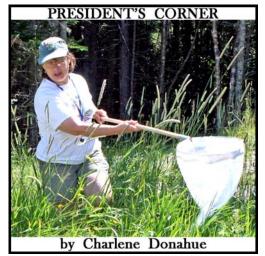


Vol. 21, No. 3

August, 2017



Why you should go on a MES field day: you never know what you may find and it does not take any expertise to spot – and collect – something like a lady beetle stuck to a leaf.

Back in May at the Falmouth field day, I collected a Parenthesis Lady Beetle (*Hippodamia parenthesis*) that seemed to have something odd going on. For one, this it was not moving much, but it did not appear to be dead and there was something stuck to its legs. What was going on? We guessed a fungus? A predator? A parasite? Having old eyes, I had to wait until I got back to the lab to take a closer look under the microscope, as the hand lens was not showing us enough.



Sure enough, the lady beetle was alive and quivering but definitely stuck to a cocoon. I then remembered back to my recent Hymenoptera course at Eagle Hill Institute and information about parasitic wasps that use viruses to hijack a host's behavior.

It starts with a parasitic wasp, *Dinocampus coccinellae*, laying an egg on the abdomen of the ladybug. The parasitic larva hatches and feeds on the lady beetle tissues without any apparent ill-effect to the lady beetle host. After about twenty days, the wasp larva emerges through the ladybug's abdomen without killing it. The *D. coccinellae* then spins a cocoon between the ladybug's legs, forcing the partially paralyzed ladybug to guard the wasp's cocoon. The mechanism for this forced cocoon guarding is the *Dinocampus coccinellae* paralysis virus (DcPV).

Experiments showed that only about 35% of the guarded *D. coccinellae* cocoons were eaten by predators, whereas 85-100% of unprotected cocoons were eaten. Interestingly, about 25% of the lady beetles survive and some even get parasitized a second time. What an amazing connection between these three organisms! The press really liked this study and dubbed the beetles 'Zombie Bodyguards'.

I reared the wasp and it (and the lady beetle) are now part of the Maine forest Service insect collection. Come see them sometime.

#### Some useful references:

- CNRS (Délégation Paris Michel-Ange). "Parasitism: Wasp uses ladybug as 'zombie bodyguard'." ScienceDaily. 18 July 2011: www.sciencedaily.com/releases/2011/07/110718085229.htm.
- https://entomologytoday.org/2014/10/24/zombie-ladybugs-protecttheir-own-predators/
- http://blogs.discovermagazine.com/science-

sushi/2015/02/10/biological-warfare-parasitic-wasp-uses-viruscontrol-host/#.WSMeYpLyvcs

Dheilly, N. M. *et al.* February 2015. Who is the puppet master? Replication of a parasitic wasp-associated virus correlates with host behaviour manipulation. Proceedings of the Royal Society B – Biological Sciences. Volume 282, issue 1803:

http://rspb.royalsocietypublishing.org/content/282/1803/20142773

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# Proposed Change in Bylaws to Include Academic Affiliates

The following proposal for a change in the Bylaws of the M.E.S. will be discussed and voted on at the Annual Meeting on September 30th in Clinton (see p. 7). It is a proposal to expand the classes of membership to include Academic Affiliates. This would expand the classes of memberships, life members, and academic affiliates.

Academic Affiliate of the Maine Entomological Society A group formed at an academic institution may become an Academic Affiliate of the Maine Entomological Society (MES) by:

1) Having a stated goal aligned with that of MES:

- a) to promote a forum for discussion, cooperation and collaboration among amateurs and professionals in entomology, who either reside in Maine or have interests in Maine insects or terrestrial arthropods; and
- b) to encourage active study of all aspects of Maine insects and terrestrial arthropods, and to promote educational activities on Maine insects and terrestrial arthropods throughout the state.

2) Requesting affiliation from the Society:

- The Executive Committee may grant affiliation.

3) Paying a one-time fee of \$20 for the group: Student affiliate members may then pay 50%

Student affiliate members may then pay 50% of the current MES membership each year.

(Note: Three members of the newly formed Maine Entomology Student Organization at the University of Maine have already paid full price for their 2017 MES memberships, and therefore this provision would be waived for them.)

To take effect, this by-law must be ratified by the MES membership at the next Annual Meeting on 30 September, 2017.

\* \* \* \*

## Bug Maine-ia at the Maine State Museum Tuesday September 12, 2017 9:00 a.m. - 3:00 p.m. Free Admission All Day for Human and Insect Visitors!

Summer is in full swing and fall is not far away. That means it's time to for the Maine State Museum to gear up for one of our favorite days of the year, Bug Maine-ia, an insect extravaganza: one day out of the year completely reserved for everything insect-related!

Bug Maine-ia is one of the museum's largest annual events of the year. The museum sees over 1,500 people, hundreds of whom are school children, both public and homeschooled, who come with great eagerness to learn about insects. To make sure it will be a great day for all, the museum staff is in full event-planning mode – rushing around creating flyers, e-mailing new potential presenters, and diving deep into all the details that take this event to the next level. September 12, 2017, will be our fifteenth Bug Maine-ia, so it needs to be extra special.



Dave Bourque and Colleen Teerling were among those helping the young entomologists collect and identify their own specimens at Bug Maine-ia in 2016. *Joanna Torow photo* 

Contributing to the heightened enthusiasm for insects on this day, are the many Maine entomologists who each year fill the museum with fascinating insect displays and hands-on opportunities, allowing the public up-close and personal interaction with the bugs. Certainly, we could not achieve such a successful event without the dedication and enthusiasm of all the entomologists and educators who participate. We extend a big thank-you to all those dedicated presenters who join us year after year. If you have never been, we hope you will take the time to check out this amazing event!



We are always looking for new presenters, so if you or someone you know has a great idea for an insect display or activity or if you would like to come and help out with an existing activity, please contact Joanna Torow at the Museum at 287-6608 or e-mail her at Joanna.torow@maine.gov. We'd love to have you.

\* \* \* \* \*

The Maine Entomologist

### **MES Moth Night in Camden** by Anna Lee Court

The second annual MES Moth Night was held at Roger Rittmaster's home in Camden on June 24th. MES members Peter Darling, Anna Court and Bob Grobe attended as did many other moth/insect/nature or photography enthusiasts. Roger is an expert insect photographer. His book, Butterflies Up Close was published in 2013 and continues to be widely used.

During the early part of the evening, Peter Darling demonstrated how to use the website of The North American Moth Photographers Group at the Entomological Museum of Mississippi State University:

#### (www.mothphotographersgroup.mssuniversity.edu).

Pete said it is the best website for digital identification of moths. Pete gave a tutorial on how to use the site.



Hepialidae) was one of the stellar moths photographed on the Moth Night at Roger Rittmaster's. Photo by Roger Rittmaster.

The group then adjourned to the back yard where Roger had set up both a mercury vapor lamp and two black lights. By 10 p.m., the moths were abundant. Roger said it was a perfect night for moths - humid, warm, no wind, dark. Caddis flies, mayflies, beetles, fish flies and ichneumon wasps also appeared.

The moths identified and photographed on June 24th included:

Angulose Prominent – Peridea angulosa Arched Hooktip - Deprana acuata Baltimore Snout - Hypena baltimoralis Chestnut-marked Pondweed Moth - Parapoynx badiusalis Dark Spotted Palthis, Palthis angulalis Eastern Panthea - Panthea furcilla Early Fan Foot – Zanclognatha cruralis Green Pug - Pasiphila rectangulata Laurel Sphinx - Sphinx kalmiae Olive Angle Shades - Phlogophora iris Pale Beauty - Campaea perlata Pine measuring worm moth – Hypagyrtis piniata Powder Moth - Eufidonia notataria Rose Hooktip - Oreta rosea Rosy Maple Moth - Dryocampa rubicunda Sharp-blotched Nola Moth - Nola pustulata Silver-spotted Ghost Moth - Sthenopis arenteomaculatus Sweetfern Geometer - Cvclophora pendulinaria Tufted Bird-dropping Moth - Cerma cerintha Virginia Tiger Moth - Spilosoma virginica Waved Sphinx - Ceratomia undulosa



The Tufted Bird-Dropping Moth (Cerma cerintha; Noctuidae) was another beautiful moth photographed on the Moth Night at Roger Rittmaster's. Photo by Roger Rittmaster.

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## \* **Spiders at Eagle Hill** by Dana Wilde

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In the last week of July I trundled from my home in Troy to Steuben in Down East Maine to attend the Eagle Hill Institute's summer seminar "Spiders: Identification, Biology, and Ecology," led by Dr. Kefyn Catley of Western Carolina University in North Carolina. I joined 13 other aficionados of arachnology who ranged in expertise from curious neighbors to amateur and master naturalists to biological sciences professors.



Working in the lab during the spiders seminar at Eagle Hill Institute in Steuben, Maine, in July 2017 are, spiraling counterclockwise from center: Dr. Kefyn Catley (standing) speaking to Frank Allen of Waterboro, Maine; Brian Friedmann of Fiskdale, Massachusetts; Master Naturalist Donne Sinderson of Bangor (Maine) Land Trust; Dr. Tom LaDuke of East Stroudsburg University; Sarah Smyth of Medford, Massachusetts; and Yvan Del Gado de la Flor of Ohio State University (with phone). Photo by Dana Wilde.

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#### Spiders at Eagle Hill (cont.)

We spent day and night riveted to Dr. Catley's fascinating lectures on basic spider morphology and physiology, behavior, silk and web building, identification, and current issues in spider taxonomy, along with hours of spider hunting in woods, fields and seashore around Eagle Hill, Milbridge, Petit Manan Island, and Tunk Lake. A highlight was a night walk with head lamps strapped firmly in place; so many little Lycosid, Amaurobiid and other eyes were glimmering in the leaf litter it was like looking at star fields on the woodland floor.



Hunting for spiders in Milbridge, Maine, in July 2017 are, from left to right, Kathleen LaDuke of Cornell University College of Veterinary Medicine; Dr. Kefyn Catley, seminar leader (kneeling with camera); Frank Allen of Waterboro, Maine; Yvan Del Gado de la Flor of Ohio State University; and Brian Friedmann of Fiskdale, Massachusetts (with cell phone). *Photo by Dana Wilde.* 

Our expeditions had the amateurs' noses in the Golden Guide "Spiders and Their Kin," and the resultant lab work took us deep into Darrell Ubick, *et al.*, "Spiders of North America: An identification manual," an absorbing challenge for those of us with backgrounds in the humanities rather than the sciences. The microscope work was a literal eye-opener for me and others, and the smell of alcohol in petri dishes has taken on whole new layers of significance.

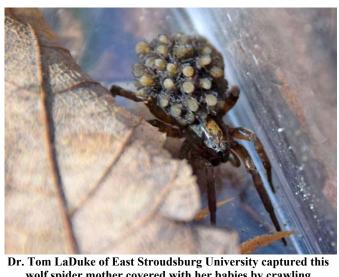
We succeeded in capturing specimens from most of the families Dr. Catlyn had marked out as spiders of interest, and the final list, according to the whiteboard tally copied out by Dr. Roberta Engel of Notre Dame of Maryland University, included: Agelenidae, Lycosidae, Thomisidae, Philodromidae, Linyphiidae, Amaurobiidae, Pholcidae, Salticidae, Gnaphosidae, Theridiidae, Araneidae, Clubionidae. Dictynidae, Pisauridae, Tetragnathidae, Liocranidae (no specimen, but we saw egg cases under a rock at Petit Manan, determined by K. Catley), Hahnidae, Cybaeidae and Corinnidae.





Brian Friedmann inspects an orb web in the woods at Eagle Hill Institute in Steuben, Maine, in July 2017. *Photo by Dana Wilde*.

Dr. Tom LaDuke, a herpetologist with East Stroudsburg University, and his daughter Kathleen LaDuke, a veterinary medicine student at Cornell University, were the odds-on favorites for best at spotting and ferreting out specimens, and Ohio State University doctoral student in arachnology Yvan Del Gado de la Flor was an indispensable help to those of us puzzling over the keys and the astonishing images under the microscopes.



Dr. Tom LaDuke of East Stroudsburg University captured this wolf spider mother covered with her babies by crawling underneath a classroom building deck during a night spider walk at Eagle Hill Institute in Steuben, Maine, in July 2017.

Our lodging and accommodations at the Eagle Hill Institute were simple, clean, complete and pleasant, and it's easy to see why a number of participants in our spiders group, as well as the two other sessions also under way in wetlands delineation and lichens and biofilms, had returned for their second, third, or fourth summer sessions. We're all looking forward to next summer's list of offerings.

MES member Dana Wilde writes the Backyard Naturalist column for the centralmaine.com newspapers, which frequently depicts spider and insect observations. He can be reached at naturalist1@dwildepress.net.

\* \* \* \* \*

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## June Field Day in Mayfield Township Brings Out New Field Day Participants

A warm, sunny June day with a light breeze, blue skies and mid-70s temperatures brought out several rare or firsttime field-day participants for the June 10th field day in Mayfield Township. Relatively new MES members Josh Villazana, Andy Galimberti and Jonas Insinga, from the Maine Entomology Student Organization at the University of Maine (see the May newsletter) were joined by long-time MES members Carol Muth, Karen Johnson, Roger Rittmaster, Gail Everett, Dave Bourque, Dana Michaud, Karen Hopkins, Pete Darling and Bob Nelson.

The group gathered at Jimmy's Shop 'n' Save in Bingham, and then carpooled east to one of the 56 new wind towers of the Bingham Wind Project – the largest wind farm in Maine. Ironically, this was an "open house day" for the farm, and an adjacent tower had a tent, chairs and tables set up to host visitors.

The area featured abundant open space set within the disturbed and immature second-growth forest, but collecting success was spotty. The area had been planted with stabilizing vegetation, but it appeared to be almost exclusively of grasses. Dave Bourque found some nice specimens clinging to the side of the wind tower base, but flowering plants were few and far between – meaning many Hymenoptera, Lepidoptera and other pollinators were sparse.



Canadian tiger swallowtails (*Papilio canadensis*) "puddling" for salts in Mayfield Township. Gail Everett photo.

Gail Everett discovered that the area near the planned second stop of the day, at the base of the mountain adjacent to some forest, marsh and bog areas, was much more to *her* liking, with much more dense and varied vegetation that yielded a decent assortment of butterflies – including a large gathering of Canadian tiger swallowtails (*Papilio canadensis*) she found "puddling" for salts on a logging track (see photo).

After lunch at the wind tower, most of the rest of the group joined her at the foot of the mountain for a few hours of aquatic and marsh sampling. Insect abundance (including deerflies) was much greater here – where there was also less wind. Surprisingly, only one or two ticks were encountered among the entire group over the day.

The day wrapped up with people either heading directly home, or heading back to Bingham for a light evening meal at Thompson's Restaurant before hitting the road.



Relatively new M.E.S. member Jonas Insinga, from the University of Maine, found some fascinating insects in the marsh, but was really pleased to discover what appeared to be parasitism of one leech species on another – something he'd not encountered in the literature on another group of organisms in which he's also quite interested. *Carol Muth photo* 

# Insect Photography Workshop Rescheduled: 10:00 a.m., Saturday, September 30, 2017 led by Roger Rittmaster

\*

Roger, author of *Butterflies Up Close* – A Guide to *Butterfly Photography*, will be leading this workshop in conjunction with the MES annual meeting.

We will start at 10:00 a.m. at Bob Nelson's house (see Annual Meeting note, p. 7). Roger will give a 45-minute slide show on the basics of insect photography. He'll then help participants set up their cameras before the group heads out into Bob and Nettie's beautiful fields, gardens and woods to practice photographing whatever we find. Bring your camera (SLR, point-and-shoot or iPhone) and a flash if you have one. The ideal set-up is a SLR camera with a telephoto macro lens and flash, but good photographs can be obtained with almost any camera and a bit (or a lot) of patience.

Bring something to share for a potluck lunch.

If you are not an MES member you do not have to stay for the meeting but do stay for lunch - and hopefully join MES!

Please sign up with for the workshop by Thursday, September 28th, so we know how many chairs to set up – and if there are enough people coming to justify holding the workshop. Contact either Charlene Donahue (donahuecp15@gmail.com) or Bob Nelson (BeetleBob2003@gmail.com) to sign up.

\* \* \* \* \*

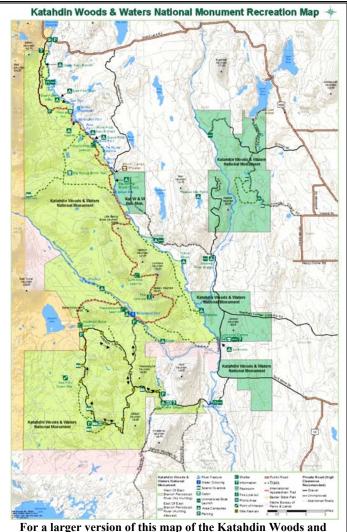
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## Katahdin Woods and Waters Field Event Saturday, August 19th

The designation by President Obama of the Katahdin Woods and Waters National Monument (KWWNM) last year was a milestone in Maine history. Like Baxter State Park and Acadia National Park before it, this land has been aside for future generations by a generous donation from the landowner.

The Katahdin Woods and Waters Recreation Area, part of the Monument, is about 100,000 acres along both sides of the East Branch of the Penobscot River. It has diverse habitats ranging from riverine wetlands, deciduous and conifer forests and high-elevation habitats.



Waters National Monument, contact Bob Nelson or go to the NPS web site identified at the end of this announcement.

The MES is privileged to have obtained a Special Use Permit for a field day on **Saturday**, **August 19th**. Diane Boretos has provided an excellent digital map of the area – of which a much-reduced version is shown above; contact Bob Nelson (BeetleBob2003@gmail.com) if you'd like a copy.

**For any questions** about the trip, call Diane Boretos, the overall trip coordinator: her home phone is 207-564-2966 and her cell phone is 508-524-7161.

Because this area is more remote than our traditional field events have been, we will have two gathering places. The first will be at the Irving gas station in Sherman. Bob Nelson (BeetleBob2003@gmail.com; 207-426-9629) will be coordinating this group. The second will be at Charlene Donahue's camp in T4R7 WELS (more on this later). Whichever option you choose, we need to know by Thursday, August 17th who is coming – so you don't get left behind! We also will need to know ASAP if you change your mind and will NOT be joining us, so we don't wait for you!

Those wanting to meet at the Irving station in Sherman should be there by 10:00 a.m. on Saturday morning. To get to Sherman, take I-95 northbound and get off at Exit 264. Turn left at the end of the offramp, drive beneath the Interstate, and the gas station will be right there in front of you. The station also has a quick-stop store inside; there is a diner in a Shell gas station on the opposite side of the Interstate, about 1/3 mile to the south. People wanting to go up the night before and/or stay Saturday night can contact the Katahdin Valley Motel (207-365-4554) **ASAP** (because they can fill up quickly!), which is right next door to the gas station. Those desiring to camp out or stay elsewhere probably already know more about the area than we could recommend.

To get to the MES starting point in the KWWNM: from the Irving go south for 5 miles on Route 11, and turn right (really stay straight, Route 11 bears left) onto Swift Brook Road. In 5 miles bear left, to stay on the road to Sandbank Stream. We'll meet up with Charlene Donahue and her group there at ~10:30 a.m.

Charlene Donahue owns a remote camp on Peaked Mountain Pond in T4 R7 WELS near the KW&W Monument. It is 19 miles off the main road, has no electricity or running water but yes, there is an outhouse with a view. If people would like to stay there they are welcome. There is a bunk room that sleeps six laid out side by side like cordwood on two double bunks and an upper double bunk. There's also a couch and a saggy camp bed on the porch. There is tent space outside as well as a nearby MFS remote campsite. You can swim in the pond, fish and use the canoe. We can go 'bugging' right there and process specimens in the camp. Bring your own bedding, food and water. There is a gas stove and lights and dishes.

She will be going up Friday morning, so if you want to stay Friday night you probably should go in with her because: 1) it is not always easy to be on the correct logging road; and 2) they are logging now and may be hauling at that time, so it will be safer to go together. She has a CB to communicate with the trucks to maximize safety.

Please let Charlene know by **Thursday, August 17th** if you would like to stay in or at her camp either Friday or Saturday night, or both. Call her with any questions at 207-485-0960. *Note that there is NO cell-phone coverage in the area of her camp!* Also, there is only very spotty and weak coverage in most of the Monument.

The roads into the Monument are rugged logging roads, and while 4WD may not be necessary, high ground clearance is a must.

#### KWWNM Field Day (cont.)

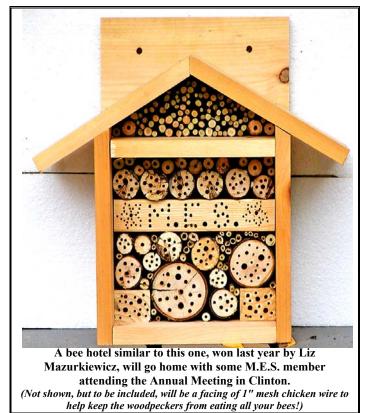
Bring all your regular collecting gear and personal supplies, including a rain parka if there's any forecast for thundershowers, as well as food and PLENTY of water. A compass would be a good idea if you go off trail or out of sight of the road. Those meeting in Sherman will caravan in to the Monument to meet with Charlene's camp group at a pre-determined site. This is why it is essential that we know in advance if people are coming. Note that Bob Nelson does not have a cell phone, so once he leaves his home on Friday morning, you won't be able to reach him.

For more information on the KWWNM go to **https://www.nps.gov/kaww/learn/management.htm**; you can also download a high-resolution recreation map there by clicking on the link for "maps."

\* \* \*

### **Annual Meeting Coming September 30th**

Bob and Nettie Nelson (BeetleBob2003@gmail.com or 426-9629) invite all M.E.S. members and potential members to their home at Rock Ridge, for the annual M.E.S. business meeting, **on Saturday, September 30th**. *Please* do let us know if you're planning to attend to help with our planning! Signs will be posted at the ends of the Clinton off-ramps from I-95 to guide you to the meeting. Please contact Bob if you need directions from another route.



The grounds are open for collecting, as usual – and sometimes yield surprising new discoveries. Our perennial sunflowers should be in full bloom at this time, and are usually a haven for late-season Lepidoptera, Hymenoptera, Diptera and other nectar and pollen feeders. We'll have oven-roasted chicken and vegan chili available, and invite everyone to bring something else to add to the pot-luck luncheon that precedes the business meeting.

A special event this year will be our second annual beehotel <u>drawing</u>. Some lucky attending M.E.S. member will take home a *free* Bee Hotel!

Roger Rittmaster will be offering a short course on insect photography at 10:00 a.m., or people can spread out across the fields and forest for collecting. Lunch will begin around noon, and the business meeting will start at 1:30. Dana Michaud will be in attendance, so this'll also be a good opportunity to renew your membership for 2018 (hint!).

Minutes of the 2015 Meeting were published in the November, 2015, issue of the newsletter, on p. 2-3.

#### <u>AGENDA</u>

Treasurer's Report Auditing of the books Minutes of 2016 annual meeting Election of MES officers [President, Vice-president, Treasurer, and Two Members-at-large] Consideration of bylaw change to allow for MES academic affiliates Follow-up on Action items from 2016 Activities 2017-18 Outreach Other

### How Valid Are Old Species Lists? by Bob Nelson

A forthcoming paper, currently available on-line\*, demonstrates the incredible importance of maintaining collections of specimens even after the results of a study have been evaluated and published.

The authors were comparing the results of recent surveys of Ephemeroptera in the Yukon and Northwest Territories of Canada with the results of studies conducted in 1971-73 as part of an oil pipeline ecological study. The original studies had reported a total of 17 species in 25 genera of Mayflies.

Today, only six of those species and 15 of the genera are considered valid. When the authors re-examined the archived specimens, they found there were actually 45 species in 29 genera, according to modern understanding of the taxonomy; of these, a number were new provincial records.

The authors noted that re-evaluation of archived specimens can be an economically advantageous way to update and correct regional biodiversity information. It should also be obvious from the study that preservation of those specimens is an essential component of maintaining that database.

Anyone wanting a copy of the paper can send an e-mail to me (BeetleBob2003@gmail.com) and I can forward you a digital copy.

\* Giberson, D. J., and S. K. Burian, 2017: How valid are old species lists? How archived samples can be used to update Ephemeroptera biodiversity information for northern Canada. *Canadian Entomologist*; published on-line on 20 July, 2017; DOI: https://doi.org/10.4039/tce.2017.27

\* \* \* \*

# September 16th Field Day: Mt. Agamenticus (York County)

Pete Darling (petedarlingii@yahoo.com) is coordinating our last field day of the year, in York County. The Mount Agamenticus Conservation Region contains 10,000 acres of land and is one of the largest remaining expanses of undeveloped forests in coastal New England. Contact Pete with any questions.

The region is known for its abundance of vernal pools, rich biodiversity, and unique trail system and is home to many of Maine's rare plants and animals. State, local and non-profit landowners are working together to protect Mount A's water, wildlife, and land.

More information about this highly unusual and interesting site may be found at their web site: http://www.agamenticus.org/.

Meet at the Kennebunk rest stop on Interstate 95 at 9:15, or for those who don't need assistance, we'll gather at the top of the Mountain at 10 a.m. There's plenty of parking at the summit of the mountain, near the Learning Center.

### **Directions to Mount Agamenticus from the north:**

Take I-95 south to Wells (exit 19)

Turn left from the exit onto Route 109. Go 1<sup>1</sup>/<sub>2</sub> to 2 miles to Route 1.

Turn right (south) onto route 1.

Follow Route 1 into Ogunquit and through "downtown".

- At the flashing yellow light hanging over the road, turn right onto Agamenticus Road (this turns into Clay Hill Road).
- Continue about 4 miles (crossing over the Maine Turnpike) to the T-intersection at the end.
- Turn right onto Mountain Road and follow it for about 1 mile.
- There is a gravel parking lot on the right and a paved road leading to the summit of Mount Agamenticus. Green fence posts at the entrance say "Mount A Summit".
- If the road turns to gravel, you've gone a hundred meters too far. Turn right and drive up to the summit or park in the gravel lot to hike up.
- Trail maps are available at the trailheads and the kiosk located at the summit parking lot.

# Maine Dept. of Transportation Roadside **Pollinator Habitat Study**

The Maine Department of Transportation has begun a two-year study of roadside habitats along state highways, in cooperation with the Maine Natural Areas Program of the Department of Agriculture, Conservation, and Forestry. The study will define various habitats occurring in roadside areas and how they are used by pollinators.

This information will provide a baseline of typical roadside habitats and plant species to improve vegetation management decisions that will benefit these insects. The importance of pollinators has gained attention in the United

State and the world in recent years as honeybees have begun to decline and are continually threatened.

Efforts are underway across the country to better understand how to manage and improve habitats for pollinators and restore their population numbers.

from http://nenativeplants.uconn.edu/me.php



One will have to wonder whether in the DOT study, purple loosestrife will be considered a positive or negative in the roadside pollinator habitat community. \*

# **IMPORTANT WEB SITE NOTE!**

\*

Bob Nelson is having computer issues making updating of the M.E.S. Web site impossible at present. As soon as these issues are resolved, the site WILL be brought up-to-date. Of particular importance is posting of information to regarding upcoming field days and other events. Information will be distributed to the membership via e-mail in the interim.

## **COMING M.E.S. EVENTS in 2017** (details of most events will be in future newsletters)

- 19-20 August Field Day in Katahdin Woods National Monument, southern portion T3 R7 WELS. See story on p. 6.
- 12 September Bug Maine-ia at the Maine State Museum. See story on p. 2.
- 16 September Field Day Kittery/Berwick area, coordinated with Mount Agamenticus Nature center; Pete Darling is coordinating this. See story at left.
- 30 September M.E.S. Annual Meeting in Clinton, preceded by the Insect Photography Workshop, rescheduled from July. See story on p. 7.

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

The Maine Entomologist is the quarterly newsletter of the Maine Entomological Society. Dues are \$15 per year. Checks should be made payable to the M.E.S. and sent to Mr. Dana Michaud, M.E.S. Treasurer, at 3 Halde Street, Waterville, ME 04901-6317. Our records show your dues are paid through the year printed on your mailing label; please contact Dana if you believe this is in error. Individual articles reflect the opinions of the authors and mention of any specific commercial products or businesses should not be construed as formal endorsement by the M.E.S. of any such product or business.