria</i>
Diptera	Syrphidae	<i>Syrphus rector</i> Osten Sacken
Diptera	Syrphidae	<i>Temnostoma alternans</i> Loew
Diptera	Syrphidae	<i>Temnostoma barberi</i> Shannon
Diptera	Syrphidae	<i>Toxomerus geminatus</i> (Say)
Diptera	Syrphidae	<i>Toxomerus marginatus</i> (Say)
Diptera	Syrphidae	<i>Xylota annulifera</i> Bigot
Diptera	Syrphidae	<i>Xylota confusa</i> Shannon
Diptera	Syrphidae	<i>Xylota quadrimaculata</i> Loew
Diptera	Tabanidae	<i>Chrysops callidus</i> Osten Sacken
Diptera	Tabanidae	<i>Chrysops excitans</i> Walker, 1850
Diptera	Tabanidae	<i>Chrysops frigidus</i> Osten Sacken, 1875
Diptera	Tabanidae	<i>Chrysops mitis</i> Osten Sacken, 1875
Diptera	Tabanidae	<i>Chrysops sackeni</i> Hine
Diptera	Tabanidae	<i>Chrysops univittatus</i> Macquart, 1855
Diptera	Tabanidae	<i>Hybomitra affinis</i> (Kirby)
Diptera	Tabanidae	<i>Hybomitra frontalis</i> (Walker, 1848)
Diptera	Tabanidae	<i>Hybomitra illota</i> (Osten Sacken, 1876)
Diptera	Tabanidae	<i>Hybomitra lasiophthalma</i> (Macquart)
Diptera	Tabanidae	<i>Hybomitra trepida</i> (McDunnough)
Diptera	Tabanidae	<i>Tabanus lineola</i> Fabricius
Diptera	Tabanidae	<i>Tabanus marginalis</i> Fabricius, 1805
Diptera	Tabanidae	<i>Tabanus nigripes</i> Wiedemann
Diptera	Tabanidae	<i>Tabanus quinquevittatus</i> Wiedemann
Diptera	Tabanidae	<i>Tabanus similis</i> Macquart
Diptera	Tachinidae	<i>Gymnosoma</i>
Diptera	Tachinidae	<i>Uramya</i>
Diptera	Tephritidae	<i>Rhagoletis juniperina</i> Marcovitch
Diptera	Therevidae	<i>Ozodiceromyia argentata</i> (Bellardi)
Diptera	Therevidae	<i>Pandiviriilia melampodia</i> Loew, 1869
Diptera	Therevidae	<i>Thereva flavicincta</i> Loew, 1870
Diptera	Tipulidae	<i>Ctenophora dorsalis</i> Walker
Diptera	Xylophagidae	<i>Xylophagus reflectens</i> Walker
Hemiptera	Berytidae	<i>Neoneides muticus</i> (Say)
Hemiptera	Caliscelidae	<i>Bruchomorpha oculata</i> Newman
Hemiptera	Calophytidae	<i>Calophya triozae</i> Schwarz
Hemiptera	Cercopidae	<i>Aphrophora cribrata</i> (Walker)
Hemiptera	Cercopidae	<i>Philaenus spumarius</i> (Linnaeus)
Hemiptera	Cicadellidae	<i>Agalliopsis ancistra</i> Oman
Hemiptera	Cicadellidae	<i>Amplicephalus inimicus</i> (Say)
Hemiptera	Cicadellidae	<i>Aphrodes costatus</i> (Panzer)
Hemiptera	Cicadellidae	<i>Arboridia</i>
Hemiptera	Cicadellidae	<i>Athysanussus argentarius</i> Metcalf
Hemiptera	Cicadellidae	<i>Auridius sandaraca</i> Hamilton, 1999
Hemiptera	Cicadellidae	<i>Balclutha</i>
Hemiptera	Cicadellidae	<i>Ceratagallia humilis</i> (Oman)
Hemiptera	Cicadellidae	<i>Chlorotettix unicolor</i> (Fitch)
Hemiptera	Cicadellidae	<i>Dikraneura mali</i> (Provancher)
Hemiptera	Cicadellidae	<i>Diplocolenus abdominalis</i> (Fabricius)
Hemiptera	Cicadellidae	<i>Doratura stylata</i> (Bohemian)
Hemiptera	Cicadellidae	<i>Empoasca</i>
Hemiptera	Cicadellidae	<i>Erythroneura</i>
Hemiptera	Cicadellidae	<i>Euscelis</i>
Hemiptera	Cicadellidae	<i>Evacanthus orbitalis</i> Fitch
Hemiptera	Cicadellidae	<i>Fitchana vitellina</i> (Fitch, 1851)
Hemiptera	Cicadellidae	<i>Flexamia reflexa</i> (Osborn & Ball)
Hemiptera	Cicadellidae	<i>Forcipata calipera</i> DeLong
Hemiptera	Cicadellidae	<i>Forcipata loca</i> DeLong & Caldwell
Hemiptera	Cicadellidae	<i>Gyponana</i>
Hemiptera	Cicadellidae	<i>Idiocerus lachrymalis</i> Fitch
Hemiptera	Cicadellidae	<i>Idiodonus kennicottii</i> (Uhler)
Hemiptera	Cicadellidae	<i>Laevicephalus melsheimeri</i> (Fitch)
Hemiptera	Cicadellidae	<i>Latalus personatus</i> Beirne
Hemiptera	Cicadellidae	<i>Latalus remotus</i>
Hemiptera	Cicadellidae	<i>Limotettix vaccinii</i> (Van Duzee)
Hemiptera	Cicadellidae	<i>Mocuellus americanus</i> Emeljanov
Hemiptera	Cicadellidae	<i>Neocoelidia tumidifrons</i> Gillette & Baker
Hemiptera	Cicadellidae	<i>Norvellina seminuda</i> (Say)
Hemiptera	Cicadellidae	<i>Oncopsis</i>
Hemiptera	Cicadellidae	<i>Paraphlepsius fulvidorsum</i> (Fitch)
Hemiptera	Cicadellidae	<i>Pendarus punctiscriptus</i> (Van Duzee)
Hemiptera	Cicadellidae	<i>Scaphoideus</i>
Hemiptera	Cicadellidae	<i>Scaphytopius argutus</i>
Hemiptera	Cicadellidae	<i>Scaphytopius latus</i> (Baker)
Hemiptera	Cicadellidae	<i>Scaphytopius vaccinum</i>

Order	Family	Genus Species/SubSp/Var Author
Hemiptera	Cicadellidae	<i>Texananus marmor</i> Sanders & DeLong
Hemiptera	Cicadellidae	<i>Thamnottetix confinis</i> (Zetterstedt)
Hemiptera	Cicadellidae	<i>Xestoccephalus pulicaris</i> Van Duzee
Hemiptera	Cicadidae	<i>Okanagana ramosa</i> (Say)
Hemiptera	Cicadidae	<i>Tibicen canicularis</i> (Harris)
Hemiptera	Cixiidae	<i>Cixius basalis</i> Van Duzee
Hemiptera	Cixiidae	<i>Oliarus quinque-lineatus</i> (Say, 1830)
Hemiptera	Corixidae	<i>Sigara trilineata</i> (Provancher)
Hemiptera	Cymidae	<i>Cymus luridus</i> Stål
Hemiptera	Delphacidae	<i>Delphacodes puella</i> (Van Duzee)
Hemiptera	Delphacidae	<i>Delphacodes</i>
Hemiptera	Delphacidae	<i>Laccocera vittipennis</i> Van Duzee
Hemiptera	Delphacidae	<i>Liburniella ornata</i> (Stål)
Hemiptera	Delphacidae	<i>Pissonotus concolor</i> Bartlett, 2000
Hemiptera	Lygaeidae	<i>Kleidocerys resedae</i> (Panzer)
Hemiptera	Membracidae	<i>Cyrtolobus pallidifrons</i>
Hemiptera	Miridae	<i>Ceratocapsus</i>
Hemiptera	Miridae	<i>Criocoris saliens</i> (Reuter)
Hemiptera	Miridae	<i>Dicyphus discrepans</i> Knight
Hemiptera	Miridae	<i>Litomiris debilis</i> (Uhler)
Hemiptera	Miridae	<i>Lygus lineolaris</i> (Palisot)
Hemiptera	Miridae	<i>Phytocoris</i>
Hemiptera	Miridae	<i>Pilophorus</i>
Hemiptera	Miridae	<i>Sixeonotus insignis</i> Reuter 1876
Hemiptera	Nabidae	<i>Nabis americanoferus</i> Carayon
Hemiptera	Nabidae	<i>Nabis</i>
Hemiptera	Pentatomidae	<i>Chlorochroa persimilis</i> Horvath
Hemiptera	Pentatomidae	<i>Coenus delius</i> (Say)
Hemiptera	Pentatomidae	<i>Mormidea lugens</i> (Fabricius)
Hemiptera	Pentatomidae	<i>Perillus exaptus</i> (Say)
Hemiptera	Pentatomidae	<i>Trichopepla atricornis</i> Stål
Hemiptera	Psyllidae	<i>Cacopsylla breviata</i>
Hemiptera	Psyllidae	<i>Craspedolepta furcata</i> (Caldwell)
Hemiptera	Reduviidae	<i>Sinea diadema</i> (Fabricius)
Hemiptera	Rhopalidae	<i>Arhyssus lateralis</i> (Say)
Hemiptera	Rhopalidae	<i>Arhyssus nigristernum</i> (Signoret)
Hemiptera	Rhyparochromidae	<i>Emblethis vicarius</i> Horvath
Hemiptera	Rhyparochromidae	<i>Megalonotus sabulicola</i> (Thomson)
Hemiptera	Rhyparochromidae	<i>Slaterobius insignis</i> (Uhler)
Hemiptera	Rhyparochromidae	<i>Xestocoris nitens</i> Van Duzee
Hemiptera	Rhyparochromidae	<i>Zeridoneus costalis</i> (Van Duzee)
Hemiptera	Saldidae	<i>Pentacora ligata</i> (Say)
Hemiptera	Scutelleridae	<i>Acantholomidea denticulata</i> (Stål)
Hemiptera	Scutelleridae	<i>Eurygaster alternata</i> (Say)
Hemiptera	Scutelleridae	<i>Vanduzeeina borealis</i> Van Duzee
Hemiptera	Triozidae	<i>Neotrioza pyriformis</i> (Forbes)
Hemiptera	Triozidae	<i>Trioza frontalis</i>
Hemiptera	Triozidae	<i>Trioza salicivora</i>
Hymenoptera	Ampulicidae	<i>Ampulex canaliculata</i> Say, 1823
Hymenoptera	Andrenidae	<i>Andrena</i>
Hymenoptera	Apidae	<i>Anthophora terminalis</i> Cresson
Hymenoptera	Apidae	<i>Bombus bimaculatus</i> Cresson
Hymenoptera	Apidae	<i>Bombus borealis</i> Kirby
Hymenoptera	Apidae	<i>Bombus impatiens</i> Cresson
Hymenoptera	Apidae	<i>Bombus rufocinctus</i> Cresson
Hymenoptera	Apidae	<i>Bombus ternarius</i> Say
Hymenoptera	Apidae	<i>Bombus</i>
Hymenoptera	Ceraphronidae	<i>Ceraphron</i>
Hymenoptera	Chrysididae	<i>Chrysis coeruleans</i> Fabricius, 1805
Hymenoptera	Chrysididae	<i>Chrysis oreadis</i> Bohart and Kimsey, 1982
Hymenoptera	Chrysididae	<i>Chrysis provancheri</i> Schulz, 1906
Hymenoptera	Chrysididae	<i>Hedychridium</i>
Hymenoptera	Chrysididae	<i>Omalus aeneus</i> (Fabricius, 1787)
Hymenoptera	Chrysididae	<i>Omalus iridescens</i> (Norton, 1879)
Hymenoptera	Chrysididae	<i>Omalus janus</i> (Haldeman, 1844)
Hymenoptera	Chrysididae	<i>Omalus</i>
Hymenoptera	Colletidae	<i>Colletes brevicornis</i>
Hymenoptera	Colletidae	<i>Colletes willistoni</i> Dalla Torre
Hymenoptera	Colletidae	<i>Hylaeus modestus</i> Say
Hymenoptera	Colletidae	<i>Hylaeus</i>
Hymenoptera	Crabronidae	<i>Alysson melleus</i> Say, 1837
Hymenoptera	Crabronidae	<i>Ammoplanus lenape</i> (Pate, 1937)
Hymenoptera	Crabronidae	<i>Bembix americana spinolae</i> Lapeletier, 1845
Hymenoptera	Crabronidae	<i>Bicyrtes ventralis</i> (Say, 1824)
Hymenoptera	Crabronidae	<i>Crabro argusinus</i> Bohart, 1976
Hymenoptera	Crabronidae	<i>Crabro latipes</i> Smith, 1856
Hymenoptera	Crabronidae	<i>Crossocerus maculiclypeus</i> (Fox, 1895)
Hymenoptera	Crabronidae	<i>Crossocerus nigrus</i> (Lepelletier & Brullé, 1835)





Order	Family	Genus Species/SubSp/Var Author
Hymenoptera	Crabronidae	<i>Diploplectron peglowi</i> Krombein, 1939
Hymenoptera	Crabronidae	<i>Ectemnius arcuatus</i> (Say, 1837)
Hymenoptera	Crabronidae	<i>Ectemnius atriceps</i> (Cresson, 1865)
Hymenoptera	Crabronidae	<i>Ectemnius cephalotes</i> (Olivier, 1792)
Hymenoptera	Crabronidae	<i>Ectemnius continuus</i> (Fabricius, 1804)
Hymenoptera	Crabronidae	<i>Ectemnius lapidarius</i> (Panzer, 1804)
Hymenoptera	Crabronidae	<i>Gorytes atricornis</i> Packard, 1867
Hymenoptera	Crabronidae	<i>Gorytes canaliculatus</i> Packard, 1867
Hymenoptera	Crabronidae	<i>Mimesa dawsoni</i> Mickel, 1916
Hymenoptera	Crabronidae	<i>Miscophus americanus</i> Fox, 1890
Hymenoptera	Crabronidae	<i>Nysson daeckei</i> Viereck, 1904
Hymenoptera	Crabronidae	<i>Passaloeus annulatus</i> (Say, 1837)
Hymenoptera	Crabronidae	<i>Passaloeus cuspidatus</i> Smith, 1856
Hymenoptera	Crabronidae	<i>Passaloeus monilicornis</i> Ithacae Krombein, 1938
Hymenoptera	Crabronidae	<i>Pemphredon inornata</i> Say, 1824
Hymenoptera	Crabronidae	<i>Pemphredon menkei</i> Bohart, 1993
Hymenoptera	Crabronidae	<i>Pemphredon montana</i> Dahlbom, 1845
Hymenoptera	Crabronidae	<i>Pemphredon rugifer</i> Dahlbom, 1844
Hymenoptera	Crabronidae	<i>Plenoculus davisii davisii</i> Fox, 1893
Hymenoptera	Crabronidae	<i>Tachysphex pompilliformis</i> (Panzer, 1805)
Hymenoptera	Crabronidae	<i>Trypoxylon frigidum</i> Smith, 1856
Hymenoptera	Diapriidae	<i>Aclista</i>
Hymenoptera	Diapriidae	<i>Basalys</i>
Hymenoptera	Diapriidae	<i>Belyta</i>
Hymenoptera	Diapriidae	<i>Coptera</i>
Hymenoptera	Diapriidae	<i>Miota</i>
Hymenoptera	Diapriidae	<i>Pantoclis</i>
Hymenoptera	Diprionidae	<i>Monoctenus</i>
Hymenoptera	Formicidae	<i>Brachymyrmex</i>
Hymenoptera	Formicidae	<i>Camponotus</i>
Hymenoptera	Formicidae	<i>Crematogaster</i>
Hymenoptera	Formicidae	<i>Dolichoderus pustulatus</i> Mayr, 1886
Hymenoptera	Formicidae	<i>Formica subsericea</i> Say, 1836
Hymenoptera	Formicidae	<i>Formica</i>
Hymenoptera	Formicidae	<i>Lasius flavus</i> (Fabricius, 1782)
Hymenoptera	Formicidae	<i>Myrmica</i>
Hymenoptera	Formicidae	<i>Prenolepis imparis</i> (Say)
Hymenoptera	Formicidae	<i>Tapinoma sessile</i> (Say)
Hymenoptera	Formicidae	<i>Temnothorax</i>
Hymenoptera	Halictidae	<i>Augochlorella striata</i> Provancher
Hymenoptera	Halictidae	<i>Augochloropsis metallica metallica</i> (Fabricius)
Hymenoptera	Halictidae	<i>Dufourea maura</i> (Cresson)
Hymenoptera	Halictidae	<i>Lasioglossum leucozonium</i> (Schränk, 1781)
Hymenoptera	Halictidae	<i>Lasioglossum zonulum</i> (Smith, 1848)
Hymenoptera	Halictidae	<i>Lasioglossum</i>
Hymenoptera	Halictidae	<i>Sphecodes</i>
Hymenoptera	Megachilidae	<i>Coelioxys sodalis</i> Cresson
Hymenoptera	Megachilidae	<i>Megachile gemula</i> Cresson
Hymenoptera	Megachilidae	<i>Megachile melanophoea</i> Smith
Hymenoptera	Megachilidae	<i>Megachile</i>
Hymenoptera	Megaspilidae	<i>Conostigmus</i>
Hymenoptera	Megaspilidae	<i>Dendrocerus</i>
Hymenoptera	Mutillidae	<i>Dasymutilla canella</i> (Blake, 1871)
Hymenoptera	Mutillidae	<i>Dasymutilla vesta vesta</i> (Cresson, 1865)
Hymenoptera	Mutillidae	<i>Ephuta puteola</i> (Blake, 1879)
Hymenoptera	Mutillidae	<i>Myrmosa unicolor</i> Say, 1824
Hymenoptera	Mutillidae	<i>Pseudomethoca frigida</i> (Smith, 1855)
Hymenoptera	Pamphiliidae	<i>Pamphilus</i>
Hymenoptera	Pompilidae	<i>Anoplius cleora</i> (Banks, 1917)
Hymenoptera	Pompilidae	<i>Anoplius illinoensis</i> (Robertson, 1901)
Hymenoptera	Pompilidae	<i>Anoplius imbellis</i> Banks, 1944
Hymenoptera	Pompilidae	<i>Anoplius rectangularis</i> (Dreisbach, 1949)
Hymenoptera	Pompilidae	<i>Anoplius semirufus</i> (Cresson, 1867)
Hymenoptera	Pompilidae	<i>Anoplius</i>
Hymenoptera	Pompilidae	<i>Arachnospila angularis angularis</i> (Banks, 1910)
Hymenoptera	Pompilidae	<i>Arachnospila apicata</i> (Provancher, 1882)
Hymenoptera	Pompilidae	<i>Arachnospila imbecilla</i> (Banks, 1939)
Hymenoptera	Pompilidae	<i>Arachnospila scelestia</i> (Cresson, 1865)
Hymenoptera	Pompilidae	<i>Caliadurgus fasciatellus alienatus</i> (Smith, 1855)
Hymenoptera	Pompilidae	<i>Ceropales maculata fraterna</i> Smith, 1855
Hymenoptera	Pompilidae	<i>Dipogon papago anomalus</i> Dreisbach, 1953
Hymenoptera	Pompilidae	<i>Dipogon pulchripennis</i> (Cresson, 1867)
Hymenoptera	Pompilidae	<i>Dipogon sayi sayi</i> Banks, 1941
Hymenoptera	Pompilidae	<i>Episyron biguttatus</i> Fabricius

Order	Family	Genus Species/SubSp/Var Author
Hymenoptera	Pompilidae	<i>Episyron quinquenotatus quinquenotatus</i> (Say, 1835)
Hymenoptera	Pompilidae	<i>Evagetes crassicornis crassicornis</i> (Shuckard, 1835)
Hymenoptera	Pompilidae	<i>Evagetes hyacinthinus</i> (Cresson, 1867)
Hymenoptera	Pompilidae	<i>Evagetes padrinus minusculus</i> (Banks, 1910)
Hymenoptera	Pompilidae	<i>Prionemis aequalis</i> (Banks, 1919)
Hymenoptera	Scelionidae	<i>Idris</i>
Hymenoptera	Sphecidae	<i>Ammophila azteca</i> Cameron, 1888
Hymenoptera	Sphecidae	<i>Ammophila evansi</i> Menke, 1964
Hymenoptera	Sphecidae	<i>Ammophila mediata</i> Cresson, 1865
Hymenoptera	Sphecidae	<i>Podalonia robusta</i> (Cresson, 1865)
Hymenoptera	Tenthredinidae	<i>Macrophya</i>
Hymenoptera	Tenthredinidae	<i>Taxonus</i>
Hymenoptera	Tenthredinidae	<i>Tenthredo leucostoma</i> Kirby
Hymenoptera	Tiphiidae	<i>Methocha stygia</i> (Say)
Hymenoptera	Tiphiidae	<i>Tiphia</i>
Hymenoptera	Vespidae	<i>Ancistrocerus adiabatus adiabatus</i> (Saussure, 1852)
Hymenoptera	Vespidae	<i>Ancistrocerus antilope antilope</i> (Panzer, 1798)
Hymenoptera	Vespidae	<i>Ancistrocerus catskill</i> (Saussure, 1853)
Hymenoptera	Vespidae	<i>Ancistrocerus waldenii waldenii</i> (Viereck, 1906)
Hymenoptera	Vespidae	<i>Dolichovespula arenaria</i> (Fabricius, 1775)
Hymenoptera	Vespidae	<i>Eumenes verticalis</i> Say, 1824
Hymenoptera	Vespidae	<i>Parancistrocerus pensylvanicus pensylvanicus</i> (Saussure, 1855)
Hymenoptera	Vespidae	<i>Vespula alascensis</i> (Packard, 1870)
Hymenoptera	Vespidae	<i>Vespula consobrina</i> (Saussure, 1864)
Hymenoptera	Vespidae	<i>Vespula maculifrons</i> (Buysson, 1905)
Mecoptera	Panorpidae	<i>Panorpa subfurcata</i> Westwood, 1846
Megaloptera	Corydalidae	<i>Chauliodes rastricornis</i> Rambur
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i> Say
Neuroptera	Hemerobiidae	<i>Hemerobius humulinus</i> Linnaeus
Neuroptera	Hemerobiidae	<i>Hemerobius stigmaterus</i> Fitch
Neuroptera	Hemerobiidae	<i>Micromus posticus</i> (Walker)
Neuroptera	Hemerobiidae	<i>Micromus subanticus</i> Walker
Neuroptera	Hemerobiidae	<i>Wesmaelius longifrons</i> (Walker)
Neuroptera	Myrmeleionidae	<i>Hesperoleon abdominalis</i> (Say)
Orthoptera	Acrididae	<i>Chloaealis abdominalis</i> (Thomas)
Orthoptera	Acrididae	<i>Chloaealis conspersa</i> Harris
Orthoptera	Acrididae	<i>Encoptolophus sordidus</i> (Burmeister)
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i> (Say)
Orthoptera	Acrididae	<i>Melanoplus fasciatus</i> (F. Walker)
Orthoptera	Acrididae	<i>Melanoplus islandicus</i> Blatchley
Orthoptera	Acrididae	<i>Melanoplus keeleri</i> (Thomas)
Orthoptera	Acrididae	<i>Melanoplus keeleri luridus</i> (Dodge)
Orthoptera	Acrididae	<i>Melanoplus sanguinipes sanguinipes</i> (Fabricius)
Orthoptera	Acrididae	<i>Trimerotropis verruculata verruculata</i> (Kirby)
Orthoptera	Gryllidae	<i>Allonemobius griseus griseus</i> (E.M. Walker)
Orthoptera	Gryllidae	<i>Gryllus veletis</i> (Alexander & Bigelow)
Orthoptera	Rhaphidophoridae	<i>Ceuthophilus maculatus</i> (Harris)
Orthoptera	Tetrigidae	<i>Tetrix ornata ornata</i> (Say)
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i> (DeGeer)
Orthoptera	Tettigoniidae	<i>Scudderia furcata furcata</i> Brunner von Wattenwyl
Psocoptera	Amphipsocidae	<i>Polypsocus corruptus</i> Hagen
Psocoptera	Caeciliidae	<i>Valenzula</i>
Psocoptera	Dasydemellidae	<i>Teliapsocus conterminus</i> Walsh
Psocoptera	Myopsocidae	<i>Lichenomima sparsa</i> (Hagen, 1861)
Psocoptera	Peripsocidae	<i>Peripsocus madescens</i> Walsh
Psocoptera	Psocidae	<i>Metylophorus novaescotiae</i> (Walker, 1853)
Psocoptera	Psocidae	<i>Ptycta polluta</i> (Walsh, 1862)
Psocoptera	Psocidae	<i>Trichadenotecnum quaesitum</i> (Chapman, 1930)
Trichoptera	Phryganeidae	<i>Oligostomis ocelligera</i> (Walker)
Trichoptera	Phryganeidae	<i>Ptilostomis postica</i> (Walker, 1852)



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Appedix 5. A list of the Agromyzidae species from Kip Fleming Tract and Misery Bay Provincial Park from the 2010 field season, as indicated by Dr. O. Lonsdale.

Manitoulin Agromyzinae:

Agromyza sp.  
Hexomyza sp. n. nr-winnemanna  
Japanagromyza viridula  
Melanagromyza ?acteaea (boundaries of this species uncertain; possibly n. sp.)  
Ophiomyia coniceps  
Ophiomyia nasuta  
Ophiomyia DEBU sp. n.  
Ophiomyia sp.

Manitoulin Phytomyzinae:

Aulagromyza orbitalis  
Calycomyza novascotiensis  
Calycomyza solidagensis  
Cerodontha (Cerodontha) dorsalis  
Cerodontha (Icteromyza) longipennis  
Cerodontha (Poemyza) inconspicua  
Cerodontha (Poemyza) ?macminnii (only known from Mississippi)  
Cerodontha (Poemyza) muscina  
Cerodontha (Dizygomyza) ?paludosa (only known from California)  
Liriomyza helianthi  
Liriomyza togata  
Liriomyza spp.  
Phytoliriomyza arctica  
Phytoliriomyza ?melampyga  
Phytoliriomyza sp. n. nr-mikii  
Phytomyza aquigeliana  
Phytomyza plantaginis  
Phytomyza caprifoliae  
Phytomyza sp.

# The Staphylinidae of Manitoulin Alvars

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Prepared for: The Nature Conservancy of Canada

## General Comments:

A total of 69 rove beetles species were collected on the Manitoulin alvar properties. No species collected are considered truly rare (rare Staphylinidae are typically forest dwelling) but several of them are uncommon or rarely collected due to a preferred microhabitat present on the alvar properties. Seven exotic species are confirmed for the property. Two species are new to Ontario. New records will be published in a future publication and the unidentifiable species (marked as Aleocharinae sp. 1 etc) will be reexamined in an upcoming revision of Ontario Aleocharinae. This survey provided important data for understanding the distributions of Staphylinidae in northeastern North America. The following table presents information on rarity (uncommon/common), origin (native/exotic), habitat (Accidental/Open habitat specialist/Generalist) and distributional comments (e.g. new Ontario record).

Legend:

[U-Uncommon, C-Common],

[E-Exotic, N-Native],

[A-Accidental, \*\*\*open habitat specialist (e.g. prairies, savannah, old fields), G- generalist],

[NOR – New Ontario record]

Subfamily	Species	Rarity	Origin	Habitat	Distribution
Aleocharinae	<i>Acrotona (3spp.)</i>	-	-	-	-
	<i>Aleochara curtula</i>	C	E	G	Ubiquitous
	<i>Aleochara verna</i>	C	N	G	Ubiquitous,
	<i>Amischa (2 spp.)</i>	-	-	-	-
	<i>Atheta annexa</i>	?	N	A (forest)	E of Rocky Mts.
	<i>Atheta crenuliventris</i>	?	N	A (forest)	NE NA
	<i>Atheta dadopora</i>	C	E	A (forest)	NE NA
	<i>Atheta frosti</i>	?	N	A (forest)	E NA
	<i>Atheta hampshirensis</i>	C	N	A (forest)	NA
	<b><i>Atheta pseudocrenuliventris</i></b>	?	N	A (forest)	Canada, <b>NOR</b>
	<i>Atheta ventricosa</i>	C	N	A (forest)	Widespread in NA
	<i>Atheta sp. 1</i>	-	-	-	-
	<i>Atheta sp. 2</i>	-	-	-	-
	<i>Falagria dissecta</i>	C	N	G	Widespread in NA
	<i>Geostiba sp. 1</i>	-	-	-	-

Subfamily	Species	Rarity	Origin	Habitat	Distribution
	<i>Mocyta breviscula</i>	C	N	G	Transcontinental in northern NA <b>NOR</b>
	<i>Mocyta fungi</i>	C	E	G	Ubiquitous
	<i>Myrmoecia lauta</i>	<b>U</b>	N	***	NE NA
	<i>Oxypoda amica</i>	C	N	***	E of Rocky Mts.
	<i>Oxypoda chantali</i>	C	N	A (forest)	E Can.
	<i>Oxypoda convergens</i>	C	N	A (forest)	E of Rocky Mts.
	<i>Oxypoda hiemalis</i>	C	N	G	E of Rocky Mts.
	<i>Oxypoda perexilis</i>	U	N	***	E of Rocky Mts.
	<i>Thamiarea brittoni</i>	U	N	A (forest, at sap flows)	E NA
	<i>Aleocharinae sp. 1</i>	-	-	-	-
	<i>Aleocharinae sp. 2</i>	-	-	-	-
	<i>Aleocharinae sp. 3</i>	-	-	-	-
	<i>Aleocharinae sp. 4</i>	-	-	-	-
	<i>Aleocharinae sp. 5</i>	-	-	-	-
Euaesthetinae	<i>Euaesthetus chantali</i>	U	N	G	NE NA
Omaliinae	<i>Eusphalerum pothos</i>	C	N	G	E of Rocky Mts.
Oxytelinae	<i>Apocellus sphaerocollis</i>	C	N	***	E of Rocky Mts.
	<i>Bledius sp. 1</i>	-	-	A (riparian)	-
	<i>Carpelimus sp. 1</i>	-	-	A (riparian)	-
Paederinae	<i>Astenus discopunctatus</i>	C	N	***	E of Rocky Mts.
	<i>Scopaeus sp. 1</i>	-	-	-	-
	<i>Sunius confluentus</i>	C	N	A (forest)	E of Rocky Mts.
Pselaphinae	<i>Rybaxis sp. 1</i>	-	-	-	-
Scaphidiinae	<i>Baeocera congener</i>	C	N	A (forest)	NE NA
Scydmaeninae	<i>Euconnus sp. 1</i>	-	-	-	-
Staphylininae	<i>Dinothenarus badipes</i>	C	N	G	E of Rocky Mts.
	<i>Neohypnus obscurus</i>	C	N	G	NA
	<i>Ontholestes cingulatus</i>	C	N	G	NA (except W U.S)
	<i>Oxybleptes kiteleyi</i>	U	N	***	E NA
	<i>Philonthus fusiformis</i>	U	N	G (pref. sandy substrate)	E of Rocky Mts.
	<i>Philonthus (female) sessor/blossius</i>	U	N	A (riparian)	NE NA
	<i>Philonthus politus</i>	C	E	G	Ubiquitous
	<i>Philonthus varians</i>	C	E	G	Ubiquitous
	<i>Platydracus fossator</i>	C	N	***	E of Rocky Mts.
	<i>Quedius laticollis</i>	C	N	G	E of Rocky Mts.
	<i>Rabigus laxellus</i>	U	N	***	N NA and Rocky Mts.

Staphylinidae of Manitoulin Alvars (cont.)

Subfamily	Species	Rarity	Origin	Habitat	Distribution
Steninae	<i>Stenus morio</i>	C	N	G	Holarctic
	<i>Stenus pauperculus</i>	U	N	***?	NE NA
	<i>Stenus sp. 1</i>	-	-	-	-
Tachyporinae	<i>Bryoporus rufescens</i>	C	N	G	NA
	<i>Carphacis effrenatus</i> <i>or nepigonensis</i>	C	N	A (forest)	NA
	<i>Ischnosoma virginicum</i>	C	N	G	E of Rocky Mts.
	<i>Ischnosoma pictum</i>	C	N	G	N NA
	<i>Lordithon anticus</i>	C	N	A (forest)	NE NA
	<i>Mycetoporus inquisitus</i>	C	N	G	NE NA
	<i>Mycetoporus triangulatus</i>	C	N	***	NE NA
	<i>Sepedophilus testaceus</i>	C	E	G	NA
	<i>Tachinus canadensis</i>	C	N	A (forest)	N NA
	<i>Tachyporus dispar</i>	C	E	G	NA
	<i>Tachyporus inornatus</i>	C	N	G	N NA
	<i>Tachyporus nitidulus</i>	C	N	G	Ubiquitous

### Comments on species that may be associated with alvars.

*Myrmoecia lauta*: This species lives in the nests of the Odorous House Ant (*Tapinoma sessile*) and preys upon larvae and eggs. The only other specimens known with habitat data are from an alvar (Almonte) and a suspected alvar (in the Hamilton area); this is the third Canadian locality known.

A photograph of this species with its host: <http://bugguide.net/node/view/46623>

*Oxypoda amica*: Most specimens known were collected in dry, sandy, open habitats including alvars and the interface between oak forest and a beach. However a handful of specimens have been collected in a bog, and from recently cut red spruce forests.

*Oxypoda perexilis*: The only specimen with habitat data from the most recent revision of *Oxypoda* was from a dry alvar but the Guelph collection has two specimens from a forest in Point Pelee National Park. Further collecting is necessary to confirm any habitat preferences.

*Apocellus sphaerocollis*: This is a common species in open habitat of all kinds, including alvars but also in agricultural fields. It is native but not at risk.

*Astenus discopunctatus*: This species is a specialist of drier, open habitats including prairies, old fields and alvars. It was very common under boulders in the spring.

*Oxybleptes kiteleyi*: This species is rarely collected and a specialist of open habitat with scattered trees including prairies, open savannah, old fields with border trees and alvars with trees. This is the westernmost record known, extending the range by 500km. Species of this genus form mating swarms, landing periodically on trees (and in pan traps).

A photo of this species: <http://bugguide.net/node/view/75809>

*Platydracus fossator*: This is mid-summer species that is attracted to carrion, dung and rotting fungi. Open forests seem to be preferred and this species' occurrence is predictable in drier oak, pine and mixed forests, oak savannah and alvars with trees. In Ontario, much of the favored habitat is under threat by human development but this remains a common species in the United States.

A photo of this beautiful species: <http://bugguide.net/node/view/436435/bgimage>

*Rabigus laxellus*: This species is uncommonly collected throughout its range and strongly prefers dry, open and 'scrubby' habitat including alvars and the alpine region of mountains. Unlike others with the same preferences, it is only rarely collected in crop habitats. The high numbers collected on the Manitoulin properties suggests that alvars are a primary habitat for this species. The only other Ontario localities known are the Ottawa and Trenton areas.

*Stenus pauperculus*: In the alvar survey, this species was found exclusively by rolling boulders in spring. Nothing was previously known about this species but *S. pauperculus* is probably a specialist of open habitats in general.