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A Preliminary, Annotated List of Beetles (Insecta: Coleoptera) from the UW-Milwaukee Field Station

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Abstract: Coleoptera, the beetles, account for nearly 25% of all known animal species, and nearly 18% of all described species of life on the planet. Their species richness is equal to the number of all plant species in the world and six times the number of all vertebrate species. They are found almost everywhere, yet many minute or cryptic species go virtually un-noticed even by trained naturalists. Little wonder, then, that such a dominant group might pass through time relatively unknown to most naturalists, hobbyists, and even entomologists; even an elementary comprehension of the beetle fauna of our own region has not been attempted. A single, fragmentary and incomplete list of beetle species was published for Wisconsin in the late 1800’s; the last three words of the final entry merely say, “to be continued.” The present, preliminary, survey chronicles nothing more than a benchmark, a definitive starting point from which to build. For we cannot hope to manage, or even fully appreciate, a community or ecosystem when we do not even know the magnitude or identity of the most species-rich components. Of 103 beetle families known or presumed to inhabit Wisconsin, this survey establishes the presence of 51 families. The annotated list documents approximately 127 species as well as 16 new county records and one new state record.

INTRODUCTION

The insect order Coleoptera, the beetles, constitutes the largest order of insects, or anything else for that matter. With well over 300,000 described species, beetles account for nearly 40% of all described insect species, 25% of all known animal species, and nearly 18% of all described species of life on the planet. Their species richness is equal to the total number of plant species in the world and six times the number of all vertebrate species. This incredible richness is, however, both a wonder and a curse. Beetles are found almost everywhere, yet many minute or cryptic species go virtually un-noticed even by trained naturalists. Their sheer, staggering numbers make the group exceedingly difficult for people to become reasonably acquainted with. The secretive habits and often modest to very minute size of many species make it difficult for most people to initiate study and such attempts depend on reasonably high-grade microscopy.

It is, then, perhaps little wonder that such a dominant group might pass through time relatively unknown to most naturalists, hobbyists, and even entomologists. And while many taxonomists and ecologists have, in recent years, turned their attention to the Tropics, even an elementary comprehension of the beetle fauna of our own region has not been attempted. Admittedly, there have been a handful of classical surveys of the Midwestern beetle fauna; a few species lists have been published for Michigan (e.g., Hubbard and Schwarz 1878, Andrews 1921, Hatch 1925) Indiana (e.g., Blatchley 1910), Iowa (e.g., Wickham 1911, Hendrickson 1930, 1931), and Minnesota (Lugger 1899). However, historically, but a single, fragmentary and incomplete list of beetle species has been published for Wisconsin.
It is with this backdrop and immense knowledge gap that I initiated a career-long objective to focus, along with many of my graduate students, on Wisconsin’s insect diversity, with particular reference to Coleoptera. Even the results of these surveys must be considered as providing merely a baseline; continued research and sampling will undoubtedly lead to the discovery of additional species for most of the families surveyed. However, each taxonomic (e.g., checkered beetles of Wisconsin) or site survey chronicles a benchmark and a definitive starting point from which to build. Each also begins to offer opportunities for colleagues, state and federal agency workers, land managers, ecologists, naturalists, and others to mine our data to address their own sets of specific questions and concerns.

**METHODS**

Over the past 20+ years, I have visited the UW-Milwaukee Field Station (UWMFS) numerous times to conduct workshops, outreach programs, for speaking engagements, and a few small research projects. The purpose of this preliminary report is to establish a longer-term, defined survey of the beetles of the UWMFS. For 2011, the first field season, the project goals were modest. During the 14-week period of 25 July to 27 October 2011, a single Malaise trap was run, with samples collected weekly. The trap was located just inside the old growth beech-maple forest west-southwest of the office building at 43.38567°N/-88.02638°W (WGS84).

Weekly samples were collected in 80% ethyl alcohol (EtOH) that had been placed into the standard collecting head of the Malaise trap. During each site visit, the trap was inspected and adjusted as required to account for storm effects, etc. The sample was removed, a new sampling container put in place, and the sample returned to Madison for preparation. During the end of July and through August, “raw” samples were cleaned (Tipulidae + Limoniidae and Lepidoptera were discarded because they do not withstand this collecting technique particularly well) and the remaining arthropods were sorted into fractions. The spiders were segregated and the insects were, with a few exceptions for unusual taxa, sorted into: (1) Coleoptera, (2) Hymenoptera, (3) Diptera, and (4) “other” miscellaneous insect groups. All sample fractions exclusive of Coleoptera were taken to the University of Wisconsin-Madison Insect Research Collection (WIRC) for further processing and eventual incorporation into the WIRC general holdings.

The Coleoptera were extracted from the EtOH, mounted (directly pinned or point-mounted as appropriate), and labeled with complete locality data labels per standard labeling procedures. Once mounted and labeled, beetle specimens were sorted into family groups; the gross numbers of each family were quantified in a tabular form. Next, to the extent possible, the family representatives were further identified to genus and species.

Later in the field season, a small bottleneck began to develop with mounting and labeling. At this point, once the beetle fraction had been separated from the others, specimens were separated while still in EtOH, tallied by family, and returned to the beetle fraction jar/vial for that collection date. A temporary “wet label” was placed in each sample so no data would be compromised; mounting and labeling backlogs
will be processed over the winter months.

On 11 August, a brief period of “hand-collecting” from vegetation and beneath loose bark of dead logs took place. A sample of decaying polypore from a large, standing, dead maple was also taken, returned to Madison, and processed in a Berlese funnel to extract the beetles. In the following list, specimens thus collected are specifically noted [by date, in brackets].

RESULTS

Of 103 beetle families known or presumed to inhabit Wisconsin (Young unpublished), these preliminary results establish the presence of 45 families from the single Malaise trap, as well as six additional families from miscellaneous collecting I did at the Station from 1983-1985. Samples included representatives of all three beetle suborders expected to occur in Wisconsin. The following list is presented in phylogenetic order by commonly recognized hierarchy from suborder to species. Where a species-level determination was not immediately possible, some indication of probable morphospecies richness is presented. The common names provided for each family follow those of Arnett and Thomas (2001) and Arnett et al. (2002), since there is no general agreement on, or administration of, common names.

Annotations relating to the collection events, natural history, and other observations are provided for numerous species. With the general paucity of systematic beetle collecting at the Station or in Ozaukee County, and locality data uncommonly recorded for beetle species in most publications, it is highly likely that most of the records presented below represent new county records for Wisconsin. However, I have indicated this only within the context of those families for which recent state surveys have been published and for which I am confident these do, in fact, represent the first such records. In those instances, I use the notation, NEW COUNTY RECORD. In one case, the same criteria are used to indicate a NEW STATE RECORD.

Order COLEOPTERA

Suborder ARCHOSTEMATA

CUPEDIDAE (The reticulated beetles)

*Tenomerga cinereus* (Say)
Numbers may suggest this species was near the end of its flight season when the trap was established. Larvae of this ancient beetle lineage develop in the heartwood of firm, but fungal-infested dead hardwoods (Young 2001).

Suborder ADEPHAGA

CARABIDAE (The ground beetles)

The “ground beetles” are a dominant family of largely geophilic beetles. As such, recovery of even a small fraction of the true species richness would not be expected using a Malaise trap. Best methods include pitfall and light trapping as well as hand collecting.
Lebia fuscata Dejean
Species of Lebiinae, including Lebia, are atypical for Carabidae in that they are more prone to be arboreal.

One unidentified species
One species was collected 11 August 2011 beneath the bark of a ca 2-year-dead hardwood.

Suborder POLYPHAGA

Series STAPHYLINIFORMIA

Superfamily HYDROPHILOIDEA
HYDROPHILIDAE (The water scavenger beetles)
Cercyon lateralis (Marsham)
Though species of this family are more typically associated with aquatic communities, the 15 specimens of C. lateralis belong to a subfamily associated with dung and decaying organic material. On 11 August 2011, decaying polypore material on the trunk of a large, standing, dead Acer sp. was encountered. A sample of this material was bagged and brought back to the lab where it was placed in a Berlese funnel. The specimens were extracted from this sample.

HISTERIDAE (The clown beetles)
One unidentified species
The single specimen was recovered from the 11 August 2011 Berlese sample of decaying polypore noted, above.

Superfamily STAPHYLINOIDEA
HYDRAENIDAE (The minute moss beetles)
Hydraena pennsylvanica Kiesenwetter
Larvae are semiaquatic and adults are mostly aquatic. However, Perkins (1980) observed, “The repeated occurrence of ‘bog’ and ‘sphagnum’ in the locality data suggest that this is the preferred habitat of H. pennsylvanica.”

PTILIIDAE (The feather-winged beetles)
One unidentified species
Eight specimens were recovered from the 11 August 2011 Berlese sample of decaying polypore noted, above.

LEIODIDAE (The round fungus beetles)
One unidentified species
Two specimens were recovered from the 11 August 2011 Berlese sample of decaying polypore noted, above.

SILPHIDAE (The carrion beetles)
The carrion and burying beetles are primarily saprophagous or coprophagous. Adults of Nicrophorus spp. exhibit complex, subsocial, cooperative behavior in burying small dead mammals that are prepared and fed to their larvae. They have extremely sensitive chemoreceptors for locating dead organic material and as a trap accumulates specimens over a period of several days, the dying and dead specimens no doubt serve as a “bait” to attract silphids. Once a silphid finds its way into the trap, its carrion-laden odor serves to amplify the “bait effect.”
Necrophila americana (Linnaeus)
Nicrophorus orbicollis Say
The 15 specimens represent a NEW COUNTY RECORD as the species has not been previously reported from Ozaukee County (Katovich, et al. 2005).
Nicrophorus tomentosus Fabricius
STAPHYLINIDAE (The rove beetles)

*Ontholestes cingulatus* (Gravenhorst)
This common species is a predator of fly larvae and other insects frequenting dung, carrion, and decaying fungi (Newton, *et al.* 2001).

*Philonthus caeruleipennis* (Mannerheim)
This is a common member of forest litter, carrion, and decaying fungal communities (Newton, *et al.* 2001).
Approximately 7-10 additional, unidentified species

Series SCARABAEIFORMIA

Superfamily SCARABAEOIDEA

GEOTRUPIDAE (The earth-boring dung beetles)

*Bolbocerus simi* (Wallis)
Kriska and Young (2002) did not find this species in Wisconsin. The single specimen taken during the 25 July – 03 August Malaise trap sample period constitutes a **NEW STATE RECORD**.

SCARABAEIDAE (The scarab beetles)

*Serica mystaca* Dawson
Kriska and Young (2002) recorded this species from Pierce, La Crosse, Sauk, and Dane counties. The single specimen recovered from the 25 July – 03 August Malaise trap sample constitutes a **NEW COUNTY RECORD**.

Series SCIRTOIDEA

EUCINETIDAE (The plate-thigh beetles)

*Eucinetus morio* LeConte
Larvae and adults are mycophagous.

SCIRTIDAE (The march beetles)
This is the only family to have been recovered from every one of the 12 sampling dates, and it was, in terms of total trap catch, the most commonly collected family. Larvae are aquatic but can withstand considerable drying of the microhabitat and have been found in damp, decaying wood and leaves (Young 2002).

*Scirtes tibialis* Guérin-Méneville

*Cyphon pusillus* (LeConte)
This was, by far, the most abundant scirtid, and most abundant beetle for that matter, collected during the 2011 field season. It was also common throughout the 1987 field season at the Field Station as reported by Young (1988).

*Cyphon* spp.
Several species are represented; they need to be dissected to enable identification to species level.

Series ELATERIFORMIA

Superfamily BUPRESTOIDEA

BUPRESTIDAE (The metallic wood-boring beetles)

*Agrilus* sp. (♀)
In many cases, accurate species-level identification for this genus requires males. While the specimens are definitely not the invasive emerald ash borer, *Agrilus planipennis* Fairmaire, it is not possible to determine with a high probability which of our native *Agrilus* is
EUCNEMIDAE (The false click beetles)
There are four unidentified species in the Malaise samples.

THROSCIDAE (The false metallic wood-boring beetles)
*Aulonothroscus distans* Blanchard

ELATERIDAE (The click beetles)
Each of the two species listed is almost certainly a new county record. Dogger (1959) listed both species from Wisconsin, but he did not list counties or more specific site data for any of his records.

*Campedus areolatus* (Say)
*Hemicrepidius memnonius* (Herbst)

LYCIDAE (The net-winged beetles)
*Plateros* sp.

LAMPYRIDAE (The firefly beetles)
*Pyropyga decipiens* (Harris)
*Photinus* sp. 1
*Photinus* sp. 2

CANTHARIDAE (The soldier beetles)
*Chauliognathus pensylvanicus* (DeGeer)
This very common species, known from all 72 Wisconsin counties, is frequently seen on *Solidago* spp. and numerous other inflorescences (Williams 2006).

**Series BOSTRICHIFORMIA**

Superfamily BOSTRICOIDEA

PTINIDAE (The death-watch beetles)
*Byrrhodes intermedius* (LeConte)
This species is associated with “woody” fungi (e.g., *Fomes* spp., *Ganoderma* spp.). **NEW COUNTY RECORD.**

*Coenocara oculata* (Say)
Development of this species is known to take place in the puffballs (*Lycoperdon* and *Scleroderma*). **NEW COUNTY RECORD.**

*Dorcatoma setulosa* LeConte
This species has been associated with fungi; it has been observed to develop in *Polyporus cuticularis*. **NEW COUNTY RECORD.**

*Sculptotheca puberula* (LeConte)
According to Arango and Young (2012), this “is the most frequently collected ptinid using passive trapping [in Wisconsin forests].” **NEW COUNTY RECORD.**

*Xyletinus fucatus* LeConte
Dead oak and basswood twigs are known to serve as developmental sites for this species. **NEW COUNTY RECORD.**

**Series CUCUJIFORMIA**

Superfamily CLEROIDEA

CLERIDAE (The checkered beetles)
*Cymatodera bicolor* (Say)
Several specimens were collected (2-6 July 1984) from a cantharidin-baited jar trap on one of the “Bog Islands” in Cedarburg.
Bog. These were referred to by county in Dorshorst and Young (2008).

**MELYRIDAE (The soft-winged flower beetles)**

*Attalus terminalis* (Say)
A single specimen was extracted from a Malaise trap sample, 17 June – 02 July 1984.

*Malachius aeneus* (Linnaeus)
A single specimen was recovered from a Malaise trap sample, 06 – 22 May 1985.

**Superfamily CUCUJOIDEA**

**BYTURIDAE (The fruitworm beetles)**

*Byturus unicolor* Say
Larvae feed and develop in fruiting heads of brambles, raspberries (*Rubus* spp.) and *Geum* spp. Adults can commonly be found on flowers of a wide variety of species.

**SPHINDIDAE (The dry fungus beetles)**

*Odontosphindus denticollis* LeConte
Like all species of Sphindidae, *O. denticollis* develops on or inside slime mold sporocarps.

**EROTYLIDAE (The pleasing beetles)**

*Dacne quadrimaculata* (Say)
A single specimen was Berlese-extracted (11 August 2011) from a sample of decaying polypore material that was found on a standing, dead *Acer* sp.

*Triplax thoracica* Say
*Tritoma mimetica* (Crotch)
*Tritoma pulchra* Say
*Tritoma sanguinipennis* (Say)

**CRYPTOPHAGIDAE (The silken fungus beetles)**

*Antherophagus ochraceus* Melsheimer
A specimen was collected 03 August 1985 while sweeping prairie vegetation and flowers. Adults are commonly found on flowers but they are also known to be phoretic on bumble bees (*Bombus* spp.) and they have been found in bumble bee nests (Leschen and Skelley 2002).

**CUCIJIDAE (The flat bark beetles)**

*Cucujus clavipes* Fabricius
A larva was hand-collected (11 August 2011) beneath loose bark of a dead shagbark hickory.

**PASSANDRIDAE (The parasitic flat bark beetles)**

*Catogenus rufus* (Fabricius)
A single specimen was taken from a Malaise trap sample (12-15 June 1984). Larvae are ectoparasitoids of “wood-inhabiting insects, especially pupae of Cerambycidae” (Thomas 2002).

**PHALACRIDAE (The shining flower beetles)**

One unidentified species

**LAEMOPHLOEIDAE (The lined flat bark beetles)**

*Charophloeus adustus* (LeConte)
*Placonotus zimmermannii* (LeConte)

**NITIDULIDAE (The sap-feeding beetles)**

*Epurea* sp.
*Glishrochilus fasciatus* (Olivier)
*Glishrochilus quadrisignatus* (Say)
The common “picnic beetles” are typically attributed to
Glishrochilus spp. (Price and Young 2006). A single specimen of *G. quadrisignatus* was recovered from the 11 August 2011 Berlese sample of decaying polypore material collected on standing, dead *Acer* sp.

*Stelidota* sp.

**ENDOMYCHIDAE (The handsome fungus beetles)**

*Endomychus biguttatus* Say

The “Ozaukee Co.” specimens cited by Price and Young (2007) came from the Station.

*Lycoperdina ferruginea* LeConte

Larvae of this species feed on and develop in puffballs, especially the common “pear-shaped puffball”, *Lycoperdon pyriforme*. The “Ozaukee Co.” specimens (Price and Young 2006) came from the Station.

*Mycetina perpulchra* (Newman)

Two specimens taken from the 11-17 August 2011 Malaise trap sample constitute a **NEW COUNTY RECORD** for this species.

**COCCINELLIDAE (The ladybird beetles)**

*Cycloneda munda* (Say)

*Hyperaspis binotata* (Say)

This species is a predator of various Hemiptera (Auchenorrhyncha and Sternorrhyncha).

*Psyllobora vigintimaculata* (Say)

“Powery mildew” is the food for development of this small ladybird beetle.

**CORYLOPHIDAE (The minute fungus beetles)**

*Sericoderus* sp.

*Holopsis marginicollis* (LeConte)

**LATRIDIIDAE (The minute brown scavenger beetles)**

*Melanophthalma americana* Mannerheim

**Superfamily TENEBRIONOIDEA**

**MYCETOPHAGIDAE (The hairy fungus beetles)**

*Litargus tetraspilotus* LeConte

*Mycetophagus flexuosus* Say

One specimen was recovered from the 11-17 August 2011 Malaise trap sample, while three additional specimens were extracted from the 11 August 2011 Berlese sample of decaying polypore material that had been collected on the trunk of a standing, dead *Acer* sp.

*Mycetophagus punctatus* Say

**CIIDAE (The minute tree-fungus beetles)**

Presumably one unidentified species

Five specimens were extracted from the 11 August 2011 Berlese sample of decaying polypore material collected on the trunk of a standing, dead *Acer* sp.

**TETRATOMIDAE (The polypore fungus beetles)**

Species of this family feed and develop as larvae primarily on the fruiting bodies of hymenomycete fungi (Young and Pollock 2002). This was the second most commonly encountered beetle family, as measured by trap catch, in the 2011 Malaise trap.

*Eustrophus tomentosus* Say

*Hallomenus scapularis* Melsheimer

*Synstrophus repandus* (Horn)

This species accounted for over 70% of all the tetratomids sampled.
MELANDRYIDAE (The false darkling beetles)
Dircaea literata (LeConte)
Orchesia cultriformis Laliberte

MORDELLIDAE (The tumbling flower beetles)

Phenological data (Table 1) indicate the species were possibly beyond their respective peak flight periods when the Malaise trap was first installed. Twelve specimens were recovered from the first sample; the numbers fell to five, one, and two during the next three sampling periods and no mordellid was collected beyond the 17-22 August sample.

Mordellaria serval (Say)
Mordellistena badia Liljeblad
The seven specimens taken from the 25 July – 03 August (n = 4), 03-11 August (n = 2), and 17-22 August 2011 (n = 1) Malaise trap samples constitute a NEW COUNTY RECORD for this species, having not been recorded by Lisberg and Young (2003).

Mordellistena limbalis (Melsheimer)
Two specimens taken from the 25 July – 03 August 2011 Malaise trap sample constitute a NEW COUNTY RECORD for this species.

Mordellistena smithi Dury
Two specimens taken from the 03-11 August 2011 Malaise trap sample constitute a NEW COUNTY RECORD for this species.

Mordellistena tosta LeConte
Two specimens from the 25 July – 03 August 2011 Malaise trap sample and one specimen from the 03-11 August material constitute a NEW COUNTY RECORD for this species.

Mordellistena trifasciata Say
Single specimens from the 25 July – 03 August and 11-17 August 2011 Malaise trap samples constitute a NEW COUNTY RECORD for this species.

Paramordellaria triloba (Say)
The single specimen taken from the 25 July – 03 August 2011 Malaise trap sample constitutes a NEW COUNTY RECORD for this species.

Tolidomordella discoidea (Melsheimer)
The single specimen taken from the 25 July – 03 August 2011 Malaise trap sample constitutes a NEW COUNTY RECORD for this species.

RIPIPHORIDAE (The wedge-shaped beetles)
Ripiphorus sp.
Larvae develop as endoparasitoids of ground-nesting bee larvae. The free-living adults are most commonly found on flowers where they mate and females lay their eggs. As the larvae eclose from their eggs, they seek appropriate bees that are visiting the flowers, they attach themselves to the adult bee, and are carried, phoretically, back to the nest of the bee. Four specimens were hand-collected from flowers of Daucus carota between 30 July and 03 August 1985.

TENEBRIONIDAE (The darkling beetles)
Hymenorus niger (Melsheimer)
Previously not recorded from southeastern Wisconsin (Dunford and Young 2004), this is a NEW COUNTY RECORD for this species.

SYNCHROIDAE (The synchroa beetles)
Synchroa punctata Newman
MELOIDAE (The blister beetles)

*Epicauta pensylvanica* (Degeer)

Larvae of *Epicauta* are predaceous on egg masses of grasshoppers (Orthoptera: Acrididae). Adults of this species are frequently observed visitors, often in numbers, on flowers; especially flowers of *Solidago* spp.

PYROCHROIDAE (The fire-colored beetles)

*Dendroides canadensis* (Latreille)

Larvae of this, our most common North American *Dendroides*, are exceedingly common beneath the somewhat loose bark of dead trees, where they feed largely in the subcortical region on woody material and fungal mycelium. Adults are most active at night and can often be collected at lights (Young 1975, 2002).

*Pedilus impressus* (Say)

Numerous males were collected at cantharidin-baited jars traps (May 1985) at several sites. Like most *Pedilus*, males of this species have long been known for their attraction to cantharidin (Young, personal observations) and the blister beetles that produce it (e.g., Young 1984). In fact, the specimen Thomas Say had in hand when he originally described *P. impressus* was collected by him, “early in May, attached to the side of a” blister beetle.

*Pedilus lugubris* (Say)

Numerous males were collected at cantharidin-baited jars traps (May- June, 1984-1985) at several sites. This, perhaps our most abundant and wide-spread Wisconsin *Pedilus* has long been known for its attraction to cantharidin (Young, personal observations) and the blister beetles that produce it (e.g., Young 1984, Williams and Young 1999).

ANTHICIDAE (The antlike beetles)

*Notoxus anchora* Hentz

A single specimen was collected (16-17 July 1983) from a cantharidin-baited filter paper disk.

*Notoxus desertus* Casey

Seven specimens were recovered on 12-15 June 1984 (n = 4) and 16-29 June 1984 (n = 3) from a cantharidin-baited jar trap set in a grassy slope within the mature upland forest south- southwest of the office building.

SCRAPTIIDAE (The false flower beetles)

*Anaspis rufa* Say

Adults are often very common on flowers (Young, personal observations).

*Canifa pusilla* (Haldeman)

Larvae are not uncommonly encountered beneath bark of dead trees (Young 1991); adults can be commonly collected from passive traps such as Malaise, flight-intercept, and Lindgren Funnel traps (Young, personal observations).

Superfamily CHRYSOMELOIDEA

CERAMBYCIDAE (The long-horned beetles)

*Astylopsis macula* (Say)

*Hyperplatys maculata* Haldeman

*Orthosoma brunneum* ( Förster)

*Steneyltrana emarginata* (Fabricius)
The single specimen collected from the 25 July – 03 August Malaise trap sample appears to be the first Wisconsin specimen of *S. emarginata* collected since a small Crawford County series collected in 1948 (Young, personal observations).

*Toxotus schaumii* LeConte

A single specimen collected from a 17 June – 02 July 1984 Malaise trap sample appears to be the first Wisconsin specimen of this species collected since a single Door County specimen (28 July 1929) and a single Gays Mills (Crawford Co.) specimen collected 28 June 1930 (Young, personal observations).

*Typocerus velutinus* (Olivier)
*Urgleptes foveatocollis* (Hamilton)
*Urographus fasciatus* (DeGeer)
*Xylotrechus colonus* (Fabricius)

**CHYSOMELIDAE (The leaf beetles)**

*Altica chalybea* Illiger [Malaise trap; 11 August 2011 on foliage of *Vitis* sp. - feeding]
*Xanthonia decemnotata* (Say)
*Plagiometriona clavata* (Fabricius) [11 August 2011 developing on foliage of *Solanum dulcamara*]

**Superfamily CURCULIONOIDEA**

**ANTHRIBIDAE (The fungus weevils)**

One unidentified species.

As the common name implies, species of this family are largely associated with fungi both as larvae and adults. Some groups, however, feed as larvae in plant stems with adults feeding on pollen; still others are associated with dead woody materials.

**BRENTIDAE (The straight-snouted weevils)**

*Arrenodes minutus* (Drury)

Larvae bore deeply into the heartwood of dead hardwoods where they develop on the decaying wood and perhaps fungal mycelium. Adults can be found beneath bark; they are also commonly seen at night on logs where they mate and females lay eggs after having bored oviposition holes with their characteristically long, rostrate head.

**CURCULIONIDAE (The snout beetles and true weevils)**

*Acoptus suturalis* LeConte
*Barypeithes pellucidus* (Boheman)
*Calomycterus setarius* (Roelofs)
*Gymnetron antirrhini* Paykull
*Hylastinus obscurus* Marshall
*Madarellus undulates* (Say)
*Myrmex chevrolatii* (Horn)
*Stethobaris ovatus* (LeConte)

This species is commonly encountered on a variety of inflorescences and seed pods (Dunford, *et al.* 2006).
Table 1. Order COLEOPTERA (Known to Occur at the UWMFS) from 2011 Malaise Trap data (25 July – 27 October 2011). Numbers associated with trap dates are quantitative specimen counts (not species).

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<th>8/11 to 8/17</th>
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ACKNOWLEDGEMENTS

I am grateful to the UW-Milwaukee Field Station staff, in particular Gretchen Meyer for granting me the 2011 research permit to conduct the sampling that led to this contribution, and to James Reinartz for assisting with trap monitoring when I was unable to make it over to the Station to change out a sample. I also thank the following colleagues who assisted with identifications for those taxa with which they have specific expertise: Jeffrey Gruber (Histeridae), Rachel Arango (Ptinidae), and Steven Krauth (Curculionidae).

REFERENCES


