

# 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 Charlene Donahue

For all of you armchair entomologists, this is a great summer for getting out and doing some bugging! There are a lot of people who have not tried out an MES field trip. These are very relaxed, really a walk in the woods and fields, no pressure to catch or identify, just a time to enjoy the company of like-minded folks. The next field trip is August 20th at Saddleback Mountain, try it – you might like it – and bring along a friend or a child.

I just led a ladybug hunt at the Sheepscot General Store in Whitefield. Seven kids and their parents showed up to sweep the fields in search of ladybugs. We chilled, photographed, uploaded and released three ladybugs. Not a huge find but not bad for the half-hour attention span the kids had. We had the hunt as part of the Lost Lady Bug project (<http://www.lostladybug.org/>) that is enlisting aid in surveying for once-common ladybugs (Coccinellidae) that are now rare. It took an hour and a half of my time and got 14 other people interested in insects. Both Andrei Alyokhin at the University of Maine and I have Ladybugs of Maine posters if anyone is interested. They are free, you just have to pick them up and look for ladybugs. I will have posters at future field trips and events.

The Moth and Butterfly Blitz at Schoodic Point, Acadia National Park was a great success. The mothing was incredible Saturday night. I headed out from the lab at 2 a.m. but turned around and went back to get my collecting equipment as there were more moths at lights that I had not seen earlier. The moths created a tornado around the lights; there were so many insects it made it hard to see what species were there. The larger sphingids and noctuids would bash against the sheet knocking smaller moths off. I found it easier to collect from a tree on the edge of the light while my sister collected off the back of my white shirt. Four people stayed

up all night collecting, pinning and identifying the catch. With assistance from many attendees we sorted, pinned, labeled and identified the catch from light traps, sweeping and light collecting.

And if you see what looks like a purple kite in an ash tree, it is a trap for detecting emerald ash borers. The beetles are NOT in Maine yet as far as we know but we are looking for them. The beetles are being moved with firewood - they first show up in campsites and along road corridors.

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## Got Pine Sawflies?

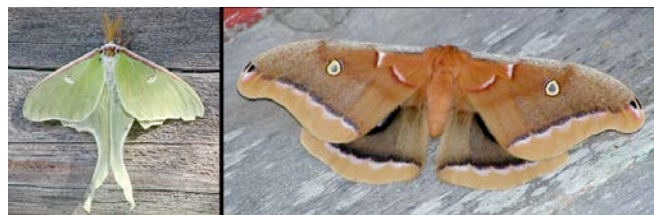
Catherine Linnen at the University of Kentucky is looking for pine sawflies (*Neodiprion* spp.) in general, and also specifically specimens of the red headed pine sawfly (*N. lecontei*) (see <http://tinyurl.com/3jq2dx6>), for studies to determine whether *N. lecontei* is one species or actually a complex comprised of multiple, cryptic species that are specialized on different host plants.

She has been trying to get live sawflies, to start a lab colony, but would also be interested in receiving preserved specimens for genetics work (in ethanol). She can reimburse shipping, so if you do find some, you can contact her ahead of time (in the meantime collect with host plant and store in a cool place).

For more information, e-mail her at [clinnen@gmail.com](mailto:clinnen@gmail.com).

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**YES! There WILL be  
2012 M.E.S. Calendars!**  
(See p. 9)

## Spiders Unmasked

by Frank Graham

(originally published on-line at

<http://audubonmagazine.org/web/spiders/>)

The saltmarsh flanks a tidal creek that meanders in a deep trench toward the sea. Later in summer the marsh will vibrate with the rich yellow blossoms of seaside goldenrod and the darting flight of dragonflies. But now, on a cloudy morning in July, this expanse of grasses and rushes seems as lifeless as the lusterless sky overhead. Its secret isn't out yet.

"What we're looking for is all around us," I assure my companions in the marsh, which lies close to my home in eastern Maine. On earlier visits, I had discovered hundreds of jumping spiders taking advantage of a curious natural phenomenon to build a hitherto-undescribed leafy metropolis that harbors thousands of their eggs or young. "Watch for dead leaves. They're curly and stuck on rushes."

The tufted, spikelike stems of rushes are common in wet places. Here they grow in abundance high on the marsh, most of them sporting dead birch leaves impaled on their stems. Our little group—taking part in a weeklong seminar on the biology of spiders at the Humboldt Wildlife Research Institute in nearby Steuben—huddles over the rushes for a closer look. I had suggested visiting the marsh on our first field trip.

"I've found jumping spiders occupying leaves from birches or maples in other marshes in the area, too," I explain. "You can tell at a glance by the strip of white silk holding the leaves folded over and closed."

We slide several leaves up over the pointed rush stems, pry them open, and invariably find an adult jumping spider nestled among the sticky silk. Occasionally a spider springs to safety, disappearing in the marsh debris; more often, it hunkers down among the scores of eggs or almost microscopic offspring packed into the silken retreat.

The marsh holds other astonishing sights on a Lilliputian scale. We find marsh grasses doubly twisted and folded, origami-wise, silk-lined nesting chambers that female sac spiders fashion to shelter themselves and their spiderlings. Amazing, yes—yet dazzling feats of nest construction are common in the animal kingdom. (Think of an oriole weaving its hanging nest.) But the jumping spiders' manipulation of leaves, rushes, and silk seems uncanny. We conjure visions of myriad spiders hopping about, each selecting her dark-hued rush, climbing the stem lugging a leaf much larger than herself, then jamming it down over the stem's sharp tip and sliding it into place. Fodder for "Loony Toons"? But there has to be a plausible answer to how this mass nursery annually comes into existence. That was still in the future.

Twenty years ago, I encountered, close-up, an order of animals whose reputation already fascinated me, though we hadn't yet been formally introduced. They compose an outcast race, the age-old object of human innuendo and reprehension. Yet in their company I set out on an adventure that has enlightened and entertained me, brought me a group of amiable friends who share my interest, and given me a tangible basis to study the history of life on our unique planet. That day in the marsh, having observed similar spider behavior with Dan Jennings, a founding member of the American Arachnological Society and my mentor in "spidering," I was simply carrying on my adventure.

**Perhaps because of a misspent youth**, one of my favorite words is *opsimath*. Definition: a person who begins to learn late in life. There was little in my background to suggest I might one day not only learn something about insects and spiders but also contribute to scientific papers concerning them. I liked animals, as most kids do, and enjoyed being in the outdoors. But for me the fields and woods were essentially bland countenances, attractive in their expanse and sense of

mystery but lacking in distinguishing detail. I couldn't see the trees for the forest. Neither high school nor college enlightened me much on the nature of nature: A biology teacher who might have planted a spark was bored with the subject and, at any rate, couldn't have distinguished a robin from a blue jay.

College and a series of jobs that led me into journalism occupied me at first. Then, through friends, I discovered that watching birds and putting names to them could be more exciting even than the nitty-gritty of "inside baseball." What brought depth to my new pleasure was an appreciation of place—the association of each bird with a landscape in which it had first appeared most vividly to me. A resonance took hold in my mind between a prothonotary warbler and the trail along a river in Virginia, between a tropical swamp and the scarlet ibises I had first seen there in a blaze of color. And, slowly, a curiosity arose about the leaves and blossoms, and the minikin animal life fluttering or scurrying in the foliage, making up the essence of those landscapes around me.

Reading Rachel Carson's *Silent Spring* in the early 1960s focused me on insects as vital members of the habitats I scoured for birds. As a journalist, writing about environmental problems, I became a field editor at *Audubon* in 1968. A big step forward was to beef up my library in botany and entomology, especially with books containing comprehensive keys to identification. I made some headway, growing familiar with most insect orders and, before I backslid a little, was able to sort out families and even identify the commoner individuals to species.

In one sense, my location was a handicap. Living in the boonies, I had little contact with scientific institutions where I could do the necessary lab work in, say, insect anatomy. But in the late 1980s I made a breakthrough. An independent biological research station, eventually to be called the Humboldt Field Research Institute, opened near my home in Maine, and I began taking summer courses there, especially in entomology. I was picking up needed background in laboratory and field collecting techniques.

About the same time, my wife, Ada, joined National Audubon's education division, developing and writing the children's publication *Audubon Adventures*. We occasionally put on nature programs for schools and, at one such session near Bangor in the late '80s, mentioned that we would soon be working on an *Adventures* issue about spiders. The school librarian approached us afterward.

"If you're looking at spiders, you ought to talk to my father," she said. "He's a research entomologist with the U.S. Forest Service. He knows more about spiders than anyone else in Maine."

When I visited Daniel T. Jennings in his office nearby, he was genuinely excited to meet someone else interested in spiders. Out came vials of specimens, and in a moment I was staring into the face of a jumping spider, preserved perhaps years earlier in alcohol but seeming to return my gaze through eyes that looked as huge as binoculars. As my new friend spoke about the diversity and life styles of his favorite subject, the most abundant and significant terrestrial predator on our planet, I was quickly pulled into the world of spiders.

Jennings was compiling a checklist of the spiders of Maine. His quest was restricted at the time because, working for the Forest Service on insect problems in the north woods, he had little opportunity to survey habitats along the coast where I lived. He asked me to help collect specimens for him. That meant acquiring field equipment, which included a heavy-duty net for sweeping spiders out of shrubs, a beating sheet into which to whack them out of trees with a stick, and an aspirator (called a "pooter" by collectors) for sucking them through a long plastic tube from walls or crevices.

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### Spiders unmasked (cont.)

Constructing a home lab was a more costly step: I bought a good stereoscopic zoom microscope for \$2,200 and, since the best 'scope is inadequate unless a specimen is well illuminated, I paid \$600 for a two-pronged fiber-optic light source.

Well, what are these animals that caught and held me? Seen under a microscope, spiders are extraordinary beings. They aren't insects, and zooming in on them through my 15x lenses (with up to about 60 total magnification) I can see why. Resemblances exist, including jointed legs that identify each as members of the huge animal phylum arthropoda (*arthro* = joint; *pod* = leg.) But three distinct sections mark the body of a mature insect: a head bearing eyes, mouthparts, and antennae; a thorax with six legs and one or two pairs of wings; and an abdomen housing most of its organs. The bodies of spiders are composed of two parts: a cephalothorax, combining the head and thorax, lacking wings or antennae but bearing eight legs, two fangs, and from two to eight eyes (occasionally none); and an abdomen that carries various organs, including silk glands and the spinnerets.



A "fishing spider" (probably *Dolomedes scriptus*) crawls on Frank Graham's shoulder at Eagle Hill.

Photo by Piotr Naskrecki, Harvard University; used by permission.

I don't want to get into the "Mother Goose" approach to natural history—"good animals" and "bad animals." But I can't help pointing to the zillions of insects (mosquitoes, black flies, cotton boll weevils, Mediterranean fruit flies, etc.) that among humans are forever in ill repute. Spiders, on the other hand, aren't pests. They don't eat fruits, veggies, or anything else we want to keep for our tables. They don't transmit diseases to people or other animals. All spiders are predators, yet despite the horror stories, they are chiefly programmed to bite other arthropods, not us. Of the 42,000 spider species worldwide, none attacks humans unless provoked or startled by them, most have fangs too small to break the skin, and only about a hundred may cause serious problems if they do.

Spiders are mobile chemical factories. Except for those in one small family, they produce venom injected into their prey through small openings in the fangs. All spiders make silk that is among the toughest of natural substances. (Scientists are trying to synthesize this silk for making bulletproof vests and other durable fabrics.) Spiders also concoct powerful digestive juices for use in feeding and pheromones that are effective attractants of the opposite sex.

So equipped, a spider is an infinitely fascinating subject for behavioral scientists. For instance, as a spider isn't able to swallow solid food (or at least more than tiny bits and pieces), it begins digestion outside its body. Having bitten its prey, the spider vomits fluids from its intestinal tract into the wound, breaking down organs and sucking them out until the victim is

only a hollow shell or a mass of crunchy debris. The quality and uses of silk, the sensory equipment, and other aspects of spider biology are also grist for the researchers' work.

I was soon making small contributions to the study of spiders, which even 20 years ago was still in comparative infancy. In 1991, while picking spiders from sheet webs in shrubs near my home, I discovered a long-legged, slender-bodied specimen I couldn't identify. I passed it on to my friend Dan Jennings, who admitted he was stumped and set it aside for a later look. Several years went by and then I found its twin in a seedling spruce. This time, Dan redoubled his efforts. He finally spotted his quarry in a set of books on the spiders of Great Britain and Ireland. Correspondence with European experts confirmed that "my spider" is a common sheet-web weaver of Europe and northern Asia named *Linyphia triangularis*.

When did "Linytri," as we abbreviated its name, arrive in this country? Jennings, a Welsh-born entomologist named Kefyn Catley, and I coauthored a paper on the find in 2002 for the *Journal of Arachnology*. We speculated that its arrival must have been fairly recent. The spider is aggressive, quick to drive out and replace other small, web-building species wherever it lives. Since the late 1890s, however, a number of expert collectors have covered New England and Canada's Maritime Provinces but the species was unknown in North America until I found it. As far as I know, it still hasn't been found outside of Maine.

What's the big deal about such a discovery? Well, for one thing it's a neat creature. Also, biologists know that exotic plants or animals may have an effect, malignant or benign, on local ecosystems. "Linytri" tends to crowd out others in its European range and, as its population grows, it may create problems for native spiders here. Acadia National Park supported a study of the species within its boundaries after we established its presence, but with no substantial evidence of anything as yet.

Almost everywhere I look now in my area during late summer—in clumps of young spruce trees, on the edges of meadows, even in ornamental gardens, I find specimens of this exotic species. From the middle of July until early October, I monitor their webs (glistening with moisture on foggy mornings) in a 15-foot stretch of barberry shrubs bordering our home. Despite periods of high wind and heavy rain, and the occasional visitation of predatory spider wasps, the number of webs usually climbs to about a dozen and holds steady till the first frosts.

Meanwhile, Jennings and I keep busy monitoring the spiders within the boundaries of Milbridge (human population: 1,300), where I live. We have ransacked local fields, shorelines, marshes, and roadsides, identifying 304 species. Of that total, 179 species are web spinners and 123 active hunters that never spin webs. In 2007 the U.S. Forest Service published our findings as what's called a general technical report, "Spiders (Arachnida, Araneae) of Milbridge, Washington County, Maine." (Go to <http://www.nrs.fs.fed.us> and click on "publications.") We look on our report as a model for current nationwide inventories of invertebrates and other small animals often overlooked on the local level.

Last summer I attended my fourth spider workshop at the Humboldt Field Research Institute (familarly known as Eagle Hill) in Steuben, Maine. Dan Jennings had led, or been a co-leader, during three previous sessions there. Workshop members mostly included scientists in other disciplines and amateur naturalists hoping to broaden their scope. Even a couple of environmental educators signed up, determined to overcome their lifetime fear of spiders. (They did, to some extent.)

We had a new instructor for this workshop -- Matthias  
(Continued on next page)

### Spiders unmasked (cont.)

Foellmer, a German-born specialist on spiders and insects at New York's Adelphi University, where he is an assistant professor in biology. As the "day boy" and guide to good spidering sites in the local area, I helped Foellmer set up field trips. Participants in this workshop also included Miriam Shulman, who became so enamored of spiders on a nature trip in Hawaii some years ago that she now raises them in her kitchen in Los Angeles and puts on programs about them in the city's schools. Here, with Foellmer, I had an opportunity to expand my horizons in arachnology.

During the weeklong session, Foellmer mixed lab lectures and advice on identifying individual spiders with trips to various habitats in the area. I led our group to a dam at the end of a shallow lake where we found *Dolomedes*, the huge "fishing spiders" that prey on aquatic insects (and sometimes small fish). I took everybody to my home to see "Linytri," my European find, in its barberry shrub. And, arousing the most interest of all, I showed off the dozens of jumping spiders hidden away in their ready-made retreats along the salt marsh creek.

After our visit, I brought several of the rushes with their impaled birch leaves back to Eagle Hill. The institute usually hosts several workshops at a time, and one of the concurrent seminars that week was devoted to the study of sedges, rushes, and grasses. Its instructor, Andrew L. Hipp of the Morton Arboretum in Lisle, Illinois, identified the rushes as *Juncus arcticus* and suggested an explanation for the existence of this spider congregation: In autumn, the leaves fall along the marsh's edge and lie, sodden but intact, under winter's rain and snow. Spring arrives, the marsh stirs, and the sharp-tipped rushes sprout, penetrating the still-wet leaves and lifting them into the air as they grow. Thus the leaves remain above ground like tiny platforms, available and still flexible for wandering spiders to fashion into safe retreats.

Now, at whatever season I drive across the narrow bridge near the head of the salt marsh, I'm aware of a living mechanism below. Wind and rain, a regenerative urge in the soil, and a force for renewal in remarkable little animals almost 400 millions years in the making, are unconsciously preparing another of my thrilling tomorrows.

### May Field Day: Tatnic Hills by Brandon Woo

The first MES field day of the year was held on May 21, 2011. It started off cloudy, but eventually turned into a beautiful clear, sunny day. A total of eight people showed up, even though the forecast originally predicted rainy weather.

The group walked along the dirt road, stopping to take forays into the woods, open areas, and vernal pools that lined the road. After collecting for a while like this, the group started to walk back to the parking lot for lunch. At this point, the sun had come out, and numerous scarab beetles started appearing on the road. They included *Euphoria fulgida*, *Euphoria inda*, and *Cremastocheilus* spp.

Everyone was excited by these critters, and everybody caught at least one of each. A lone *Geotrupes* was found in a very smelly piece of scat as well. Other interesting finds included an *Acanthocephala terminalis*, a male *Platycerus*, and a number of small dragonflies found on the road (*Leucorrhinia?*). *Zelus* nymphs were also abundant, as were duskywings (*Erynnis* sp.). A few crushed blister beetles (*Lytta?*) were found on the road, and one was surrounded by a number of small *Pedilus* gathering the blister beetle's cantharidin. A lone wild columbine (*Aquilegia canadensis*) was also found alongside the road, and a pink lady's slipper

(*Cypripedium acaule*) was found near a vernal pool, adding interest for wildflower lovers.



Brandon Woo, Dana Michaud and Dave Bourque scoured the roadside at Tatnic Hills looking for great critters.  
Domenica Woo photo.

I have an interesting observation to share. During the day, I collected many live insects and placed them in containers meant to keep them alive. These containers were inside of a fanny pack attached to my waist. When I arrived home to photograph them, almost all of them were dead or dying. I eventually figured out what must have been the source of the deaths: my clothes, which had permethrin (made to repel ticks) in them. This must have penetrated the containers and killed the insects. So, for anyone who is thinking of buying permethrin clothing, a note of warning: Don't buy them if you mean to keep live insects!

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### Two New Species of Insects for the Maine Forest Service Insect Collection by Brandon Woo

In May 2010, I discovered a number of uncommonly collected beetles at Parson's Beach (Kennebunk), a local privately owned shoreline area without much human foot traffic. I photographed them and released them in the same area. A few months later, I discovered bugguide.net, a wonderful web site for arthropod identification and information, and eventually submitted my photos of each species for identification.

They turned out to be *Disonychia collata* (a beautiful blue and orange flea beetle), *Geopinus incrassatus* (a yellowish ground beetle that is rarely collected in Maine), *Phaleria testacea* (a tan-colored darkling beetle), *Cicindela hirticollis* (a common shore tiger beetle), *Aegialia arenaria* (a small black scarab beetle), and *Philopeton plagiatum* (a grey weevil).

Both *P. plagiatum* and *A. arenaria* turned out to be new species for bugguide.net, and also, as Charlene Donahue told me, new to the Maine Forest Service (MFS) insect collection as well. (*A. arenaria* was represented by a single specimen collected in Vancouver, Canada.) I donated some of my specimens of each beetle to the MFS collection after learning this.

Both of these species are European introductions, but are confined to the northeastern United States and Canada; *P. plagiatum* has been found in Oregon as well. They are mostly plant-feeders; *P. plagiatum* feeds on a number of plants found

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*New beetles in M.F.S. collection (cont.)*

in sandy areas, and *A. arenaria* feeds on decaying organic matter. I found all of my specimens on the same beach, up near the dunes. Most were simply walking along on the sand; some were under debris, others were on their backs! They are both only a few millimeters (less than 5) long, but fairly easy to spot if you have a trained eye.

There are always new discoveries to be made in the insect world, and finding new or uncommonly collected species is thrilling, as anyone who has made this kind of discovery knows. Many of these discoveries will be of small, seemingly uninteresting insects, but every one has its own unique traits, life histories, and beauty.

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*Aegialia arenaria* (above) and *Philopodon plagiatum* (below) are two new species to the Maine Forest Service entomology collections, collected at Parson's Beach in Kennebunk (York County) and donated by Brandon Woo. Photos by Brandon Woo.



**Bibliography:**

"Species *Philopodon plagiatum* - Marram Weevil." Bugguide.net - update of 14 January 2011; accessed 25 April 2011 (<http://bugguide.net/node/view/460389>).

"Species *Aegialia arenaria*." Bugguide.net – update of 21 April 2011; accessed 25 Apr 2011 (<http://bugguide.net/node/view/505822>).

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**It's a Matter of Perspective - I Suppose**  
by Dick Dearborn

Over the years my personal interests and work responsibilities took me in many directions involving many insects but it wasn't until rather late in my career that I had to focus on mosquitoes. Rising health issues dealing with eastern equine encephalitis, west Nile, and other disorders necessitated a better understanding of Maine mosquitoes.



An adult female mosquito lays her eggs on the water surface.  
Photo by Susan Ellis, Bugwood.org

Well, I worked with mosquitoes for more than five years. Many enjoyable hours were spent in field and lab studies. As a result I began to see mosquitoes as fascinating creatures, more than something to curse or swat! Soon I retired and family activities again took "center stage." Grandchildren began appearing and my focus changed. I did keep my interest in insects moving but as more of a generalist. I continued to answer questions, supported insect blitz activities and ran a state insect light trap.



Mosquito wrigglers, up close and personal!  
Photo by Peggy Greb, USDA Agricultural Research Service, Bugwood.org

Well, I seem to be diverging from my story here. Helping to keep the fires of entomological interests moving for me was granddaughter Evelyn's exuberance. You've probably seen her in some of our MES publications. She is interested in just about every living thing from insects to plants and mushrooms and more, and her interest is still strong.

*(Continued on next page)*

*A Matter of Perspective (cont.)*

One of Evelyn's interests this year has involved watching, identifying, catching and rearing all kinds of creatures found in pools and beaver ponds near her home. This includes insects, especially mosquitoes!

One day she came for a visit and found a small pool of water in a depression in the trunk of a large old maple that had been cut, back of my farm house. The depression was charged with mosquitoes, all stages from eggs to wrigglers (larvae), tumblers (pupae) and adults. Evelyn spent hours watching the activities of her little culicid friends in her own little pool. When the water level dropped in the pool she filled it again. She even took some mosquitoes home to watch. Well, one day while we were having a cookout at her home we noticed mosquito adults hanging around the screened canopy. Evelyn quickly remarked that some of these were her "hatchlings!" We were to spare any defensive swatting! To us these mosquitoes were a biting nuisance – to Evelyn they were like little friends to her which filled her life with another enjoyable experience.

Just a matter of perspective I suppose!

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**June Field Day In Mount Vernon Profitable  
Despite Gloomy Weather**  
by Karen Hopkins

Damp weather kept many away from the fields of Mt. Vernon on June 25th, but for those who attended, the buggy fellowship was sweetened with Marj Dearborn's delightful crabapple sauce cookies!

Charlene Donahue brought a poster of Maine's ladybug beetles, and while it drizzled outside, she discussed the three "lost" ladybug species indicated on the poster. Two of these were the most common ladybug species when I was a little kid living in Hermon. Information on the Lost Ladybug Project can be found at [www.lostladybug.org](http://www.lostladybug.org).

Dick Dearborn had run a light trap the previous two nights before the event. While we waited for things to dry up a little, Dick's naturalist granddaughter, Evelyn, and I picked through the collection of moths, and admired five bright green Luna moths sleeping on the house wall near the trap.

Evelyn's enthusiasm was our sunshine for the day, as we collected whirligig (Gyrinid) beetles from the edge of a peaceful pond which beckoned to the aquatic collector. Shiny *Donacia* beetles were present in the surrounding vegetation. We found dark red weevils on the alders nearby. Though the land there is protected, Dick said the Belgrade Regional Conservation Alliance has expressed an interest in the insect diversity. I left the preserve with high hopes for some unique bugging experiences upon our return.

**List of moths seen or collected on the day (from Dick Dearborn's light-trap material) – identified by Karen Hopkins**

*Seen but not collected:*

- Luna moths [*Arctiis luna* (L.)]
- Banded tussock moth [*Lophocampa tessellata* (L.)]
- Hickory tussock moth [*L. caryae* (Harris)]
- Spotted tussock moth [*L. maculata* (Harris)]

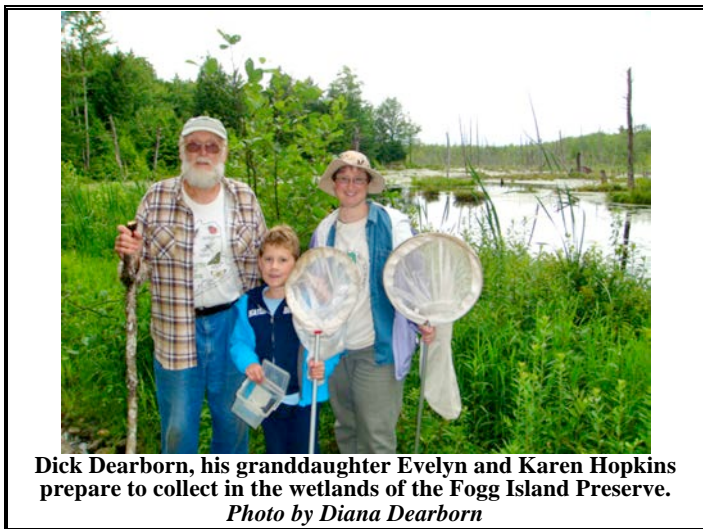
*Collected:*

- Iridopsis larvaria* (Gueneé)
- Euclaena irraria* (Barnes and McDunnough)
- Epirrhoe alternata* (Muller)
- Automeris io* (Fabricius)
- Datana drexellii* Hy. Edwards
- Symmerista* sp.
- Macrurocampa marthesia* (Cramer)
- Holomolina ferruginosa* (Walker)
- Cycnia oregonensis* (Stretch)
- Idia americalis* (Gueneé)
- Bomolocha baltimorensis* (Gueneé)
- Apamea sordens* (Hufnagel)
- Nedra ramosula* (Gueneé)
- Balsa tristrigella* (Walker)
- Mythinna oxygala* (Grote)
- Leucania ursula* (Forbes)
- Xestia* sp.
- Abagrotis brunneipennis* (Grote)

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**Lepidopteran Blitz at Schoodic Point Brings  
Record Turnout and over 300 spp.**  
by Bob Nelson and David Manski

No one could have predicted the intense heat of the weekend back when people were making their reservations for the annual Entomological BioBlitz at the Schoodic Education and Research Center (SERC) of Acadia National Park, but it was a more than pleasant relief to be able to escape to the coolness of the coast until after the heat wave inland broke on Sunday.



Dick Dearborn, his granddaughter Evelyn and Karen Hopkins prepare to collect in the wetlands of the Fogg Island Preserve.  
Photo by Diana Dearborn

Later, a few of us went to the Fogg Island Preserve, just down the road from the Dearborns. The road through the preserve is about two miles, and travels through deciduous forest, open areas and wetlands, and ends in a primarily coniferous woodland. Though we lacked optimal collecting conditions that day, the Preserve's multiple habitats offer great potential for sunny-day insect collecting.



Edie King was one of a number of workers who meticulously and tirelessly sorted the overnight black-light trap collections. Here, she's picking all the beetles out of one such lot.  
Bob Nelson photo.

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*Lepidopteran Blitz at SERC (cont.)*

Nearly 115 people registered for the event, making this by far the largest turnout for any Blitz since the first small one for ants was held on Mount Desert Island in 2003. Participants included a number of Acadia National Park staff, teachers in a Park-sponsored science training program and a significant contingent from the Maine Butterfly Survey, along with the "usual suspects" from the M.E.S. and elsewhere. Brian Scholtens of the College of Charleston was the lead taxonomist, one of the very few micro-lepidopteran specialists in the country.



**Jean Dane (above) and Karen Hopkins were two of the key moth people working to help lead taxonomist Brian Scholtens identify the many specimens collected. Behind Jean, one of the visitors to the Blitz photographs a particularly attractive pinned and identified specimen. Bob Nelson photo.**

All attendees were treated to a thoroughly revamped campus, with new walkways (some replacing old roads), two central parking lots, beautiful landscaping, and above all, a fully renovated working laboratory space. The Schoodic Education and Research Center staff did an outstanding job keeping everyone happily fed with tasty and plentiful meals.

Preliminary results of the Bioblitz yielded over 20 spp. of butterflies and around 300 moth species. Brian Scholtens took approximately 15 micro-lepidoptera back to his institution for final identification. The new campus light fixtures along walkways, roads, and exterior buildings proved very fruitful collecting on Saturday night. The cool evening air was replaced about 9-10 p.m. by a warm air mass that raised the temperature by as much as ten degrees. Moth abundance increased dramatically with the increased temperature.

Richard Hildreth once again ran his mercury-vapor lamp at a site near the northwestern end of the Alder Trail, and attracted thousands of moths to his large white sheet. This allowed selective collecting of a wide variety of moths, and people collected until the gas in the generator ran out at about midnight.

On Sunday morning, Cassie Gibbs gave a public presentation titled "Moths and Butterflies in our Lives," which was attended by nearly 40 park visitors. Following the lecture, the group was given a tour of the Bioblitz lab, where moths and butterflies were being sorted, pinned, and identified.

Don Chandler, Charlene Donahue, Andrei Alyohkin, and David Manski are in the process of writing an article for publication by the University of Maine Agricultural Experiment Station summarizing the results of the past Bioblitzes. The tentative title for the publication is "Insects and Spiders of the Schoodic Peninsula, Acadia National Park, Maine".

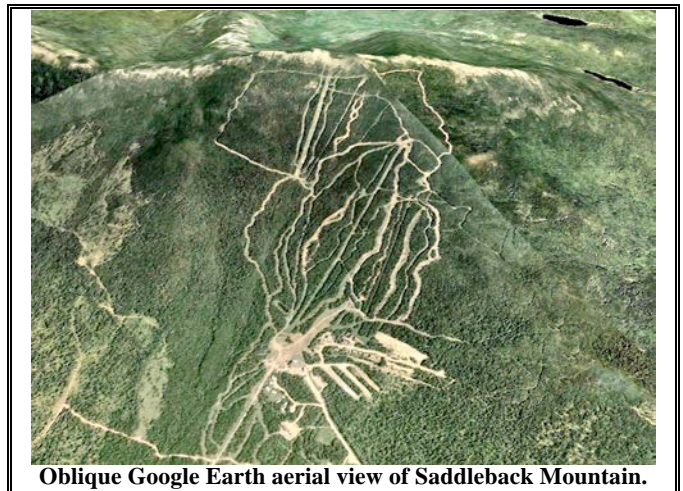
Preliminary discussions are underway for next year's 10th anniversary Bioblitz, with a tentative plan to focus on aquatic insects – including mosquitoes and midges, Odonata, the EPT taxa (Ephemeroptera, Plecoptera, and Trichoptera), aquatic Coleoptera, etc. Though logistics may be difficult to work out, there is also consideration being given to try to expand the collecting effort beyond the Schoodic Peninsula to include sites in Acadia National Park on Mount Desert Island. There are also discussions about trying to visit some of the aquatic field collecting sites made by William Procter on Mount Desert Island during his surveys of the area during the early 20th Century.

Thanks to the SERC Institute for their great support and assistance during this and the other BioBlitzes.

\* \* \* \* \*

**August 20<sup>th</sup> Field Day:  
Saddleback Ski Area, Rangeley (Oxford County)**

A Saturday afternoon in Rangeley .... what could be a more inviting mid-summer setting for getting together, collecting, and enjoying the joys of being alive in one of the most beautiful settings in interior Maine? Though the weather forecast was threatening last year, the day was delightful and collecting good for some groups. Climbing the slopes beneath the ski lifts and on the ski trails proved to be quite easy, as we walked slowly while constantly scanning for "neat bugs" on the way.



**Oblique Google Earth aerial view of Saddleback Mountain.**

This year, good weather should bring a plethora of marvelous opportunities in a stunningly beautiful setting. The whole base of the mountain around the ski lodge is planted with lupines and other wildflowers, so pollinators should be present in abundance, though the lupines will undoubtedly be beyond flowering by August.

We'll gather at the Saddleback Ski Lodge at **10:00 a.m.** on Saturday, **August 20th**, and fan out to all kinds of alpine

*(Continued on next page)*

### August Field Day at Saddleback (cont.)

environments, from conifer forest to open alpine meadows and rocky slopes, to ponds and babbling brooks.

The lodge will be open from 8:00 a.m. – 4:00 p.m., so restroom facilities will be available; the snack bar will also likely be open from 11:00 a.m. to 1:00 p.m., so you can bring your own lunch or dine out! Directions to Saddleback may be downloaded from the M.E.S. web site, or from Saddleback's own web site (at <http://www.saddlebackmaine.com/directions-find-the-ski-resort-maine>).

For additional information and to (please!) let us know if you're planning to join us, please contact Bob Nelson (426-9629 or by e-mail at [BeetleBob2003@yahoo.com](mailto:BeetleBob2003@yahoo.com)).

\* \* \* \* \*

### Annual Meeting Sept. 10th

Bob and Nettie Nelson once again invite one and all to their home at Rock Ridge in Clinton for the Annual Meeting of the Maine Entomological Society, on Saturday, September 10th. The formal meeting will begin at 1:30, with lunch beforehand featuring chicken and all the pot-luck dishes brought by attendees. Those who've attended any annual meeting know the food is always diverse, abundant, and most of all, really good! Come as early as 10:00 a.m. for some pre-meeting collecting in a diversity of habitats!

The agenda includes election of officers for the coming year, a report on the financial status of the Society, discussions of possible Winter Workshop topics and projected field days for the coming year, as well as other items of interest to the Society or to individual members.

If you're planning to come, please DO let us know so we can plan accordingly! You can send an e-mail to [BeetleBob2003@yahoo.com](mailto:BeetleBob2003@yahoo.com) or call at 426-9629. Contact Bob also if you need driving directions. We'll also have signs posted from the Clinton exits off I-95 to help those coming from outside the immediate area, whether you're coming from the north or the south.

\* \* \* \* \*

### Tips for Defeating Head Lice

*Written by an M.E.S. member*

I work as an aerobics instructor at our local YMCA. One morning I sent my daughter into child-watch, while I went to teach my class. I am so glad she went with me that day because they happened to notice she was itching her head quite a lot. The staff, being educated about such matters, was able to confirm that she, in fact, had head lice.

I had noticed a few weeks prior to this that I was itchy. I had my husband take a peek, but he thought I had dry scalp. Ugh. Nope. Come to find out, I had "it" too.

Where we picked up this nuisance of an insect is hard to say. My daughter is home schooled, but she does visit the local elementary school twice a week during the school year. I also teach dance lessons to small children. Regardless, we had a problem on our hands.

I did everything the YMCA advised me to do: clean bedding, vacuum, bag stuffed animals, and treat with a special lice shampoo (sold at most pharmacies). At week three, we were still finding nits in our heads. Ahhh!

So, my daughter and I decided to cut our hair. Short. I have to say the positive result of dealing with this confounded problem is my hair cut. I love it! And, my daughter is as cute as can be with her new do. (However, I miss her adorable blond curls.)

So why, you might ask, am I telling all of you this embarrassing story? If you receive the MES newsletter, you are probably fascinated by insects. Let's face it, head lice are insects. Someday, you may have someone looking to you for advice.

Here is my advice for you as well as some important tips I wish I had known sooner. If someone ever comments about feeling extremely itchy, advise them to have someone who knows what to look for inspect their hair. If they in fact have head lice, have them do everything I mentioned in paragraph 4, as well as follow the instructions in the treatment shampoos.

Here's what I wish I'd known in the beginning. DON'T use the plastic combs that come with some of the treatment shampoos. Purchase a good metal comb, usually sold separately. Comb EVERY DAY for several days after treatment. The little buggers (eggs) do not die or come off easily. Each time you comb, comb tiny strands of the hair. This will be a complete pain, but it has to be done to get all the eggs/nits out. Comb until no more eggs/nits are found. If you find any live lice, retreat, comb and clean again.

I recently watched *The Switch* with Jennifer Aniston. (It was a funny movie!) There is a scene in the movie where her son gets head lice. So, I figured I shouldn't be too embarrassed to share my story with all of you. I hope my Tips for Defeating Head Lice may help someone someday.

A good on-line resource for information on treating lice is:

<http://www.maine.gov/agriculture/pesticides/gotpests/lice3.html>

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### Bug Maine-ia at the Maine State Museum

Wednesday September 14, 2011

9:00 a.m. - 3:00 p.m.

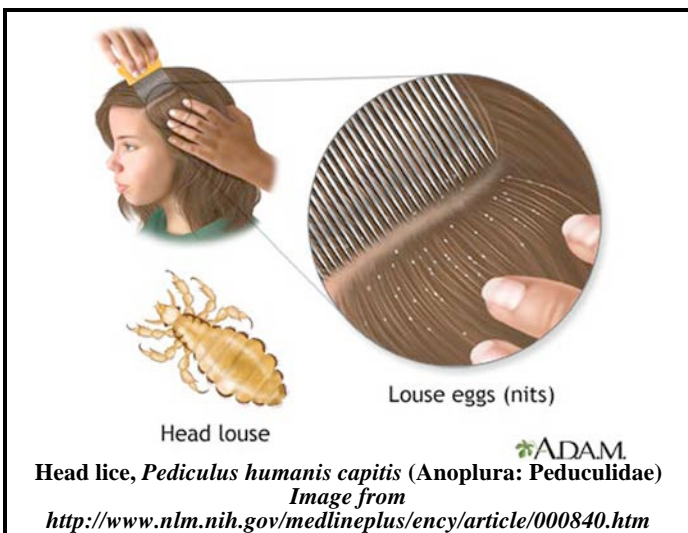
*Free admission for Human and Insect Visitors!*

by Joanna Torow

Bug Maine-ia is one of the Maine State Museum's most successful events with over a 1000 visitors attending annually. Bug Maine-ia never fails to fascinate and inspire visiting schoolchildren and teachers. We are very thankful to all the Maine entomologist who fill the museum with amazing displays and hands-on activities featuring insects of all sizes, shapes, and colors.

The museum staff is in full event planning mode – rushing around creating flyers for teachers and homeschool families, emailing new potential presenters, and diving deep into all the details that take this event to the next level! Help us make Bug Maine-ia 2011 sensational by volunteering. We are always looking for new presenters. If you have a great idea for a display, activity, or just want to help, contact Joanna Torow at 287-6608 or [joanna.torow@maine.gov](mailto:joanna.torow@maine.gov).

*(See the next page for a photo from Bug Maine-ia, 2010)*







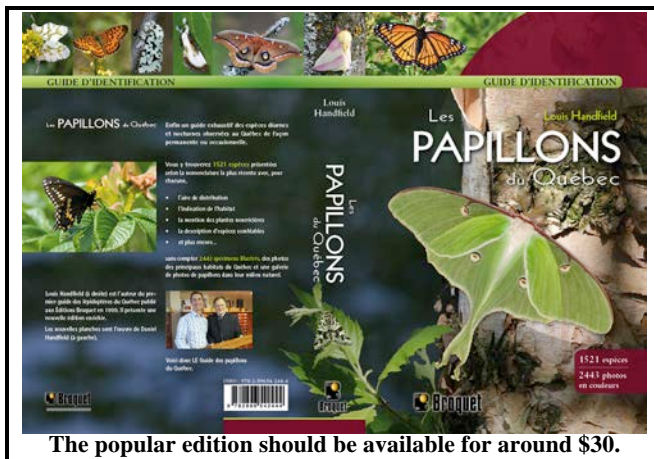
Dick Dearborn and Dana Michaud were two of numerous M.E.S. members who shared their knowledge and enthusiasm at Bug Maine-ia in 2010.  
*Photo by Joanna Torow.*

**Book Notice**

**New Editions of Handfield Québec Lepidoptera Book by Alan Macnaughton**

(originally published in the April, 2011, issue of *Ontario Insects*, the Newsjournal of the Toronto Entomologists' Association [TEA]; used by permission)

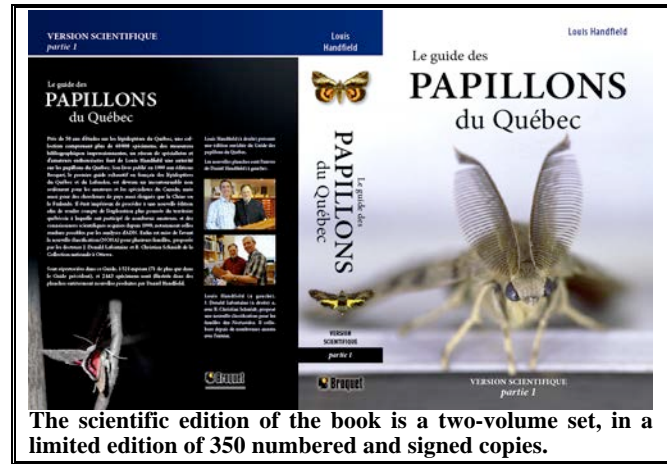
Many people will be familiar with TEA member Louis Handfield's 1999 book "Guide des Papillons du Québec," which cover both butterflies and moths of Quebec. Many people bought it just for the excellent plates, even if they could not read the French text.



The popular edition should be available for around \$30.

A new edition of the book was published by Broquet (info@broquet.qc.ca) in May. It is completely revised, with completely new plates. A user's guide is to be provided for English readers.

The new work covers all Quebec and Labrador Macrolepidoptera, including Hepialidae and Cossidae. Of course, this means it also covers nearly all the fauna of Ontario, the Maritime provinces and the US Northeast. In term of classification, the work follows the new catalogue of J. Donald Lafontaine and B. Christian Schmidt of the Canadian National Collection of insects in Ottawa. Lafontaine contributed the preface.



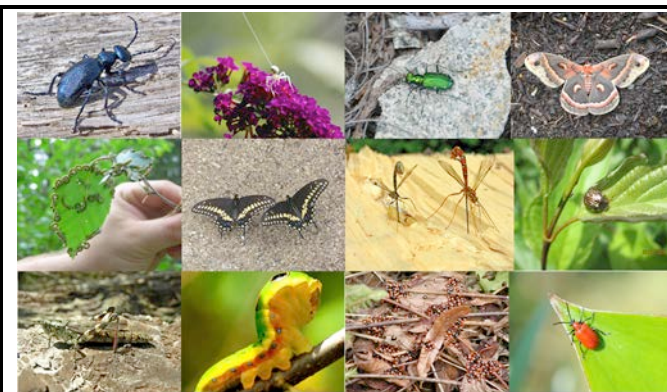
The scientific edition of the book is a two-volume set, in a limited edition of 350 numbered and signed copies.

A total of 1,521 species are illustrated in 2,443 colour photos. The 168 colour plates are a significant expansion of the 123 plates in the previous edition. All specimens are presented in life size, even the Saturniidae. For a few small ones like the Hypenodes, the specimens are also shown at twice life size. The previous edition showed only the species number and sex below the image on the plate, so it was necessary to flip back and forth between the text and the plates to the species identification. In the new edition, both the name and number are under the image.

The book is to be issued in two versions. The popular edition is to be available through bookstores for about \$29.95, while the scientific edition must be ordered from the publisher for \$124.95 (plus tax and postage). The popular edition is softcover, with 672 pages of text plus all 168 plates. The scientific edition is to have much more text, including detailed references and municipality-by-municipality records (accompanied by a helpful map), including flight seasons. The scientific edition is also intended as a collectible. It comes in 2 hardcover volumes totalling 1,352 pages in a presentation case. Conveniently, all plates and indexes are in one volume. Only 350 copies are to be issued, each signed by the author and numbered.

Additional information on the new Handfield volumes may be found at the publisher's web site (in French) at <http://broquet.qc.ca/livres.php?cat=3>

\* \* \* \* \*



**2012 M.E.S. Calendars are coming!**

The problems that stifled the 2011 M.E.S. calendars have been overcome, with the result that **Yes, indeed**, there will be calendars for 2012. More information on ordering, plus order forms, will be in the November newsletter, due out the first week of the month!



Fred Gralenski has been getting some great photos this summer from his coastal perch. Tiger beetles have been particularly willing to pose for him, as shown here. Above, a six-spotted tiger beetle (*Cicindela sexguttata*) is common at forest margins on finer-grained soils. A pair of oblique-lined tiger beetles (*Cicindela tranquebarica*) apparently thought nothing of letting people watch their romantic engagement (right).

### GOT BUGS?

Many of us regularly get questions about "bugs" that are bothering someone's lawn, shrubs, trees, screen doors, etc. A great quick photo-reference guide that can help in identifying the more common species about which we get asked can be found at the Maine state Dept. of Agriculture web site at <http://www.maine.gov/agriculture/pesticides/gotpests/bugs/>

### COMING M.E.S. EVENTS in 2011:

- 20 August Field Day on Saddleback Mountain, Oxford County; contact person: Bob Nelson [207-426-9629]
  - 10 September Annual Meeting, Clinton (Kennebec Co.); contact person: Bob Nelson [207-426-9629]
  - 14 September Bug Maine-ia, Maine State Museum, Augusta; contact person: Joanna Turow [207-287-6608]
- (See <http://www.colby.edu/MES/> for more detailed information; new information on any event will be posted as it is received.)



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

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

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