



# Wisconsin Entomological Society

## Newsletter

Volume 40, Number 2

July 2013

For beginners, **Photographic Atlas of Insects and Guide to Insect Identification** by L. Castner makes a good gift, enabling people to easily recognize most of the insect taxa from high-resolution photos. **Butterfly People** by W. Leach is a collection of stories about (mostly) 19th century American lepidopterologists, and their contribution to the science of butterflies and moths. **Periodical Cicadas - The Plaque and the Puzzle** by G. Kritsky is in-depth analysis of these interesting creatures, including review of unpublished and rarely-read papers on the subject over the 260-year period. The author is also known for the book **Insect Mythology**. **Furtive Fauna** by R. Knutson dwells on bugs that leave and/or feed on humans. **Human Wildlife** by R. Buckman goes even further, including not just insects and ticks but more primitive (but not less voracious) critters. And finally, **Microterrors** by T. Hart deals exclusively with microorganisms - but many of them transmitted by insects (reader discretion is advised: open the three abovementioned books with caution - may contain material inappropriate for the faint of heart :-). For those who waited long for the third and final volume of **Saturniidae Mundi** by B. D'Abrera - it's finally availa-



## Books & Websites

By Andrew Khitsun

ble (actually, this is volume #2, since #1 & #3 were published long ago). For those who like

regional books from other countries and continents: **Atlas of European Millipedes** by R. Kime et al. is the first of the three volumes that'll cover more than 1,500 species of these critters in Europe. Those of us on the other side of the pond are left to salivate... Another book from across the ocean: **Noctuidae Europaeae, Vol. 13: Lymaniinae and Arctiinae** by G. Ronkay is the last volume in this expansive treatise (and a surprising one since not everyone agrees those moths groups belong to the family Noctuidae). If you don't intend to spend a fortune on some of the abovementioned books and just want to have fun with insects - two books by M. Berenbaum are for you: **Ninety-Nine Gnats, Nits and Nibblers** and **Ninety-Nine More Maggots, Mites and Munchers**. The same prolific author is also known for books **Bugs In The System: Insects And Their Impact On Human Affairs** and **The Earwig's Tail: A Modern Bestiary of Multi-legged Legends**, and also **Buzzwords: A Sci-**

### In This Issue...

<b>Books &amp; Websites</b>	Page 1
<b>WES Field Trip</b>	Page 2
<b>National Moth Week</b>	Page 3
<b>Navarino Trip Report</b>	Page 4
<b>Always Something New</b>	Page 6
<b>Book Review</b>	Page 8

BOOKS & WEBSITES continues on page 2

The Wisconsin Entomological Society Newsletter is published three times a year, at irregular intervals. The newsletter is provided to encourage and facilitate the exchange of information by the membership, and to keep the members informed of the activities of the organization. Members are strongly encouraged to contribute items for inclusion in the newsletter. Please send all news items, notes, new or interesting insect records, season summaries, and research requests to the editor by Jan. 15, June 1, or Sept. 1st:

J. Mingari, P.O. Box 105, New Holstein, WI 53061, email: dragonflypond@tds.net (Put WES in subject line)

NOTE: Please report any address changes to Les Ferge, 7119 Hubbard Ave., Middleton, WI 53562, email: lesferge@gmail.com

## BOOKS &amp; WEBSITES from page 1

**entist Muses on Sex, Bugs, and Rock 'n' Roll.**

Did you know that many of the works from Pensoft Publishers are available online for download as free PDF files? For example, if you head to <http://www.pensoft.net/journals/biorisk/issue/5/> you'll find the book **Monitoring Climatic Change With Dragonflies**. The work is a compilation of articles by different researchers in the series called **BioRisk**. To access particular articles, click on PDF to the right of the title. When you're done, go back to the link above and replace number 5 with other numbers (1 to whatever) and you'll come up with other issues of the journal (not all the issues are insect-related). When done with this journal, go to the bar at the top of the page, choose Journals and then **Journal of Hymenoptera Research** - another free online resource will open at <http://www.pensoft.net/journals/jhr>. If you need to kill more time you'll find a few more interesting publications - just play around with Pensoft's site. Other free and interesting online manuals are available, like **Insects and Other Arthropods That Feed on Aquatic and Wetland Plants** at <http://www.ars.usda.gov/is/np/aquaticweeds/aquaticweeds.pdf> or **Urban Insects and Arachnids** at <http://www.bio-nica.info/biblioteca/Robinson2005UrbanInsects.pdf>, and also **Arthropods of Canadian Grasslands** (Volume 1) at <http://www.biology.ualberta.ca/bsc/english/grasslandsbook/Arthropods%20of%20Canadian%20Grasslands.pdf>

In the plant domain - **Orchids of New England & New York** by T. Nelson et al. is proudly continuing the tradition of the North Woods Naturalist and New England Naturalist series.



## WES Summer 2013 Field Trip

**Fri., July 26 through Thurs., Aug. 1  
Riley Lake area, Price County**

Join us at the end of National Moth Week to enjoy moths and other insects in the fabulous atmosphere of northern Wisconsin. The Riley Lake area boasts extensive tracts of bog and fen, other wetlands, open barrens/brushland, various forest types, lakes, streams, and rivers. The area is home many elusive and seldom observed species of insects and other wildlife.

The exact dates (and even location) will depend on weather and interest, but the above dates give us a broad window. And if you want to be up there the entire time all the better!

Please email  
([kejohnson4@wisc.edu](mailto:kejohnson4@wisc.edu))  
or call (920-639-8390) Kyle Johnson  
if you are interested in attending;  
we will coordinate final trip details  
a week or so prior to the event.  
Hope to see you there!

2013 dues notices were sent out in January. Members paid for 2013 or beyond were not billed, and will not receive a dues notice. Remember that your current dues status appears on the newsletter address label after your name. Your prompt attention will be most appreciated.

<http://wisentsoc.org/>

### *Membership Dues*

Individual or Family	Sustaining	Patron
\$10 per year	\$15 per year	\$25 per year

Please note that the year through which dues are paid appears on the newsletter's mailing label after your name.

Please make checks payable to WES and send to  
**Les Ferge, Treasurer,**  
7119 Hubbard Ave., Middleton, WI 53562-3231

# NATIONAL Moth Week

## Global Citizen Science

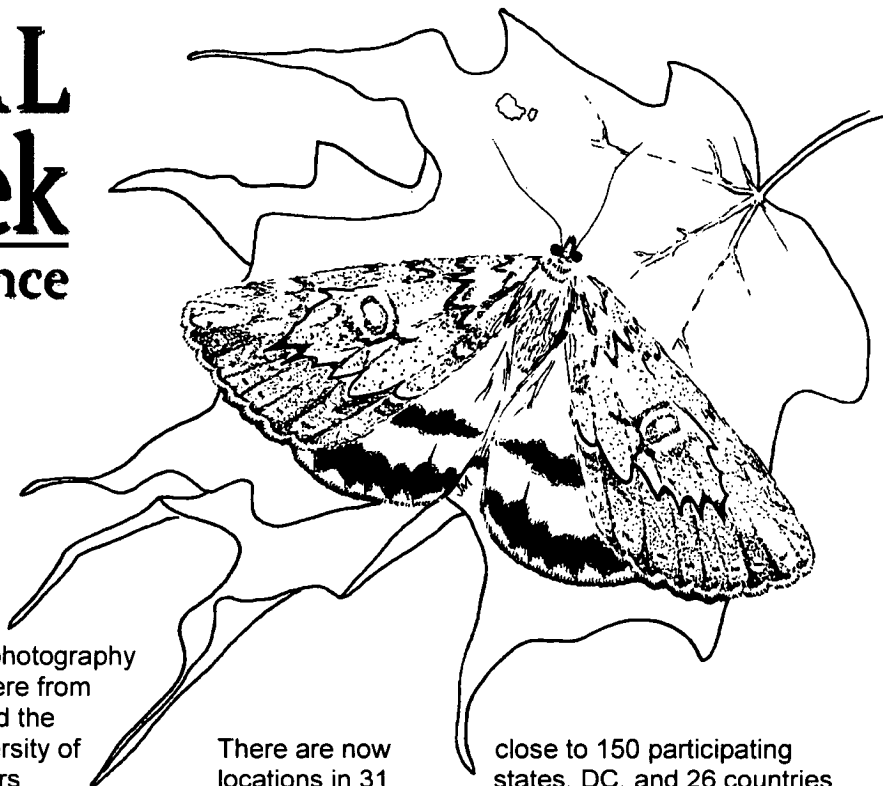
July 20-28, 2013

**National Moth Week is a celebration of moths and biodiversity.**

With more than 10,000 species in North America alone, moths offer endless options for study, education, photography and fun. Moths can be found everywhere from inner cities, to suburban backyards and the most wild and remote places. The diversity of moths is simply astounding. Their colors and patterns are often dazzling or so cryptic that they define camouflage. Shapes and sizes span the gamut with some as small as a pinhead and others as large as a hand. Most moths are nocturnal creatures of the night, and need to be sought to see – others fly like butterflies during the day. Finding moths is easy and can be as simple as leaving a porch light on and checking it after dark. Serious moth aficionados use special lights and baits to attract them. Moths are also featured widely in literature and art providing a different angle for enjoyment and study.

*Moth Nights* are often held by nature groups and allow an easy opportunity for an introduction or for more serious pursuits. It is hoped that groups and individuals from all the across the country will spend some time during National Moth Week looking for moths and sharing what they've found. During National Moth Week attend a Moth Night event, start one, get some friends and neighbors together and check the porch lights from time to time, set up a light and see what is in your own backyard, read literature about moths. But no matter what, participate. Hopefully National Moth Week will turn on a lot of people to moths and biodiversity and through that raise environmental awareness and result in some good data contributions as well.

~ David Moskowitz

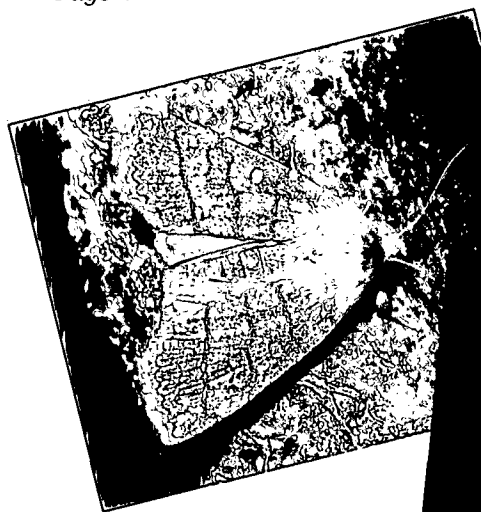


There are now close to 150 participating locations in 31 states, DC, and 26 countries with recent locations in Togo, Pakistan, Venezuela, India, and many other fantastic places. We also have some truly special and amazing new global partners: BioDiversity Bhutan (<http://nationalmothweek.org/2013/05/05/nmws-newest-partner-biodiversity-bhutan/>), The Nizhny Novgorod Branch of the Russian Entomological Society (<http://nationalmothweek.org/2013/05/01/meet-nmws-newest-partner-the-nizhny-novgorod-branch-of-the-russian-entomological-society/>), UK Moth Night, Pacific Northwest Moths and Ontario Moths (<http://nationalmothweek.org/2013/04/17/nmw-news-events/>), Pollinator Week (<http://nationalmothweek.org/2013/04/11/meet-nmw-partner-pollinator-week-2013/>), iNaturalist (<http://nationalmothweek.org/2013/03/13/new-nmw-partner-inaturalist-assorted-odds-and-ends/>) and so many more. We are also co-sponsoring Mothapalooza (<http://nationalmothweek.org/2013/04/14/mothapalooza-updates/>) and UK Moth Nights. We also just found out that there will be some very exciting activities in DC that will be sponsored by the USDA and the National Zoo.

To participate, go to  
**[www.nationalmothweek.org](http://www.nationalmothweek.org)**

# Report

By Kyle Johnson



On the eve of Friday, April 26, 2013, a small but enthusiastic group of bug lovers gathered on the sandy soils of Navarino Wildlife Area for a fantastic weekend. Those attending were PJ Liesch, Rich Teper, Steve Bransky, and myself. Rich and Steve had driven up from Illinois for the occasion.

By nightfall we had scattered rotten banana-brown sugar baits, ultraviolet lights, and mercury vapor lights across the land; the blinding lights of the MV may have evoked suspicions of a *Sputnik* landing in the woods. We drew in about 40-50 species of moths (a Lepidoptera bias on this trip) including the lovely black and green *Feralia major*. Literally thousands of fungus gnats (*Mycetophilidae*) flocked to bait, as did a few mosquitoes not quite ready for human prey.

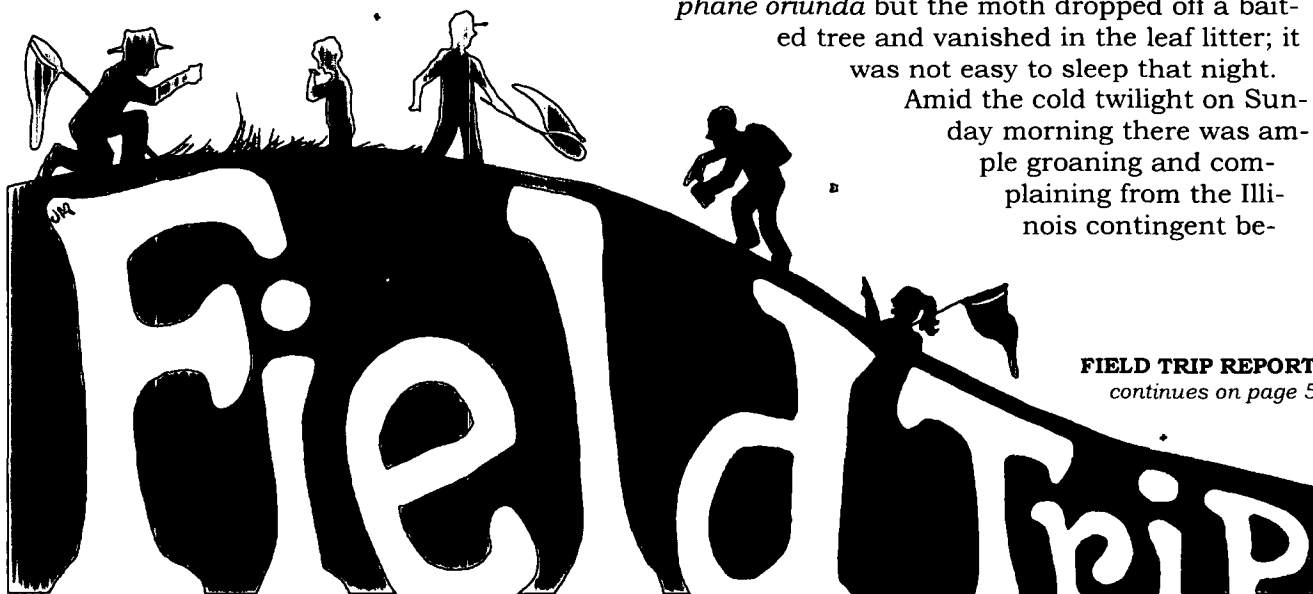
Despite weather.com's assurance that rain was impossible, showers greeted us soon after dark. These showers were intermittent and light to moderate where PJ and I explored but a localized torrential downpour caught Steve and Rich by surprise at one of their stations a few miles away. Cold and damp they decided on a motel...they were from Illinois, after all!

On Saturday well before sunrise legions of sandhill cranes began squawking and soon created an absolute uproar in the adjacent wetlands. It turned out to be a perfect day: sunny and in the 70's with insects abuzz and frogs in full chorus. A gray fox

casually strolled by the meeting area. We enjoyed pizza and buffalo wings for lunch with perfect ambiance; the already tasty food was definitely enhanced by our surroundings!

PJ departed later that afternoon. Our second night lacked any surprise weather and boasted even more moths, bringing our total to about 60-70 species. A few giant water bugs (*Lethocerus americanus*) lurked about the MV lights. *Pyreferra hesperidago*, a straw and orange moth with darker lines, was more abundant than I've ever seen. Steve turned up the seldom encountered *Xylena nupera*, and I saw what was almost certainly the elusive *Lithophane oriunda* but the moth dropped off a baited tree and vanished in the leaf litter; it was not easy to sleep that night.

Amid the cold twilight on Sunday morning there was ample groaning and complaining from the Illinois contingent be-



FIELD TRIP REPORT  
continues on page 5

## FIELD TRIP REPORT from page 4

tween the cold and the squawking sandhills. We soon decided- still in a zombie stupor- to head north into Marinette County as we had done well at Navarino.

After hot coffee and breakfast at McDonald's in Crivitz we arrived under warm and sunny skies at Athelstane Barrens. Several species of tiger beetles and spider wasps were already scurrying along the sandy roads, and soon we began flushing the colorful early spring **Infant Moth (*Archiearis infans*)**, a few commas (*Polygonia comma* and *P. progne*) and Mourning Cloaks (*Nymphalis antiopa*).

I temporarily left Rich and Steve at Athelstane to pursue a certain elusive black and white geometrid moth of the earliest spring. Remnant snow banks were still evident in ditches while we were driving along the winding forest roads; this was a good sign the season had not passed. An hour later I had blitzed four sites; the Infant Moth was ubiquitous tipling on damp roads along with a few overwintering butterflies (including the Green Comma, *Polygonia faunus*) but no fuzzy black and white moths. At the fifth stop (near Goodman Park) I finally found my quarry- the **Scarce Infant (*Leucobrepheos brephoides*)**. This moth is a beast of lore in lepidopterist circles and is poorly documented in Wisconsin. Aside from an ambiguous historical record, Mike Reese photographed this species in Florence County in 2010 (see our Photo Gallery), and Les Ferge took it in Oneida County in 2011. While that's only three documented locations, I'm sure I saw



Navarino Wildlife Area, Shawano Co., WI

one in Price County in 2010, and Ann & Scott Swengel mention sighting them in Bayfield County. The paucity of records is not due to extreme biological rarity but rather their brief flight at the break of spring coupled with pickier habitat preferences than the Infant (hence "Scarce Infant" is well named). Whatever the case may be it is an exciting creature to see.

That evening we put out our arsenal of lights and baits across the barrens and adjacent areas; one spot boasted a white cedar swamp and sandy mixed conifer-hardwood woodland adorned with Canadian Shield style granite outcrops. Unfortunately the 70's of day plummeted into 40's soon after sunset...and from there descended into 30's. Those barrens sure get cold fast! The moths did not disappoint however and we were treated to various *Acleris*, *Lithophane*, *Orthosia*, *Pyreferra*, and *Xylena* to name a few. One particular highlight was ***Brachionycha borealis***, a coveted early spring noctuid moth associated predominantly with barrens. We finally packed up in the middle of the night and given the freezing cold and imminent threat of rain we retreated to a motel in Crivitz.

On Monday morning we awoke to a cold drizzle with no end in sight, and so our paths diverged. But the moth gods had one final surprise in store...a *Brachionycha borealis* resting on the outside of the McDonald's near the drive-thru window. Now that's service!



Athelstane Barrens, Marinette Co., WI

WES member Jordan Marche recently published an article in *The Great Lakes Entomologist* about the invasive fly, *Chrysomya rufifacies*.



long time ago I found a very strange-looking insect in my back yard: A large, very plump, black, shiny creature with a blue metallic sheen. It was a clumsy thing that crawled very slowly, appeared quite helpless, and did not try to escape. It

crawled without much direction, and its aborted wing covers indicated that it could not fly. What sort of creature was it, anyway? Was it as helpless as it looked? Curiosity of course made me pick the thing up. It immediately froze stiff, looking exactly as if it were not only dead, but dried into a stiff corpse. Adding to the bizarre appearance were the drops of clear orange oil that oozed from its joints.

*There is always something new...*

I was a teen who always had a keen interest in insects and was already familiar with many of the orders of insects, but I'd never seen anything remotely like this critter. In those times there were no handy field guides that are so easily obtained today. I had one technical "field guide" to the more common groups of insects with keys in Latin classification, and a few examples of each family written in fairly informal language. Pictures were black and white drawings of the most conspicuous examples, and a few color plates in the back of the book of the most colorful insects. This was heavy reading for a teenager.

I did not know where to start. The flightless creature had only small wing-covers that overlapped at the base, leaving much of the swollen abdomen bare. It had a skinny neck and a large flat head front-to-back resembling no insect I had ever seen before. Surely, I thought, it was not a beetle, and definitely not any of the flying groups of insects. Heavy-bodied and clumsy, it didn't have the agility of crickets or roaches. The keys in the book were so complicated I couldn't work my way through them, inasmuch as I did not yet know what most of

the terms meant. So I did what seemed sensible to me: I paged through the entire book, looking at all the drawings. To my surprise, I found a picture that looked exactly like my insect. It was a beetle in spite of the rudimentary overlapped wing covers and belonged to the genus *Meloe*, commonly called oil beetles. There are several species of *Meloe* that look too much alike for amateur naturalists to distinguish. The book said it belonged to a group of beetles called blister beetles. I'd never heard of a blister beetle, but the name was definitely intriguing.

After I went to college where I studied entomology and many other sciences, I learned that blister beetles are a group of beetles that defend themselves by secreting an irritating liquid containing cantharidin. This toxic chemical is such potent protection that it can raise blisters on the human skin and was once used to remove warts. It was originally thought to have numerous medicinal properties including an aphrodisiac effect, however when in-

gested it can prove toxic or even fatal. Today it is still used in some cultures to remove skin lesions or tattoos along with the skin, but is reputed to leave no scar. I have since found many more of these mysterious beetles but always avoided getting the oil on my skin, so I have no personal experiences to relate about blisters.

The defensive oil is amazing enough, but the *Meloe* (oil beetles) have a very bizarre life cycle. After mating, oil beetles seek flowering plants near which to deposit their eggs. Unlike most beetles, the eggs do not hatch into grub-like larvae. Instead the newly-hatched insects are triangulins--tiny mobile creatures with legs that do not look at all like beetle larvae. After crawling up a plant, they group together on a flower where the cluster forms into a clump that roughly resembles a small native bee. In addition the group produces pheromones like those of certain species of small ground-nesting female bees. The object of this ruse is to attract a male bee that—assuming the cluster is a female bee—will try to mate with it. When that happens, some of the tiny blister beetles climb aboard the male bee and ride along with him

**ALWAYS SOMETHING NEW** from page 6

until he mates with a real female bee. That is when they climb onto her to be carried along to her underground nest. There they molt into more traditional grub-like larvae, and live on the materials in the bee's nest. After hibernating as pupae in the bee's nest, they emerge in the spring to start the process all over again. It should be noted that these are all native insects, adapted to live together for millions of years, and blister beetles pose no threat to honeybees. Their only hosts are certain native bees that nest in the ground.

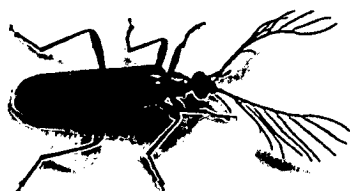
But the story does not end there. A couple of summers ago I found a beautiful beetle at the window of our cabin in a hardwood forest. It was a red beetle with feathery antennae that I found to be a type of fire-colored beetle. When I read about fire-colored beetles, I found that the males are attracted to blister beetles from which they harvest the cantharidin-laden oil. The toxic cantharidin is transferred to the female fire-colored beetle along with the sperm during mating, after which she uses it to cover her eggs so predators will not consume them. After hatching, these beetle larvae live under tree bark as do many other forest-dwelling beetles.

The incredible interactions and relationships among insects are sometimes so complicated and amazing that it is almost beyond belief how such relationships ever developed at all. Every insect seems to have some method of defending itself, whether by forming complex toxic chemi-

cals, stealing them from other insects, imitating the appearance of other toxic insects, appearing inedible, biting, stinging, or simply multiplying in such vast numbers they cannot be totally eliminated. That is one of the reasons insects are so interesting and fascinating. Thousand of such relationships exist, many of which remain undiscovered. There is always something new to learn from insects.



**Arkive.org**  
has some cool video of  
*Meloe proscarabaeus* oil beetle  
triangulins.



*Dendroidea concolor?* June 13, 2011, C.Rudy, Amberg, WI

Photos: fire-colored beetle at left; *Meloe* sp. above.



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Page 8

Wisconsin Entomological Society Newsletter — July 2013

Common Dragonflies of Northern Door County, \$17.95  
ISBN 0-9650769-8-9  
Paul Burton c 2010  
Stonehill Publishing, P.O. Box 250, Ephraim, WI 54211  
[www.doorcountybooks.com](http://www.doorcountybooks.com)

Book received for editor's review

Frankly, the title of this book would have prevented me from picking it up (I neither live in Door County nor spend much time there), which would have been a shame, because author/WES member Paul Burton has packed a lot more information into his book than its title might lead one to suppose.

I was surprised and interested to find a page on fossils of odonata, a page on dragonflies in myth and art, and many images so incredibly detailed and sharp that I had to take a second look: The insects had been digitally scanned. Wow (mirabilis!). The 90-page, full-color book is a synthesis of Burton's own interest and the public hikes and programs he has led or presented in the study area, including labeled macro photography of live specimens, comparative diagrams of field marks, and background on odonate anatomy and life history. It covers approximately two dozen species.

Though the book is focused on dragonflies of Door County, the Ridges Sanctuary, and the Hine's Emerald in particular, many of the dragonflies do occur elsewhere in Wisconsin, and some may also be seen in other states (as noted in the preface).

So despite the restrictive title, this good primer on dragonflies would not be out of place on an insect lover's bookshelf in another county; while the section on fossils, myth, and art may pique one's interest to investigate further.

