

The Maine Entomologist

The Newsletter of the Maine Entomological Society



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

Volume 4, Number 3, August 2000

From the President

This has been a great season for our group, and we continue to grow and reach out. Our first milestone this quarter was the adoption of our Constitution and Bylaws which will allow us to work towards becoming a nonprofit organization. Thanks to all who returned ballots making this possible. In order to fulfill another requirement, the original Executive Committee appointed Monica Russo and Sam Ristich to serve as acting Executive Committee members at large (Constitution Article VIa). An official election of all officers will take place at our annual fall meeting at my place in Mt. Vernon on Monday, Oct 9th (Columbus Day). Anyone interested in running for any of our six Executive Committee positions let me know.

Our new web site was another milestone reached during the last quarter thanks to the creativity and dedication of Bob Nelson. Members have also been actively pursuing their favorite creatures in the field and many members tell of interesting exploits and finds. Don't forget to send newsworthy items to Nancy to include in future newsletters. As to official functions, our field trips in May, June and July went well despite the small turnout. Our August trip will be over by the time you read this, but we have trips scheduled in September and October.

Overall our successes outweigh our shortfalls, and we look forward to providing you with more interesting trips and newsletters in the months to come. As we all work together we not only serve as a valuable resource but can have fun, too. Hope to see you in the field!

-Dick Dearborn

M.E.S. CONSTITUTION AND BYLAWS RATIFIED!

Some 50 MES members responded with their ratification ballots on the proposed MES Constitution and Bylaws by the June 23rd deadline, a very impressive 64% response rate - far better than a national election! Marj Dearborn, Dick Dearborn, and Bob Nelson counted the ballots on the morning of Saturday, June 24th. The results were as follows: Constitution: 50 approve, 0 disapprove, 0 blank. Bylaws: 46 approve, 1 disapprove, 3 blank (abstentions?). Since our goal was a minimum 75% approval rating for ratification, both documents were

ratified (with positive votes by 100% and 92% of all respondents, respectively). One ballot, unfortunately received on Monday the 26th, was not included in the official counts - but was for approval of both documents. We can now move forward towards official legal status as a non-profit educational organization!

Members may now scratch out "Draft" of the copies they have of the Constitution and Bylaws and keep these copies as final file documents. If you discarded yours, contact Bob Nelson (renelson@colby.edu or 872-3247) for a new copy.

Calling All Editors

My third year of editing *The Maine Entomologist* is coming to a close and I think it is time to pass the editing responsibilities to someone new. For those of you who may be considering this opportunity, it takes me approximately ten to fifteen hours of time per newsletter (four times per year), and you will be working closely with MES officers. The editing position will begin in January, 2001. If you are interested, please contact Dick Dearborn at 293-2288 or modear@ctel.net.

-Nancy Sferra

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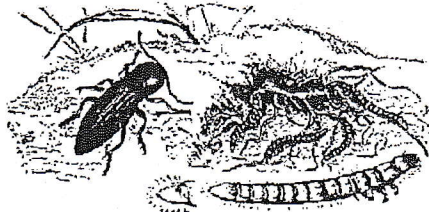
Maine Coleopterist Charles Albert Frost

Notes on *Elaphrus*

MES Website

Rare Beetle, Rarer Luck
Charles Albert Frost
Maine Coleopterist
(1872-1962)

by Dick Dearborn



In our last issue I introduced you to one of the very earliest Maine coleopterists, John W. Randall, who collected briefly in our state but who remained a native of Massachusetts at heart. In this issue I would like to introduce you to a native son who, although he left the state to find employment, remained a true Mainer and collected here throughout his long and productive life.

Charles A. Frost was born in Monmouth, Maine, on August 28, 1872, the son of Horace Carr Frost and Eva A. (Champion) Frost. He attended local schools and graduated from the University of Maine in 1895 with a bachelor's degree in civil engineering. The Frosts were an old Monmouth family but Charles' mother came from Framingham, Massachusetts. Following graduation Charles married a Massachusetts girl, Georgie Maxwell, took a civil engineering job in Framingham and settled there. Over the years, however, he made frequent trips home to visit and collect.

Little is known as to how or when Charles became interested in insects, but we do know that he was already collecting and trading Maine material, primarily Coleoptera, by 1903. By 1908, he had launched an avocation that would last over 50 years, span across North America and include roughly 80 publications. His biographer and a long time friend, Phillip J. Darlington, Jr. of Harvard, commented: "Here (Charles' home in Framingham) he built up a very important private collection of North American beetles. Its importance lay less in what he published than in the part it enabled him to play: in his wide knowledge, the extensive correspondence that he continued almost to the day of his death, and his very great helpfulness to other coleopterists. He was almost the last of the old-time,

general students of Coleoptera, who knew the entire order, and who were members of a network of collectors and students interested in beetles who covered the whole of the United States and southern Canada."

Mr. Frost "has left his collection of beetles to the Museum of Comparative Zoology, Harvard University. It fills 116 Schmitt or similar boxes. There are at least 50,000 specimens and perhaps many more; some of the boxes are so crowded that it is difficult to count the specimens in them. The specimens are well mounted, well labeled, and clean, and a large proportion of them have been studied and identified either by Mr. Frost himself or by competent specialists with whom he corresponded. There are some holotypes, and many paratypes of other workers. The collection is especially strong in small beetles, which are hard to collect and mount, and which are very much needed to fill out the study series of North American Coleoptera at the museum. The specimens will be individually labeled "C.A. Frost Collection" and incorporated in the museum's main series of North American beetles." (1)

As one reads through many of Frost's "folksy" articles you cannot help but sense the kind of person he must have been. He was an enthusiastic collector in the field, especially in pursuit of wetland species and was obviously not adverse to strenuous activity: "... A few days later I started out bright and early, armed with a pair of rubber boots, and worked along the edges of the bushes for a quarter of a mile or more. They (Carabidae: *Elaphrus* spp.) could be driven into sight and easily captured by treading carefully about a small area of from six to ten feet in diameter. Rarely more than one specimen was taken in a spot,

and the eyes had to be constantly fixed on the ground to get any. An entire day was spent in this backbreaking collecting and when sunset came I felt very much as I used to feel after a day of potato digging." (2)

Frost was also very familiar with his home town of Monmouth and with Wales and spent many days exploring the woods and bogs. He seemed especially fond of wetlands around Cochnewagin Lake and with woodbor-ing beetles. "One of the most prolific and interesting collecting places that I have ever found, is the yard of an old sawmill situated on the banks of the Cochnewagin stream, below the village of Monmouth, Maine. This mill was a picturesque and weatherbeaten structure as long ago as I can remember, and has been built and in constant operation for at least a hundred years. The logs are hauled into the yard during the winter months and remain there under natural conditions of moisture until they are converted into lumber; thus they do not come in contact with the water for a long period as is usually the case. I have not been able to find many specimens in the yard of a steam sawmill near the lake where the logs remain in the water all the spring."

"For several years past, while on my vacations, I have spent many hours collecting on the logs, and the slab and board piles, to the neglect of other localities. During the first hot period of 1909 (June 20 to 26) I collected nearly eight hours each day for three days in this mill yard and secured over five-hundred specimens, exclusive of a hundred *Monohammus* (sic) *scutellatus* which swarmed in such numbers that I think three hundred more could have been taken." (3) Frost also tested a variety of sampling methods and evaluated each as to their value to coleopter-ists. (4,5,6)

Frost contributed to the knowledge of Maine Coleoptera through his willingness to identify material. Many Coleoptera specimens in the Procter Collection of Mt. Desert Island were identified by Frost. (7) Through association with Dr. Auburn E. Brower, Frost provided an identifica-

tion for 1,314 Coleoptera specimens (361 species in 48 families) in the Maine Forest Service collection and identified Brower's material as well. Although there have been some errors in Frost's identifications, most determinations still stand.

You have only to read one of Frost's interesting notes to get hooked! Here are a few titles for your enticement: *Inhabitants on an April mud puddle*; *Collecting by the sounding water*; *Rare beetle, rarer luck*; *Addicted to strong-waters*; *A touching tale of a quaking quag*; *Trotting the bogs with the wise bullfrogs*. Interested? We all owe Frost a debt of thanks. Had the MES been there he probably would have been a strong supporter.

Frost passed on at his home in Framingham, Mass. on March 11, 1962 at the age of 89.

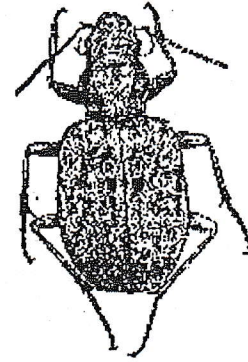
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1. Darlington, P. J. 1963. Charles Albert Frost - A biographical sketch and list of publications. *Psyche* 70 (1): 2-6.
2. Frost, C. A. 1916. Collecting notes and random observations on the Maine Coleoptera. *Can. Ent.* 48: 381-390.
3. Frost, C. A. 1912. Collecting Coleoptera in a Maine sawmill yard. *Can. Ent.* 44: 304-308.
4. Frost, C. A. 1915. List of Coleoptera collected from Tanglefoot. *Ent. News* 26: 269-270.
5. Frost, C. A. 1915. Remarks on collecting at light, with a list of the Coleoptera taken. *Psyche* 22: 207-211.
6. Frost, C. A. 1920. A day's beating. *Can. Ent.* 52: 25-29.
7. Johnson, C. W. 1927. Biological survey of the Mount Desert Region. Part I. The insect fauna. Philadelphia. The Wistar Institute. 247pp.

The Habits of *Elaphrus*

While collecting Carabids in Lewiston, Maine for my summer internship project, I stumbled across these odd green-gray little beetles just running around on a sunny, muddy stream bank. At first glance, this ground beetle's physical and behavioral characteristics led me to believe it was a small, flightless tiger beetle. It was, in fact, a member of the Carabid family, Genus: *Elaphrus*. There are several species of *Elaphrus* identified in Maine. The one that I identified was *Elaphrus californicus* (Mannerheim).

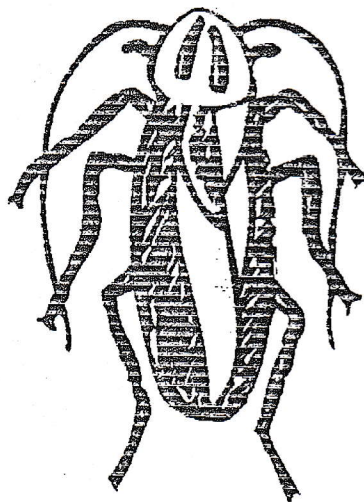
In general, carabids are nocturnal, but species of *Elaphrus* are active during the daytime. These seem to be most active on sunny, bright days. Both larvae and adults are active predators, which seek out small soft-bodied arthropods. They can be found in open "drying" habitats near mud pools, ponds and fine, sandy streams along with some other Carabid species including *Omopron americanum*, *Bembidion graciliforme*, *B. patrule*, *B. frontale*, *Agonum melanarium*, *A. aeruginosum* and



Chlaenius sp.

One species located in California, *Elaphrus viridis* (Delta Ground Beetle) was placed on the federal endangered/threatened species list in 1980. Causes include dwindling vernal pool habitat from suburban development, poorly managed grazing, and from an introduced plant, garden lippia (*Phyla* sp.) which crowds out native vegetation and hinders the beetle's foraging.

-Kimberly Foss



In Florida, the common Roach
Is large enough to lightly poach
with mustard greens
and runner beans
A splendid meal, first-class or coach.

But the wild woodland Roach of
Maine
Is not at all a household pain.
Discreet, polite
a rarish sight
It visits homes with great disdain.

-Monica Russo, Limerick Laureate

Further East, Further South

From time to time in the past, I have posted notes in these pages on the arrival of moths in Maine which seem to hail from points North and West, counter to the movement one would expect on the basis of general observations on global and regional warming. The appearance here of three such species determined in 1999 seems worth recording. 1) *Scythris noricella* (Zeller) (Scythrididae) and 2) *Tehama bonifatella* (Hulst) (Pyralidae) are both Western species which have been recorded in the eastern parts of Canada, but never from the US. Both turned up at Steuben last year. 3) *Chionodes canor* Hodges is a newly described species of Gelechiid known only from the area of Flagstaff, Arizona; as it turns out, however, this species also occurs on Kennebunk Plains in York County. Do these two remote locations have some offbeat foodplant in common?

PS - I continue to be interested in seeing the odd moth that readers may encounter and have a question about. As the above 'finds' show, there is no telling when something entirely novel will turn up.
-Tony Roberts

Humble-bees

After two days of cold, wet weather, my arthritis brought me to a near standstill, so I decided to read something dismal that would make me feel good: some Charles Dickens! In Chapter 12 of *Hard Times*, published in 1854, Dickens describes a portly and pompous businessman to be "as large and as loud as a Hummobeel!" A Hummobeel?

I was sure I had read an old British poem which used the "Humble-bee" instead of Bumblebee to describe the genus *Bombus*, so I started searching through my library for the poem. No results. But in my copy of *Tenants of an Old Farm* by Henry McCook, first published in London and Philadelphia in 1884, there is a chapter all about Bumblebees, entitled "The History of the Bumblebee."

In the 1918 edition of Frank Lutz' classic *Field Book of Insects*, mention is made of a book by Sladen titled *The Humble-bee, Its Life History and How to Domesticate It*. The book is mentioned again in

Bernd Heinrich's 1979 book *Bumblebee Economics*: the book was on British "Humblebees" and was published by F.W.L. Sladen in London, in 1912.

In my huge German dictionary, the word for Bumblebee is Hummel. How interesting it would be to track down the first English word for the big fuzzy buzzy *Bombus* bees. Any Dickens experts out there? Or Shakespeare?

-Monica Russo



The deadline for the next newsletter is November 1, with a mailing date of November 15. Send your newsletter items to Nancy Sferra.

The Maine Entomological Society Newsletter is published quarterly by the Maine Entomological Society. Send newsletter items to Nancy Sferra, editor, at HC-33, Box 350, Bath, ME 04530 or via e-mail: nsferra@clinic.net. Dues are \$5.00 per year. Checks should be made out to Maine Entomological Society and sent to Don Ouellette, Treasurer, at 892 Lewiston Road, West Gardiner, ME 04345. Dues are paid through the year printed on the mailing label. MES Website: www.colby.edu/MES/

Maine Entomological Society
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Book Reviews

An Inordinate Fondness for Beetles by A. V. Evans and C. L. Bellamy with photography by L. C. Watson. Univ. of California Press. First Paperback 2000. ISBN 0-520-22323-3.

If you want entertaining reading, excellent photographs and a great source of fodder for philosophical discussions on issues of biological diversity and insect conservation, this book is for you. There are so many books out there to read that I had just let it slip by, a cardinal sin I suppose for the ultimate coleopterist, until I was kindly presented a copy as a gift. I felt compelled to look it over for a review and "Voilà!" I was hooked. Although the book is cosmopolitan in scope, the authors have done a fantastic job of weaving photos and text into an almost spellbinding combination. The minor weakness of the book is in the few photo captions inadequate for identification of the beetle family, and in some cases, the distraction of the head of a pin in the photo. The resource lists in the back are also a welcome addition. The chapter titles alone should entice you to read the book: *A question of numbers; The beetle blueprint; The beetles-yesterday and today; It's a beetle's life; Beetles*

and humans; and *Beetlephilia*.

All beetle fans should get a copy and, if nothing more, leave it on your coffee table or in the bathroom for family and visitors to read. Well worth it at \$24.95 or as low as \$19.96 through amazon.com on the internet.

-Dick Dearborn

Wasp Farm by Howard Evans (1963), Comstock (Division of Cornell University Press).

This is not a technical book, and not an identification manual. It is a sort of "pastorale." Evans, who is a Professor Emeritus at Colorado State University, gives a very entertaining account of the various wasps he has observed in his garden and on eight acres he had in upstate New York. Many of the main characters are those we have here: *Ammophila* wasps (the caterpillar hunters), *Bembix* (fly hunters), and *Philanthus* wasps (the bee eaters).

There are personal narrative stories, historical references, and clear explanations and descriptions. At the end of each chapter is a "cast of characters" which identifies the wasps discussed and shows you how to pronounce their technical names. And a "further reading" list is also given. Photos, illustrations, and a good index complete a very entertaining book.

-Monica Russo

Please Pass the Chocolate-covered Crickets

Insects have been a source of food for thousands of years and in some cultures still serve as a valuable source of nutrition. Even Native Americans were found to be consumers of a variety of insects when settlers first arrived. In our sophisticated culture we (myself included) are appalled at the thoughts of eating insects, yet the FDA allows a certain amount of insect material in much of our food. While I spout this information off to a variety of groups that I talk to, I myself haven't gotten up enough courage to try even one "cricket lickit." As more articles on the subject appear, even I may weaken. A recent article in the *Christian Science Monitor* for Tuesday, August 8th, pp 18-19, entitled *Who Wants Bugs for Lunch?* by Sharon Huntington makes a good case for use of insects as food. For more on the subject you can also visit the following web sites:

www.hollowtop.com/finl_html/finl.html

www.uky.edu/Agriculture/Entomology/ythfacts/bugfun/collecti.htm

One suggestion - pick the legs off the grasshoppers before you eat them. My wife says grasshoppers crunch like potato chips when fried and salted.

-Dick Dearborn

Introducing the *Maine Entomological Society* Website

Thanks to the efforts of Bob Nelson, the Maine Entomological Society is proud to announce our Society website, up and running since May. The site contains collecting trip and meeting dates and details, a Society overview, list of current officers, and links to selected entomological websites of interest in Maine. In the coming months, additional links will be added to guide you to other sites of interest in the world of invertebrate biology. The site can be found at:

<http://www.colby.edu/MES/>

Other Websites

Maine Natural History Digest with information on collections, checklists and taxonomic information for Maine:

www.vfthomas.com/digest.htm

Classification of insects of North America:

www.nearctic.com/nomina/nomina.htm

Meetings & Field Trips

Great Wass Island Preserve
Wednesday, September 13,
10am

Nancy Sferra, Director of Science and Stewardship for The Nature Conservancy will lead a trip to this 1,600 acre Conservancy preserve in Beals. From rocky headlands to peatland to jack pine forest, this island preserve has an abundance of insect life, but little in the way of inventory data. The purpose of this trip is to help the Conservancy learn more about the invertebrates that inhabit the preserve. It is limited to 15 participants willing to provide the Conservancy with a list of species collected. To get more information or to preregister, please call Nancy at (207) 729-5182 x212.

Insects of the Marsh
Thursday, September 21, 7pm
Wells Reserve

Above, within, and beneath the beautiful and serene salt-marsh grasses are hundreds of different insect species. While some spend their entire life there, others visit only temporarily seeking food or mates. Dick Dearborn from the Maine Department of Conservation has spent a number of years studying the actions and interactions of many of these species. His narrated slide show will give you an update and personal look at the tiny yet fascinating world of salt-marsh insects. This talk is free to the public. Call Dick Dearborn (293-2288) or the Wells Reserve (646-1555) for more information.

Annual Thrash and Bash at Mt. Vernon: Dick Dearborn's House
Monday, October 9

It may be late in the season but the foliage should be great and the fall insects active. This is our Annual MES Fall Meeting and Election of Officers. Come early and stay late. Dick is up by 6 and stays up till his eyelids droop. There is a lot of great collecting in the area and you might

even find something new. We'll have barbecued chicken (Cornell Style) for meat eaters and other stuff for those who don't. Bring your own lunch if you are fussy or a dish to pass. There should be no lack of food. Lunch will be from 12 to 1 followed by our meeting from 1 to 2pm. Bring the kids and even relatives, but let Dick know as soon as you're sure you will be coming. (RSVP by Sept. 30th)

