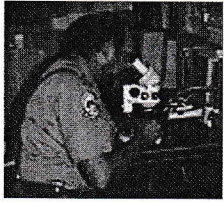


# The Maine Entomologist

A FORUM FOR STUDENTS, PROFESSIONALS & AMATEURS IN THE PINE TREE STATE

Volume 10, Number 3, August 2006



## From the President

While you can still call this the “Year of the Fly”, our big event is now behind us and we can begin assessing the results. Our winter

workshop and the Delta Institute session provided a fitting prelude to our fourth Schoodic Blitz which focused on Diptera (Flies). I now hear more positive feedback on the diverse and unique role of flies rather than “Do you have fly dope!” or “Jeez, where do all these biting flies come from!” While I do not expect a major shift of our members’ interest to diptera I do hope that we can now add another Order to our watch for lists.

At this point I would like to take a moment to specifically express appreciation to all who made the Schoodic Blitz a success. We finally ended up with a total of 44 registered participants of which 16 were MES members. Even though we thought that Diptera might be a “hard sell,” these numbers certainly don’t show that. It was not an easy group of insects to work with however, as many species were very tiny and fragile unlike the larger and showier groups we have dealt with in the past. Our participants came through, though, whether collecting, mounting, labeling or morpho-sorting. I was certainly not about to destroy specimens with my clumsy fingers. But thanks to the nimble fingers of Joe Keiper and his six graduate students from Cleveland State University, Jen Milligan, Shimshon Balanson, Nick Mikash, Mark Lyons, Kevin Tloczynski, Kal Ivanov along with Don Chandler from UNH and summer intern Prema Long and field technician Bill Urquhart from the Maine Forest Service all of these tiny critters now reside on pins in storage boxes awaiting further identification. This could be a slow process but in the meantime Joe Keiper has prepared a tentative list for this issue of our newsletter. Additional thanks to: the SERC which provided the excellent lodging and support; specialists who provided critical systematic insight; those who brought needed supplies and many others who kept the process moving. See other items in this newsletter.

## Inside This Issue:



**Diptera Blitz Results**



**The Baltimore Checkerspot**



**Annual Meeting Announcement**



**Field Notes**



**Book Reviews**

As we now move into August the seasons begin to change. Some insects move south, others seek winter quarters here. Many of us start to wrap up current activities and plan for the year ahead. This issue of *The Maine Entomologist* has some summary items and some in the future planning category so look through for pertinent items. We especially need your support for our Annual Meeting and Chicken Barbecue at New Gloucester (September 16th) And don’t forget Bug Maine-ia in Augusta on September 27th. This is the best and biggest event of the year and provides us with a chance to show school children, teachers and others that insects are fascinating and fun and that studying them is an educational experience.

Don’t forget to order copies of our 2007 MES calendar for yourself and those on your gift list. This should be our best calendar yet and will be available by mid November.

Drop me a line sometime with your thoughts. Perhaps I can help you select a topic for an article in a future issue of this newsletter. I’m easy to reach, 115 Spring Hill Road, Mt Vernon, ME 04352; by phone at (207) 293-2288 or by email [modear@prexar.com](mailto:modear@prexar.com). And don’t forget to contact fellow members with those special finds.

See you in the field!

-Dick Dearborn



# Diptera Blitz at Acadia National Park

Preliminary count of morphospecies (n = 261) from families of Diptera (n = 50) collected on the Schoodic Peninsula, 15-16 July 2006.

The 2006 Acadia National Park BioBlitz took on the Diptera this year, and more than 40 naturalists of varying backgrounds attended the July 14 -17 event. A number of institutions were represented, including the National Park Service (Acadia National Park and Great Smoky Mountains National Park) the Maine Forest Service, the University of Maine, the Maine Entomological Society, the George B. Dorr Museum of Natural History at the College of the Atlantic, the National Museum of Natural History and USDA, Northern Kentucky University, North Carolina State University, Cleveland State University, and the Cleveland Museum of Natural History. We thank everyone for their efforts!

We had excellent weather, and excellent effort from all participants! As for a preliminary count of taxa taken during the 24 hour bug hunt, we scored 50 families, and approximately 261 morphospecies. Not bad for a days work! These numbers do not reflect the numbers of mosquitoes, black flies, no see ums, and deer flies squashed...

Various experts are putting the flies under microscopes, and are beginning to compile species lists. This will be tallied over time, and a final list of taxa is forthcoming. For each taxon, representative male and female (if available) specimens will be housed with the Proctor Collection at the Willaim Otis Sawtelle Collections and Research Center at the headquarters of Acadia National Park in Bar Harbor. If possible, remaining representative specimens will go to the Maine Forest Service Insect and Disease Laboratory in Augusta. The experts identifying their various groups of interest will retain specimens for their collections, and any long series of common species for the park will be placed in the holdings of the Cleveland Museum of Natural History.

Respectfully submitted,  
 Joe B. Keiper  
 Department of Invertebrate Zoology  
 Cleveland Museum of Natural  
 History

Family	# Morphospecies	Common Name
<b>NEMATOCERA</b>		
Tipulidae	18	crane fly
Psychodidae	2	moth fly
Culicidae	3	mosquito
Ceratopogonidae	2	biting midge
Chironomidae	11	midge
Simuliidae	2	black fly
Anisopodidae	1	
Bibionidae	1	March fly
Mycetophilidae	7	fungus gnat
Sciaridae	3	dark-winged fungus gnat
Scatopsidae	2	
Cecidomyiidae	3	gall midge
<b>BRACHYCERA</b>		
Tabanidae	12	horse and deer flies
Rhagionidae	3	snipe fly
Therevidae	3	stiletto fly
Bombyliidae	2	bee fly
Asilidae	6	robber fly
Empididae	5	dance fly
Dolichopodidae	9	long-legged fly
<b>CYCLORRHAPHA</b>		
Lonchoceridae	2	spear-winged fly
Phoridae	5	hump-backed fly
Pipunculidae	2	big-headed fly
Syrphidae	33	flower fly
Psilidae	1	rust fly
Uliidae	2	picture-winged fly
Tephritidae	4	True fruit fly
Coelopidae	1	
Dryomyzidae	2	
Sepsidae	1	black scavenger fly
Sciomyzidae	4	snail killing fly
Lauxaniidae	5	
Periscleridae	1	
Pallopteridae	1	
Lonchaeidae	1	
Sphaeroceridae	3	minute dung fly
Tethinidae	1	
Milichiidae	2	
Ephydriidae	21	shore fly
Drosophilidae	7	pomace fly (true fruit fly)
Diastatidae	1	
Chloropidae	16	fruit fly
Agromyzidae	8	leaf miner fly
Clusiidae	1	
Anthomyzidae	2	
Anthomyiidae	7	woodland house fly
Scathophagidae	5	dung fly
Muscidae	16	house fly
Calliphoridae	4	blow fly
Sarcophagidae	4	flesh fly
Tachinidae	6	parasitic fly





Attendees pose for a group photo at the Schoodic Blitz. Courtesy of Dave Manski.

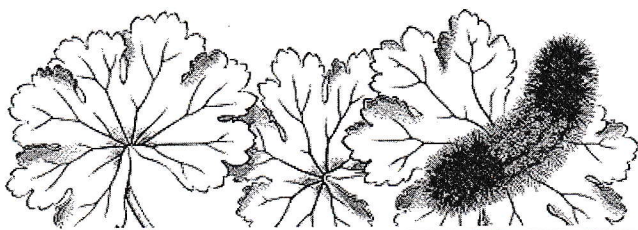
## Woolly Bear Watch

For those of you who plan to check red-banded woolly bear caterpillars to see what they have to say about the weather for this upcoming winter, get ready! Although they are active year round, it is easier to find the ideal 20 caterpillars after they begin moving across roads and trails from mid-September to mid-October. I will again be doing my Mt. Vernon area survey for the 10th year!

Banded Woolly Bear caterpillars, *Pyrrharctia isabella*, have 13 segments with tufts of setae. Normal conditions, according to folklore, are for two thirds with black tufts and one third with red tufts. To get your forecast you simply count the number of red-tufted segments, including whole or half segments, on 20 caterpillars and take an average. An average winter is indicated if the average is 4.33. Higher than this indicates a milder winter while lower than 4.33 indicates a more severe winter. Don't forget - everything is relative and you might want to keep records of high and low temperature and snowfall/rainfall just as a check! The weather this year has certainly been different. What next? Let's see what the woolly bears say.

Have fun!

-Dick Dearborn



## Prelude to the Diptera Blitz

Call it a dress rehearsal, call it a warning shot over our bows. Whatever. But Dr. Joe Keiper's Diptera Workshop July 11-13 at the Delta Institute in Bowdoin, Sagadahoc County, gave a dozen blitz bound registrants a preview of the joys and terrors inherent in trying to identify some of the 22,000 plus North American species of two winged flies.

Keiper, Curator of Invertebrate Zoology at the Cleveland Museum of Natural History, proved a knowledgeable and affable mentor. As thunderstorms cancelled an opening day foray into the institute's woods and marshes, he followed his introductory lecture by producing an array of native Ohio diptera to get the participants started. Moving around the lab from microscope to microscope, he explained the finer points of dipteran anatomy to his eager pupils. Some of us learned quickly that bigger is better when collecting, remember it's going to be easier feeling like an expert if you're looking at a tabanid instead of a ceratopogonid.

A high point of the workshop was Keiper's first hand account of forensic entomology. Often called upon by Cleveland hospitals or the police, he identifies the diptera and their stages of growth that may turn out to be critical clues in solving mystifying illnesses or violent crimes. For instance, the presence of second or third instar maggots in a cadaver has pinpointed the time or even the place of an otherwise puzzling death. Verdicts in criminal cases may hinge in part on Keiper's courtroom testimony, though he shrugged off the more dramatic forensic feats sometimes served up to us on TV crime shows.

Host Tom Vining, founder of the Delta Institute, was helpful at every turn, while the six grad students Joe Keiper brought with him from Cleveland kept us graybeards on our toes. Participants moved on to Acadia National Park, better prepared for the rigors of the blitz itself.

-Frank Graham, Jr.







**Oxford and Kennebec County**

On July 14 I was delighted to see in my front yard in Waterford not one but two Monarchs busying themselves with laying eggs on the smallest milkweed plants they could find. I must admit to also being pleased with myself for having had the foresight to mow down several patches of milkweed about a month ago for this very purpose. Because we're so near the limit of their range, our milkweed tends to be slightly out of phase with their reproductive cycle, and I've seen several summers when the caterpillars were left with old, withering plants by August. But milkweed is unimpressed by being mowed down and simply sends up double the shoots it had before. If you mow them early enough (pretty much any time before mid-July) they will not only grow well but even flower later in the summer – just when the Monarchs need them.

On a collecting trip the weekend of July 15-16, I saw Monarchs at literally every stand of milkweed I inspected in 6 counties (Cumberland, Kennebec, Knox, Waldo, Hancock, and Washington). The last time they were this abundant was at least 10 years ago. In one spot in Gorham, I actually couldn't keep track of the numbers – about half a dozen were energetically chasing each other.

There could be no clearer illustration of the unimportance of our local conditions to Monarchs compared to our native butterflies. The limited-range butterflies, especially the small ones that winter at ground level, have been noticeably low this year after the open winter and heavy spring rains. European skippers, for the first time I can remember, didn't overwhelm the

fields but were simply present like any other butterfly.

You might wonder how this fits in with the gloomy Monarch forecast from last newsletter, but Jim Loveitt of Monarch Watch has established that there is no way to predict one year's summer population from the last; the conditions in the wintering sites are all-important. So let's enjoy these regal beauties while they're here and hope for the best.

On July 8 at a site in Windsor I came upon a colony of Baltimores. Although there were only about a dozen, that is by far the most I've ever seen at one time. The weather was borderline for butterflies, cloudy and below 70, and the Baltimores were mostly resting near a large milkweed patch. This site consists mostly of a several-acre grassy field with areas of sedge, milkweed, and joe-pye-weed, but the butterflies were concentrated in one area. I searched the field and surrounding areas for two solid hours but could not find any evidence of their host plant, turtlehead. They are said to also use English plantain, but I didn't see any of that either. It would have been helpful to have another pair of eyes. The turtlehead will be blooming in August and easier to spot then. Anyone who would like to join me there on a Saturday to look for the host plants, please call 743-2840 so we can arrange scheduling. It would also be a good time to count Monarch larvae.

-Gail Everett

**Aroostook County**

On Thursday, July 6th, about noon, I walked slightly uphill on the bank to the north of the house in Fort Kent. I was going to pick some Spreading Dogbane to press. I stopped next to the season's first Evening Primrose Flower. I saw motion on it and saw

bright pink. "I wonder what's going on here," I thought. Then I realized there were two moths on the flower and quickly captured them in the container I had. I have never seen a moth like this before.

I went through Holland. No match.

Went to Covell's Moths and found a match. The Primrose Moth! *Schinia florida*.

Says they are uncommon and are best collected by watching the flowers on their food plants. Wow! I feel blessed to have been at the right place at the right moment! I guess it is a male and female. The male is much pinker than the female.

A new find is always exciting.

-Gale Flagg

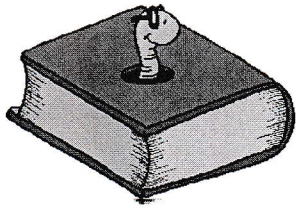
**York County**

This year, massive flooding from May rains affected many communities in York County. As a result, there was a heightened concern about the potential for mosquito breeding in those communities, particularly Wells and Lebanon. The mosquito monitoring in the state began in earnest in June but found that many of the early 'snowpool mosquitoes,' so common in early spring and summer, were washed out by the heavy water surges.

One unexpected by-product of using CDC light traps to sample for mosquitoes was the appearance of female dobsonflies in the traps in June and July. Notably, traps in Lebanon and Alfred reliably produced dobsonflies near wetlands. This was unusual because the traps operate with a fan keeping the mosquitoes and small moths in the catch basket. Larger moths are usually chopped apart by the fan blades, but the dobsonflies were somehow able to get past the blades into the traps!

-Chuck Lubelczyk





## Book Reviews:

Insects: Their Natural History and Diversity: with a Photographic Guide to Insects of Eastern North America by Stephen A Marshall. Published by Firefly Books. 2006, 718 pages.

There have been many excellent new books published over the last few years on insects and these valuable references written by specialists certainly deserve a place on the bookshelf of amateur and professional alike. Before you put away your credit card, however, you must see Stephen Marshall's new book. This one will "blow you away" with its broad yet in depth content. Since I was shown a copy in early March I have not ceased to "ooh and ah" over it and to use it almost daily as I continue with my entomological endeavors. It's a classroom on paper and must reflect the enthusiasm and fascination with insects that Dr. Marshall had as he taught entomology for more than 20 years. While he draws deeply from his special interest in Diptera (Flies), he is very comfortable in dealing with other orders as well. This great contribution to the field of entomology also reflects the input on many levels of Dr. Marshall's fellow entomologists from across Canada and the US. It won't matter what your area of interest is, I'm sure that you will use this book as a reference often.

This book covers all orders and major families of insects (Class Insecta) likely to occur in eastern North America. Related Classes of arthropods such as Arachnida are covered as well but to a lesser degree. While the impressive selection of more than 4000 live action photos is hard to top, the associated text has those needed bits of information you have been looking for. I have already corrected a couple of misconceptions that I had in groups with which I only had passing familiarity. And the keys - well for those of you who have labored long over keys that used terms that are totally beyond comprehension, you will find relief in the clear yet concise pictorial keys to Order and Family found in Marshall's book. Several MES members have already put these keys to the test, successfully. And the systematics are up to date! By now it should be obvious that I am thoroughly sold on this great book. Buy a copy now before it goes out of print as many good books have in the past. The only part of the book I found limiting was the index as you need a good idea where you want to go before you use it. But this is understandable as you would need an index three times as long to cover all of the terms included and I rather enjoy skimming the book in search of a particular insect anyway, which is easy to do.

- Dick Dearborn

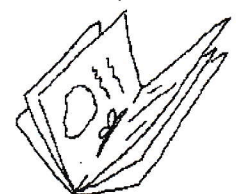
A Field Guide to the Tiger Beetles of the United States and Canada by D. Pearson, C. Knisley, and C. Kazilek; 2006, Oxford University Press.

This book is a must buy for both the novice wanting to learn more about this interesting group of beetles and also for the Coleopterists looking for a comprehensive key to the 109 species and the 114 subspecies found in North America.

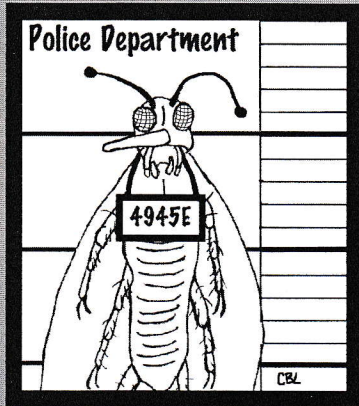
This 227 page field guide, comprising 10 chapters, begins with 3 short chapters introducing Tiger Beetles, how to recognize them, and their phylogeny and taxonomy. Chapter 4 (pages 19-42), Illustrated Keys to Adult Genera and Species, is a nicely written key with many drawings and explanations. Chapter 5 is short and covers the identification of Tiger Beetle larvae with a small key for the 3rd instar larvae (for genera). Chapter 6 (47-175) titled Species Accounts, includes 24 nicely done digitally photographed plates of actual specimens of all 109 species and many of their subspecies. Each species starts off with a description, followed by subspecies or variants, distribution (with map), habitat, behavior, seasonality, and finally larval biology. Chapter 7 (177-188) covers Ecology and Behavior of Tiger Beetles, encompassing behavioral habits, seasonal cycles, mating behavior, predation and parasitism. Chapter 8 touches on biogeography (isoclines) and distribution. Chapter 9 (191-198) titled Conservation, touches upon not only the status of Tiger Beetles as a group but also the fact that many (15%) are showing dramatic declines in numbers due to restricted ranges and severe habitat loss (overcollecting of such species can impede recovery). Five are already listed as Federally Endangered or Threatened with many including subspecies being considered for listing. Chapter 10, Observing and Studying Tiger Beetles, deals with field observations, lab studies, collecting adults and larvae, preparing and storing specimens and photography. The brief Bibliography (209-211), is followed by a complete checklist (213-220) of all species and subspecies (recognized) that are found in the US and Canada.

This completes this long overdue book on one of North America's most beautiful group of beetles - the cicindelids (now considered by some as the Tribe Cicindelini in the Family Carabidae).

-Dana Michaud







## The Bug Mug Shot:

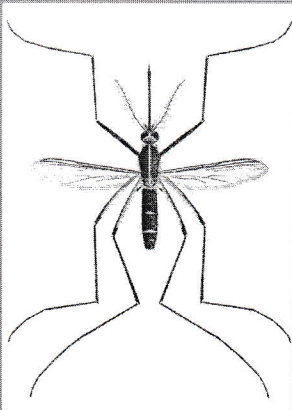
*Uranotaenia sapphirina* (Osten Sacken)

Order: A member of the culicine diptera, species of the genus *Uranotaenia* occur worldwide. Three species occur within the United States. All have a multivoltine life cycle.

**Taxonomic Status:** *Ur. sapphirina* is easily identified in the adult stage by its conspicuous iridescent blue scales occurring along the scutellum and thorax. The bases of the wing veins are similarly covered. Three species of the genus occur in North America.

**Life History:** The adult females enter hibernation after they have been inseminated in the fall, pass the winter in a state of torpor and emerge in late spring. The species lays unique egg rafts that float partially submerged on the water's surface. Larvae are rarely evident until July, but peak sharply during the month of August. Larvae persist in prime breeding habitat into the month of September but decline sharply with the onset of cool weather. The brightly ornamented adults do not fly far from their breeding site but are readily attracted to artificial light. Light traps that are placed near suitable breeding habitat frequently give an overestimation of this species' population density during the summer months. Preferred hosts for the adults are reptiles and amphibians. They are not known to bite people and researchers have had difficulty coaxing them to feed on mammals in laboratory settings.

**Notes:** *Uranotaenia sapphirina* is a mosquito that is almost always found with permanent and semi-permanent ponds that support rich stands of emergent and floating vegetation. In the northeast, duckweed (*Lemna sp.*) appears to be an indicator plant although these mosquitoes are also found in close proximity to the cattail mosquito *Coquillettidia perturbans*. The



larvae are often found in large numbers among leaves and roots of floating vegetation. Water depth can vary from a few inches to several feet in the swampland utilized by this species. *Ur. sapphirina* larvae usually avoid shade and are usually found in greatest abundance in sunlit areas of the breeding habitat. Although viruses such as Eastern Equine Encephalitis have been isolated from this species, they are not thought of as medically important because of host preferences.

*Ur. sapphirina*, courtesy of the CT Agricultural Station.



## 2006 MES Events and Field Trips

September 9. MES Field Day – This trip has been cancelled.

September 16. MES Annual Meeting, New Gloucester, ME. Contact: Chuck Peters (207) 926-4806 (see announcement in this issue).

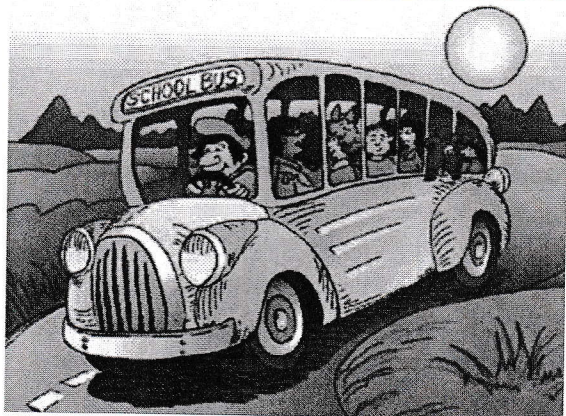
September 27. Bug Maine-ia, Maine State Museum, Augusta, ME. Contact: Marion Smith (207) 287-2301 (see announcement in this issue).

## Looking for The Winter Moth in Maine

The Winter Moth (*Operophtera brumata*) is an imported pest on hardwoods, especially maples, oaks and fruit trees. It is currently found in the Maritime province of Canada and most recently in outbreak conditions in eastern Massachusetts. I am asking people to be on the lookout for frail brown moths flying this winter. The male moths are attracted to light and fly at dusk, females are wingless and found on the trunks of host trees. Most likely locations for Winter Moth would be in southern Maine or Downeast. The Winter Moth is similar to native species the Bruce Spanworm (*Operophtera bruceata*) and the Fall Cankerworm (*Alsophila pometaria*) that also fly in the fall. Please carefully pack specimens and send to: Charlene Donahue

Maine Forest Service Entomology Lab  
48 Hospital Street Augusta, Maine 04353





## Bug Maine-ia

Bug Maine-ia hits the Maine State Museum. For one day only, a group of insect educators will swarm the Maine State Museum in Augusta. Come learn how bugs change the world for better or worse.

Entomologists, environmental educators, forensic scientists, foresters, anglers, artists and others will be on hand to explain the wonders and importance of these creatures. Over 20 presenters will give a glimpse of the many fascinating ways that bugs affect our lives.

A live insect zoo will give participants an opportunity to get up close and personal with some of the world's largest bugs.

Guided insect collection field trips on the museum's grounds will be available, as will hands-on opportunities to learn about these all too often misunderstood creatures.

On September 27, 2006, admission to the Museum and to all Bug Maine-ia events is free!

To schedule your school's visit or for more information, please call Marion Smith at the Maine State Museum (207) 287-2301.



Attendees for Bug Maine-ia 2005 visit with Clay Kirby from the UMO Cooperative Extension. Photo courtesy of the State Museum in Augusta.

## MES Annual Meeting and Chicken Barbecue

On Saturday, September 16, the Maine Entomological Society will host its Annual Meeting and Chicken Barbecue at the home of

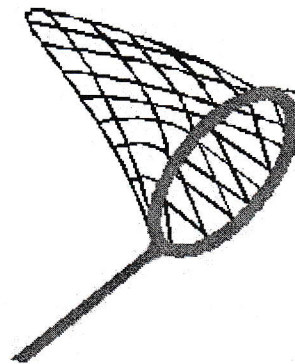
Chuck and Ellen Peters in New Gloucester, Maine. All members of MES and their families are welcome to attend. The day will begin at 10:00 AM with a period of collecting and socializing followed by lunch at noon. Cornell Barbecue chicken will be the main course and attendees are asked to please bring a side dish or dessert and their drinks of choice. The meeting will then be held at 1:00.

If you have never attended an Annual Meeting (and even if you have!) please consider coming this year because we really need your input and ideas on the direction that MES is going. Topics to be covered will include election of officers and board members for 2007, determining the schedule of monthly collecting trips, discussing and planning the Winter Workshop and the MES calendar, debriefing this year's Diptera Blitz at Schoodic and discussing our role in next year's Blitz.

Another area of discussion that will have a great affect on our organization is the fate of our quarterly newsletter. Laura and Chuck Lubelczyk, after many years of outstanding service, will be stepping down as Editors. Under their leadership, *The Maine Entomologist* has become a high quality and reliable source of MES news and information. Our newsletter is one of the more tangible expressions of all of the things that the MES accomplishes; it has become a large part of our identity as an organization. If no one expresses interest in taking on the role of Editor, we may have to consider other options concerning the future publication of the newsletter. If you are interested in either stepping forward to serve as Editor or to add your input in the discussion, please try to attend this year's meeting.

As you can see we have a full plate of items to cover, so after filling your plates with barbecued chicken and other tasty treats, plan on digging in to some hearty discussion!

If you do plan to attend, please call or e-mail Chuck Peters at (207) 926-4806 or [chuckp@securespeed.net](mailto:chuckp@securespeed.net) for directions if needed and to help us plan the amount of chicken to prepare.





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## A Few Thoughts about the Baltimore Checkerspot

From my experience here in “downeast” Maine (Hancock and Washington Counties), the Baltimore is certainly uncommon, local and probably quite periodic. All the ones I have seen here (~6 ever) have been associated with roadside or RR trackside ditches which is also good habitat for the primary larval host plant in Maine, turtlehead.

During the 2005 field season I found a Baltimore colony along the RR in Vanceboro (Washington County). The RR cuts straight across a large bog. One Baltimore was on Coyote scat along with a White Admiral on the RR itself. Another at this site was flying along the trackside ditch; this one I collected, MBS #885. The specimen was quite large for the species. Both individuals were in excellent condition suggesting that they hadn't been out for long. There is turtlehead, *Chelone glabra*, along the trackside ditches.

During my travels around “downeast” Maine, I usually make notes on flowering plants. Turtlehead is not uncommon. I find it often in roadside ditches and where small streams cross the logging roads, etc. I think the turtlehead is much more common than the Baltimore.

In southeastern Massachusetts, the Baltimores often use English Plantain, *Plantago lanceolata* as a caterpillar food plant. In some fields, at just the right stage of plant succession, the right mowing cycle, the right year, etc. there can be **hundreds** of Baltimores flying and many caterpillars busy eating. Unfortunately, these same fields are rapidly being converted into sites for million dollar houses.

Possibly in southern Maine there may be fields with English Plantain worth checking for Baltimores. Damp grassy areas in more or less permanent herbaceous areas such as power lines and pipelines are good places to look for Baltimores. The Baltimore situation is a good example of why the Maine Butterfly Survey (MBS) is needed. Maine Entomological Society members might like to work on the Baltimore “problem.” Things they could do: 1) Learn to identify the butterfly. 2) Learn to identify the caterpillar (which is as spectacular as the butterfly). 3) Learn to identify the Turtlehead (mostly with white flowers, but sometimes the flowers are purple). Also learn to identify English Plantain. 4) Search likely habitats in their area of operation for adults and caterpillars. Get photographs. Collect vouchers of adults for the MBS. Turn in their observations to MES.

-Richard W. Hildreth



Maine Entomological Society  
c/o Newsletter Editors  
Chuck & Laura Lubelczyk  
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*Please visit our website at [www.colby.edu/MES](http://www.colby.edu/MES)*

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