The Maine Entomologist

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

The Official Newsletter of the Maine Entomological Society

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PRESIDENT'S CORNER

BY HILLARY MORIN PETERSON

Dear MES Members,

We have been busy as a society since my last column in November, and I have been enjoying every minute of it!

I love data and thought that it would be fun to share some "numbers" from the past few months. For the new website, which officially launched on December 10, 2020, we have had 1,400 visits, with 3,200 page views. The most popular pages on the website so far, beyond the home page, are pages associated with events.

We have also received several online purchases, including three lifetime memberships, 29 memberships (either new or renewal), and a sweatshirt. Anna Court, Cathie Murray, and I developed a "Welcome Letter" for new M.E.S. members. The website is filled with gorgeous insect pictures, which were taken almost entirely by M.E.S. members. I am incredibly grateful to those of you who shared pictures with me and helped to make the website what it is!

We have hosted three webinars and a virtual winter workshop as well, all of which were informative and fun, due to excellent involvement by M.E.S. members. Our first webinar, "An Update on Spotted Lanternfly Research and its Impacts in the Eastern US" by Dr. Julie Urban from Penn State had 32 registrants, and after the workshop, Dr. Urban contacted me and remarked that M.E.S. members asked some really amazing questions, and she had a wonderful time.

Our second webinar, "What's the Buzz on Bees?" by Jennifer Lund, the State Apiarist with the Maine Department of Agriculture, Conservation, and Forestry, had 102 registrants, and I have received emails from several people who have enjoyed viewing the archived video on the website.

Our most recent webinar, "Toxic nectar? How plant chemistry changes bee behavior" by Dr. Patty Jones, Assistant Professor of Biology at Bowdoin College and Director of the Bowdoin Scientific Station on Kent Island, was incredibly interesting and had 80 registrants. Webinars are already planned for February, March, and April, with 52 people having already registered for our very own Roger Rittmaster's webinar "How to shoot insects ... with a camera."

Our Facebook page, Maine Insects, is also doing very well, currently at 1,300 members. During the winter months activity has quieted; however, it is a great place to share our webinars and other events. Of the 1,400 total page views on the new website, 303 have come from Facebook! Make sure to check the events page often for updates, and don't forget the upcoming maple syrup and insect collecting event at Charlene Donahue's home in Whitefield on Saturday, March 27.

The Winter Workshop was also a really great time, especially considering it had to be a virtual event. It was planned by Mike Parisio, Tom Schmeelk, and me, but was truly a hit due to the great stories, pictures, and anecdotes by M.E.S. members, and of course the excellent talks by the speakers. Look for Tom's article recapping the event in this newsletter.

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President's Corner (cont.)

One area that I would like to continue to develop is the M.E.S. blog on the website. If you have any ideas for blog posts, please reach out to me! Posts can be a very lose format and can be heavier on pictures if interested. The idea is to have fun and informative "quick reads" that can be enjoyed by M.E.S. members and shared with the Facebook page as well.

Additionally, some of the group-specific pages on the site are a little bare. If anyone is interested in writing a longer and more in-depth page about a particular insect order, please just reach out.

Finally, we are also looking for a "Webinar Coordinator" for next year as well! The person in this role would be responsible for organizing, planning, and running webinars, working with the webinar committee and the webmaster (so many "webs")!

I look forward to seeing some of you virtually over the rest of this winter, and maybe even in person as things warm up.

Keep pushing onward!

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Where Answers Can Be Found But Questions Remain

by Charlene Donahue

This story begins with an e-mail sent to the Hudson Museum at the University of Maine, which is an ethnographic and archaeological museum and does not have a natural history collection. The museum director sent the e-mail on to Andrei Alyokhin, entomology professor at the University, as it was requesting information on any Giant Lacewing (*Polystoechotes punctata* Fab.; Neuroptera: Ithonidae) specimens that might be found in Maine collections. He forwarded the request to me, as the University collection now resides at the Maine State Museum.

Dr. Robert Dowell, fellow emeritus at the California Academy of Sciences is studying the biology, phenology and distribution of the giant lacewing and is looking for historic records of the species. Curiously, this species has disappeared from North America east of the Mississippi River, with the last known record over 60 years ago. Some of the hypotheses as to why they are gone include the impact of exotic ground beetles (Carabidae), light pollution, fire suppression, and exotic earthworm alterations of the soil fauna (Dowell and Penny, 2019). Very little is known about the life history of this insect. The adults are carnivorous and the larvae may live in the soil (DeJong, 2011).

The Canadian Wildlife Federation is soliciting sightings of the Giant Lacewing and has posted the following information: *Polystoechotes punctata* is black and 2.5 - 4 cm (about 1 - 2.5 in.) long, with mottled wings held tent-like over its body (see photo). It is most likely to be found in more remote areas but is attracted to artificial lights. They are most common from mid-June thru August. Giant lacewings are easily mistaken for antlions, fishflies, and other night-flying insects with bare wings. The best ID feature for giant lacewings is the outer margin of their wings. The veins in the wing form what almost looks like a 'frame' around the wing (blog.cwf-fcf.org).

Giant Lacewing (*Polystoechotes punctata*) specimen in the Maine State Museum Collection; wingspan is ~2.5" (6-7 cm). *Photo by Charlene Donahue*

I checked the museum collection, and also the Maine Forest Service collection, and found one specimen from 1888 that was in Frederick Allen Eddy's collection, which had been donated to the University. Unfortunately, the label on the specimen only said "Inez Bath Room Aug 25 1888". Hmmm, where was Inez's bathroom? So, I looked up Frederick Allen Eddy on the internet, and, probably because I am on the Town Cemetery committee and use the site regularly, the first hit was on the Find A Grave website. Eddy is buried in the Mount Hope Cemetery in Bangor along with, drumroll…., his wife INEZ! Further research showed that Eddy was a fairly well-known insect collector who traded widely. Brower mentioned Eddy in his Macrolepidoptera publication (Brower, 1973) and said that Eddy often did not put location information on his labels; this was not unusual in the late 1800s. But the reference to Inez's bathroom makes me confident that the Giant Lacewing in the collection was caught in Eddy's house on Bangor. I have added a location label to the specimen as well as a label stating the specimen is from the Eddy Collection, and retained the original label.

Dana Michaud spied a second specimen in the collection with a label that only said "Orono;" it is so frustrating when label information is incomplete. We perused the rest of the Neuroptera specimens and found the same labels on other species that only had dates on them! The dates were from the 1900s so perhaps that second specimen was also from that time period, although it is hard to be sure. We sent the information on the collection specimens to Dowell, along with photos, and he confirmed that they were indeed *P. punctata*.

So keep your eye out for this species just in case they are still flying in eastern North America.

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Giant Lacewing (cont.)

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Dowell R. V. and N. D. Penny. 2019. "*Polystoechotes punctata* (Fabricius, 1793) (Neuroptera: Ithonidae) in North America: A Changing Distribution Over Time" *Proceedings of the Entomological Society of Washington* 121(3):394-404.

https://www.findagrave.com/memorial/84354725/frederick-allen-eddy

https://blog.cwf-fcf.org/index.php/en/wanted-giant-lacewing-report-inaturalist-device/

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Maple Syrup and Insect Collecting at Charlene Donahue's Home in Whitefield.

Saturday, March 27, 2021 10:00 a.m - 4:00 p.m.

Join us at 460 Mills Road, Whitefield, for maple syrup and insect collecting at Charlene Donahue's home.

Maple syrup buckets often contain a fascinating assemblage of insects, plus there are insects on tree boles, in the woodpile and tucked in other nooks and crannies this time of year. There is a seep open all winter down near the river and wetlands across the road. Plus we have a beeyard.

Come visit a backyard sugar operation, enjoy the company and collect a bug or two or maybe more.

Covid-19 safety precautions will be observed: masks, social distancing and we will be outside entirely. Dress for the weather and be sure to wear boots; bring snowshoes if conditions permit, as well as your lunch and drinks. If the sap cooker is running, there are usually people hanging out, and it's a laid-back time (until a batch of syrup is ready to come off!).

DO PLEASE contact Charlene Donahue if you're planning to attend: call 485-0960, or by e-mail at **donahuecp15@gmail.com**

***Directions*:** Take Route 17 east out of Augusta. Go 12 miles, and then turn right onto Route 218 (Mills Road); Charlene's house is 0.8 mile down the road, on the right. It's a cream-colored cape, with a garage with rounded doors.

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First Virtual Winter Workshop Great Success!

by Tom Schmeelk

This year's winter workshop was very well received and for good reason!

The theme of the workshop was Odonata and was held virtually via Zoom on Saturday, January 23rd. The workshop started off with an optional morning coffee chat, which served as a meet-and-greet for some of our newest members, as well as people from outside MES and those who were joining us from Vermont.

Some of the participants in the digital Odonata Winter Workshop. Screen shots by Hillary Morin-Peterson.

We had 43 people total registered for the meeting with 26 existing MES members, 9 new MES members, 1 MES/VES member, 5 VES members and 2 non-affiliated attendees. We began the official meeting with introductions amongst the attendees and then jumped into the first presentation by our keynote speaker Michael Blust, from Green Mountain College (Emeritus) who presented on "Odonata basics - biology and diversity".

Next Phillip deMaynadier with the Maine Department of Inland Fisheries and Wildlife gave a presentation on the management and conservation of some of the threatened and endangered invertebrates of Maine, focusing on Odonates.

Emily Sandall, who is a postdoctoral researcher at Yale University, spoke to us about the "Ethics, Ecology, and Evolution in Odonate Research". During the presentation she touched on some of her own research as well as the evolution of odonates and the ethics surrounding insect collections and research.

After a short lunch break we rounded out the afternoon with the second presentation by our keynote speaker Michael Blust, whose instructive module was entitled "Identifying Odes: Field marks, look-alikes, and photography for ID" in which he covered all the major odonate groups found in Maine, followed by a photo-ID session of images submitted by the group.

While many were apprehensive on how a virtual winter workshop would go, as this was the first in MES history, the workshop was received well, and in fact, some members had such a great time that they stayed on showing pictures of Odonates for an *extra hour* having a great time!

Even though we weren't able to physically come together to have our traditional winter workshop this year a good time was had by all, especially those further afield who would normally wouldn't have been able to make it.

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Maine State Museum
Insect Collection Report 2020
by Charlene Donahue

Curating the insect collection at the Maine State Museum has continued despite the pandemic. Dana Michaud and I are adjunct curators for the insect collection and we focused on three projects this year: cataloging all the Lepidoptera specimens in Tony Roberts' collection before it is sent to the McGuire Center for Lepidoptera & Biodiversity at the Florida Museum in Gainesville, Florida; identifying and cataloging the Syrphidae; and curating the parasitic Hymenoptera.

Once the specimens from Tony Robert's Lepidoptera collection that are destined to remain at the Maine State Museum were separated out from the rest of the collection, we decided to start cataloguing the specimens that were leaving. This is valuable information that may help in studying faunal changes in Maine, allow researchers to access data on species of interest, provide another piece of the insect fauna across the state and be used for other purposes. When we told the McGuire Center we were doing this, they said the specimens could remain in Maine until we finished. This is a win for them as well as they will get a cataloged collection instead of just the specimens. The cataloging began in December 2019 and was just completed in January 2021 - and we are now starting to catalogue the material staying in Maine. Now, it is a matter of waiting for the pandemic to subside so the material can be driven to Florida. (Could be a fun fall road trip!)

Maine Entomological Society members volunteered 342 hours working on this project in 2020. Before Covid-19 shut things down, we had two work days focused on cataloging. Starting in July we have had no more than four people at a time working in the Annex, with masks and socially distanced, with only two people working on the cataloguing on any one day. Twenty-three people helped catalog the moths, but thank you in particular to Ian Miller and Anna Court for the hours they put in with Dana Michaud.

See *The Maine Entomologist,* Nov. 2019, Vol. 23:4 for more information on this project.

Dana spent much of his time - when he was not cataloging moths - identifying Syrphid flies for a Maine Inland Fisheries and Wildlife project (see *The Maine Entomologist*, May 2020, Vol. 24:2 for more information). He did some of the identifications at home as we all sheltered in place. I did some of the preliminary sorting of the flies and cataloged them. Dana then photographed some of the specimens for verification by expert John Klymko at the Atlantic Canada Conservation Data Centre in Sackville, New Brunswick. Dana used his cellphone camera - he got his first cellphone this spring! - and the photos were of high enough quality to confirm species. Two of the Maine species are in the University of New Hampshire collection, with no specimens in Maine collections. So the UNH folks graciously agreed to take photos with their high-tech camera to get those species identified as well.

Much of my time was devoted to curating the parasitic Hymenoptera. There have been many taxonomic changes, and the collection was not organized, so it was a time-consuming process. Some of the Ichneumonids have been sent to an expert for identification and will be returned when he is done.

Others projects include Kathy Claerr working on educational displays, Wesley Hutchins sorting the spider specimens, and Wheeler Lowell continued labelling thousands of ant specimens. Mark Ward delivered *Williamsonia* (Odontata) specimens from an IF&W project along with the data and organized them. Marcia Siebenmann took all 13 drawers of bumble bees and catalogued them as part of the IF&W Bumble Bee Atlas project – she was paid for this work but the museum will get the catalog. Marcia also donated her aquatic specimens from her graduate work.

By the numbers: 26 volunteers put in 1,072 hours in 2020. Twenty-two people helped in January through the beginning of March. There were ten people putting in time the rest of the year. Dana Michaud and I logged three-quarters of the hours in 2020 but then we are crazy and retired. (In comparison, in 2019 other volunteers comprised a third of the work hours.) Having others help out makes the work more enjoyable and it is hundreds of hours of work that would otherwise not get done. Thank you, thank you, thank you to all the volunteers and hope to see you and others when it is safe to do so.

The Syrphid fly *Helophilus latifrons*. - *Photo by Dana Michaud*

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Deciding Which Bee Variety to Get Begins With Your Goals for the Colony

by Julia Bayly

(***This article first appeared in the Bangor Daily News Homestead Section*** **- https://bangordailynews.com/homestead/)**

So, you've decided this is the year you are going to start a honey bee colony in your backyard. That's great! Now, it's time to get down to work preparing and planning for your honey bees — beginning with what bees to get.

The first thing you need to do is sit down and decide exactly what you want from your bees. Those honey bee goals are going to help you determine what variety of bee to get. That's right, honey bees come in several different varieties and there are pros and cons to each one.

So before you order your bees, think about how much honey you hope to harvest. How much time are you willing to spend managing the colony? What level of gentleness do you want in your bees?

"Honey bee varieties are like plants," said Jennifer Lund, state apiarist with the Maine Department of Agriculture, Conservation and Forestry. "You have something like a summer squash, but then you have all sorts of sub-species that are slightly different and you need to find the one that works best for you."

A common spring sight: honeybees active on the flowering dandelions. ***Photo by Julia Bayly, Bangor Daily News***

Here are five common honey bee varieties and their characteristics.

Italian honey bees

If you are looking for a bee with a reputation for being gentle and non-aggressive, look no farther than the Italian honey bee. Not only are they impressive honey producers, from an aesthetic point of view, they are one of the more attractive bees with their lemon yellow coloring. You do need to keep an eye on them throughout the season. Italian bees spend more time than other varieties raising their brood - baby bees - and that means they may consume surplus honey if it's not removed quickly enough. They are also known as "kleptoparasites," meaning they will rob honey from other hives. If there are any bee diseases in those hives, the robber bees could bring it back to their home along with any stolen honey.

Carniolan honey bees

If you want the population of your hive to grow quickly in the spring when you get them, the gentle Carniolan honey bee is the bee for you. Because they establish their population so early, they are able to take advantage of early spring blossoms and nectar sooner than other varieties. They are considered the gentlest of varieties by beekeepers who often work with colonies without protective clothing. Carniolans produce a lot of wax comb which can be used for candles, soap or even cosmetics. The downside to the variety is that fast buildup of population in a hive can lead to overcrowding if not managed properly. Left alone, the overcrowded Carnolians will swarm and look for another home. And they will take a lot of honey with them. To prevent them from swarming means you need to be aware of their population levels in a hive and be ready to expand their hive or start a new one. But if you are willing to put in the work, you could well find yourself with one or more extra colonies by the end of the summer.

Buckfast honey bees

If you live in an area that is normally cold and damp, or if your long term seasonal weather forecast is calling for a wetter and colder summer, you may want to check out Buckfast honey bees. This variety was developed to produce honey in rural England — an area famous for its damp and chilly conditions. Buckfast colonies build up slowly in the spring, so they do miss out on many of those early blooms. However, they are also among the more defensive varieties so you need to take great caution when working with them as they can be cranky and attack any threat to their colony.

Russian honey bees

A gentle honey bee with a genetic trait to resist the parasitic varroa mite is just one of the things that makes Russian honey bees quite different from other varieties. The varroa mite is responsible for global colony collapses and losses. Russian honey bee hives tend to have queen cells present all the time. Queen cells are where new queens develop. In other honey bee varieties, queen cells are formed when the colony needs a new queen because their old one has either died or left with a swarm. In a Russian hive, it's easy to get overrun with queens and that is not a good thing. Too many queens can cause swarms so you will need to constantly look for and destroy those cells. Russian honey bees are very sensitive to the environment and raise brood only when the nectar and pollen are flowing.They don't like crowded colonies and even if a hive does not look overpopulated to you, they may not agree and will swarm.

Caucasian honey bees

Slow to populate its colony and very gentle, the Caucasian honey bee has a unique physical trait. It has a very long tongue, which lets them get at nectar deep in flowers other bees can't. That's the good news. The bad news is Caucasian honey bees also produce a lot of propolis compared to other varieties. Propolis is a type of sticky resin beekeepers call "bee glue." The bees use it to patch up any cracks or holes in the hive. But left to their own devices, they will also use it to glue together different parts of the hive.

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Picking your honeybees (cont.)

Propolis is an amazingly strong glue and it can make it very difficult to open up the hive if the bees have glued the lid shut. This means you will want to check on the hive boxes frequently and scrape off any extra propolis.

Once you have decided what bees you want, all that's left to do is place the order, sit back and dream of spring. Beekeepers will tell you the real joy of an active colony is watching thousands of bees doing what they do best -- pollinating flowers, collecting nectar and creating sweet honey.

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***Delphastus pusillus*, a ladybird beetle newly identified in the Maine fauna; length is about 1.3-1.4 mm.**
- Photo by Tom Murray, used with permission

New Coccinellidae (Ladybird Beetle) Species Reported in Maine and New Hampshire

by Charlene Donahue

An article about lady beetle species new to Maine and New Hampshire has just been published by Louis Hesler: "New Records of Coccinellidae (Coleoptera) from the Northeastern United States," Entomological News, v. 129, no. 4, pp. 395-399 (21 January 2021). Hesler found these species just by looking at unidentified material in insect collections. The article points out that these tiny insects are often overlooked and little is known about some of the species. Taking time to look even closer when out observing or collecting may glean more information about them.

Dana Michaud says he regularly finds the new Maine species *Delphastus pusillus* in his back yard, and has specimens in his collection that he shared with Hessler.

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The flightless Mecopteran *Boreus brumalis*.
- Photo by Carol Muth

Boreidae on Snow

by Carol Muth

Photographed 05 January, 2021, on snow in mossy woods in Washington County, Maine, this 1/6" (4 mm) wingless female *Boreus* was a surprise and a delight. I was looking for her, but it has been suggested that they "may die if exposed to the heat from a human hand." So I was careful and did not touch it.

There are two species of Snow Scorpionfly found in the northeastern U.S. and adjacent Canada, so this could be *Boreus brumalis* or *Boreus nivoriundus*, but this latter is more brown. Unlike most members of the Order Mecoptera, which are 4-winged and prefer humid temperate and subtropical climates, species of the Family Boreidae live on moss and snow and are adapted to cold climate conditions.

The source of my interest, and the possible identification as the more common of the two species, *B. brumalis,* was Erika Mitchell's iNaturalist Project, "Arthropods on Snow." It should be noted that the authors of the ***Audubon Society Field Guide to North American Insects and Spiders*** cautioned, "only a specialist can distinguish the different species of Snow Scorpionflies."

This spindle-shaped *Boreus*, like Mecopterans in general, has scraggly chewing mouthparts at the end of a stout beak and two large and separated compound eyes. The 10th segment of the female's abdomen is prolonged into an ovipositor-like structure. She deposits one egg on moss. Adults and larvae feed on moss and liverworts, as well as decaying plant and animal materials. The flightless male has stubby rigid wings, which function to secure the female during mating.

When *Boreus* species need to move quickly they jump, straight up, and land on folded legs, so they resemble a speck of soil. My observation is that they have little directional control.

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Boreus brumalis (cont.)

Watch for these fascinating Mecopterans on snow in mossy woodlands, at temperatures ranging from 21ºF to a few degrees above freezing.

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North Carolina State University Dept. of Entomology website: https://genent.cals.ncsu.edu/insect-identification/order-mecoptera/ (accessed 30 January, 2021)

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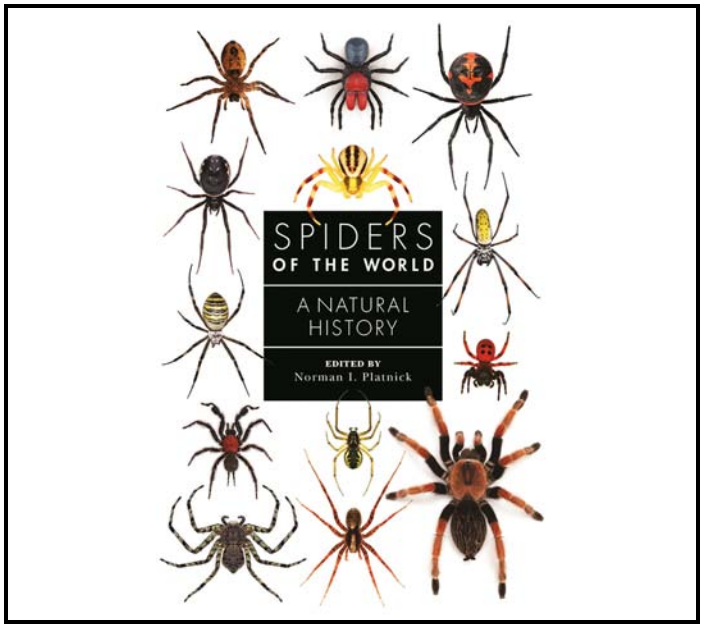

Book Review: by DanaWilde

Spiders of the World: A Natural History, Norman I. Platnick, ed.; Princeton University Press, 2020; 256 pages, hardcover, $29.95.

Spiders of the World provides a copiously illustrated look at spider families from all parts of the world.

Written by the editor, the late Norman Platnick, and his colleagues Gustavo Hormiga, Peter Jäger, Rudy Jocqué, Martín J. Ramírez, and Robert J. Raven, the book opens with fairly easy to understand descriptions of spider biology, with excellent illustrations and macro photos, followed by a short discussion of the ever-evolving field of spider taxonomy. It then proceeds to short descriptions, with photos, of most, if not all of the 115 spider families officially recognized when the book went to print in 2020. (By January 2021, the number of families listed in the *World Spider Catalog* had expanded to 128.)

For most families, the authors zero in on details of one genus within each family. Covered, for a couple of examples, are Atracidae, or funnel-web spiders of southwestern Australia, whose venom is highly toxic to humans, and the fascinatingly clever jumping spider *Portia*, found around South Asia and eastern Africa. For a few widely distributed and recognizable families, such as Araneidae (orb-weavers) and Salticidae (jumping spiders), both very common in Maine, several genera are covered.

Genera covered in the book with species common in Maine include the garden orbweavers, *Araneus,* with a nice photo of a cross spider, *A. diadematus*; cellar spiders, *Pholcus*, with a photo of a female cutely carrying her egg sac in her chelicerae; and the thin-legged wolf spiders, *Pardosa*, which could be Maine's most numerous spider genus. Among Linyphiidae, the sheet-web weavers, also very common in Maine, the book details *Linyphia*, the European sheet-web spider; the distribution map shows a lone dot on Down East Maine, where *L. triangularis* is a well-studied invasive.

Many arachnologists are consumed by the tricky problems of spider taxonomy, and this is reflected in the organization of *Spiders of the World* (which is overall not crystal clear, but also not a big impediment for users). A very helpful graphic shows that the order Araneae contains two suborders: Mesothelae, containing just one family (Liphistiidae, segmented trapdoor spiders, which live in Asia), and Opisthothelae, containing everybody else.

The graphic also shows several subgroups of the Araneomorphae, or "true spiders," including the Austrochiloidea (two families living in the Southern Hemisphere), Palpimanoidea (assassin spiders and their relatives, sharing characteristics of their chelicerae), Synspermiata (spiders such as brown recluses and cellar spiders, sharing certain characteristics among males), and Entelegynae (more than 70 families that share a similar arrangement of female genitalia). Within the Entelegynae subgroup is the cryptically named RTA Clade, which is a way of grouping spiders whose common biological characteristic is a "retrolateral tibial apophysis," a projection on the tibia of the male palp.

The authors are clearly fascinated by the mysteries of the clade. But they don't let it clutter a book that is readable and informative for all levels of spider lovers. A glossary and list for further reading are somewhat limited, but its photos, distribution maps, graphics, and interesting tidbits of information make it a nice contribution to anyone's spidering library, especially at the price, which is quite reasonable for books like this.

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Mt. Desert Island Collection Catalogs Available

William Proctor was an entomologist who amassed a huge collection of insects and marine invertebrates from the Mount Desert Island area in the first half of the 20th century. The Maine Natural History Observatory (MNHO) has updated and published his insect lists and are selling copies of the new catalogs of Coleoptera (beetles,) Lepidoptera (moths) and Hymenoptera (sawflies, wasps, ants and bees).

Information on these can be found at their web site: https://mainenaturalhistory.org/curating-collections

Lists for all the insects and other animal taxa catalogued from the Proctor collection can also be found on the MNHO website (though beware that some taxonomy still needs updating): **tinyurl.com/2qnrk3x6**

Writing Workshop Postponed

Kathy Claerr has verified that Writing Workshop presenter Seri Rudolf has decided that until pandemic distancing is no longer necessary, the proposed Writing Workshop that had tentatively been scheduled for April, will remain indefinitely postponed. An in-person session is most valuable, which Zoom wouldn't approximate well.

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Collecting Insects in Winter

by Bob Nelson

The piece by Carol Muth on her snow scorpionfly, and a note I received from Charlene on winter crane flies and winter snow scorpionflies being more common near wetlands and seeps, brought to mind some of my earlier experiences in winter collecting.

While winter-active insects are indeed really cool, they're limited in diversity. Occasionally one can find other insects hibernating beneath slabs of bark on large logs or in other refuges, such as beneath boards or other things that may be lying on the ground but not frozen in place. What I found most productive, though, was running large samples of leaf litter through my big Berlese funnels (three of them, 15" square, in a large stand). Dense, deep duff from slopes above wetlands tended to be most productive, since many insects from that wetland will have gone to higher ground to overwinter. Areas where people dumped their raked-up yard leaves or lawn clippings were also particularly good.

I collected the material, excluding as much ice and snow as possible. I put it into the funnels, and turned the lights on. Though I used pint-sized glass peanut butter jars to catch what came out, I had to watch carefully so the jars didn't flood from melting snow.

It was amazing what could be found in these samples, from many orders, including supposedly rare things that turned out to be strictly winter adults.

If you have no access to Berlese funnels, take heart! I've donated mine to a new M.E.S. equipment loan library, currently being assembled by our new President. So if you're interested in giving it a try, let me know and we'll see what can be arranged! (BeetleBob2003@gmail.com or 426-9629).

Think you know a lot about insects? You can TEST your insect knowledge at a really cool web site:
https://www.usefultrivia.com/science_trivia/insect_trivia.html

***Correction*:** in the November issue, the story on "Natural History of a Bird Feeder 'Compost Zone'", the site of the flying scarabs was misidentified as Steuben, Maine, when in fact it was in Holliston, Massachusetts. The beetle species *Euphoria fulgida* is, however, to be found in Maine and might well be spotted doing the same thing here. It was an editing error.

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M.E.S. Trivia: As of latest count, there are now 20 Life Members of the Society!

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DUES REMINDER!

M.E.S. dues are payable on a calendar-year basis. If you haven't already done so, please renew now for 2021 to guarantee uninterrupted receipt of the Newsletter. Treasurer Dana Michaud's contact information is at the bottom of the back page for your convenience.

Dues are $15 per year, or $18 if you renew via the web page (https://www.maineentosociety.org/join), and may be paid up to two years in advance. If you get this via snail mail and the year on your mailing label is "2020" or earlier, please contact Dana to renew for 2021 or correct the record.

COMING M.E.S. EVENTS in 2021

(See the MES web site at https://www.maineentosociety.org/events for additional information on any event, which will be posted as soon as it's received.)

March 27: Maple Syrup and Insect Collecting at Charlene Donahue's house in Whitefield (Lincoln County). Coordinator: Charlene Donahue.

May: Aquatic insects, Southern Maine. Date and Coordinator: To be announced.

June: Moth Night, Dresden (Lincoln County). Date and Coordinator: To be announced.

July: Viles Arboretum, Augusta (Kennebec County). Coordinator: Dana Michaud. Date to be announced.

July: Field's Pond. Coordinator: Pete Darling. Date to be announced.

August 7: Hirundo Wildlife Refuge, Old Town (Penobscot County). Coordinators: Anna Court and Tinia Graham.

September 11: Cherryfield - blueberry barrens (Washington County). Coordinator: Bob Nelson.

October 2: MES Annual Meeting at Bob & Nettie Nelson's home in Clinton. Collecting from 10 – 12, pot luck lunch, business meeting. Coordinator: Bob Nelson.

The Maine Entomologist **is the quarterly newsletter of the Maine Entomological Society. Dues are $15 per year, or $18 if paid through our web site (https://www.maineentosociety.org/join). 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 (e-mail: djmichaud1@gmail.com). If you're unsure about your dues status, please contact the Treasurer.** ***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.***