Wisconsin Entomological Society Newsletter

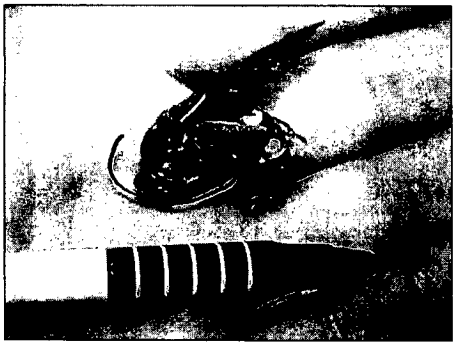
Volume 35, Number 3 **October 2008**

News from the Diagnostic Lab

Article and photos by Phil Pellitteri

Everyone knew it was a matter of time, and on Aug. 4 it was announced the **emerald ash borer**—*(Agrilus planipennis)* had been found in Wisconsin. Two infestations separated by about three miles were found in the village of Newburg (Washington County) and at a private woodlot in Ozaukee County. It will take some time to delineate the infested area, but there is a very good chance that this came in on infested firewood before or shortly after the quarantine on moving firewood was set in place in Michigan in 2002. Although the Wisconsin infestation will be a challenge, a new infestation in the western UP near Houghton may in the long run have more of an impact. It will be far more difficult to slow the spread of this insect as it gets well-established in the swamps and forests of the UP and northern Wisconsin.

I have had more calls about **cicada killers** *(Specius speciosus)* this year than I have had in the first two decades of running the lab. I suspect this is another one of those "southern insects" that have taken advantage of the mild winters. The size scares most people, and the amount of soil they push when they make their burrows reminds me of a small gopher.



Cicada killer, top; and burrow, dead cicada, bottom.

There have been many late-summer reports of hundreds of **European cutworm moths** *(Noctua pronuba)* showing up in the light traps we use to monitor ag pests. The only time I get reports of larvae is in the winter, as this noctuid overwinters as a larva and, if the weather allows, will be active anytime.

Japanese beetle populations continue to spread and we have well-established populations as far north as Barron County. We had reports of outbreaks of the **green-striped mapleworm** *(Dryocampa rubicunda)* in the Rhinelander area.

The **German yellowjacket** populations seem to be at an all-time low in the southern part of the state. Bob Jeanne suspects there may be a disease issue that is having a ma-

Please see **NEWS**, *page 2*

In This Issue...

The Wisconsin Entomological Society Newsletter is published three times a year, at irregular intervals. It 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:

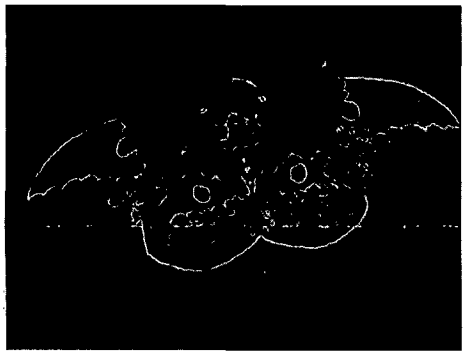
J. Mingari, P.O. Box 105, New Holstein, WI 53061, email: turkeyfeather@tds.net

NOTE: Please report any address changes to Les Ferge, 7119 Hubbard Ave., Middleton, WI 53562, email: ferge@netzero.net

NEWS FROM THE DIAGNOSTIC LAB
from Page 1

jor impact. On the other side--with establishment of the **European paper wasp** *(Polistes domiulus)* in the state--it will be interesting to see the impact on caterpillar populations. I have seen reports from many other states of the foraging workers having a major impact in reducing any lep. larval populations. I have not seen this yet.

Overall for 2008 I think the bugs were down. It was a spectacular **firefly** year. We had heavy rains in the southern part of the state and much of the north has had another dry year.



Imperial moth

I did get to see lots of **Giant** and **Tiger Swallowtails** during the mid- late summer, but very few **red admirals** after last year's first-generation explosion. The number of calls on **imperial moths** keeps climbing and I did get a **black witch** report from the Grafton area.

I look forward to sharing stories and seeing great pictures with everyone on the 18th.

Fall Meeting

Our fall meeting of the Wisconsin Entomological Society will be

Sat., October 18
1- 4 pm

at Russell Laboratory
UW Campus
1630 Linden Drive, Madison

This will be the 25th anniversary of the annual William A. Seiker memorial photo salon. You can bring, email or send a CD to Phil Pellitteri of 1-5 images. We judge the photo quality as well as the difficulty of getting pictures of the subject matter, with equal points given to each. We will also have a couple of talks to round out the day. Please contact Phil if you have something to share or want to be on the program. We will have elections of officers and a discussion and vote on raising the membership dues. If you have any questions, you can email Phil at

pellitte@entomology.wisc.edu
or call (608) 262-6510

For more information on cicada killers, check out Prof. Chuck Holliday's Cicada Killer Page:

http://ww2.lafayette.edu/~hollidac/cicadakillerhome.html

~ editor

Wisconsin Entomological Society Officers

President:
Phil Pellitteri
Dept. of Entomology,
UW-Madison
1630 Linden Dr.
Madison, WI 53706
pellitte@
entomology.wisc.edu

Vice-President:
Kyle Johnson
Graduate Student,
UW-Madison
1121 W. Badger Rd., Apt. #1
Madison, WI 53713
kejohnson4@wisc.edu

Secretary-Treasurer:
Les Ferge
7119 Hubbard Ave.
Middleton, WI 53562-3231
ferge@netzero.net

Newsletter Editor:
Jane Mingari
P.O. Box 105,
New Holstein, WI 53061
turkeyfeather@tds.net

New Wisconsin Moth Records

by Les Ferge

Since the publication of "Checklist of Wisconsin Moths" (Ferge and Balogh 2000)*, 29 additional species have been documented in the state. The total number of moths in the "macro" families treated now stands at 1238 species. A number of these new additions, such as *Digrammia* sp. (ordinata of authors), *Zanclognatha deceptricalis* and *Plusia magnimacula,* are the result of taxonomic revisions separating unrecognized similar species. *Apamea unanimis* and *Calophasia lunula* are introduced species, with *lunula* being purposely introduced to control invasive toadflax in several western states. *Stricosta albicosta*, the western bean cutworm, a North American native species expanding its range eastward, was collected in Bayfield, Dane and Grant Counties in 2000 and continues to spread. More field work will be required to determine the status of some of these species in Wisconsin, as the records are based only on single individuals. The table below summarizes the new records following the format of the checklist, with the columns giving the checklist numbers (based on Hodges, 1983), species name, known range by natural division (from Hole and Germain, 1994), flight period, and status (R = Resident S = Stray O = Occasional Immigrant U = Unknown).

New Additions

6358.1	*Digrammia* sp. (ordinata of authors)	Divisions 2, 4	June	R
6407	*Digrammia nigricomma* (Warren, 1904)	Division 5	early October	U
6811	*Homochlodes lactispargaria* (Walker, 1861)	Division 4	May	R
7538	*Eupithecia gelidata* Moschler, 1860	Division 4	May	R
7560.1	*Eupithecia fredericki* Knudson, 1985	Division 6	May	U
7702	*Malacosoma californicum pluviale* (Dyar, 1893)	Division 1	June	R
8341.1	*Zanclognatha deceptricalis* Zeller, 1873	Divisions 1, 2	mid June-late July	R
8344	*Zanclognatha inconspicualis* (Grote, 1883)	Divisions 2, 3, 4	early July-mid August	R
8733	*Caenurgia chloropha* (Hubner, 1818)	Division 6	late September	S
8801.1	*Catocala umbrosa* Worthington, 1883	Division 4	July	R
8866	*Catocala manitoba* Beautenmuller, 1908	Division 6	July	U
8925	*Syngrapha altera* (Ottolengui, 1902)	Division 2	July	R
8950.1	*Plusia magnimacula* Handfield & Handfield, 2006	Div. 1, 2, 3, 4	June; mid Aug.-mid Sept.	R
9332	*Apamea vulgaris* (Grote & Robinson, 1866)	Division 6	June	R
9362.1	*Apamea unanimis* (Hubner, 1813)	Divisions 2, 3, 4, 6	June	R
9369	*Apamea inficita* (Walker)	Division 1	late July-mid August	R
9699	*Condica sutor* (Guenee, 1852)	Division 3	early November	O
9925	*Lithophane lepida* Grote, 1874	Division 2	late September-April	R
9941	*Sericaglaea signata* (French, 1879)	Division 3	April	U
9944	*Metaxaglaea viatica* (Grote, 1874)	Division 3	early November	U
10177	*Calophasia lunula* (Hufnagel, 1766)	Division 3	August	R
10316	*Hadena ectypa* (Morrison, 1875)	Division 6	late June	U
10664	*Agrotis subterranea* (Fabricius, 1794)	Division 3	early November	S
10666	*Feltia manifesta* (Morrison, 1875)	Division 6	early May	R
10870	*Dichagyris acclivis* (Morrison, 1875)	Division 6	late July	R
10878	*Stricosta albicosta* (J. B. Smith, 1888)	Divisions 1, 4, 5, 6	mid July-early August; Oct.	R
11071	*Heliothis virescens* (Fabricius, 1777)	Division 6	June	S
11082	*Protoschinia nuchalis* (Grote, 1878)	Division 5	possibly mid July-early Aug.	U
11173	*Schinia sanguinea* (Geyer, 1832)	Division 6	early August	R

Updates and Corrections

9899.1	*Lithophane thujae* Webster & Thomas, 1999	species name published after checklist appeared
9364.1	*Apamea ophiogramma* (Esper, 1793)	corrected checklist number (was 9362.1)
10870.1	*Dichagyris reliqua* Lafontaine & Schweitzer, 2004	recently described, previously listed as *Mesembragrotis* sp.

Please see **MOTH RECORDS**, *page 4*

Mystery Insects from the August Newsletter

We were all stumped by these insects, submitted by Phil Pellitteri: Below is a **thread-legged assassin bug**, found in Columbia Cty., WI, in early August, crawling on garden plants.

At left is a ball of **snipe flies** on a spruce twig, found in Lincoln Cty.; and below it is a close-up of a snipe fly.

MOTH RECORDS *from Page 3*

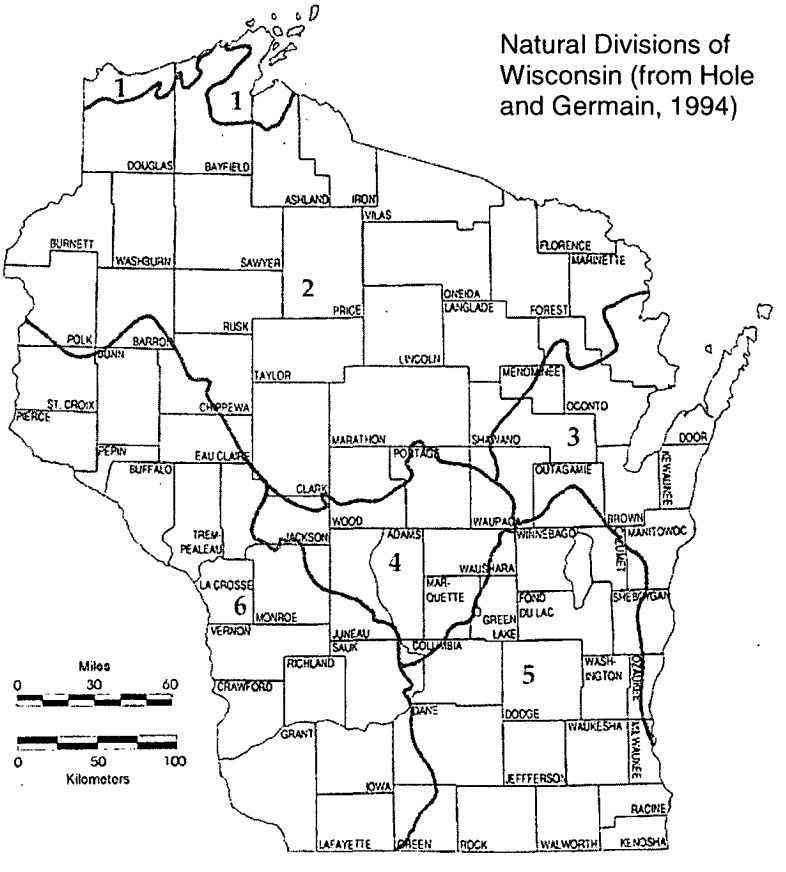
References Cited

Ferge, Leslie A. and George J. Balogh. 2000. Checklist of Wisconsin Moths (Superfamilies Drepanoidea, Geometroidea, Mimallonoidea, Bombycoidea, Sphingoidea and Noctuoidea). Milwaukee Public Museum Contributions in Biology and Geology No. 93. 55 pp.

Hodges, Ronald W. et al. 1983. Check List of the Lepidoptera of America North of Mexico. E. W. Classey, Ltd., London. 284 pp.

Hole, Francis D. and Clifford E. Germain. 1994. Natural Divisions of Wisconsin. Wisconsin Department of Natural Resources.

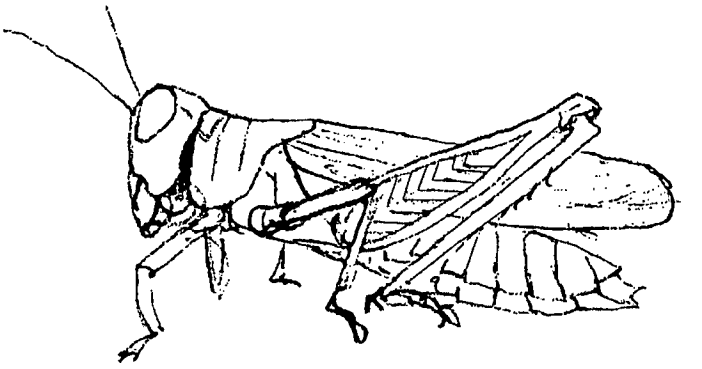
* Available from the Museum Shop, Milwaukee Public Museum, 800 W. Wells St., Milwaukee, WI 53233. The price is $6.00 plus $3.00 shipping and handling. Orders must be accompanied by money order or check drawn on U. S. bank. Wisconsin residents please add 5% sales tax. [Have not checked on current availability]



Natural Divisions of Wisconsin (from Hole and Germain, 1994)

Insect-Hunting with First-Graders

by J. Mingari



Our first-graders catch a lot of grasshoppers during their annual Introduction to "Bugs" hunt in late summer. This is typical: it's the time of year when the orthoptera—grasshoppers, crickets, katydids—are most obvious and abundant.

Last year the kids caught a big two-striper (*Melanoplus bivittatus*). They were astonished to learn that it was a completely different kind of grasshopper, not the mom of all the little red-legs (*Melanoplus femurrubrum*).

Nobody catches any rusty or putty-colored Carolina grasshoppers (*Dissosteira carolina*) during school visits. Those hoppers see a person coming and spread banded wings, whirring away before you're in reach. In contrast, the little red-legged grasshoppers just spring for the tall grass, and if they can't reach it, they burrow into the short grass and sit still. Some kids figured this out and quickly became expert hunters with their empty mustard jars, running to me with captive grasshopper held high.

Actually, everything they caught was a "grasshopper" to them.

Their tendency to generalize makes me think of *Aesop's Fables*, since the kids only experience a stereotypic behavior of grasshoppers: Jumping. I think the activity needs a dose of depth, scientific inquiry.

I read an old news item about grasshoppers in Australia eating "green paint, green curtains, and even some green underpants left out on a line;" and a study on some cousins of the red-legs demonstrated that the grasshoppers do see green and stripes. So I am thinking of outfitting the bug-challenged kids with a vertically striped green and tan apron, to see if the grasshoppers jump into their lap.

The kids don't catch any katydids or tree crickets, though if they searched the purple New England aster flowers, they would be more likely to see those insects than bees sometimes. Kind of funny how the katydids stand out. They are so uniformly bright green and big that they appear at first glance to be plastic toys. In a jar they can be sort of sedate, slowly moving one foot at a time. They're so big that they have a recognizable face, and even an expression of sad reproach.

The kids only catch a few field crickets. That surprises me—the field is always musical with cricket chorus. It reminds me of *Aesop* again.

I don't know of any Cricket and The... fables, but I do know of two Grasshopper and The... fables, and both of them are about making noise—chirping or singing. Fables are based on stereotypes, but chirping or singing are not the stereotypic behaviors of grasshoppers. Of course grasshoppers do make noise, but it's not something most people see them doing. If a grasshopper thinks he's under surveillance, he's mum. --He'll jump, though!

For a grasshopper fable, the stereotype is Grasshoppers Chirp. Single-mindedly. Excluding even the need to eat. Till they die. Did Aesop or ancient fable-writers differentiate between crickets and grasshoppers?

Can't go to Aesop and ask him if he knew his insects; all that definitively remains of him from 2,600 years ago is his name and his reputation. I checked with Aristotle, 300s BCE.

Aristotle came up with some strange conclusions: Insects don't breathe. Insects have more feet to make up for their cold-related slowness. Insects are hard all the way through.

On the other hand, Aristotle did seem to be specific in his terminology. He referred to *acris/acrida*, *echetes*, and *tettix*, and his translator noted that these were grasshoppers or locusts, crickets, and cicadas, respectively. What did the oldest fables say?

The collections I found were of Phaedrus (Latin, first century AD) and Babrius (Greek, second century AD), and they included many more insect-related fables. I discovered a curious thing: Every time an English title and translation specified a cricket or a grasshopper, the old Latin version specified a cicada.

I went to Babrius. It was the same story for the same fables:

Please see **INSECT-HUNTING**, *page 6*

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INSECT-HUNTING *from Page 5*

the English translations did not match. And in every case, Babrius's cicada (*tettix*) made more sense in the stereotypes. Even though adult cicadas do suck plant sap, it's not obvious. What is obvious is that males "sing." Single-mindedly. Till they die.

I discovered that English versions from the 1400s did say "cicada." But by the 1600s, they did not. What happened? Were there no cicadas in England?

It seems there is only one cicada in England today, the New Forest Cicada (*Cicadetta montana*). It is rare, limited in low numbers to one small locale, and reports of its continued existence are sparse.

How did we end up with nonsensical grasshoppers and crickets in English versions of *Aesop's Fables*? I wonder if the English lost the knowledge of their own cicadas as they inadvertently destroyed cicada habitat, or if translators simply substituted insects with which readers or they themselves were most familiar.

Today we may consider fables mere children's literature, in which imaginary characters don't matter, but historically fables were rhetorical devices—metaphors-- for orators, and they had to ring true to be useful. Fables with incorrectly substituted insects would have been pointless. (Sort of like if we said, You can lead a mitten to water, but you can't make it drink.)

I am surprised it seems nobody wrote a fable about a grasshopper eating. Who could miss a swarm of grasshoppers in the locust incarnation? (the pharaoh didn't)--Or about one using its chewing mouthparts to BITE (Boy, that's a surprise, though it doesn't hurt.) -- Or about desperate grasshoppers spitting brown blech all over one's hands. That's about as reliable a behavior as jumping and biting. It's an automatic defense mechanism, generally useless against people unless they're first-graders, who cry "Aaaa!" and fling the grasshopper away in disgust.

Entomologist Thomas Eisner experimented with a Florida lubber grasshopper's brown spit and concluded that it is an effective deterrent to predatory ants because it is sticky and/or tastes bad.

The first-graders won't know that experience. Nowadays they must bug-hunt with jars, to prevent mishaps. Never having been threatened, themselves, our first-graders don't understand and can't respect the fight-or-flight response of insects. With jars, they're usually safe from the occasional painful wasp or bee sting, surprising bites, and gross brown grasshopper blech, but they will not know the humor of being misidentified as giant ants, and false fables won't educate them.

Things seemingly of little value
can be unexpectedly useful.
A grasshopper held by the waist
bit, and spat nasty brown paste.
Yet the beast that did hold him
was no ant hunger-boldened
but a child, who released him
in haste.

Eisner, T. 2003. *For Love of Insects*. Cambridge: The Belknap Press of Harvard University Press: 307-309.

Bailey, E.V. and M.O. Harris. 1991. Visual behaviors of the migratory grasshopper, *Melanopus sanguinipes* F. (*Orthoptera: Acrididae*). *Journal of Insect Behavior*. 4 (6): 707-726.

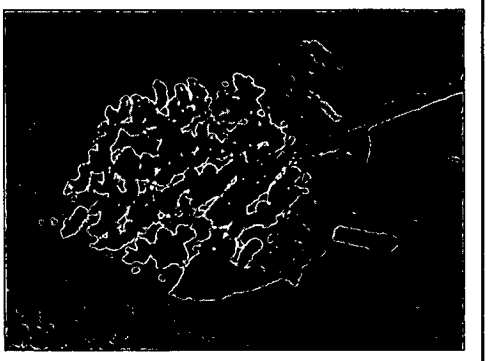
Kong, K.L., Y.M. Fung, and G.S. Wasserman. 1980. Filter-mediated color vision with one visual pigment. *Science*. 207(4432): 783-786.

Simmons, Ian. 2000. *Exploding Pigs and Other Bizarre Animal Stories*. Barnes & Noble Books: 32. (From "Green Greed," *D. Telegraph*, 11 Feb. 1982.)

Kirk, Kathryn and Charles R. Bomar. 2005. *Guide to the Grasshoppers of Wisconsin*. Madison: Bureau of Integrated Science Services.

Mystery Insects

This one really is a mystery (to me). These things were found on the undersides of two leaves on a Manitowoc County apple tree on 8-5-08.



One batch was black (shown here); the other batch was amber-colored. At first glance they appeared to be galls. At 20x magnification, they proved to be pupae, eerily reminiscent of the stone heads of Easter Island. The black batch had about three times as many pupae as the amber batch.

At the foot of each pupa and separate from it was a tiny hard pinkish "burble" or glob of something, not apparently plant matter.

The leaves were put into separate containers. The first insects appeared within the containers on 8-27-08.

Most were metallic green (one from black pupae pictured). Two or three were metallic plum-colored, slightly less robust in build than all the others. Actual size of the insects is between 2-3 mm.

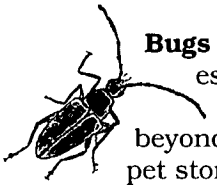
Send responses to the editor:

P.O. Box 105
New Holstein, WI 53061
or email turkeyfeather@tds.net
(Please put WES in the subject line)

Site Carabidae of the World

by Andrew Khitsun

Let's get started... The new book **Private Life of Spiders** by P.Hillyard has very interesting spider "faces" with all the differently arranged multifaceted eyes, looking like aliens.



Bugs as Pets by J.Hemdal offers interesting perspective on keeping all kinds of 6- and 8-legged critters beyond traditional few you can find in a pet store.

Very interesting new series just appeared on the bookshelves, represented by two books: **Finding Butterflies in Arizona** by R.Bailowitz & H.Brodkin, and **Finding Butterflies in Texas** by R.Wauer. They direct people to locations of the best butterfly-watching sites and locations. Hopefully, other states will follow, including Wisconsin.

The quality and coverage of professional and semi-professional books keeps improving, offering stunning digital photographs of what used to be referred to through only drawings and keys in the past. For example, **The Hispine Beetles of America North of Mexico** by C.Staines offers high-resolution photos, on top of rich material, on that particular subfamily of Chrysomelidae beetles.

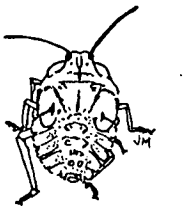
The Scarabaeoid Beetles of Nebraska by B.Ratcliffe & M.Paulsen can be useful in our regions since we share many species with that state. It's one of only few books so far offering good visual ID of the particular family of beetles.

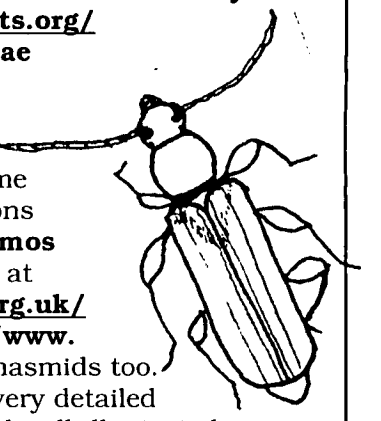
You'll never find books **Nymphs (Volume I and II)** by E.Schwiebert while browsing shelves devoted to insects – they're in hunting and fishing sections. Written for fishermen, they offer amazing level of detail and graphical material related to immature stages of Mayflies, Stoneflies, Caddisflies and others whose nymphs develop in lakes and streams, and a must have for people interested in those insects. The other book dealing with Stonefly larvae is **Nymphs of North American Stonefly Genera** by K.Stewart & B.Stark. The latter author also participated in creation of **American Stoneflies: A Photographic Guide to Plecoptera**. The other interesting book **Genera of the Trichoptera of Canada and Adjoining & Adjacent U.S.** by F.Schmid treats Caddisflies with great detail.

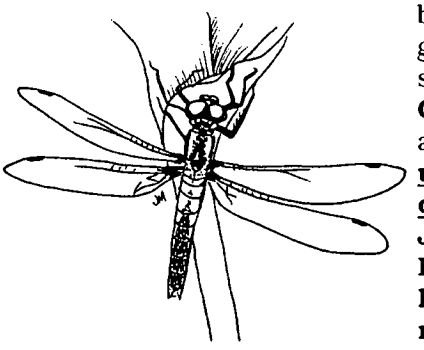
For those who like their critters tiny, **Thysanoptera, an Identification Guide** by L.Mound & G.Gibby offers recently developed pictorial keys allowing non-specialists to identify thrips species.

And, straying once again, I can't avoid mentioning **Field Guide to Wisconsin Sedges** by A.Hipp, providing an account of all the species in the state and drawings of most of them.

It's amazing how many sites appeared in recent years devoted to particular families or even smaller taxa of insects. For example, **Carabidae of the World** at **http://www.carabidae.ru/** (located in Russia) attempts to build online database of that family – work is still in progress but already impressive. **Heteroptera** (French site) does the same for a family of True Bugs Tessaratomidae at **http://www.heteroptera.fr/** **New World Army Ants** at **http://www.armyants.org/** speaks for itself. **Cerambycidae of Western Palaearctic** at **http://www.cerambyx.uochb.cz//index.htm** nicely complements book on the same subject covering eastern regions (mentioned before). **Microcosmos** treats Phasmids and Mantids at **http://www.microcosmos.org.uk/** And **Phasmatodea** at **http://www.phasmatodea.com/** treats Phasmids too. Japanese, always known for very detailed and well-illustrated books, are especially good at creating such sites, as illustrated by **Odonata of Japan** at **http://www013.upp.so-net.ne.jp/odonata_jp/** or **Japanese Ant Image Database** at **http://ant.edb.miyakyo-u.ac.jp/E/index.html** .







Wisconsin Entomological Society

J. Mingari, Editor
P.O. Box 105
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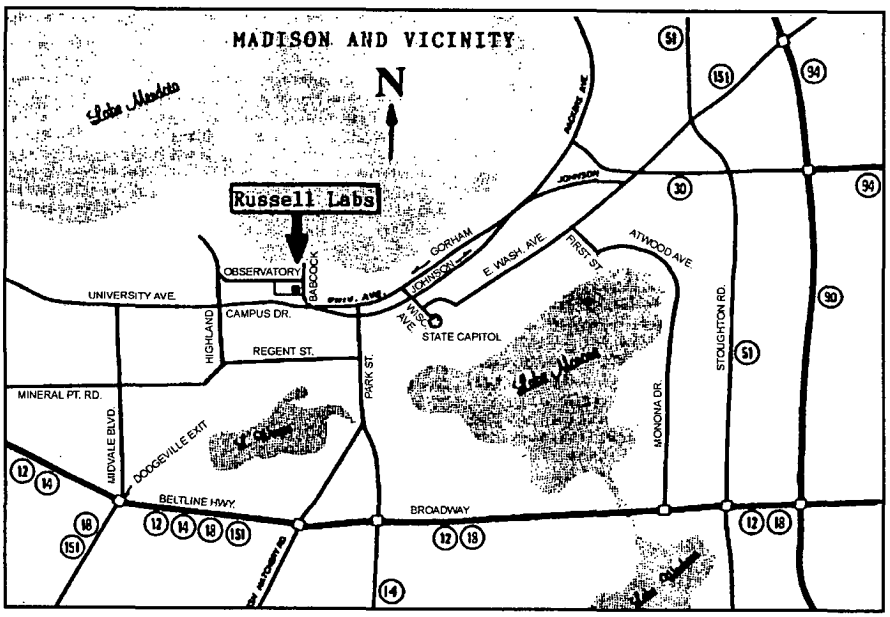

Don't forget the Fall Meeting
Saturday, Oct. 18
1-4 p.m.
at Russell Labs

Russell Lab is the building on the northwest corner of the intersection of Linden Drive and Babcock Drive. The Insect Diagnostics lab is in Room 240. Public parking is available one block farther west at the west end of Babcock Hall (on your left), and on the top level of the parking ramp located on the north side of Russell Labs.

From the West:
From U.S. Hwy. 12 or U.S. Hwy. 14, take University Ave. east onto campus.
Turn left (north) onto Charter Street.
Turn left (west) onto Linden Drive.
At the third stop sign you will be at the intersection of Linden and Babcock Drives.

From the East:
From Interstate 90, take U.S. Hwy. 12/18 (the "Beltline") west.
Take the Park Street exit north into the city.
Turn left (west) on University Ave.
Turn right (north) onto Charter Street.
Turn left (west) onto Linden Drive.
At the third stop sign you will be at the intersection of Linden and Babcock Drives.