



Wisconsin Entomological Society

Newsletter

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Curiosity Leads to Discovery!

By M. J. Hatfield and Marci Hess

When we think of prairie remnants and restorations, we often think of the plants, sometimes we think of the birds or mammals that use them, and occasionally we'll consider the "herptiles" that live there. Sometimes we create management plans to protect these species; sometimes we create inventories of these species. But what about the thousands of other inhabitants that reside in our ecosystems? What about the insects and their functions? What about those that have yet to be discovered?

It's a curious aspect of ecological restoration and management that insects are often ignored. When they are on top of our minds, it's usually because we are complaining about them as being pesky and biting us. The irony of this is they could live just fine without us, probably even better without us, but we would not last long without our insects. They provide benefits that we take for granted. We might be more humble and

considerate of them if we knew more about them and how they interacted with our landscape. What benefits do they bestow on the plants? What purpose do they serve in the cycle of life? How many insects does one plant support?

Here is an example of an undescribed and unnamed insect living right under our noses, in a familiar savanna plant, Horse Gentian or *Triosteum perfoliatum*. Little was known about them until a curious prairie enthusiast with a keen interest in insects went looking!

In May of 2009, while M. J. Hatfield was collecting insects, she found several beautiful caterpillars that blended in so well on *Triosteum perfoliatum* that one had to look very closely to see them (below).



After searching books and the Internet, M. J. found one entry from the Brooklyn Entomological Society in 1921. The author, Charles Rummel, had published a brief account and description of a caterpillar feeding on *Triosteum*, which he identified as *Adita chionanthi* (now *Sympistis chionanthi*). The caterpillar description seemed to match the ones M. J. found but wanting to be sure of the identification, she did some further research and learned that the caterpillar of *A. chionanthi* looks nothing like the *Triosteum*-feeding caterpillar that she found. Something was amiss, so she sent photos of it to Dr. David Wagner, author of several eastern North America caterpillar books, for a professional identification. Dr. Wagner identified the caterpillar as a new species.



The nearly 5-year project resulted in describing and documenting the caterpillar and resulting moth, which were named *Sympistis forbesi*. This moth is nearly

identical to and indistinguishable from the adult *S. chionanthi*, or Fringe-Tree Sallow, but the caterpillars look very different and feed on different host plants. So, while Rummel's caterpillar description matched what M. J. found, his identification was in error because it wasn't known that there were two adult moths that looked so much alike! This is a highly unusual situation because these adult moths are impossible to tell apart even when testing the genetic markers for each of them! In the cycle of an insect's life, the larvae are often host specific, meaning that they require a certain family, genus, or species of plant/insect in order to survive. With many insects still *not* described and named, it emphasizes the importance of understanding the host plant needs of the insects.

Perhaps it has been acknowledged just in time to be saved! The official description and name weren't released until after the publication of David Wagner's *Owlet Caterpillars of Eastern North America*, where he states, "We know of few recent collections of the *Triosteum* feeder and suspect the species may be in decline in the eastern part of its range, partly due to overbrowsing of its food plant by white-tailed deer."

How fortuitous! A new species is identified before it becomes endangered. We, as ecological managers, need be aware that there is a lot we just don't know and we need to take that into account when we structure our management of plants. This is important because we need to view our ecological systems from a broader outlook than just a few of the biotics that live there. Insects are a critical and often overlooked component of our habitats. Is this because of their small size? Their vast numbers? Their diverse appearance? What if every time we walked through an ecosystem, we spent a few more minutes and looked a bit closer? The next time you're out, let your curiosity take over. Challenge yourself to investigate at least three plants more thoroughly for insects or herbivory. It could save a life!

The results of this project are published in ZooKeys and can be downloaded for free: <http://www.pensoft.net/journals/zookeys/article/5765/abstract/a-new-cryptic-sympistis-from-eastern-north-america-revealed-by-novel-larval-phenotype-and-host-plant-association-lepidop>

More photos can be seen on BugGuide: <http://bugguide.net/node/view/897842/bgimage>

Collecting Insects Using a "Flight Intercept Trap"

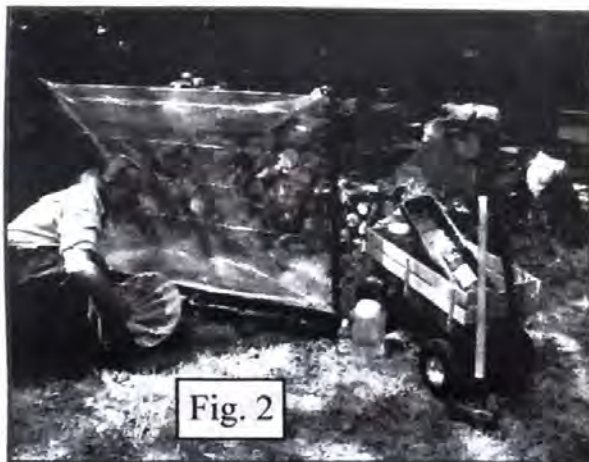
By Mark Evans

Many of us who collect insects, whether we focus on specific taxa or wish to sample specific habitats, seek simple and effective methods to help us find species not easily found using traditional collecting techniques. One very effective trapping method which captures diverse groups, often collected in no other way, is a flight intercept trap (FIT). This trap system relies on creating a barrier that flying insects hit, causing them to fall into a trap. The system I describe below is inexpensive and includes a few modifications from traps I've seen or heard about from others.



The way I set up an FIT is to use a sheet of heavy, clear plastic sheeting suspended between two metal fence posts or else tied to tree branches. Using plastic clip-on "tarp ties" (see Fig. 1), it is easy to tie out the plastic sheets and hold them taut (see Fig. 2). Under the bottom edge of the sheet, two

32-inch long plastic wallpaper roll soaking tubs are placed, end-to-end, with about an inch of water in the bottom. A few drops of liquid anti-bacterial soap are added to the water to break the surface tension and help retard decomposition.



I check any FITs daily. To get material from the long tubs into alcohol, I either pour the water from the tubs directly through a fine meshed strainer, like a tropical fish net, or into a plastic wash tub and then through the small strainer (see Fig. 3).



Then, I can invert the small strainer into a white, plastic margarine dish of alcohol (see Fig. 4) that already contains a hand-written data label for the site. From there, the specimens, alcohol and the label can be easily poured into a baby-food jar for transport and storage. Sometimes I drain off the used alcohol (which may become diluted with insect body fluids) within the first day and re-top the jar with fresh 70% alcohol.



When I'm using these traps, I'm usually running 6 to 12 at a time along some route or scattered in an area, in brush, in the open, along edges of forest areas, in swamps, in meadows, by wood piles, etc. Each sample is labeled by date along with the trap's habitat characteristics and I keep separately each day's collection from each trap. Jars are kept in a plastic box representing that camping trip or collecting interval until they can be sorted under a ring-light magnification lamp attached to my desk at

home. One such initial sorting of part of one sample into alcohol in a plastic petri dish, showing beetles, flies and Hymenoptera, is shown in Fig. 5.



The *Wisconsin Entomological Society Newsletter* is published three times per year. The newsletter is provided to encourage and facilitate the exchange of information by the membership, and to keep members informed of the activities of the organization. Members are encouraged to contribute items for inclusion in the newsletter. Please send all news items, notes, new or interesting insect records, seasonal summaries, and research reports or requests to the editor.

2014 dues notices were sent out in January. Please note that the year through which dues are paid appears on the newsletter's mailing label after your name.

Membership Dues:

Individual or family: \$10 per year

Sustaining: \$15 per year

Patron: \$25 per year

Please make checks payable to WES and send to:
Les Ferge, Treasurer, 7119 Hubbard Avenue,
Middleton, WI 53562-3231. lesferge@gmail.com
Please report any address changes to the Treasurer.

Books and Websites

By Andrew Khitsun

The Book of Beetles: A Life-size Guide to Six Hundred of Nature's Gems by P.

Bouchard celebrates the beauty and variety of beetles and is a great gift. **A Guide to the Cockroaches of Australia** by D. Rentz is a good gift, too, despite some of the species of that group giving the rest a bad name. This guide to 550 (!) species found on that continent is richly illustrated with 700 photographs. **Honeybee Democracy** by T. Seeley is an interesting read, in popular language describing major challenges of the hive and how bees overcome them as a group.

Much more scientific (and much more expensive), **Bark Beetles: Biology and Ecology of Native and Invasive Species** by F. Vega, et al., should be available by the time you read this. **Aquatic Insects of Wisconsin** by W. Hilsenhoff can be purchased as a hard copy or downloaded as a .pdf file at

<http://learningstore.uwex.edu/Aquatic-Insects-of-Wisconsin-P590.aspx>.

Previously mentioned in this column, the **Canadian Journal of Arthropod Identification** at <http://www.biology.ualberta.ca/bsc/ejournal/ejournal.html> has produced several more beautiful works, available as .pdf downloads: **The Cantharidae of Eastern Canada and Northeastern United States; An Illustrated Identification Key to Assassin Bug Subfamilies and Tribes; Stink Bugs and Parent Bugs of Ontario and Adjacent Areas; Ants of Alberta: A Key to Species Based Primarily on the Worker Caste; Key to the Genera of Nearctic Syrphidae; Siricidae of the Western Hemisphere; Bees of the Genus *Dufourea* of Canada; Cluster Flies of North America; Leafcutter and Mason Bees of the Genus *Megachile* in Canada and Alaska; A Matrix Key to Families, Subfamilies and Tribes of Lepidoptera of Canada; The Fireflies of Ontario; The Fruit Flies of Ontario; Staphylinidae of Eastern Canada & Adjacent United States; Blow Flies of Eastern Canada; Key to the World Genera and North American Species of Clusiidae (Diptera).**

An online guide to spiders: **The Spiders of the Arid Southwest** can be found at University of New Mexico's website at: <http://aces.nmsu.edu/academics/spider/>. There is a small but still interesting website on Woodwasps: **Sirex Working Group** at: <http://www.woodwasps.com/woodwasps>.

On another order than the Insecta, we have **Photographic Key to Crayfish of Maryland** that can be found at www.dnr.state.md.us/irc/docs/00015708.pdf. **The Crayfishes of Kentucky** by C. Taylor, et al., on the other hand, is a hardcover book with good photos and drawings, and can be purchased from the Illinois Natural History Survey at: <http://www.inhs.illinois.edu/resources/inhspublications>.

While there, you can also buy **Butterflies of Illinois** by M. Jeffords, et al., **Field Guide to Silkmoths of Illinois** by J. Bouseman, et al., **Field Guide to the Sphinx Moths of Illinois** by G. Sternburg, et al., and **Field Guide to the Skipper Butterflies of Illinois** by J. Bouseman.

The website www.nearctica.com that used to have extensive databases of North American wildlife with a goal of documenting all of

the living organisms on the continent, has ceased to exist in that form, instead having seen a rebirth as host to **Nomina Insecta Nearctica** — a complete synonymical checklist of the approximately 90,000 species of insects of North America north of Mexico, published by Entomological Information Services. It also has a subchapter under construction on **Noctuidae of North America**.

On the plant front, **Field Guide to Wisconsin Grasses** by Emmet J. Judziewicz continues the format started by **Field Guide to Wisconsin Sedges**, with more field guides expected in the future.

Book notices

— WES member Nancy Collins has recently published the children's book, **All About Tree Crickets** (2014, Outskirts Press). Congratulations, Nancy!

— The Wisconsin Department of Natural Resources is reprinting its 2005 field guide, **Guide to the Grasshoppers of Wisconsin**, by Kathryn Kirk and Charles R. Bomar. The new edition of the guide has not yet been released. Questions about the book's publication timescale may be directed to

Wisconsin DNR biologist Dreux J.

Watermolen (editor of the previous edition):
at:

dreux.watermolen@wisconsin.gov.



The Witch in Wisconsin

By Jim Ebner

The Black Witch (*Erebus odora*) is a large day moth that resides commonly in the tropics of North America, but may, on occasion, migrate as far north as Canada. It has been recorded from Wisconsin sparsely and inconsistently. A specimen was recently observed by Ron Barwick, resting on a brick wall in Oconomowoc. He estimated the date of the sighting to be late May, or very early June, 2014.

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Winners of the 2014 Photo Salon Contest:



First Place: Karl & Dorothy Legler

Photo of Pipevine Swallowtail (*Battus philenor*),
reared and released in summer 2014.



Second Place: Kyle Johnson

Photo of Fawn Sallow (*Psaphida styracis*).



Third Place: Nancy Collins

Photo of Forbes' Tree Cricket (*Oecanthus forbesi*) on
flower, w/ European Paper Wasp (*Polistes*
dominula).

**Poweshiek Skipperling Added to
Endangered Species List**

On 23 October 2014, the Poweshiek Skipperling,
Oarisma poweshiek, was formally added to the list of
endangered species under the Endangered Species
Act.

Editor's note – The following is an abstract of a talk to be delivered at the annual meeting of The Prairie Enthusiasts, on 21 March 2015, at Stevens Point, Wisconsin.

Think globally, flutter locally: Prairie butterfly conservation from a worldwide perspective

By Ann B. Swengel

Sobering, harsh, hopeful, inspiring: that's butterfly conservation globally and in prairie. Regardless of ecosystem type, most butterfly species are above-ground throughout their life cycle, do not migrate, use one or relatively few plant species as caterpillar food in a particular place, and disperse only locally (on the scale of a few miles). Butterfly populations usually have other limiting factors, such as vegetation structure or microclimate, that limit their size and distribution more than their food plants. These requirements can differ among years in response to varying climatic and vegetative conditions, but the necessary conditions and resources must always occur with enough individuals in the population consistently existing in the area for the population to persist. The more exacting and localized the species is, the less recolonization from elsewhere is possible.

Because tallgrass prairie has been about 99% destroyed, populations of prairie-restricted butterflies are particularly fragile because of the relatively great isolation of relatively few populations. Preventing decline and loss of butterfly populations is a more effective conservation strategy, especially during habitat rehabilitation, than hoping for recolonization afterwards.

Human-caused changes in the landscape have dramatically altered the butterfly fauna in the last decades and centuries, both globally and in prairie, resulting in fewer and more generalist species in habitat patches. A sharp dichotomy in land use has been leading to either intensification (urbanization, more intensive resource utilization) or abandonment of marginal areas formerly used for light agriculture compatible with diverse native flora. Both extremes of this dichotomy are adverse for butterflies, and both also occur in some protected lands (either intense habitat management such as large-scale deforestation and frequent burning, or no management at all). No one management type is suitable for all specialists of a particular vegetative type. However, subsets of specialists form co-occurring assemblages favored by the same conditions. Thus,

effective conservation measures for one specialist butterfly (e.g., Karner Blue) confer an “umbrella” of protective coverage for the co-occurring assemblage. Beneficial practices include long-term consistency with pre-conservation land uses (haying, grazing) that were compatible with maintaining native flora, and establishing never-burned areas maintained by other means as needed. Management consistency within sites but diversity of management types among patches within a large site and among sites of the same vegetation type are both needed to maximize the total butterfly fauna regionally.

In response to climate change, some southern species are advancing northward and uphill and some northern species are declining and retreating, as expected. But some butterfly species exhibit complex and unpredictable responses or show resilience or are not climatically limited in their current range. Protected areas are serving as conduits to facilitate range shifts of butterflies, and microhabitat variety in both preserves and surrounding landscapes do buffer the impacts of climatic extremes on butterfly abundance.

Individual volunteers have increasing

opportunities to contribute to large-scale long-term monitoring programs, which are critical to understanding the factors driving changes in butterfly incidence and abundance and how to help them. Small sites within the scope of one or several private landowners can be sufficient to support viable populations of localized species. When enough information exists on what specific butterfly species need, and that information gets put into practice, butterflies including prairie specialists do respond rapidly in a positive way.

2014 Wisconsin Lepidoptera Season

Summary

Compiled by Les Ferge

Contributors: James A. Ebner (JAE), Leslie A. Ferge (LAF), Gerald W. Goth (GWG), Kyle E. Johnson (KEJ), Jordan D. Marché (JDM), Joan F. Rickert (JFR), Scott & Ann Swengel (SAS), Rich Teper (RT)

GENERAL COMMENTS: Steve Bransky found a colder than average season overall in southeastern Wisconsin with sporadic periods of warm and cold nights. May was wet with below normal temperatures. By June, the season picked back up to normal.

Butterfly activity was fair. Jim Ebner, reporting for Waukesha County, noted a significant improvement compared to 2013, but nonetheless 2014 was a lean year for butterflies overall. Thirty-one species were seen within the county from April 25 through October 25. Les Ferge sampled moths in several northern counties and in Rock County. Despite seemingly favorable conditions, moth numbers were below average at UV light, and were alarmingly poor in September. Kyle Johnson sampled in early spring and from mid-summer on in 20 counties, mostly in the southern half of the state. Diversity and abundance were fair to good for spring and summer nocturnal sampling, but somewhat less in fall when bait was not working very well. Ann and Scott Swengel did over 80% of their surveys in the northern two-thirds of Wisconsin. They reported that spring butterfly flights began about as slow as 2013's late pace, but approached closer to average for dates after mid-May. By mid-June, single-brooded summer species were coming out nearly on an average schedule, but multi-brooded species still had late second broods throughout the season. Species richness of butterflies per day was extremely low in April-May, even lower than in the "poor" butterfly spring of 2013. The remainder of

the year was similar in richness to 2013. Most species had lower numbers than usual.

Although numbers of most butterfly species were down, a few had a good year. The second brood of *Papilio cresphontes* did well. They were reported in Crawford, Iowa, Jackson, Marquette and Sauk Counties in late July-August (SAS), and many were seen in Kenosha County at Bong State Recreation Area in late August (SCB). Bog species that prefer wetter conditions had good years. *Lycaena epixanthe* was found in nearly the highest numbers in 29 years. *Lycaena dorcas* and *Boloria eunomia* had good years, and numbers of *Boloria characlea grandis* improved. *Lycaena helloides* had a high year, with an incredible 601 sightings of adults in Adams County at Leola WA 30 July-12 October, and high numbers also were seen in Portage County at Buena Vista WA. Among the moths, an amazing total of 35 *Catocala* species were recorded at Bong State Recreation Area (SCB). *Catocala insolabilis* made a particularly noteworthy appearance in Wisconsin. Previously known only from two Grant County specimens, the last from 1991, it was documented in Dane, Kenosha, Lafayette, Rock, Sauk and Sheboygan Counties (SCB, KEJ, LAF, RT). *Schinia indiana* had a good year in Burnett

County and *Schinia lucens* probably had its best season in the last five years (SAS).

The Monarch experienced a significant rebound, having a near median year after an extremely low 2013 (SAS). They were prevalent from May 17-October 6 in Waukesha County. Over 50 adults were reared and released there (JAE), while just over 100 adults were reared and released in Dane County (JDM). Very few of the other migrant butterfly species were seen, with almost all records being of single individuals. *Atalopedes campestris* and *Pyrishia lisa* were seen in Waukesha County (JAE). *Euptoieta claudia* was found in Burnett County, *Vanessa cardui* in Jackson, Portage, Sauk and Columbia Counties (SAS) and Waukesha County (JAE). *Junonia coenia* was recorded in Waukesha County (JAE) and Portage County (SAS).

Continued declines in numbers have been noted for a number of species. The Swengels reported that *Hesperia ottoe* was seen in Crawford County at Rush Creek SNA on 19 July, but not at six other historic sites. *Hesperia metea* experienced its fourth straight low year, with only seven total seen in Jackson and Marinette Counties. *Callophrys irus* had its lowest year since

2006. Despite good survey conditions, only one male *Plebejus idas nabokovi* was found on 5 July in Marinette County, the lowest in 15 years. None was seen at the historic Oconto County site on 5 July. *Plebejus melissa samuelis* had a late start with numbers well below average in most areas, the third straight year of decline after a high in 2011. No *Plebejus saepiolus* were seen for the fourth year in a row. Jim Ebner noted that the once thriving colony of *Glaucopsyche lygdamus* on Hwy. S near Eagle in Waukesha County seems to have disappeared, and no *Oarisma poweshiek* were seen at their historic locality.

Two new state record moths were discovered in Rock County at Avon Bottoms Wildlife Area in 2014. A single *Nycteola metaspilella* was collected on 7 July (LAF), and eight larvae of *Phosphila turbulenta* were found on greenbriar on 18 October (KEJ, LAF). *Lithophane querquera* was found at two sites in the Baraboo Hills of Sauk County (SCB, KEJ, LAF). This is a significant northern range extension and could possibly represent a disjunct population.

New county records are indicated by county names in ALL CAPITALS.

SPECIES NAME	COUNTY	SITE NAME	Date 1	Date 2	CONTR.
Hesperiidae					
<i>Erynnis martialis</i>	Burnett	Crex Meadows (Reed Corners)	26-Jul-2014		SAS
<i>Ancyloxypha numitor</i>	Dane	Oregon (Lerner Conservation Pk.)	22-Aug-2014		JDM
<i>Hesperia ottoe</i>	Crawford	Rush Creek Prairie	19-Jul-2014		SAS
not at six other historic sites in SW Wisconsin					
<i>Hesperia metea</i>	Jackson	Bauer-Brockway Barrens	22-May-2014	29-May-2014	SAS
<i>Hesperia metea</i>	Marinette	Dunbar Barrens	31-May-2014		SAS
<i>Wallengrenia egeremet</i>	Taylor	Medford (Della Lane)	26-Jul-2014		JFR
<i>Atalopedes campestris</i>	Waukesha	Okauchee	9-Oct-2014	11-Oct-2014	JAE
<i>Poanes massasoit</i>	DOUGLAS	Chaffee-Foxboro Bog	12-Jul-2014		SAS
<i>Poanes viator</i>	ASHLAND	Black Creek Bog S of Clam Lake	13-Jul-2014		SAS
<i>Poanes viator</i>	DOUGLAS	Bear Creek Bog	9-Aug-2014		SAS
<i>Poanes viator</i>	LAFAYETTE	Erickson Wetlands	26-Jul-2014		KEJ
<i>Euphyes dion</i>	Bayfield	Cornucopia	24-Jul-2014		SAS
<i>Atrytonopsis hianna</i>	Douglas	Douglas County Wildlife Area	5-Jun-2014		SAS
Papilionidae					
<i>Papilio polyxenes</i>	Waukesha	Okauchee	30-Jul-2014	3-Aug-2014	JAE
<i>Papilio cressphontes</i>	Dane	Oregon (Lost Woods Ct.)	30-May-2014		JDM
<i>Papilio cressphontes</i>	Marquette		20-Aug-2014		SAS
<i>Papilio cressphontes</i>	Waukesha	Okauchee	11-Aug-2014		JAE
Pieridae					
<i>Pieris virginiensis</i>	Forest	Wolf Lake Bog along FR 2182	31-May-2014		SAS
<i>Colias interior</i>	Marquette	Hamel's "Hugh Iltis Prairie"	8-Jul-2014		SAS
<i>Pyrisitia lisa</i>	Waukesha	Oconomowoc	26-Jun-2014		JAE
Lycaenidae					
<i>Lycaena dione</i>	Portage	Buena Vista Wildlife Area	28-Jun-2014	3-Aug-2014	SAS
<i>Lycaena dorcas</i>		Hamel's Bog	8-Jul-2014		SAS
<i>Lycaena dorcas</i>	Lincoln	Highway 8 Bog	5-Jul-2014		SAS
<i>Lycaena helloides</i>	Adams	Leola Wildlife Area	30-Jul-2014	12-Oct-2014	SAS
abundant, 601 sightings during this flight					
<i>Lycaena helloides</i>	Portage	Buena Vista Wildlife Area	30-Jul-2014	23-Aug-2014	SAS
<i>Lycaena helloides</i>	TAYLOR	Medford (Cara Lane)	5-Jul-2014		JFR
<i>Satyrus calanus falacer</i>	Waukesha	Okauchee	14-Jul-2014		JAE
<i>Satyrus liparops</i>	Bayfield	Cornucopia & Moquah Barrens	24-Jul-2014	9-Aug-2014	SAS
<i>Satyrus liparops</i>	Burnett	Crex Meadows & Burnett CF	26-Jul-2014		SAS
<i>Satyrus liparops</i>	Douglas	Lyman Lake Bog	8-Aug-2014		SAS
<i>Callophrys irus</i>	Jackson	Jackson County Forest	21-May-2014	7-Jun-2014	SAS
lowest numbers since 2006					
<i>Cupido comyntas</i>	Waukesha	KMSF nr. Eagle & Okauchee	9-Jun-2014		JAE
<i>Cupido amyntula</i>	Burnett	Burnett County Forest	25-May-2014		SAS
<i>Cupido amyntula</i>	Douglas	Douglas County Wildlife Area	24-May-2014		SAS
<i>Plebejus idas nabokovi</i>	Marinette	Shrine Road	5-Jul-2014		SAS
one male, lowest count in 15 years, not seen in Oconto County locality on 5 July 2014					
<i>Plebejus melissa samuelis</i>	Green Lake	White River Marsh	16-Jun-2014		SAS
Nymphalidae					
<i>Polygonia satyrus</i>	Bayfield	Moquah Barrens	6-Jun-2014		SAS
<i>Vanessa cardui</i>	Waukesha	Oconomowoc	6-Jun-2014		JAE
<i>Vanessa atalanta</i>	Jefferson	Sullivan	17-Aug-2014		JAE
<i>Junonia coenia</i>	Portage	Buena Vista Wildlife Area	10-Jul-2014		SAS

<i>Junonia coenia</i>	Waukesha	Kettle Moraine SF nr. Eagle	17-Aug-2014	JAE
<i>Euptoieta claudia</i>	Burnett	Crex Meadows	26-Jul-2014	SAS
<i>Speyeria cybele</i>	Jefferson	Sullivan	17-Aug-2014	JAE
<i>Speyeria idalia</i>	Crawford	Hogback Prairie SNA	19-Jul-2014	SAS
<i>Speyeria idalia</i>	Jackson	Stanton Road	20-Jul-2014	SAS
<i>Boloria chariclea grandis</i>	Douglas	Summit Twp.	26-Jul-2014	8-Aug-2014 SAS
<i>Chlosyne gorgone carlota</i>	Burnett	Fish Lake Wildlife Area	7-Jun-2014	SAS
<i>Chlosyne gorgone carlota</i>	Jackson	Bauer-Brockway Barrens	29-May-2014	13-Jun-2014 SAS
<i>Chlosyne nycteis</i>	Taylor	Medford (Cara Lane)	15-Jun-2014	JFR
<i>Euphydryas phaeton</i>	Ashland	Twin Lake Bog N. of Clam Lake	13-Jul-2014	SAS
<i>Euphydryas phaeton</i>	Price	near County Line Rd.	13-Jul-2014	JFR
<i>Euphydryas phaeton</i>	TAYLOR	County Line & N Park Rds.	13-Jul-2014	JFR
<i>Erebia discolidalis</i>	Ashland	Black Creek Bog	26-May-2014	SAS
<i>Erebia discolidalis</i>	Forest	Wolf Lake Bog	31-May-2014	SAS
<i>Oeneis chryxus strigulosa</i>	Douglas	south of Brule	24-May-2014	5-Jun-2014 SAS
<i>Oeneis chryxus strigulosa</i>	Marinette	Dunbar Barrens & Hwy I area	31-May-2014	SAS
<i>Oeneis jutta ascerta</i>	Bayfield	Port Wing Boreal Forest SNA	23-Jun-2014	SAS
<i>Danaus plexippus</i>	Waukesha	Okauchee & Kettle Moraine SF	17-May-2014	6-Oct-2014 JAE
Hepialidae				
<i>Sthenopis thule</i>	BARRON	New Auburn State Wildlife Area	24-Jul-2014	KEJ
netted during early night				
Geometridae				
<i>Isturgia dislocaria</i>	IOWA	Arena (River Bottom Forest)	25-May-2014	LAF
<i>Isturgia dislocaria</i>	ROCK	Avon Bottoms Wildlife Area	7-Jul-2014	LAF
<i>Nepytia pellucidaria</i>	VILAS	Rummels Road	27-Sep-2014	LAF
<i>Nemoria bistriaria</i>	ROCK	Magnolia Bluff County Park	7-Jul-2014	LAF
<i>Plemyria georgii</i>	FOREST	S of Kaine Lake	20-Aug-2014	LAF
<i>Thera contractata</i>	Manitowoc	Rhar School Forest	26-Oct-2014	SCB
<i>Hydrelia condensata</i>	DOUGLAS	NE of Hwy. A & Lucas Rd.	22-Jun-2014	LAF
<i>Venusia comptaria</i>	SAUK	Baraboo Hills (Hemlock Draw)	25-Apr-2014	LAF
<i>Pasiphila rectangulata</i>	SHEBOYGAN	Kohler-Andrae State Park	28-Jul-2014	KEJ
Saturniidae				
<i>Eacles imperialis</i>	KENOSHA	Bong State Recreation Area	20-Jul-2014	SCB
Sphingidae				
<i>Sphinx chersis</i>	FLORENCE	Pine River Rd. W of Fay Lake	20-Aug-2014	LAF
<i>Sphinx chersis</i>	Sheboygan	Kohler-Andrae State Park	28-Jul-2014	SCB
netted at common milkweed flowers				
<i>Sphinx canadensis</i>	Douglas	NE of Hwy. A & Lucas Rd.	22-Jun-2014	LAF
<i>Sphinx luscitiosa</i>	Douglas	NE of Hwy. A & Lucas Rd.	22-Jun-2014	LAF
<i>Eumorpha pandorus</i>	Crawford	N of Prairie du Chien	10-Aug-2014	JDM
<i>Eumorpha achemon</i>	KENOSHA	Bong State Recreation Area	18-Jul-2014	SCB
<i>Sphecodina abbottii</i>	KENOSHA	Bong State Recreation Area	21-May-2014	SCB
Notodontidae				
<i>Gluphisia lintneri</i>	SAUK	Hemlock Draw	19-Apr-2014	KEJ
Erebidae				
<i>Crambidia casta</i>	Marinette	Grandfather Lake Barrens	20-Aug-2014	LAF
<i>Hypercompe scribonia</i>	Sauk	White Mound County Park	23-Jun-2014	RT
<i>Hypena abalienalis</i>	Dane	Oregon (Lost Woods Ct.)	7-Aug-2014	JDM
<i>Hypena abalienalis</i>	Dane	Swamp Lover's Preserve	1-Aug-2014	16-Aug-2014 GWG
<i>Phytometra ernestinana</i>	ROCK	Avon Bottoms Wildlife Area (Smith Rd.)	3-Sep-2014	LAF

<i>Isogona tenuis</i>	ROCK	Avon Bottoms Wildlife Area (Smith Rd.)	7-Jul-2014	LAF
<i>Scolecocampa liburna</i>	ROCK	Magnolia Bluff County Park	7-Jul-2014	LAF
<i>Cissusa spadix</i>	Dane	Swamp Lover's Preserve	10-May-2014	KEJ
<i>Cissusa spadix</i>	KENOSHA	Bong State Recreation Area	8-May-2014	SCB
<i>Mocis latipes</i>	Rock	Avon Bottoms Wildlife Area (Smith Rd.)	26-Sep-2014	SCB
<i>Catocala piatrix</i>	Rock	Avon Bottoms Wildlife Area (Smith Rd.)	26-Sep-2014	SCB
<i>Catocala epione</i>	KENOSHA	Bong State Recreation Area	20-Jul-2014	SCB
<i>Catocala habilis</i>	Rock	Magnolia Bluff County Park	8-Sep-2014	LAF
<i>Catocala serena</i>	Lafayette	Erickson Wetlands	26-Jul-2014	SCB
<i>Catocala serena</i>	Rock	Magnolia Bluff County Park	28-Jul-2014	LAF
<i>Catocala judith</i>	ROCK	Magnolia Bluff County Park	28-Jul-2014	LAF
<i>Catocala obscura</i>	Rock	Magnolia Bluff County Park	28-Jul-2014	LAF
<i>Catocala resecta</i>	ROCK	Magnolia Bluff County Park	8-Sep-2014	LAF
<i>Catocala insolabilis</i>	DANE	Swamp Lover's Preserve	8-Aug-2014	KEJ
<i>Catocala insolabilis</i>	KENOSHA	Bong State Recreation Area	22-Jul-2014	9-Aug-2014 SCB
<i>Catocala insolabilis</i>	LAFAYETTE	Erickson Wetlands	26-Jul-2014	SCB
<i>Catocala insolabilis</i>	ROCK	Magnolia Bluff County Park	7-Jul-2014	28-Jul-2014 LAF
<i>Catocala insolabilis</i>	SAUK	White Mound County Park	28-Jul-2014	14-Aug-2014 RT, SCB
<i>Catocala insolabilis</i>	SHEBOYGAN	Kohler-Andrae State Park	28-Jul-2014	SCB
<i>Catocala vidua</i>	KENOSHA	Bong State Recreation Area	10-Sep-2014	SCB
<i>Catocala lacrymosa</i>	KENOSHA	Bong State Recreation Area	31-Aug-2014	SCB
<i>Catocala nebulosa</i>	KENOSHA	Bong State Recreation Area	31-Aug-2014	SCB
<i>Catocala nebulosa</i>	Sauk	White Mound County Park	14-Aug-2014	SCB
<i>Catocala briseis</i>	KENOSHA	Bong State Recreation Area	13-Jul-2014	18-Aug-2014 SCB
<i>Catocala praeclara</i>	Florence	Pine River Rd. W of Fay Lake	20-Aug-2014	LAF
<i>Catocala minuta</i>	KENOSHA	Bong State Recreation Area	17-Jul-2014	SCB
<i>Catocala micronympha</i>	KENOSHA	Bong State Recreation Area	20-Jul-2014	SCB
<i>Catocala micronympha</i>	Sauk	White Mound County Park	29-Jul-2014	SCB
<i>Catocala connubialis</i>	KENOSHA	Bong State Recreation Area	14-Jul-2014	SCB
<i>Catocala connubialis</i>	SAUK	White Mound County Park	29-Jul-2014	14-Aug-2014 SCB
Nolidae				
<i>Garella nilotica</i>	ROCK	Avon Bottoms Wildlife Area (Smith Rd.)	7-Jul-2014	LAF
<i>Nycteola metaspilella</i>	ROCK	Avon Bottoms Wildlife Area (Smith Rd.)	7-Jul-2014	LAF
STATE RECORD				
Noctuidae				
<i>Chrysodeixis includens</i>	ROCK	Avon Bottoms WA (S. Hopkins Rd.)	1-Oct-2014	SCB
<i>Syngrapha viridisigma</i>	FLORENCE	Jacquet Lake Bog	20-Aug-2014	LAF
<i>Cerma cora</i>	ROCK	Magnolia Bluff County Park	6-Jun-2014	LAF
<i>Cerma cora</i>	SAUK	Bakken's Pond	25-May-2014	LAF
<i>Acronicta betulae</i>	Iowa	Arena (River Bottom Forest)	25-May-2014	LAF
<i>Acronicta betulae</i>	Sauk	Bakken's Pond	25-May-2014	LAF
<i>Acronicta funeralis</i>	Dane	Oregon (Lost Woods Ct.)	22-Jul-2014	JDM
<i>Acronicta funeralis</i>	ROCK	Magnolia Bluff County Park	7-Jul-2014	LAF
<i>Acronicta quadrata</i>	Douglas	NW of Hwy. 53 & Bird Sanctuary Road	22-Jun-2014	LAF
<i>Apamea unanimitis</i>	DOUGLAS	Summit Twp. (Bog W of Hwy. A)	22-Jun-2014	LAF
<i>Eremobina claudens</i>	Florence	Jacquet Lake Bog	20-Aug-2014	LAF
<i>Lemmeria digitalis</i>	Rock	Avon Bottoms Wildlife Area (Smith Rd.)	26-Sep-2014	SCB
<i>Photodes panatela</i>	DOUGLAS	NE of Hwy. A & Lucas Rd.	22-Jun-2014	LAF
<i>Photodes panatela</i>	ROCK	Avon Bottoms Wildlife Area (Smith Rd.)	6-Jun-2014	LAF
<i>Photodes defecta</i>	FLORENCE	Jacquet Lake Bog	20-Aug-2014	LAF

<i>Photedes defecta</i>	LAFAYETTE	Erickson Wetlands	26-Jul-2014	KEJ, SCB
<i>Capsula laeta</i>	LAFAYETTE	Erickson Wetlands	27-Jul-2014	SCB
<i>Papaipema cerina</i>	Kenosha	Bong State Recreation Area	10-Sep-2014	SCB
<i>Papaipema cerina</i>	SAUK	White Mound County Park	15-Sep-2014	17-Sep-2014 RT, SCB
<i>Papaipema cataphracta</i>	Dane	Oregon (Lost Woods Ct.)	26-Sep-2014	JDM
<i>Papaipema cataphracta</i>	PORTAGE	Buena Vista Grasslands	19-Sep-2014	SCB
<i>Papaipema cataphracta</i>	Rock	Avon Bottoms Wildlife Area (Smith Rd.)	26-Sep-2014	SCB
<i>Papaipema impecuniosa</i>	Rock	Avon Bottoms Wildlife Area (Nelson Rd.)	26-Sep-2014	SCB
<i>Papaipema leucostigma</i>	SAUK	White Mound County Park	15-Sep-2014	17-Sep-2014 RT, SCB
<i>Papaipema lysimachiae</i>	Marinette	Lake Noquebay Sedge Meadow SNA	28-Sep-2014	LAF
<i>Papaipema lysimachiae</i>	SAUK	White Mound County Park	17-Aug-2014	SCB
<i>Papaipema speciosissima</i>	Marinette	Lake Noquebay Sedge Meadow SNA	28-Sep-2014	LAF
<i>Papaipema inquaesita</i>	Marinette	Lake Noquebay Wildlife Area	28-Sep-2014	LAF
<i>Papaipema rutila</i>	ROCK	Magnolia Bluff County Park	8-Sep-2014	LAF
<i>Papaipema rutila</i>	SAUK	White Mound County Park	17-Aug-2014	SCB
<i>Papaipema nepheleptena</i>	SAUK	White Mound County Park	15-Sep-2014	17-Sep-2014 RT, SCB
<i>Papaipema silphii</i>	Rock	Avon Bottoms WA (S. Hopkins Rd.)	1-Oct-2014	SCB
at MV light, photo record				
<i>Papaipema maritima</i>	SAUK	White Mound County Park	15-Sep-2014	17-Sep-2014 RT, SCB
<i>Papaipema nelita</i>	ROCK	Avon Bottoms Wildlife Area	26-Sep-2014	SCB
<i>Papaipema sciata</i>	SAUK	White Mound County Park	24-Sep-2014	27-Sep-2014 SCB
<i>Papaipema unimoda</i>	PORTAGE	Buena Vista Grasslands	19-Sep-2014	SCB
<i>Phosphila turbulenta</i>	ROCK	Avon Bottoms WA (Nelson Road)	18-Oct-2014	LAF
STATE RECORD, also KEJ, 8 larvae found on Smilax 18 October 2014				
<i>Fagitana littera</i>	BARRON	New Auburn State Wildlife Area	24-Jul-2014	KEJ
<i>Magusa divaricata</i>	Rock	Avon Bottoms WA (S. Hopkins Rd.)	1-Oct-2014	SCB
<i>Xylena nupera</i>	Manitowoc	Rhar School Forest	26-Oct-2014	KEJ
<i>Xylena nupera</i>	RICHLAND	Hoover Hollow	6-Apr-2014	KEJ
<i>Xylena nupera</i>	ROCK	Avon Bottoms Wildlife Area (Smith Rd.)	26-Sep-2014	SCB
southernmost WI record				
<i>Lithophane franclemonti</i>	SAUK	White Mound Lake to Pine Hollow	12-Apr-2014	RT, KEJ, SCB
<i>Lithophane franclemonti</i>	Sauk	White Mound County Park	17-Aug-2014	24-Sep-2014 SCB
extremely early fall emergence date				
<i>Lithophane petulca</i>	OCONTO	Nicolet National Forest	1-May-2014	RT
<i>Lithophane disposita</i>	MANITOWOC	Rhar School Forest	26-Oct-2014	SCB
<i>Lithophane disposita</i>	ROCK	Lawrence Prairie	9-Apr-2014	KEJ, SCB
<i>Lithophane lanei</i>	Richland	Lone Rock Unit LWRWSA	6-Apr-2014	KEJ, SCB
<i>Lithophane lanei</i>	Rock	Magnolia Bluff County Park	9-Apr-2014	KEJ
<i>Lithophane oriunda</i>	LAFAYETTE	Hardscrabble Prairie SNA	30-Mar-2014	KEJ
<i>Lithophane oriunda</i>	RICHLAND	Hoover Hollow	6-Apr-2014	KEJ
<i>Lithophane oriunda</i>	ROCK	Magnolia Bluff County Park	9-Apr-2014	SCB
<i>Lithophane oriunda</i>	SAUK	White Mound County Park	12-Apr-2014	RT, SCB
<i>Lithophane baileyi</i>	MANITOWOC	Rhar School Forest	26-Oct-2014	KEJ
<i>Lithophane querquera</i>	SAUK	Hemlock Draw, Pine Hollow	12-Apr-2014	19-Apr-2014 SCB
STATE RECORD; also KEJ, LAF, significant northern range extension & possible disjunct population,				
<i>Lithophane scottae</i>	EAU CLAIRE	Coon Fork Barrens SNA	27-Oct-2014	KEJ, SCB
<i>Lithophane scottae</i>	SAUK	White Mound County Park	12-Apr-2014	RT, SCB
<i>Lithophane thaxteri</i>	EAU CLAIRE	Coon Fork Barrens SNA	27-Oct-2014	SCB
<i>Eupsilia n. sp. near sidus</i>	Rock	Lawrence Prairie	9-Apr-2014	SCB
<i>Xystocheilus rufago</i>	Grant	Blue River Sand Barrens SNA	6-Apr-2014	KEJ

Xystocheilus rufago	OCONTO	Nicolet National Forest	1-May-2014	RT
Epiglaea decliva	EAU CLAIRE	Coon Fork Barrens SNA	27-Oct-2014	KEJ
Chaetoglaea cerata	VILAS	Barrens 3 mi. N of Conover	27-Sep-2014	LAF
Brachionycha borealis	ADAMS	Woods N of Wisconsin Dells	25-Apr-2014	LAF
Psaphida thaxterianus	SAUK	White Mound County Park	12-Apr-2014	RT, SCB
Sympistis badistriga	ROCK	Avon Bottoms Wildlife Area (Smith Rd.)	7-Jul-2014	LAF
Dargida rubripennis	Dane	Swamp Lover's Preserve	19-Aug-2014	GWG
Tricholita notata	Kenosha	Bong State Recreation Area	8-Aug-2014	14-Sep-2014 SCB
Eucoptocnemis fimbriaris	ROCK	Avon Bottoms Wildlife Area (Nelson Rd.)	26-Sep-2014	SCB
Euxoa niveilinea	Rock	Avon Bottoms Wildlife Area (Nelson Rd.)	26-Sep-2014	SCB
Dichagyris acclivis	Lafayette	Erickson Wetlands	26-Jul-2014	SCB
Spaelotis clandestina	ROCK	Avon Bottoms Wildlife Area (Nelson Rd.)	26-Sep-2014	SCB
Graphiphora augur	ROCK	Magnolia Bluff County Park	28-Jul-2014	LAF
Paradiarsia littoralis	Douglas	NW of Hwy. 53 & Bird Sanctuary Road	22-Jun-2014	LAF
Schinia indiana	Burnett	Crex Meadows & Fish Lake Wildlife Area	7-Jun-2014	SAS
Schinia rivulosa	KENOSHA	Bong State Recreation Area	14-Sep-2014	SCB
Schinia grandimedia	KENOSHA	Bong State Recreation Area	5-Aug-2014	SCB
Schinia trifascia	Kenosha	Bong State Recreation Area	8-Aug-2014	SCB
Schinia lucens	Burnett	Crex Meadows	26-Jul-2014	SAS
Schinia lucens	MARQUETTE	Hamel's "Hugh Iltis Prairie"	8-Jul-2014	SAS
Schinia lucens	Sauk	Spring Green Prairie	16-Jul-2014	SAS

WES Digital Library

By Patrick J. Liesch

If you're new to the Wisconsin Entomological Society, you might have wondered about the origins and early history of the organization at some point. Or, perhaps you've been a member since the very beginning and remember an interesting article from years ago that you wish you could read again. In either case, I'm happy to announce that the Wisconsin Entomological Society has recently taken steps to make the history of our organization available through the digitization of our newsletters. The first volume was published

in 1971, and newsletters have typically been produced three times a year. In certain years, only one or two issues were produced. The year 2015 will mark the 42nd published volume of the WES newsletter, which makes for a lot of newsletters to be digitized and archived.

The idea to produce a digital archive began about a year ago as a conversation between Les Ferge and myself after one of the annual meetings. Our conversation had focused primarily on redesigning the Wisconsin Entomological Society website (*launched in late 2013*), and the idea of digitizing the newsletters was one of those "*that sure*

would be nice” kind of thoughts. However, after some digging by Les, we were able to have all of the newsletters digitized by a media handling company for a modest price. The final step was to have them posted on the Wisconsin Entomological Society website in an easily accessible fashion. After many hours of finicky computer coding on the website, *viola!* — the digital newsletter archive was launched.

You can easily find the newsletter archive on the Wisconsin Entomological Society website under “publications” in the menu bar or visit it here:

<http://www.wisent soc.org/library/>. All of the newsletters are freely available to WES members and the public. Because Wisconsin Entomological Society members receive hard copies in the mail as a perk of their membership, newsletters from the past 12 months will not be posted online. Within the archive, browse by decade and year to view the newsletters from a given volume.

Happy reading and enjoy exploring the archives!

Beekeeping Classes 2015, in Madison, WI

You are invited to attend one of our day long **Beekeeping Classes** to be held at the Dane County Extension Building, 5201 Fen Oak Drive, Madison, WI 53718. **Beginners Classes** will repeat on February 28, March 28, April 11, and May 2, 2015. **Second Step Class** is on March 21, 2015. All classes run from 9 a.m. to 4 p.m. The fee of \$50 covers coffee, handouts, free sample journals and catalogues, and props galore for you to handle. Individual, hands-on mentoring is also available, \$20 for 2 hours in the apiary. To register, contact Jeanne Hansen at 608-244-5094 or jeanniealabeannie@yahoo.com.



Photo by Al Spoo. Reproduced by permission.

Editor's note — Botanist and former Wisconsin resident Linda Curtis, who now resides in Florida, writes under the nom-de-plume, "Lindaeus."

Why Did the Weevil Cross the Road?

By Lindaeus

A weevil larva was crossing the road as my husband and I were on our evening hike. It was traveling fast for a grub, which you think of as sluggish. I watched where it was going, no joke, to the other side of the road, and it disappeared into the litter.

Identifying grubs is no easy matter, but eventually I did discover that it transformed into a weevil, a relative of snout beetles in the big beetle order Coleoptera. So, like Lepidopterans, their larvae usually travel before pupating.

The next time I saw one, I heard it first as it buzzed by. Yes, weevils can fly, but so do beetles, although you might not know it if the wings are folded under the elytra. As a former motorcycle rider, I have great respect for flying insects since the laws of physics apply. If a flying insect is traveling at you at only 10 miles per hour, but you are approaching it head on, say, at 50 mph,

that's a big "OW!" We were smart enough to wear helmets with face shields, which did not leave us much to identify, just a blob of odd-colored mush.

But one day, we were driving slowly when a bullet-like sound hit the windshield. "Stop the car," I yelled, "it's a big bug!" After I retrieved its slightly compressed body, I could see that this was no ordinary bug. It had a snout longer than its body. It was knocked out cold at first, but then its legs began to twitch, so I put it in a bag and took it home to scan. Yes, scan, as a digital image on my computer.

Now, keeping a moving bug on the scanner plate is not easy. So I learned a bug-imaging 101 technique. A few minutes in the freezer slows them down so you can place them on the scanner plate, but do not let the cover down. A centimeter ruler is placed beside the bug, a black cloth draped over it, and then I press "Scan." I flip the bug on its back and do it again. After a minute, the time is up, and back into the bag it goes.

You see, I do catch and release, so that principle does not apply just to fishing. I make sure the images are good before I let my accidental catch go. ☺