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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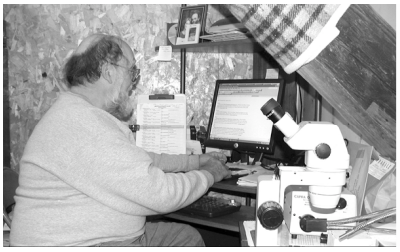

President's Corner

by Dick Dearborn

Florida in January! Not bad in a winter like this one. Marj and I had a chance to see how things looked in orange country this year, our first winter visit. Even though we enjoyed the trip we're still Maine-iacs at heart and looked forward to coming home. Before leaving for the south I was able to attend our winter workshop on true bugs. Charlene Donahue again put together a well-organized event and Don Chandler did a super job in leading the group through the true bugs as a warm-up for our Schoodic Blitz in August. I heard several attendees remark that true bugs were much more interesting than they had thought.

As we head into February, generally our most wintery month, remember that the woolly bears predicted this! In spite of the heavy snow cover, however, the ground beneath has relatively little frost this year and spring conditions could develop rapidly, so be ready for those unique early insects. For those collecting enthusiasts with the winter "blahs", just a reminder that you can collect insects every month of the year, even in Maine, as records show.

Our regular MES field event schedule for 2008 is now filled out with Bug Maine-ia set for Wednesday, September 17th. These events are posted on our website, on our calendar (I have a few left for 2008) and in each newsletter. As we move into our twelfth year I want to again remind you that we need to support that core of hardworking members who have made our programs possible. Of course the best way to show your appreciation is by participating in one or more of our events.

One of these events is Bug Maine-ia. The State Museum staff has graciously made this event possible for the past five years, but due to conflicting demands they have asked if we could provide more support this year, especially in set-up and organization of the event. If you are interested, please let Charlene Donahue or me know so that we can pass this information along.

While some events such as our winter workshop, Schoodic Blitz and Bug Maine-ia almost always generate strong support, the success of our other field events and the annual meeting are more often determined by weather conditions. Keep in mind that field events are usually "rain or shine."

Lately there seems to be increasing interest in insects by the media as well as school and summer camp groups. This comes at a time when many professional entomologists find their schedules stretched to the limit. As a result we are often asked if we could provide speakers or exhibits. If you are interested and have a particular area of expertise, or could help with an exhibit, please let me know. We will address this need at our annual meeting if there is enough interest, but in the meantime be in touch. Our membership now stands at 138 so we should have resources to draw upon.

In summary – check our event schedule and make your plans for 2008, especially concerning the Schoodic Blitz and Bug Maine-ia. The slide into Spring moves fast and Summer almost always seems to be gone before it starts. Keep your dues paid up, submit an article for our newsletter and join us in the field when you can.

----- Dick

In this issue:

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IMPORTANT DUES REMINDER! **M.E.S. dues are payable on a calendar-year basis. If you haven't already done so, please renew now for 2008! *Treasurer Dana Michaud's name and mailing address are at the bottom of the back page for your convenience* - $10 for one year, $18 for two years. If the year on your mailing label is "2007", please contact Dana to renew for 2008 or correct the record.**

There are still a few, but ONLY a few, 2008 M.E.S. calendars available! Contact Dick Dearborn if you're still clueless about what day of the month it is, or need a ready-made reminder of all M.E.S. events for 2008!

WINTER WORKSHOP: *PLEASE* BUG ME!

by
Colleen Teerling

Another successful M.E.S. insect workshop was held in Augusta on Saturday, January 12. This year Hemiptera were the focus.

Twenty-three people squeezed into the Maine Forest Service Entomology Lab. Don Chandler, Professor of Zoology from the University of New Hampshire, gave us a brief overview of the order and explained some of the recent taxonomic changes, and then gave everyone a "unit box" containing samples from every major family in Maine.

Attendees at the January Winter Workshop on Hemiptera listen with rapt attention as Don Chandler explains the fine points of distinguishing the true bugs. (*Photo by Charlene Donahue*)

For each family, he showed us pictures, explained key features, and then each of us examined the specimen from the unit box. In this way, we covered all the major families. Each person got his or her own copy of Don's pictorial key to Hemipteran families of the Northeast, and this, along with Don's many photos, helpful hints, and shortcuts, made recognizing Hemipteran families quite painless.

Even though Hemipterans are not Don's primary area of expertise, he did an excellent job of teaching us all a lot about true bugs. It was new material for some, and a valuable review for others. It was a long day and we covered a lot of information, but Don made it interesting and kept us all engaged.

When the serious work was done, we were treated to several insect movie clips, and were given a quiz on entomology in pop culture (which most of us failed miserably). Thanks, Don, for all the hard work you put into this, and for doing such an excellent job. We really appreciate it.

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Aphids are born pregnant without the benefit of sex. Aphids can give birth 10 days after being born themselves, but typically only live 3-5 weeks.

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PAINT-CHEWING GRASSHOPPERS!

by Charlene Donahue

What would chew the paint off the side of a house? Back in August of 2006 I received a call from a woman in Parsonsfield who said something was chewing on the freshly painted trim on their house and did I know what it was and what to do about it. I was busy and did not get down to see the problem until September. Julie M. had not seen anything but there was definitely something chewing particularly on the edges of trim. It was both high and low, on vertical and horizontal surfaces, more on the south but found on all sides of the building. It looked like it could be insects, but what? Wasps? Beetles? Dogwood sawfly? The only insect she saw a lot of was grasshoppers. Grasshoppers? I sent her sticky traps to see if she could trap whatever was causing the damage. But it was too late in the season and no more damage occurred.

Unfortunately the problem reoccurred in this year after the trim had been repainted. I got another call from Julie in August 2007, "it" was back! She had called the paint supplier, the manufacturer, pest control operators, extension - no one had any idea what was chewing the paint or what to do about it. Finally Julie's sleuthing paid off - she caught grasshoppers in the act of chewing the trim.

I called Don Mairs, retired Maine Agricultural Entomologist who had studied grasshoppers. He said, "Funny you should ask about grasshoppers eating paint". He has a neighbor who said grasshoppers were doing the same thing last year and when he went to see it, he found that was exactly what was happening. The species he saw feeding on paint was the Pine Locust, *Melanoplus punctulatus*.

from: http://www.pbase.com/crocodile/grasshoppers2004

Julie sent me grasshoppers from her house and they also were *M. punctulatus*. She lives in an area with a lot of white pine, plus there is a large grassy area so there are always lots of grasshoppers around. She thinks these may be different from the grasshoppers that are usually there and she has never seen them on the building until last year. Perhaps the *M. punctulatus* population is high right now and the problem will go away when the population drops. Perhaps other species of grasshoppers also eat paint. I found a few general references to it on the internet but they just were antidotal types of information.

Julie then started calling paint suppliers and found one that had actually heard of the problem AND had a possible solution. I talked to the paint store owner and he had had two similar calls. One might have been caused by chickens but the other appeared to also be grasshoppers. The recommended solution was to use a paint additive called Bug Juice that is the synthetic pyrethroid Deltamethrin to deter and kill the 'hoppers. Julie has repainted her trim - again, cut down the Mugo pine right in front of the window that was chewed the worst and is hoping that the problem is solved - or that the grasshopper population crashes.

It would be interesting to hear from anyone who has information on paint-eating grasshoppers.

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Maine Butterfly Survey Update

Launched in 2007, the Maine Butterfly Survey (MBS) marshals the efforts of citizen and professional scientists to assess the status and distribution of one the state's most colorful and conspicuous insect groups.

Thirty volunteers participated in the first year of the survey, generating over 1,100 new records to be reviewed and databased this winter by Dr. Reggie Webster. Among the most notable of the 2007 records included stray Pipevine Swallowtails photographed in Kennebunk and Vinalhaven, a species not previously documented in Maine since 1907!

Taking flight again in 2008, the MBS will sponsor introductory workshops this spring at Colby College, Waterville (likely May 3rd) and this summer at the Delta Institute of Natural History, Bowdoin (likely July 12th). The workshops are free to new volunteers and include presentations on butterfly biology, tips for their identification, and protocols for submitting specimen and photographic vouchers.

Maine Entomological Society members are invited to make reservations for either workshop by contacting Dr. Herb Wilson at whwilson@colby.edu or 207-859-5739. Also visit the MBS website (maintained by Dr. Ron Butler) at http://mbs.umf.maine.edu/ to get the latest information on Maine's evolving checklist, species distribution and flight periods, and other information on how you can participate in this unique statewide atlasing project.

-Phillip deMaynadier, MBS co-coordinator, Maine Department of Inland Fisheries and Wildlife

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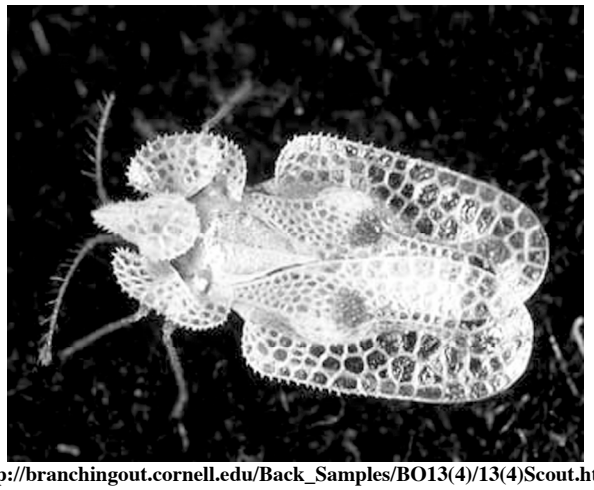
Sixth Annual Acadia BioBlitz to Focus on Bugs!

Remember to mark your calendars for the 6th annual bioblitz at Acadia National Park's Schoodic Education and Research Center on August 8-11, 2008. This year's focus will be on the Hemiptera (leafhoppers, spittlebugs, and true bugs like stink bugs, etc.). Only the "soft-bodied" Sternorrhyncha will be excluded - these include the aphids, whiteflies, mealybugs, scale, etc., formerly placed in the Homoptera, which is no longer recognized as a separate order.

Interested naturalists and amateur and professional entomologists are welcome to participate. The Blitz will run from approximately noon Saturday to noon Sunday; however, there will be additional orientation and education sessions on Friday evening and Saturday morning. Details about the blitz will be forthcoming, both in the May issue of the Newsletter and on the M.E.S. web site. For more information please contact: David Manski, Chief of Resources Management, Acadia National Park, 207/288-8720 or david_manski@nps.gov .



http://branchingout.cornell.edu/Back_Samples/BO13(4)/13(4)Scout.html

This blitz is sponsored by the: National Park Service, Maine Forest Service, Maine Entomological Society, University of Maine, and the George B. Dorr Museum of Natural History at the College of the Atlantic.

For updates, check the following web sites, where information will be posted as it becomes available:

http://www.nps.gov/acad/serc.htm (Acadia National Park)
http://www.colby.edu/MES/ (Maine Entomological Society)

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TO BEE or NOT TO BEE?

A Training Course In Bee Identification

Chuck Lubelczyk sent this on for potentially interested folks.

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Native Bee Identification, Ecology, Research and Monitoring CSP2225

Course Dates: March 24-28, 2008
Course Location: National Conservation Training Center, Shepherdstown, WV
Course Length: 5 days/36 hours

Course Description: North America is one of the biodiversity hotspots for bee species with nearly 4000 species occurring north of Mexico. So crucial are these insects to our landscape that without them most of our plant communities would disappear. Yet despite their importance very little is known about their conservation status. Even the most basic information regarding distribution and rarity is sketchy to completely absent resulting in the lack of locality or state lists for most regions.

Recent work on bee survey techniques have provided a means to design and accomplish large scale surveys using simple, volunteer friendly tools. While it is now easy to survey bees, the identification of the resulting catch has become a limiting factor.

The most important goal of this course is to provide participants the tools necessary to identify bees to species. To do that instructor ratios will be kept at one instructor to six

(cont. on next page)

***Bee identification course* (cont.)**

participants, and there will be an emphasis on learning to use online guides and other keys to identification along with good microscope skills. In conjunction with learning identification skills there will be 2-3 daily lectures on bee natural history, monitoring, and research techniques. We will be going out in the field throughout the week to set traps and net bees so that participants see the entire spectrum of field to microscope work. Numerous identified surplus bee specimens will be available to all participants to start their own collections and participants are encouraged to bring any bee specimens they have as instructors will be available to help with identification issues.

Course Objectives:

⇒ Describe key characteristics and life histories of all the North American genera of bees east of the Mississippi River.

⇒ Identify native bees to species using Discoverlife online identification guides and other resources.

⇒ Use common trapping and netting techniques for Native Bee species in the region surrounding the Training Center.

⇒ Survey native bee populations using common strategies.

⇒ Describe issues surrounding the pollination biology, natural history, research, and identification of native bee species.

Who Should Attend: Federal, state, county and municipal agencies, private consulting firms, citizen volunteers, neighborhood associations, environmental organizations, and teachers, performing native pollinator assessments or monitoring programs; with a desire to improve their identification skills.

How to apply: To register, visit our website at

http://training.fws.gov/

click Course Catalog, then select *Search DOI LEARN as a guest. You will have the opportunity to submit your application once you locate the class you want to take.

If you have questions, the Registrar may be contacted at (304) 876-7692.

Cost: Tuition is waived for all DOI employees. Tuition is $850 for Non-DOI participants.

Questions: Please contact Gary L. Schetrompf,
gary_schetrompf@fws.gov
NCTC Conservation Science and Policy Branch, at
304-876-7255 ***or***
SoLan Ching - SoLan_Ching@fws.gov
NCTC Conservation Science and Policy Branch, at
304-876-7771.

For questions regarding course content, please contact Sam Droege, Sam_Droege@usgs.gov, at 301-497-5840

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Please mark your calendars for the 6th annual bioblitz at Acadia National Park's Schoodic Education and Research Center on August 8-11, 2008.

NOW is the time to start planning for those spectacular photos you'll take in the coming spring and summer, to submit for the *2009* Maine Entomological Society calendar! The quality of photos and diversity of taxa have only gotten better each year - so next year's calendar will undoubtedly be the best yet! Get those cameras out, and experiment. If you're feeling rusty, re-read chuck Peters' Tech Tips on photography in the May, 2007, issue of *The Maine Entomologist*. Digital photography means no wasted film, so you can shoot and shoot and shoot, and then delete the bad ones, without it costing anything! And if you're still using film (yes, some of us do!), you can still shoot a 36-exp. print or slide roll and then have it developed cheaply - and see what you get.

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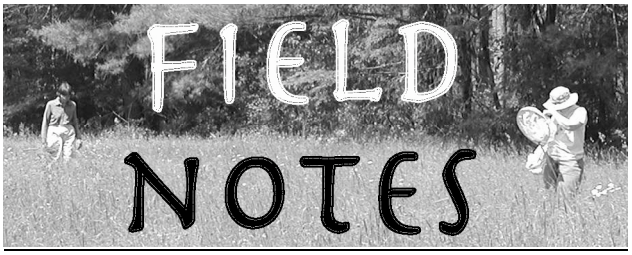

WHY CHOOSE BEN AND JERRY'S ?

by Brandon Woo

On Thanksgiving, I went to New York to visit my grandmother and see the Macy's Thanksgiving Day parade. After we watched for a while, we went to get ice cream at Ben and Jerry's. Boy, did I get a surprise! I ordered a "Chocolate Therapy" cup. We had just sat down to eat when I said, "Oh my God!" I ran to a corner and picked up a dark shape. It was ... a COCKROACH! An American cockroach, to be exact. My mother and grandmother reared back in horror! Luckily I had a container, so I put it in. Then I had to wash my hands with antibacterial soap. On the train back to my grandmother's house, it almost got out! (Luckily it didn't. Can you imagine the consequences?) When we got back home, she wouldn't let me bring it in the house! I had to keep it in the car. On Saturday, we went back to Maine. There, I pinned it and put it in my collection of New York insects. That is why you should always choose Ben and Jerry's ice cream!

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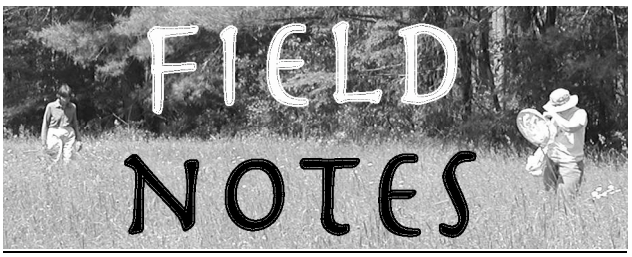
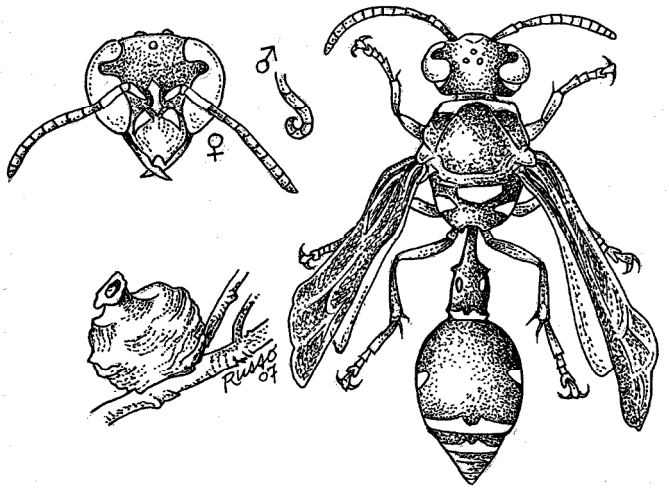


FINDING POTTER WASPS

by Monica Russo

You probably know what a Potter Wasp is. It makes small rounded nests out of clay or mud, which look like tiny pots the size of marbles. The females do all the building, and the hunting to stock the pots. The wasp moms go hunting for small caterpillars, mostly moth larvae. The clay pots have rounded openings, just like a human-made pot, and the nestpot is filled with a few caterpillars, an egg is laid, and the opening sealed off.



I have never found a Potter Wasp in the act of constructing a nest. And in about 47 years of hoping to find tiny pots, I have only found them three times. The first was around1959 when I found one about eye-level (to me at age 9) on an arborvitae (*Thuja*) tree growing at the corner of our garage in Norwalk, Connecticut. It was firmly attached to a woody twig.

Here in Maine, I found a tiny nestpot along our long dirt driveway, which is actually an old logging road, and flanked by lowbush blueberry, Viburnum, and goldenrod. A single pot was attached to a blueberry twig, not more than knee high from the ground. And on September 20, 2007 I found two more. I was at the Kennebunk Post Office, looking up into one of the small ash trees planted between the Post Office and the bank. Staring straight into tree bark, tree branches, woodpiles, and crumbling masonry walls is always bound to turn up something interesting. I saw two Potter Wasps pots, joined together on a sturdy twig, just above eye level (to me at age 50+). My partner Kevin took several photos of the pots, and one was actually used as a nature spot in the local paper.

I looked at the pots again about a week later, and saw an ichneumon wasp exploring the surface of one of the pots, and trying to aim her long ovipositor into the clay. I was tempted to shoo her away, but figured I'd be interfering with the balance of things. About one more week after that we had significant thunderstorms, and when I looked at the twig, only one of the pots was left. And a few weeks after that, the last one was gone. Perhaps a bird had tried to open the pot and eat the larvae inside.

Potter Wasps can be caught here in southern Main, while they are visiting goldenrod and weedy overgrown field or roadsides. I like to see them, and the handiwork of the females, so I have collected specimens at the end of the season, hoping to give them time to nest. The species we have here is probably *Eumenes fraternus*, which has very dark front wings, and yellow-white markings. We should also have *Eumenes crucifera*, which has more amber wings, with yellower markings. There may be intergrades in color, so I dare not make a choice in identifying the specimen shown here.

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LARGE CARPENTER BEE IN MAINE

by Richard W. Folsom

The large carpenter bee (*Xylocopa virginica*) seemed to be quite common in southern Maine in 2007. Most previous reports of this bee had been from York County, but I found it in York, Cumberland and Androscoggin Counties. A homeowner in Eliot was spraying to try to stop numerous large carpenter bees from damaging timbers under his roof eaves.

***Xylocopa virginica*; length ~ 25 mm**
from http://www.kendall-bioresearch.co.uk/solbee.htm

I found 2007 was a good year for collecting a variety of Hymenoptera. The European megachilid *Anthidium manicatum* was widespread in southern and central Maine. I also collected a number of bumblebees (*Bombus ternarius, B. bimaculatus, B. vagans, B. fervidus, B. americanorum, B. impatiens, B. affinis,* and *B. auricomus*), the eumenids *Ancistrocerus adiabatus* in Pittston and *Eumenes fraternus* in Augusta and the following sphecids: *Eremophila aureonotata* in Yarmouth, *Cerceris clypeata* in Poland, *Isodontia mexicana* in Yarmouth, *Tachytes validus* in Biddeford, *Gorytes simillimus* in Rumford, *Bembix spinolae* in S. Portland and a number of *Philanthus* species, which appear to be *P. solivagus* from Waldoboro, *P. gibbosus* from South Portland and *P. politus* from Berwick.

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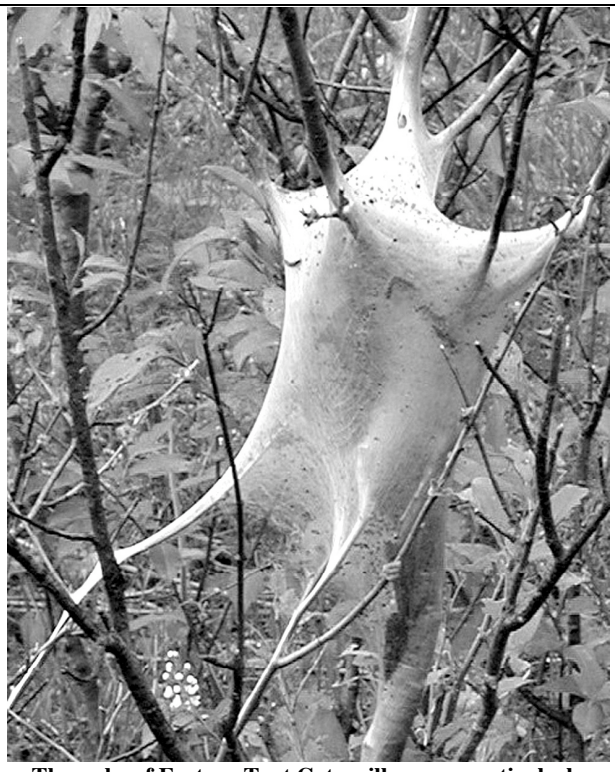
BOOK REVIEW *by Dana Michaud*

Terrence D. Fitzgerald's book ***The Tent Caterpillars***, ©1995 by Cornell University, is a nicely written and illustrated book about our native Lasiocampids. Although the six species with geographic distribution are mentioned, three with many subspecies, the book deals primarily with the two species found in Maine, the eastern tent caterpillar (*Malacosoma americanum*) and the forest tent caterpillar (*M. disspar*), a misnomer as it is the only U.S. species that does not build a typical tent - more a sheet-like structure - but can sometimes be found in the eastern tent caterpillar's tent.



The webs of Eastern Tent Caterpillars are particularly common in wild cherry trees and shrubs in Maine in the spring. (*Photo from http://www.biokids.umich.edu/guides/tracks_and_sign/build/webs/*)

After distribution, the author deals heavily with the biology. Eggs laid on a host plant develop for 3 weeks, go into diapause, overwinter and hatch in the spring; they must have 2°C for 15 weeks ± 5 weeks to hatch. (In 1922, in New Brunswick, Canada, the temperature dropped to -43°C and killed the entire pharate population.) In spring, cool weather desynchronizes caterpillar and host tree development. If off by two weeks, caterpillar growth can be retarded, producing smaller pupae and moths, if more, larvae too small as a result of starvation, as more mature leaves are too tough to chew. If temperatures persist below 15°C, caterpillars don't (or only slowly) digest food.

The eastern tent caterpillar prefers rosaceous tree species, primarily black cherry, but has spread to the introduced apple.

The black cherry has developed defenses of its own, however, to combat the eastern tent caterpillar. Upon budbreak, it has foliar nectaries (60-90 active) on the marginal teeth. These then attract ants of various species, which in turn (depending on species) kill all larvae up to the last instar (6 in all). Some ants are so effective that no tents with 10 meters of the ant nest produce any late-instar larvae. Nectaries drop to 5% after 3 weeks, becoming tougher and more poisonous (as they generate glycosides).

Tents are usually oriented towards the sun (south). Experiments with light below cause the tents to be built upside down and the caterpillars to walk upside down also! The tents contain two types of caterpillars. The first is the forager, which lays down a silk and pheromone trail to food sources. The pheromone comes from the anal point (unique to Lasiocampids), formed by epidermal secretory cells located on the ventral side between the anal prolegs. The pheromone is detected by receptors on the maxillary palps. Silk is produced and stored in labial glands (formed by the maxilla and labium united, with a spinneret on the end).

The second caterpillar type, smaller and more sluggish, builds the tents, spending 15-30 minutes laying silk before feeding (3 times a day). The last (sixth) instar is active all night and rarely eats in daylight. The sixth instar forager stops reinforcing trails with silk and pheromone, forages more independently and disperses.

Natural enemies abound. Only 10% of eggs are parasitized. Early instars are eaten by some 60 species of birds. The black and the yellow billed Cuckoos can decimate populations as they eat all instars (and even Io moth caterpillars!). They prevent hair accumulation by periodically shedding their stomach lining.

Pupae suffer the highest mortality, being eaten by many birds (crows eat about 20%). Although no natural enemies have been introduced to combat tent caterpillars, one beautiful arboreal Carabid, introduced for gypsy moth, *Calosoma sycophanta*, kills an average of 239-328 larvae and pupae (but they don't always eat what they kill). The young beetle larvae (also arboreal) can kill full-grown caterpillars and tear open cocoons to eat pupae (and can travel up to 2.9 kilometers in 72 hours!!!). One sarcophagid, *Sarcophaga aldrichi*, during outbreaks (where caterpillars approached 20,000 to a tree in Minnesota) parasitized near 100% of all pupae.

Although I've only touched upon a few aspects the author went into in depth, if you want to learn more about tent caterpillars, pick up a copy and enjoy!

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The Hemiptera - Defined

by Charlene Donahue

This year the annual Blitz at Schoodic Point will target Hemiptera. The Blitz will encompass the true bugs, hoppers and cicadas (or first two suborders) but not the plant lice.

Taxonomists have decided that the order Hemiptera includes insects that have beak-like piercing/sucking mouthparts and incomplete metamorphosis. This definition covers three groups that are now suborders within the order Hemiptera:

Heteroptera – long-horned bugs;
Auchenorrhyncha – leafhoppers, treehoppers, planthoppers, spittlebugs, and cicadas;
Sternorrhyncha – aphids, scales, mealybugs, jumping plant lice and whiteflies.

All of these insects suck fluids, in most cases it is plant juices that they suck but some suck blood - either that of insects

(cont. on next page)

Hemiptera Defined *(cont.)*

or vertebrates. Hemipterans can be found on plants, living communally with ants and spiders, on the water surface and in the water as well as the predators are found in the environment in general. They have adapted a wide array of habits and habitats for a relatively small order of insects.

Many of these insects can be collected by sweeping and beating for them although their host association can often prove very helpful in identifying some of them. Therefore careful records should be kept of where Hemipterans were collected. Berlese funnels and malaise traps can also prove useful.

When looking at the diversity of Hemipterans it is interesting to note that just a few families constitute the bulk of the species. Below is a table constructed from information provided by Dr. Don Chandler, UNH at the MES Winter Workshop. It includes the families known to occur in Maine and the numbers of species of some families.

Hemiptera of Maine - from Dr. Don Chandler

Family	*Common Name*	*Families*	*Species*
Heteroptera		**32**	**429**
Acanthosomatidae			
Alydidae			
Anthocoridae	Minute pirate bugs		13
Aradidae	flat bugs		8
Belostomatidae	giant water bugs		4
Berytidae	stilt bugs		
* Ceratocombidae			
Cimicidae	bed bugs		
Coreidae	squash bugs		
Corixidae	water boatmen		44
Cydnidae	burrowing bugs		5
Gerridae	water striders		12
* Hebridae	velvet water bugs		
Hydrometridae	water measurers		
Lygaeidae	seed bugs		8
			(32 in old system)
Mesoveliidae	water treaders		
Miridae	plant bugs		129
Nabidae	damsel bugs		
Naucoridae	creeping water bugs		
Nepidae	water scorpions		4
Notonectidae	backswimmers		
* Ochteridae	velvety shore bugs		
Pentatomidae	stink bugs		36
*Piesmatidae	ash-gray leaf bugs		
Pleidae	pygmy backswimmers		
Reduviidae	assassin bugs		14
Rhopalidae	scentless plant bugs		
Saldidae	shore bugs		
Scutellaridae	shield-backed bugs		
Thyreocoridae	black bugs		5
Tingidae	lace bugs		30
Veliidae	riffle bugs		
Auchenorrhyncha		**13**	**665**
Acanaloniidae			2
Achilidae			12
* Aetalioniidae			
Caliscelidae	piglet bugs		3
Cercopidae	spittlebugs		17
Cicadellidae	leafhoppers		471
	(70.8% of entire sub-family)		
Cicadidae	cicadas		4
Cixiidae			12
Delphacidae			61
Derbidae			11
Dityopharidae			1
Flatidae			2
Membracidae	treehoppers		68
Sternorrhyncha		**14**	**209**
Adelgidae	pine and spruce aphids		
Aleyrodidae	whiteflies		
Aphidae	aphids		107
	(*51.2% of sub-family*)		
Asterolecaniidae	pit scales		
Coccidae	scales		
Diaspididae	armored scales		15
Eriococcidae	felt scales		
Kermesidae	gall-like coccids		
Margarodidae	giant coccids		
Ortheziidae	ensign coccids		
Pemphigidae			
Phylloxeridae			
Pseudococcidae	mealy bugs		
Psyllidae	psyllids		39

*** rare**

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2008 Field Seminars at the Humboldt Institute on the Coast of Maine

The Humboldt Institute in Steuben is once again this summer offering up a host of advanced, professional, and specialty field seminars for naturalists down at their facilities in Steuben. The following three look to be of specific potential interest to entomologists, but are only a small sampling of what will be offered.

Aquatic Entomology for Naturalists
June 1 - 7. Frederick H. SaintOurs, Jr.

Mayflies: Systematics and Biomonitoring
June 22 - 28. Steven K. Burian

Integrated Ecological Restoration of Rivers and Streams
October 5 - 11. John W. Munro

Descriptions of ALL Eagle Hill seminars may be found at http://www.eaglehill.us/semdescr.html . Information on lodging options, meals, and costs may be found at http://www.eaglehill.us/mapinfo.html

There are printable and online application forms at

http://www.eaglehill.us/mapweb.html
http://www.eaglehill.us/mapprn.html

For more information, please contact the Humboldt Institute, PO Box 9, Steuben, ME 04680-0009; Phone 207-546-2821, or Fax at 207-546-3042; E-mail - office@eaglehill.us. Online general information may be found at http://www.eaglehill.us .

In support of field biologists, modern field naturalists, and students of the natural history sciences, Eagle Hill offers specialty seminars and workshops at different ecological scales for those who are interested in understanding, addressing, and solving complex ecological questions. Seminars topics range from watershed level subjects, and subjects in classical ecology, to highly specialized seminars in advanced biology, taxonomy, and ecological restoration. Eagle Hill has long been recognized

(cont. on next page)

Eagle Hill Seminars *(cont.)*

as offering hard-to-find seminars and workshops which provide important opportunities for training and meeting others who are likewise dedicated to the natural history sciences.

Eagle Hill field seminars are of special interest because they focus on the natural history of one of North America's most spectacular and pristine natural areas, the coast of eastern Maine from Acadia National Park to Petit Manan National Wildlife Refuge and beyond. Most seminars combine field studies with follow-up lab studies and a review of the literature. Additional information is provided in lectures, slide presentations, and discussions. Seminars are primarily taught for people who already have a reasonable background in a seminar program or in related subjects, or who are keenly interested in learning about a new subject. Prior discussions of personal study objectives are welcome.

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Update on 2007 Spider Blitz Results

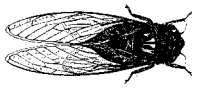
The winter is upon us, and most spiders we see active these days are going to be in cellars and out-of-the-way corners of the house that may not get dusted as often as we might prefer. However, there was a whole host of spiders gathered at the Schoodic Blitz last summer.

Dan Jennings did many of the preliminary identifications before Rich Bradley took the specimens back with him to Ohio to continue the work. Though work on identifications is still continuing, but so far we have the following results:

* 18 families
* 101 genera
* at least 151 species collected
* 89 new species not previously collected on the Schoodic Peninsula
* 6 new state records
* 4 species that remain unidentified

* * * * *

The loudest insects are male cicadas, which can be heard about a quarter of a mile away. Periodical cicadas have the greatest longevity of any common insects, and may live as much as 17 years; some arctic moths have been documented as requiring 11 years to complete a life cycle.



COMING M.E.S. EVENTS in 2008:

(See http://www.colby.edu/MES/ for more detailed information.)

21 June, 2008	**Field Day at Dick Dearborn's, Mt. Vernon**
12 July, 2008	**Field Day, Orland**
8-11 August, 2008	**Hemiptera BioBlitz, Schoodic Point, Acadia N.P.**
13 September, 2008	**Annual Meeting, Clinton**
17 September, 2008	**Bug Maine-ia at Maine State Museum**

IMPORTANT DUES REMINDER! **M.E.S. dues are payable on a calendar-year basis. Renew now for 2008 - avoid the January rush! Treasurer Dana Michaud's name and mailing address are in the box below your address label for your convenience - $10 for one year, $18 for two years! Such a bargain!**

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

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