

The Maine Entomologist

A forum for students, professionals and amateurs
in the Pine Tree State

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PRESIDENT'S CORNER



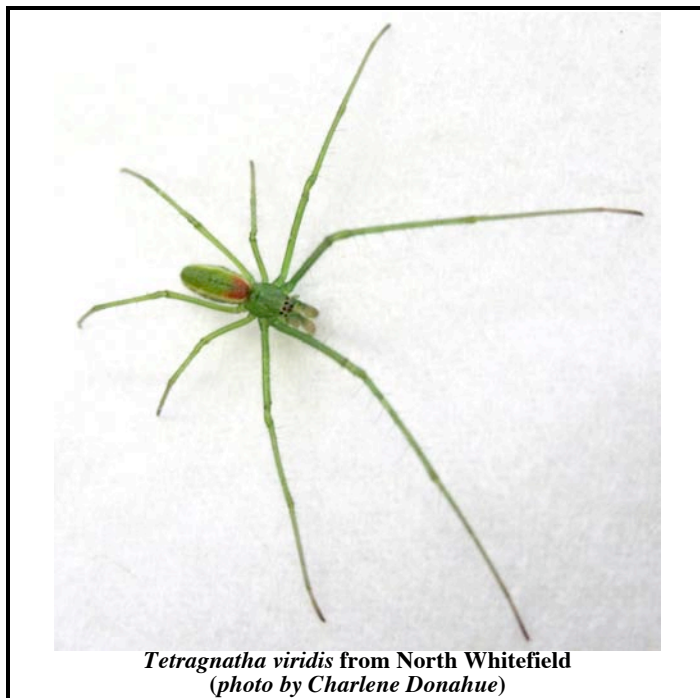
by Charlene Donahue

The past three months have definitely been interesting. Warm then hot, then freezing, then normal; dry, then 5" of rain. How are the insects handling all this? Many of them will not even notice. Early season insects are designed to deal with adverse conditions and can tolerate many extremes. Some will become un-synchronized with their host plants as the two respond to different environmental cues and develop at different rates. These insects may do poorly or they may do better than the usual. We will have to wait and see. In general insects and plants appear 1 ½ to 2 weeks ahead of normal development. The mosquitoes were out and biting in March – not a welcome sign of spring. These are species that overwinter as adults and can be found on woodpiles or in your basement all winter long.

I was witness to an interesting phenomenon this winter. We had a snowstorm on March 1st and I took the dog out for a walk at dusk. It was still snowing lightly and as we walked down through the hemlock trees I noticed something on the snow. A closer look revealed a beautiful green spider with red markings delicately walking across the snow. I looked up and saw another and then another. As we moved along there were spiders under every hemlock, dozens of them. I went back to the house for a collecting container (I was not expecting to need a container during a snowstorm) and collected some.

The next morning I looked for the spiders again and found only a few, I was very glad I had collected some the evening before. The following day there were no spiders, and I did not see them again on subsequent walks. The spiders were all immature *Tetragnatha viridis* (Walk.). Some were penultimate males and there were color variations from all green to green with red to brown. What was it that had made so many spiders drop from the trees to trek across the snow that day? This is a spider that is reported to be one of the few

seen on snow, but why all at once and just that one day? It was a sight I will keep in my mind's eye for a long time to come.



Tetragnatha viridis from North Whitefield
(photo by Charlene Donahue)

Now on to the future. We have our usual list of field trips lined up and I hope to see many of you at them. Bring friends and family too. The trips are a chance to slow down, enjoy different parts of the state, learn about insects and spend sometime with others interested in insects as well.

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President's Report (cont.)

The week of July 23-29, 2012 is National Moth Week (<http://nationalmothweek.org/>). It would be great if we could put together some events for that week. (Karen Hopkins has one planned for Hermon; see the notice on page 6.) If you have additional ideas, let me know and we can the word out to members. At the very least, put it on your calendar and take some time to look for moths the last week in July. Two easy ideas are: leave the light on and go see what come to the light every hour throughout an evening, or take a flashlight and go look at flowers at night – you will find moths nectaring at them.

And one final note of this disjointed President's report. The University of Maine is in the process of moving the UM insect collection to the Maine State Museum. It will be stored in the museum's natural history warehouse, which is climate controlled. This move will protect the collection from further degradation and make it more accessible in the future.

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Two New Species of Obscure Wood Wasp Come to the Maine Forest Service Collection by William S. Urquhart

One day a while back, the phone rang here at the Maine Forest Service Insect and Disease Laboratory; it was the University of Maine at Orono on the line. It transpired that they were in the process of clearing out a couple of buildings for future use. The buildings currently contained a great deal of material that had been collected over the course of several years at multiple locations throughout Maine. The vast majority of the material was insects of all shapes, sizes, and descriptions in various containers. They wanted to know if we wanted it - otherwise they were going to dispose of it all.

And so it was that one cold and windy morning in January of 2010 that Charlene Donahue and I, along with two Maine Forest Service co-workers and two MES volunteers, were standing outside a little-used university laboratory building experiencing a great deal of anticipation, and perhaps a little trepidation, as the door was opened. I was staggered. The vast quantity of material it contained was almost incomprehensible - and that was just the first building.

Two days later we had it all transferred back to Augusta and safely stored in a secure, climate-controlled State Museum warehouse. Dave Bourque and Dana Michaud did a fantastic job on the jars of sorted insects but that still left all the unsorted material. Years of work lay ahead. As time went by, it became pretty obvious that we were going to need more volunteers to help sort through the innumerable boxes of material and the myriad specimens they contained.

One evening I casually mentioned to my wife, Kathy, the situation with the sorting. "Hey", she said, "I've done that sort of thing before. I don't see why I can't come in a few days a week and help out." And so, after working out the details with Charlene, we had our first additional volunteer.

Early one morning in January of 2012, Charlene and I were having coffee and a brief conversation. As we were talking, Charlene was idly glancing at some of the Hymenoptera specimens that Kathy had sorted, "This looks like a siricid," she said, handing me a vial. "What do you think?"

"Yea, it does sort of," I replied. "As a matter of fact, Kathy brought one very much like that up to my office yesterday. I thought it might be a male but I haven't checked it out yet."

We then picked through all the Hymenoptera samples Kathy had finished sorting and found three more. As we parted Charlene said, "Let me know what you find out."

I returned to my office with my curiosity fully aroused. First, though, I had to dry the specimens; they looked bloated

from being in ethanol for twelve years. They appeared so bloated it looked like their heads would fall off at the slightest touch; only a tiny little string held them on. I took down my key book, *Guide to the Siricid Woodwasps of North America* (Schiff et al., 2006) and waited.

I ran the first specimen through the key and came up with a likely suspect but it didn't quite fit exactly. I ran it again; same result. I ran a different specimen and got a different suspect but again; not quite. Also there was that nagging problem of the heads that never pulled back into the body. I was still not sure what I had so I got our drawer of siricids and began to do comparisons between the suspect siricids and my unknown specimens.

It was soon clear that I was not dealing with siricids - but then what were they? It was then I noticed a small unit pinning tray at the bottom of the drawer that contained a different family of siricid-like wasps with protruding necks. Comparing those specimens to mine I knew I was on the right track. These few specimens were close enough that I thought I might have the right family but different species or genera.

Using the key in *Hymenoptera of the World: an Identification Guide to Families* (Goulet & Huber, 1993), I confirmed that I did have specimens of the family Xiphydriidae. Now all I had to do was verify my suspicions as to genus and determine the species. Then I could see what I could find regarding their biology. At least I now knew why the head appeared ready to pop off: "Propleuron unusually long; head thus clearly separated from pronotum by a distinct 'neck'" (Goulet & Huber, 1993, p. 111).

It soon became evident that there is not a great deal of published information available on these insects. The earliest reference I could find in our library was a brief mention in the 1916 *Hymenoptera of Connecticut* (Britton, 1916) which listed two genera and seven species, but no life history or biology. *Hymenoptera of America North of Mexico* stated that "...probably five Nearctic species belong in *Xiphydria* Latreille, and four Nearctic species belong in *Xiphydriola* Semenov-Tian-Shanskii. A revision of the Nearctic species will be required to determine the correctness of these generic segregations" (Krombein, 1958, p. 17), and that is all it said.

Hymenoptera of the World: an Identification Guide to Families mentions 80 species worldwide, with ten occurring in North America, including six in Canada. As to biology, all it said was, "These wood-boring sawflies attack small trunks and branches of deciduous trees" (Goulet & Huber, 1993, p. 111). I was beginning to get a bit frustrated. There appeared to be little agreement on numbers of genera and species and all I had so far was a key published in 1916 and no life history or biology much beyond that they were sawflies.

Going on-line wasn't much help either. I did find countless photographs which confirmed to me that I was indeed on the right track, but there just wasn't a great deal of practical information. It was while I was going through the list of web sites one at a time that I found a reference to an article by Dr. David R. Smith entitled, "The Xiphydriid Woodwasps of North America," published in 1976. I immediately ordered a copy of the article through the Maine State Library.

After receiving my copy and reading through it I knew I had not only found exactly what I needed but had a very good idea of why so very little had been written about these obscure little sawflies. They are considered to be of very little or no economic value whatsoever, as the larvae bore only in small already dead or almost dead branches of small trees and shrubs and are most certainly secondary to whatever originally caused it to die (Smith, 1976).

Continued on next page

Obscure New Woodwasps to MFS Collection (cont.)

In fact, I could find no reference whatsoever to any of them, regardless of species, ever having emerged from a piece of wood greater than 3 inches (7.6 cm) in diameter. The larger trunks and limbs do not seem to hold any interest to these little wasps. They neither sting nor cause structural damage to dwellings. With the exception of the occasional specimen or two emerging from firewood inside someone's house they appear to be of no concern to humans in the slightest (Smith, 1976). With the 2007 discovery of the first known Xiphytriid wasp in New Caledonia (Jennings, 2007) there are now 146 recognized species in 28 genera known worldwide (Taeger & Blank, 2011). They occur in most regions of the world with the exception of Africa (and of course the polar regions). Many of the species found in tropical regions are scarce and are only known by type specimens or by a few examples (Smith, 1976).



There is a great deal of disagreement concerning the exact taxonomy of these wasps. For a more in-depth discussion of the finer points of these arguments I would direct those so inclined to start with Maa (1949) and Smith (1976). As near as I can ascertain from multiple sources and as used by zipcodezoo.com (see references) the current, generally agreed on, working taxonomy in use today is as follows:

Order: Hymenoptera
Suborder: Symphyta
Superfamily: Xiphydriodea
Family: Xiphydriidae
Subfamily: Xiphydriinae

The only Holarctic genus of Xiphydriidae currently recognized in North America is *Xiphydria*, which, with 25 species, is the largest genus in the family (Smith, 1976). With that simple sentence I now had my genus confirmed.

All of the North American species of *Xiphydria*, females in particular, are very similar in appearance and are usually easy to separate by coloration differences, particularly of the antennae and legs. Males, on the other hand, can be quite variable in color and genitalia often need to be examined in order to make a determination. For this reason the newer key (Smith, 1976), is both easy to use and understand, and made it very straightforward to determine to which of the nine North American species listed my five (all female) mystery wasps belonged: I had three *Xiphydria maculata* Say, 1836, and two *X. tibialis* Say, 1824.

These species are found across much of eastern North America with *X. maculata* ranging all the way to Manitoba and Texas. *Xiphydria maculata* is found primarily in sugar

and red maple. The host range for *X. tibialis* Say, 1824 is broader with most records from elm (*Ulmus americana*). Some of the other *X. tibialis* hosts are birch, oak, ash, apple and cherry. Many of these host records still need confirmation (Smith, 1976).

Neither of these two species was represented in the Maine Forest Service insect collection. To this point there was only one species, *X. mellipes* Harris, 1835 and an undetermined *Xiphydria* sp. published as being in the MFS collection (Dearborn et al., 1983). Re-examining the seven specimens of *X. mellipes* in the collection, I concurred with the determination. Re-examining the undetermined specimen, I concluded that it was in such poor shape and missing too many characteristic parts that a final determination will most likely never be made without the possible application of DNA analysis.

With these determinations we have now tripled the number of species in the collection and nearly doubled the number of specimens. When you consider that six of the *X. mellipes* were collected in the early to mid 1940s and the last one in 1954, it is easy to see just what an interesting find this really was.

When I stop and think about the massive amounts of material that is still packed away in boxes waiting to be sorted I can't help but ask myself, "What wondrous things remain to be discovered; what treasures remain unearthed?" (Pardon the hyperbole). The answer of course is: neither I nor anyone else has the slightest idea, yet.

If you or anyone you know would care to join us on this road of discovery and can spare a day, or two (or more) periodically and would like to help sort this material, please call Charlene Donahue, Forest Entomologist, MFS; President, MES, at 207-287-3244. We need and would appreciate your help.

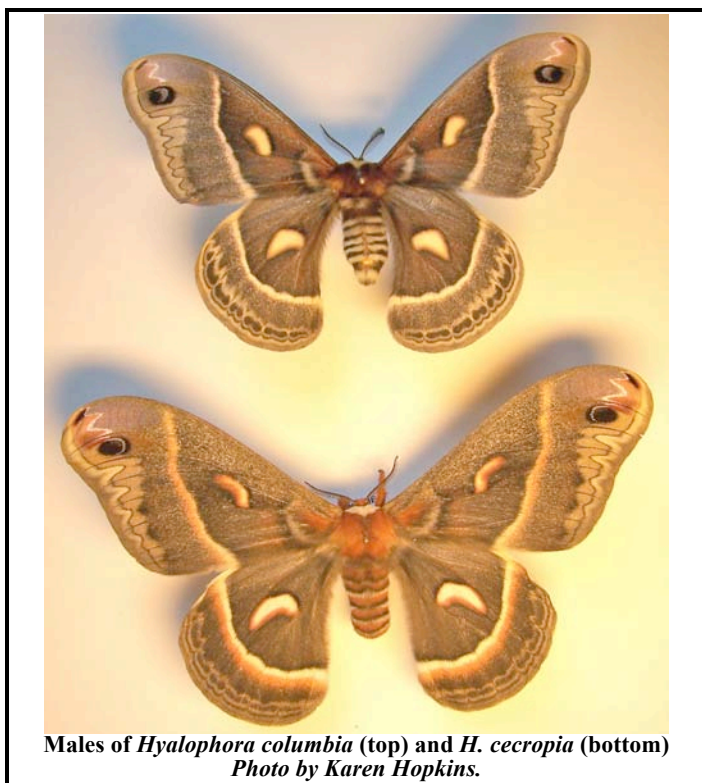
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Cecropia Moth or Columbia Moth?
Hyalophora cecropia* vs. *Hyalophora columbia
 by Karen Hopkins

I was mothing at a favorite Bangor light source in early June of 2011, and came upon what I thought was a Cecropia moth. I captured it (her) to complement a male Cecropia in my collection. After spreading, I found the wingspan was only 10 cm, and the minimum span for the Cecropia is 11 cm. The maximum span indicated for the similar Columbia is 10 cm. (Are we splitting hairs/moth scales?) Adult size of a silk moth may vary according to how well it ate as a larva, so I wasn't sure that a 1-cm difference was significant.

A week later, I caught a (definite) Cecropia. In comparing the two (both females), I had to say that the first was a Columbia. Though her colors were not "drab" as described in the book, the combination of the smaller wingspan and the lack of red were immediately striking. The stripes on the body were also different, the Cecropia having much wider brown bands, noticeable even before the moths had dried.



Males of *Hyalophora columbia* (top) and *H. cecropia* (bottom)
 Photo by Karen Hopkins.

In July I took the moths with me to the Schoodic Lepidoptera Blitz for an expert's opinion. Dr. Brian Scholtens did confirm that the first moth was *Hyalophora columbia*, listed in the new Peterson Guide as "uncommon". *H. columbia* feeds only on tamarack trees, while *H. cecropia* larvae feed on a variety of deciduous trees and shrubs.

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Saturday May 19th Field Day:
Pineland Farms, New Gloucester
(Cumberland County)
 by Domenica Vacca (Woo)

The 2012 collecting season has arrived! This year's second field day of the season will be held at Pineland Farms in New Gloucester, Maine.

This 5,000-acre working farm has many large fields, woodland trails, and a few ponds as well. Bug protection, long pants, sturdy shoes, and sunscreen are highly
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recommended, along with a lunch (though a market with fresh produce and sandwiches is available on the premises). We'll provide drinks and snacks. Please meet at the Welcome Center at 9:30 a.m.

Directions: Take I-95 to exit 63 in Gray. Turn right, toward Gray center. Take Route 115 east; go 1.6 miles. Turn left onto Depot Road (2.8 miles to stop sign). Turn left onto Intervale Road (Route 231). Turn left onto Pineland Farms campus (Morse Road).
 The Welcome Center is on the right.
 See www.PinelandFarms.org for more information OR call Domenica at (207) 967-6159.

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Melissa Arctic Butterfly Study Underway



Three specimens of Melissa Arctic from western Canada. The right side of the image shows the undersides of the wings.

Image source:

http://www.cbif.gc.ca/spp_pages/butterflies/captions/MelissaArcticcap_e.php

The Melissa Arctic Butterfly, and its White-Mountain-restricted subspecies the endangered White Mountain Arctic (*Oeneis melissa semidea*), as well as the closely related Macoun's Arctic (*Oeneis macounii*), are currently under study by Angela Gradish, a Ph.D. student at the University of Guelph in Ontario. She is currently seeking material from **related and unthreatened** subspecies for study.

The Melissa Arctic is mottled medium-brown to dark gray, and would be well-hidden against the lichens on rocks in its alpine tundra environment. The White Mountain Arctic subspecies is known only from the alpine zone of Mt. Washington and Mt. Jefferson in the White Mountains of New Hampshire, where it may be found in the alpine sedge meadows.

Angela's study is in population ecology as well as sorting out the taxonomy of the group as a whole. One question is whether the even-year and odd-year populations of the White Mountain Arctic are indeed the same species, or two closely related but diverging populations, since the life cycle appears to take two years. Part of her study will involve DNA sampling from a tiny fragment of a wing or leg. Earlier studies to determine the taxonomy of the complex based on adult morphology were inconclusive.

PLEASE DO NOTE that the White Mountain Arctic is a protected species under New Hampshire state law; no person shall capture or possess this species without a valid scientific permit from the New Hampshire Fish and Game Department. However, Angela is seeking help in locating specimens of related and unthreatened taxa for comparisons in her study.

Related Maine species include the state-endangered *Oeneis polixenes katahdin*, the Katahdin Arctic, which is found only on Mt. Katahdin (and is not legal to possess without a special permit), and *O. jutta acerta*, the Jutta Arctic. This latter has been reported from spruce bogs in the northern half of Maine.

If you have any questions about the study, or have specimens you would be willing to share, please do contact Angela at agradish@uoguelph.ca.

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The one Entomological seminar this summer at Eagle Hill in Steuben will be Aquatic Entomology from July 29-August 4, with Steven K. Burian. See the Eagle Hill web site for more info. (link at the M.E.S. web site).

Saturday June 16th Field Day:

**Kennebec Highlands, Rome
(Kennebec County)**

by Bob Nelson

In June, the chance for collecting will continue in the Kennebec Highlands in Rome, just north of the Belgrade line. We'll be meeting on Saturday, June 16th, in the area of the Sanders Hill Loop Trail, where there is a small vernal pool, a swampy wetland, Watson Pond with adjacent marshland, young immature upland mixed hardwood-conifer forest and more mature forest with trees to over 30 cm in diameter. The trailhead is located at approximately 44°33'59"N, 69°55'18"W.

The dry-ground upland forest includes yellow and paper birch, white pine, sugar maple, American beech, rare ironwood and northern red oak, as well as a variety of smaller shrubs. There should be an abundance of diversity in phytophagous things as a result. About the only thing missing from the area is broad, open fields, but small areas were cleared in the 1990s so there are SOME minor areas of relatively open ground. I would fully expect poison ivy to be here. Staghorn sumac is one of the exotics to be found.

Trails are extensive and at least in part are sited on old logging roads, so they're solid, dry and wide, as well as beautifully maintained and easy walking. There are lots of rocks up to giant boulders, and abundant fallen debris to peek beneath.

We have the blessing of the Belgrade Lakes Regional Conservation Alliance (BLRCA), which manages the property, to collect here. There are no restrooms on site save the trees and shrubbery, but camping is OK as long as one is discreet and doesn't build open fires. This should enable night collecting should anyone wish to black-light for moths or other nocturnal things.

Plan on a collecting day lasting from 10:00 a.m. to ~3:00 p.m. (earlier if it rains, later if you're into night collecting). Bring bug repellent, drinks, lunch, and of course your collecting gear.

To thank our hosts for their gracious permission to collect here, I've promised to provide a list of what people have collected, and if folks have duplicate specimens they'd be willing to donate I can try to put together a small display for the Conservation Center.

Directions from the south: Take I-95 to the State Route 27 exit in Augusta – the second Augusta exit from either north or south. Go north on Route 27 until you get to Belgrade Lakes Village – where the speed limit drops to 25. Set your trip meter as you cross the stream that drains from Great Pond (on your right) to Long Pond, at Great Pond Dam. (This is just past the small town store that will be on your left.)

From this point, it's 3 miles until you get to Rome Corner, where State Route 225 comes in on your right. Continue straight ahead. At 4.1 miles, Watson Pond Road comes in on your left. **Turn left here.** Go up this road another 1.2-1.3 miles and you'll see a BIG (2 feet square) BLUE SIGN on the right, announcing Kennebec Highlands. This is the parking lot for the Sanders Hill Loop trail head. Park here. The lot is small but should accommodate 5 vehicles easily if people aren't too sloppy.

Directions from the north: Take U. S. Route 2 to the State Route 27 turnoff in New Sharon. Watson Pond Road is on the right at the bottom of a long grade, 5.6 miles south of Route 2. Turn right and follow directions above.

Call me (426-9629) in advance if you have any questions, but know that I have no cell phone so can't be reached once I leave the house for the site.

Book review:

**Dragonflies and Damselflies of the East,
by Dennis Paulson [2011]
(review by Dana Michaud)**

Dragonflies and Damselflies of the East, by Dennis Paulson, published by Princeton University Press in 2011, is the companion volume to his field guide to the western species published in 2009 (Paulson, 2009). Together these two volumes cover almost every known Odonate species that occurs in the U. S. and Canada.

Drawing from the vast knowledge of many specialists and enthusiasts, complemented by remarkable photography displayed in this wonderfully done field guide, Mr. Paulson has produced what will become an often-used guidebook for many naturalists and entomologists to help identify the beautiful dragonflies and damselflies of the eastern U.S. At \$29.95, anyone looking for a volume that covers the eastern Odonates will consider this money well-spent, considering the amount of information and quality of this 538-page soft-covered book.

Mr. Paulson's introduction (p. 7) delves into species numbers: the western Odonate volume covers 348 species, this one 336, with a total of 462 species between them – with much overlap. Strays from more southern countries and islands (e.g., Mexico and the Caribbean) add one or two species a year, and though some establish large populations (as noted on p. 519) that may last a year, they fail to become permanent. The following year, no individuals are to be found.

After explaining some terminology and taxonomy, Mr. Paulson seems to ignore a consensus of opinion that phylogeny is still poorly understood. Rather than arrange the book alphabetically by genus, he chose instead to keep the present suborders and families together, despite the potential that future workers might completely reorganize these groupings, and keeping dragonflies as Anisoptera and damselflies as Zygoptera.

The natural history section (pages 11-27) covers, through both text and photos, various topics such as flight, migration, feeding, courtship, egg laying, and metamorphosis. In these sections, sharing terminology used by "Odes people," the world of Odonates is revealed. I now know, for example, what a dragonfly is doing when it's obelisking ... care to venture a guess? Having as many as 30,000 ommatidia, yielding the finest vision in the insect world, it is little wonder why many Odonates *are* difficult to capture. Their blind spots lie behind and below them, but that's little consolation when stalking these aerial masters. The near-360° view they have make their capture challenging, especially for those taxa that frequent the water's edge!

Although I've never been bitten by a dragonfly, respecting both their size and formidable-looking jaws, Paulson issues a gentle warning that they can be *effective* biters! Let the collector beware! What struck me as odd in this section was the fact that that while dragonflies live a month of two, many are migratory. Much of their poorly understood larval stages can take years.

In pages 27-32, Paulson deals with Odonate anatomy and terminology used in his guide, explaining basic sexing and marking characteristics. His explanation of "colors" struck me as odd, as most blues are structural, the cuticle reflecting blue light and absorbing all others, while green tended to be the result of yellow-pigmented cuticle reflecting blue!

On pages 32-37, Paulson briefly covers a variety of topics including names, where to look for Odonates, and identifying and photographing them. This is followed by four pages

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Dragonflies and Damselflies of the East (cont.)

(p. 37-40) of information on collecting and preserving specimens, using certain techniques that help maximize the preservation quality for future reference.

On pages 40-42, in a section on Odonate Threats and Conservation, Paulson cited many natural and man-made dangers posed to various species, especially those whose range and habitat are restricted. Habitat destruction and pollution are two of the greatest man-made threats. Landscape drying by the draining of rivers and aquifers for various human water needs (agriculture, etc.), along with alien fish and plant introductions, all add to the degradation of habitats needed to support many Odonate species.

The section on Odonate Research (p. 42-43) reveals that surprisingly little is known of both adults and their larvae. Despite what information has been gathered by both professional and amateur Odonate people, so much more about migration, reproduction, and coloration with geographic variation, needs to be researched.

In the section Odonates in the East and Species Accounts (p. 43-47), Paulson explains the layout that follows for all the species covered on pages 48-517, including common and scientific names, body and wing lengths and widths, a brief range description with map, identification clues, natural history, habitat, and finally flight season. These brief write-ups of each species complement the wonderful photos of both males and females, including all 336 Eastern species. Oftentimes Paulson also includes line drawings of both male appendages and/or female subgenital plates, to demonstrate the differences between the various species in a group. For example, his drawings for Clubtails (6 pages) portrays the visual differences that can help a collector identify them to species.

Finally, his Appendix (p. 521-522), Glossary (p. 523-525) and Index (p. 527-538) finish off this very well-done field guide, which I highly recommend to anyone who wishes to learn more about the wonderful world of Odonates. I suspect this guide will get a lot of usage and become an oft-cited resource by those seeking to identify them.

The true test of the curious, asking "Which species am I looking at?", will only be answered when the elusive and difficult-to-capture subject is netted. Staying dry may prove more difficult, as many Odonate species frequent the aquatic habitat of their larvae, and therefore can be challenging to capture as they dart over ponds, lakes and streams. Paulson's guide book, however, will make identifying them much easier once you've caught them.

Happy hunting!

(OH, by the way: obelisking is when a dragonfly, having found a perch, tilts its abdomen upwards and points it towards the sun, and then rotates it to minimize solar radiation falling on it.)

Reference: Paulson, D., 2009. *Dragonflies and Damselflies of the East* (A Princeton Field Guide). Princeton, N.J.: Princeton University Press; 535 pp.

Falmouth BioBlitz Needs Help

The Falmouth Conservation Commission and Biodiversity Research Institute are sponsoring a complete all-taxon BioBlitz on one of the town's most interesting conservation properties on June 29-30th, and is having a difficult time finding entomologists to be participants and/or taxon leaders in that area. There is a meeting for taxon leaders on May 15th. If you might be able to help, please contact:

Robert G. Shafto, Openspace Ombudsman
Town of Falmouth
451 Blackstrap Rd; Falmouth, ME 04105
207-878-8933
e-mail: openspace@maine.rr.com



One of the first happy signs of spring for Fred Gralenski down on the coast was the appearance of this somewhat muddy *Cicindela tranquebarica* in his gardens in mid-April.

* * * * *

First National Moth Week Scheduled for Late July by Karen Hopkins

Celebrate National Moth Week: July 23-29, 2012!

How? An Introductory Talk and Moth Walk

Where? Ecotat Gardens and Arboretum, Hermon

When? Friday July 27th, 9:30 p.m.

(Rain date: Saturday the 28th.)

This will be a public event. A brief talk on moths and moth collecting will be held at 9:30 p.m. in the cabin. After this introduction, a light sheet will be available for viewing and collecting. A moth walk will lead visitors along a path of baited trees, where we may find species that do not favor the bright lights.

Please drop a note to me at mothy_77@yahoo.com if you plan to attend. There is a camping area (or two) in Hermon.

Ecotat is located on US Route 2 one mile west of Hermon Center at the intersection of 2699 US Route 2 and the Annis Road. Please park in the Annis Road parking area. Visitors are asked to register at the information kiosk at the Annis Road entrance to the gardens. From I95, take exit 180 - Coldbrook Road. Follow Coldbrook Road to the junction of US Route 2. Turn left onto Route 2. From Route 222, take Billings Road. Turn right at the junction of US Route 2

To learn more about National Moth Week, visit their site: <http://nationalmothweek.org>

Information about Ecotat Gardens and Arboretum may be found at their web site: <http://ecotat.org>

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Pollinator Short Course In Unity On 15 May

A short course on pollinators and pollinator conservation planning will be held at the MOFGA Community Ground Education Center [294 Crosby Brook Road, in Unity (Waldo County)], from 9:00 a.m. to 4:00 p.m., on May 15th. Pollinator biology, identification, and habitat enhancement and protection will be among the many topics covered.

Instructor will be Eric Mader, Assistant Extension Professor at the University of Minnesota's Department of Entomology; special guest speaker will be Prof. Frank Drummond from the University of Maine. For additional information, please check out the event web site, at

<http://tinyurl.com/858w6ud>

Book review:

**Peterson Field Guide to Moths of Northeastern
North America
by David Beadle & Seabrooke Leckie [2012]
(review by Karen Hopkins)**

A brand new moth book hit the shelves this April, and this is the first moth book I have seen that is accurately described as a "field guide". The new 611-page Peterson Guide contains photos of "nearly 1500" moths in their natural positions as you would expect to see them in the field (or on a light sheet), all in *living* color. A surprising 150 pages are devoted to the micro-moths, conveniently resized to show detail. Actual size is indicated by a silhouette near the photo. As with other Peterson Guides, arrows indicate details helpful in identification.

The layout is different than Covell's book in that each species' information is on its facing page, eliminating the repetitive flipping back and forth between plates and descriptions. Though descriptions are brief, each includes common and Latin names, abundance (common, uncommon, etc.), size, range, hosts, "ID number" (Hodges/MPG number), and flight period. Most of the macros also include a distribution map.

Towards the back of the book there is a glossary, a resource list for books and more moth information online, and a checklist of the moths with their Hodges/MPG numbers.

Images of spread-winged specimens are useful to the collector, but many ento-enthusiasts enjoy observing and photographing living moths, which may look much different in their natural positions. This book is also a fine complement to the collector's library, especially for its micro-moth section.

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**March Field and Maple Syruping Day Warm
and Productive!**

by Charlene Donahue

The Maple Syruping Day field trip on March 17th turned into a real MES field collecting trip. That was one of those incredible days in March when it warmed up into the 60s and the sun shone so brightly it was a pleasure to sit out in lawn chairs. Not so good for making syrup, but great for early spring collecting.

There were eleven participants – four under age 15, which is always nice – plus my son and a neighbor who kept the sap fires going. First was the 'tour' of a backyard syruping operation: here is where we boil the sap on an outside wood-fired stove, here are the sugar maple trees with buckets hanging on them. A taste of sap; it looks and tastes like water with just a hint of sweetness and yes, we filter the sap at least twice to remove any insects or debris that falls in during the process – same as the commercial producers.

We checked the buckets for sap – not much – and for insects. A few sap beetles, lightning bugs, flies and snow fleas were found in the buckets. One of the first insects found flying was a mourning cloak butterfly, this was a catch and release find. A luna moth cocoon was discovered on the ground under beech trees. The woodpile was a treasure trove of overwintering woodborers and beautiful etchings made by bark beetles. Sowbugs, millipedes, centipedes and rove beetles were ferreted out as well.

By this time it was time for lunch, augmented by cheese tortillas and organic hotdogs cooked on the sap cooker followed by maple syrup sundaes (don't you wish YOU had been there?). Then it was off to the Sheepscot River for a bit of aquatic collecting. Of course along the way trees were inspected and rocks and logs overturned in the quest for early insects. As we approached the river we first noted a number

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of stoneflies flying and resting on foliage. Then we realized there was a hatch taking place before our eyes. As we watched the river, stonefly adults could be seen popping up out of the water to rest a moment before taking flight. Very cool. Dip netting brought up a variety of mayfly, stonefly and caddisfly nymphs to inspect in a pan before returning them to the water.

I would say our first March field trip was definitely a success.

"What's this big ugly bug?"



Lethocerus americanus

(Photo by Edward L. Manigault, Bugwood.org)

Charlene Donahue reports that there has been a surprising number of calls about giant water bugs, *Lethocerus americanus*, over the past couple of weeks. Most are seen at lights, and its interesting how some species will be more abundant some years.

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**2012: The 10th Annual Acadia National Park
Entomological BioBlitz
July 13-16, 2012**

Registration is now open for the 10th annual BioBlitz at Acadia National Park on July 13-16, 2012. This year, we will be targeting aquatic insects. The event is open to professional entomologists, amateur naturalists, and other interested persons. Registration for the BioBlitz ends on June 30, 2012.

As in the past, the event will be based at the park's Schoodic Education and Research Center. Collecting will be conducted at selected aquatic habitats on Mount Desert Island and the Schoodic Peninsula. The lead taxonomist for the event will be Dr. Don Chandler from the University of New Hampshire.

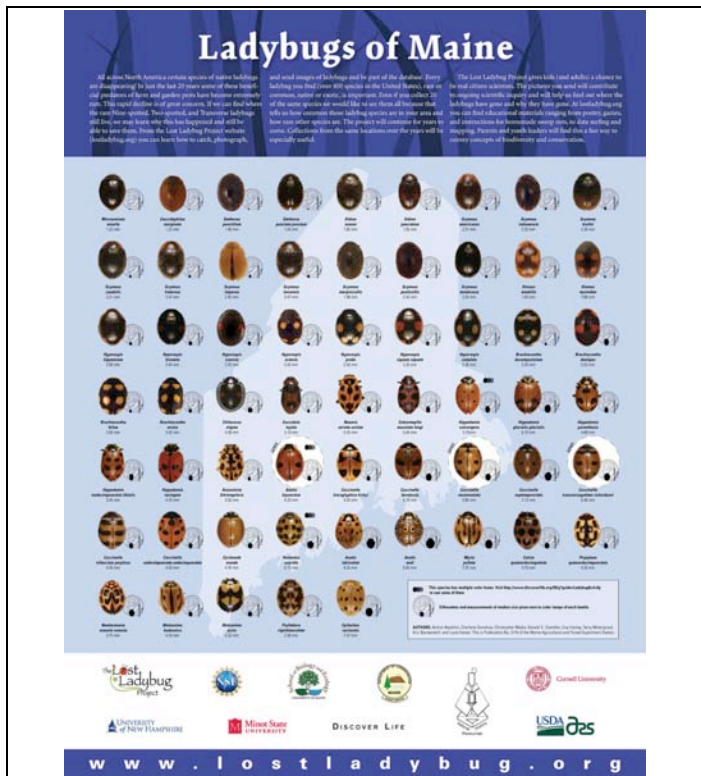
The event will begin with dinner on Friday evening followed by a workshop on collecting and identifying aquatic insects. The official BioBlitz will commence Saturday morning and continue for 24 hours. On Saturday, we will head over to the Mount Desert Island section of Acadia National Park to collect. On Sunday, we will be collecting in the Schoodic section of the park. The remainder of Sunday afternoon and Monday morning, we will be sorting, pinning, and identifying collected specimens.

Lodging at The Schoodic Education & Research Center (SERC) is provided at no charge by the National Park Service. Space is limited and available on a first-registered, first-served basis. Please note that most accommodations are in 2-, 3- and 4-bedroom apartment style housing. A hostel-style bunkhouse is also available with bunk beds (2 bunk sets to a room).

Limited camping is available on-site. There are no pets allowed at the BioBlitz.

To register, please go to <http://tinyurl.com/cdnj5bj>.

May, 2012



Ladybugs of Maine Poster

This highly informative poster was created with the help of MFS Forest Entomologist Charlene Donahue, the University of Maine and several other organizations. Its creation is part of a nationwide effort to look for and document what species of ladybugs are living where. There

are a number of native ladybugs that have not been seen in years and the general public is being asked to look for ladybugs, take their picture and upload them to the Lost Ladybug website. For more information on how you can get involved in the Lost Ladybug Project go to:

<http://www.lostladybug.org/identification-tools-1083.php>.

Posters are available from the Maine Forest Service.

To get a poster contact:

Charlene Donahue
 Insect & Disease Laboratory
 168 State House Station
 Augusta, ME 04333
 Phone: 207-287-3244
 Email: charlene.donahue@maine.gov

COMING M.E.S. EVENTS in 2012:

- 19 May M.E.S. field day, Pownal; contact person: Domenica Vacca [207-967-6159]
- 16 June M.E.S. field day, Rome (previously erroneously identified as being in Belgrade); contact person: Bob Nelson [207-426-9629]
- 13-16 July Acadia Entomological BioBlitz [Aquatic taxa]; Schoodic Education and Research Center, Acadia National Park; contact person: David Manski [207-288-8720]
- 11 August M.E.S. field day, Otisfield; contact person: Charlene Donahue [207-287-3244]
- 12 September Bug Maine-ia, Maine State Museum, Augusta; contact person: Joanna Turow [207-287-6608]
- 15 September Annual Meeting, Clinton (Kennebec Co.); contact person: Bob Nelson [207-426-9629]

(See <http://www.colby.edu/MES/> for more detailed information; new information on any event will be posted as it is received.)



Maine Entomological Society
 c/o R. E. Nelson
 Department of Geology
 Colby College
 5804 Mayflower Hill
 Waterville, Maine 04901-8858 U.S.A.

Please visit our website at <http://www.colby.edu/MES/>

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