

The Maine Entomologist

The Newsletter of the Maine Entomological Society



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

Volume 4, Number 1, February 2000

From the President

Welcome to 2000 and according to most the start of a new millennium. To celebrate, the MES has changed the name of our newsletter to *The Maine Entomologist*. Bob Nelson thought this name was more in keeping with other groups such as ours, and the Executive Committee agreed. We still remain the Maine Entomological Society, however.

Although most insects are in their winter mode and inactive, it is not too early to make plans for the upcoming field season. We are looking into a variety of meeting/collecting sites across the State. Under consideration are a scarlet oak-hickory forest in the Berwicks, a pond in Topsham, and bogs in northern and eastern Maine. Although it may be difficult for all members to attend each gathering, we hope to have something for everyone. We have also been invited to join the Vermont Entomological Society to collect and hike through parts of the Northeast Kingdom. We have also been invited back to Maine Audubon Society's Fields Pond Nature Center for another Insect Interest Day which provided good PR for both MES and Maine Audubon last year. A spring business meeting is also planned for Augusta on April 1st or 8th (Saturdays). Please plan to attend this important meeting so we can discuss a number of important items including our Constitution and Bylaws, future meeting schedule, and election of officers. As many of our plans have not yet solidified, we will see that members are notified as plans firm up.

For those of you bent on collecting or observing insects now, keep in mind snow insects (and spiders), and as maple syrup season approaches, watch for insects

attracted to the sap. I am very interested in seeing specimens. Sam Ristich and I are also interested in any insects associated with fungi (more information to come with future issues). I hope to see you at our 2000 events; working together we can make 2000 a successful year for MES.

-Dick Dearborn

Constitution and Bylaws

With this issue of *The Maine Entomologist*, you are receiving the current drafts of a proposed MES Constitution and Bylaws. A number of people have commented, based on the "Purpose" that we published in the last issue, on the taxonomic scope of the Society. I feel it appropriate to explain myself here, though I am certainly not rigidly adhering to this as the ultimate phrasing we might ultimately adopt. In the proposed Constitution, the statement of purpose currently reads, in part: "The purposes of the Maine Entomological Society shall be: a) to promote Maine insects and terrestrial arthropods..." This phrasing was carefully chosen to include *all* Maine insects, *plus* those arthropods that live mainly on land. I didn't want to just say "arthropods" because that

would include fairy shrimp, water fleas and crayfish (and conceivably marine arthropods as well). If it were changed to read "terrestrial arthropods," that could conceivably exclude all aquatic insects, or those insects with aquatic larvae. (Save the black flies!) But I do think we want to include people interested in spiders, mites, and millipedes and centipedes, who I think most folks consider "bug people" and at least one of whom belongs to the Society already.

Nonetheless, these are just drafts for your reading and consideration. We'd like to have a complete and thorough discussion of these, if possible, at the next MES meeting. The tentative plan is to then have the documents "lie over" until the following MES meeting before any final vote is taken, so as to allow for incorporation of any changes, and distribution of new copies to all members of record. Clearly, if we adopt this timetable, the next two Society meetings may well be the most important meetings since the initial founding of our group. I do hope you find these mostly acceptable, but look forward to spirited discussion!

- Bob Nelson

Inside This Issue:



Dr. Auburn E. Brower by Dick Dearborn



Eye-level Entomology by Monica Russo



Plus sightings, websites, and tidbits of entomological interest



**Dr. Auburn E. Brower -
Maine Naturalist for the
Millennium**

(May 22, 1898 to April 8, 1994)

by Dick Dearborn

Few great naturalists can boast a career of consistent devotion spanning more than ninety years. "Ed" or "Doc" Brower was one of the few that called Maine home. Doc was born in St. Louis, Missouri, but lived and grew up on a small subsistence farm in Willard, near Springfield, Missouri. From his early days around the turn of the century, he was close to the land and spent many happy hours between chores watching and collecting birds, insects, and plants. He often talked fondly of those times when he would take a day off and, filling his pockets with raw peanuts for snacks and taking collecting gear, he headed for a day in the field. Fortunately, his parents were very supportive and interested in nature as well.

His mother used egg and butter money to help provide for his schooling, magazines, and books. As early as 1905, Ed talked of being stimulated by reading a nature column by Prof. A. H. Verrill of Yale in a magazine known as *Youth's Companion*. He started his first insect collection in 1908 and often collected and sold insects, furs, and medicinal plants (such as golden seal) to raise money to further his hobby. As early as 1912, he was collecting insects for

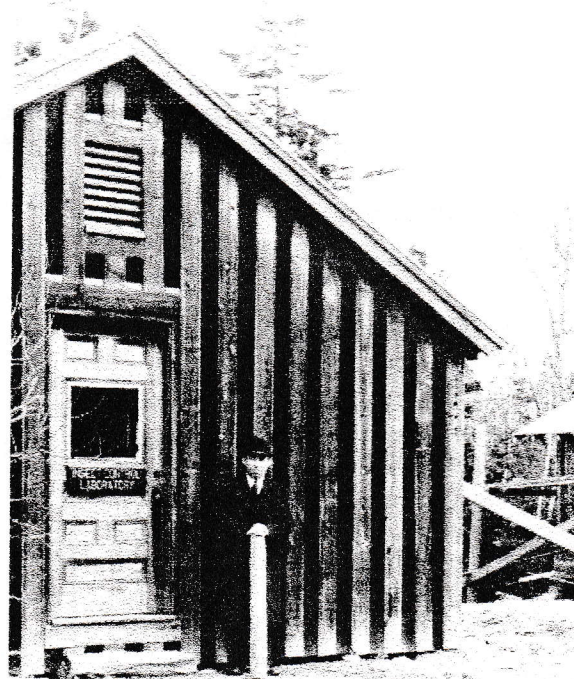
specialists and museums and, in 1914, sold insects to a commercial insect dealer. A craze involving the use of butterflies and moths for jewelry and art work in the late teens provided an opportunity for Ed to earn enough money and recognition to proceed with his education. By 1915, Ed became knowledgeable enough to engage in a controversy with the lepidopterist, Dr. William Barnes, regarding the name for a species of *Catocala*, (Noctuidae). This resulted in the publication of his first paper on a species of *Catocala* in 1922. Field guides were scarce in these early days so when Dr. Frank Lutz of the American Museum of Natural History published his famous *Field Book of Insects* in 1918, Ed was quick to pick up a copy. He often referred to this as one of his favorite early sources of information on insect natural history.

Ed's education was drawn out due to limited finances and family commitments, but he eventually earned a BS in education from the State College at Springfield, Missouri, and an AB degree from Drury College. He taught high school science in 1927 and 1928 in Springfield. In June 1928, he was accepted for PhD work at Cornell University in Ithaca, N.Y. At Cornell, he worked under the great Lepidopterist, Dr. W. T. M. Forbes. He minored in plant pathology. It was during his years at Cornell that he met and married fellow student Lurana Cole Van Doren of Washington, D. C. Their family eventually included three children: Edward Dehn, John Harold, and Kathryn Lurana. Ed received his PhD in Entomology in 1932.

On May 16, 1931, a year before completing his work at Cornell, Ed came to work for the Maine Forest Service at the fledgling field lab (insectory) on the grounds of The Jackson

Laboratory, in Bar Harbor, Maine. Although the depression years were tough even in Maine, the situation at Bar Harbor was enjoyable, and it was here that Doc established many life long associations and interests. In these early years, Doc had an apartment in Bar Harbor and worked in the unheated insectory in the summer and in an office in town in the winter. During his years at Bar Harbor, he assisted with insect identifications for the 1938 and 1946 editions of the Mount Desert Region Survey (The Proctor List). A new (and present) entomology lab was constructed on the AMHI grounds in Augusta and Doc moved to this new facility on November 2, 1938. This was to be his work site for the remainder of his career until he retired in 1968 after 37 years of service as Senior Entomologist, Taxonomist and Lab Director.

Although moths and butterflies remained Docs lifelong favorites he also collected, observed, and published on other insect orders, on birds and on plants. To acquire a better understanding of the natural history of Maine, Doc read a wide variety of articles and books and traveled extensively throughout the State, often visiting very remote



Doc Brower outside of the Field Laboratory on the current site of the Jackson Laboratory in Bar Harbor (circa 1937).

areas. Doc especially loved bogs and he visited most of them in Maine. He also loved mountains, especially Mt. Katahdin. He first climbed Katahdin in the 1930s when the going was far from easy. At times you could not even reach the base of the mountain by road. Even though the climb was long, he made many trips to the top in his lifetime and was one of the few early hikers to make it into the famed Klondike on the back side of the mountain.

Doc was well known and often called Dupon for advice and assistance. As a result of his knowledge and enthusiasm he gladly gave of his time and energy to support grassroots natural history efforts. These involvements ranged from helping to clear trails for the Girl Scout camp, Augusta Nature Center and Ladd Wild Flower Preserve to gathering plants for the Wild Gardens of Acadia, to mention a few. Doc was also active in support of the Portland Society of Natural History under Chris Packard. He supported The Josselyn Botanical Society for many years and added many records to their check list. Doc was also active in a number of Audubon groups and helped out with many winter bird counts.

Over the years Doc supplied specimens and supported taxonomists in many groups while publishing on a variety of topics. A list of Doc's publications would run close to 100 entries, more if all of his contributions to reports and bird census results are included. Copies of many of these are on file at the Entomology Lab in Augusta. The culmination of his work was the publication of his three part list of the *Lepidoptera of Maine*. It is probably one of the best state lists of its kind and Doc's love for the subject matter pervades its pages. Part one of this list includes an extensive discussion of much of the early work on the Lepidoptera of Maine. Many specimens from Docs collection show up in various state, national, and international collections. Most of his large personal insect collection was donated to the Smithsonian.

Doc was always ready to help those

interested in natural history. He became an almost legendary source of information on a wide variety of topics. He was frequently the final source for answering many perplexing questions. If he didnt know the answer himself he usually knew someone who did. Volumes could be written of Docs exploits including many amusing personal accounts but for now we hope that we have piqued your interest. We all owe Dr. Brower a debt of gratitude for his many contributions to a better understanding of the natural history of Maine.

Eye-level Entomology

by Monica Russo

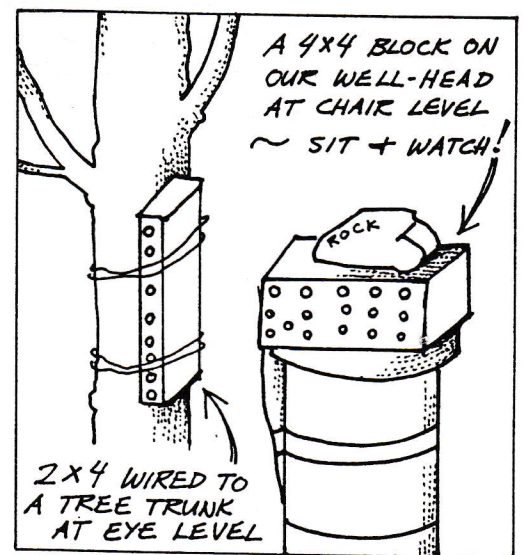
Observing live insects often involves getting on your hands and knees, or hunkering down uncomfortably in one place for long minutes at a time. If you've got a bad knee or back, or arthritis, these are movements you just don't want to make. But you can still get eye-to-eye with insect activity if you set out some nesting blocks for native bees and solitary wasps. These small Hymenoptera can be good pollinators, and some are excellent aphid hunters.

Any short length of two-by-four or four-by-four, with several holes drilled into one side, will attract small solitary wasps such as *Passaloeus*, which stock each drilled hole with scores of aphids sealed off with tree resin. Another wasp which may use the nesting block is *Trypoxylon* (*Trypargilum*), which has a single red band at the narrow stem of the abdomen. This little wasp collects spiders to store in the holes for her brood. The males remain at the nest, guarding the entrance--behavior not seen in most Hymenoptera. You may even find the celebrity of our MES logo, *Dipogon sayi*, another spider hunter, at your nesting block! Mud-using Eumenid wasps, which stock their nurseries with small caterpillars, are also likely inhabitants. Native bees of the Family Megachilidae, such as *Osmia*, may use the block too, capping

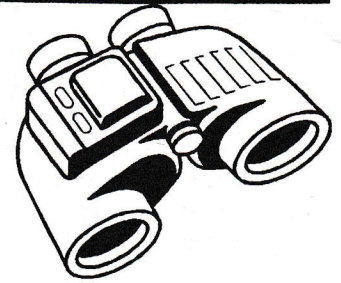
off the entrance with mud or clay.

Since you can set up the nesting blocks at eye level, and you can stand right next to them to observe closely, you can comfortably watch all types of behavior: females bringing in prey to stock the nursery, preening, capping off a finished nursery, and the occasional knock-down-drag-out fight if two neighboring females get too close! Also look for parasites and usurpers: small ichneumons, and sometimes green cuckoo wasps.

There is no set rule for building nest blocks. Just use any scrap piece of wood about a foot long. Drill several holes at least an inch apart, as deep as the drill bit goes. You can use a big 3/16, or 1/4 inch bit. Bees need a larger diameter, so use a 5/16 inch bit. European blocks are constructed with different size holes all in one block, to please a variety of species at once. Set your blocks at eye-level, or lawn chair level. Attach them to a post in the garden, to the side of your house or garage, or wire them to the trunk of a tree. They can be set out vertically or horizontally. Don't be afraid that yellow jackets will move into your blocks. They are hive builders, and won't nest in single unit accommodations.



SIGHTINGS



Hornworms and Bagworms

From time to time in the past, I have submitted notes on the range changes that are bringing new moths to Maine. In November's issue, I called attention to a couple of further cases of movements into Maine from the west and north, and contrasted these with range extensions from the south, which might intuitively be expected to be the rule in a period of apparent regional - if not global - warming. In this connection, I referred to Dick Dearborn's timely report on the appearance of the tobacco hornworm, *Manduca sexta*, in the same issue, but did not realize that he based his findings exclusively on larvae and reared adults. I do not know whether *M. sexta* is indeed established yet or is renewed annually by the arrival of early spring migrants from the south, but there is no doubt that the moth matures in the wild here, for I took a perfectly fresh specimen at Kennebunk Plains in August 1996, apparently a first record for Maine. Word of further sightings would be most welcome.

A second, more profound mystery on which observations would be welcome concerns the spread of the bagworm, *Apterona helix*, to Maine, reported by Dick Folsom in the Summer 1998 issue. What makes this arrival so extraordinary is the fact that this tiny moth, so far as is known, is represented in this country only by wingless parthenogenetic females. Reports of any further spread in its Maine range should therefore prove of great interest.

-Tony Roberts



Broad-headed Bugs

For several weeks in September (9/2-9/21), hundreds of black Hemiptera were found feeding on the foliage and pods of soybeans at my place. These interesting little creatures were very hairy with diagnostic reddish dorsal abdominal markings and prominent spines on their hind femora. These turned out to be broad-headed bugs (Family Alydidae), *Alydus eurinus*. (Dick Dearborn notes that these bugs were quite common on a variety of beans in Mt. Vernon. It's the first time he's seen them there.)

-Sam Ristich

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

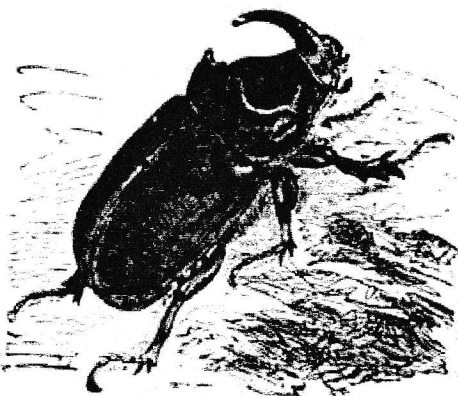
The Maine Entomological Society Newsletter is published quarterly by the Maine Entomological Society. Send newsletter items to Nancy Sferra, editor, at HC-33, Box 350, Bath, ME 04530 or via e-mail: nsferra@clinic.net. Dues are \$5.00 per year. Checks should be made out to Maine Entomological Society 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.

Maine Entomological Society
c/o Nancy Sferra
HC-33, Box 350
Bath, ME 04530

Not Your Average Japanese Beetle

According to the Asbury Park Press, a record price of 90,000 yen (\$500) was paid by a Japanese businessman for a giant stag beetle. It's not unusual for pet and department stores to carry insects in Japan, and the beetle trade is quite popular. This particular stag beetle was impressively large and the buyer has opted to remain anonymous for fear of having his beetle stolen (apparently, beetle thievery is also quite popular).

This is not the highest price paid for an insect specimen by collectors who are most interested in superlatives (biggest, showiest, rarest, etc.), and a beetle which is only a few mm larger than known specimens or with unusual aberrations can command that special price.



Acadian Entomological Society Meeting

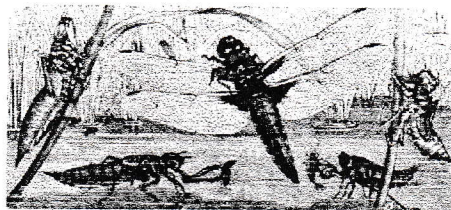
The Acadian Entomological Society meeting for 2000 will be held in Charlottetown, Prince Edward Island, Canada from June 21 - 23, 2000. The theme this year will be "Innovations in Pest Management." For more information contact: Jeff Stewart, Agric & Agri-Food Canada, Res Cen, PO Box 1210, Charlottetown, PEI C1A7M8, Canada. Tel. (902) 566-6844 Fax: (902) 566-6821. The Society website at: <http://aes.fsn.net> should soon be updated for 2000.

Snow Insects

As you move about over the snow this winter, keep an eye to the ground (occasionally) and an alcohol vial handy. On sunny days, especially as the temperature rises above 30°F with some snow melt, the surface can be transformed by the activity of a number of invertebrates. Some, such as the wingless scorpionflies (*Boreus* spp.) and wingless crane flies or spider flies (*Chionea* spp.) tend to be solitary and are often seen especially in depressions in the snow. Others such as the winter stoneflies (Plecoptera) and snowfleas (Collembola) can occur in phenomenal numbers more often around water. The diversity of insects active during this period may surprise you. Specimens can be sent to Dick Dearborn for identification. Refer to our March 1999 issue for details. A scientific note by Bob Nelson on winter collecting of Coleoptera was published in the *The Coleopterists Bulletin* in 1988 (Vol. 42, No 1: pp.55-56). A couple of websites on winter insects were brought to our attention by a Vermont counterpart, Trish Hanson. You might wish to try these out:

<http://www.emporia.edu/biosci/ksn/ksn38-2.htm>

<http://www.orkin.com/html/archive1.97.html>



MDDS Website

The website for the Maine Dragonfly and Damselfly Survey is up and running. You can check on the progress of the project by logging onto:

<http://mdds.umf.maine.edu/~odonata/>

This Summer at Eagle Hill

This year's Eagle Hill Seminar schedule is out and includes some courses of interest to entomologists:

Larval Dragonflies and and Damselflies of the Northeast, May 28-June 3

Mayflies: Systematics and Biomonitoring, June 4-10

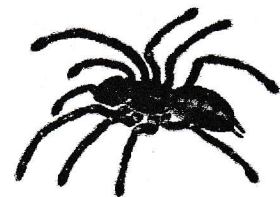
Adult Dragonflies and Damselflies of the Northeast, July 2-8

Caddisflies: Systematics and Biomonitoring, July 16-22

Chironomids: Systematics and Biomonitoring, July 30-August 5

For more information, check the website for the Humboldt Field Research Station at:

<http://maine.maine.edu/~eaghill>



SPIDER TRIVIA

Not to be surpassed by the lowly insects, there are at least four geographical features in Maine named for spiders. They are: Spider Brook (T9 R12 WELS), Spider Island (Moosehead Lake), Spider Island (Sebago Lake), and Spider Lake (T9 R12 WELS and T9 R11 WELS). Unfortunately, only two of these are shown in the 18th edition of DeLorme's *The Maine Atlas and Gazetteer*. However, all four are listed in Stanley Bearce Attwood's *The Length and Breadth of Maine*, University of Maine at Orono Press, Orono, ME, 1977. If you're not familiar with the latter book, it's an excellent source for locating "old" place names in Maine recorded by earlier collectors.

-Daniel T. Jennings



Migrations

Ron Mack has left his position with the University of Maine Cooperative Extension Service for a USDA job headquartered on Cape Cod. Now he gets a chance to live in the house he built in Chatham, and his new job involves worldwide travel. We wish him the best.



Seeking Aspiring Authors

We are looking for someone interested in writing a biography of a Maine entomologist for the next newsletter in May. Get your ideas to Dick Dearborn or Nancy Sferra. We are always looking for contributions to the newsletter, whether they are feature articles or short notes on anything you think is of interest to our members. We are also looking for photographs of insects or terrestrial arthropods and our members in action, and original artwork. If you have questions regarding format, feel free to send me an e-mail, snail mail note, or give me a call. My contact information is on the back cover.

-Nancy Sferra



Film Classics: The Hellstrom Chronicle Producer: David Wolper, 1971

Much of the photography in this 1971 movie is as good—or better—as that of the recently celebrated French film *Microcosm*. But it's hardly as delicately serene and pastoral.

Hellstrom Chronicle is supposed to be a "pseudo-documentary," a story about entomologist Dr. Nils Hellstrom, who so very earnestly wants us to understand that insects will take over the earth. He tells us that if we don't pay attention to our use of toxins, chemicals and pesticides, then man and insect will be in direct competition for the planet's food resources. Dr. Hellstrom is aloof, perhaps arrogant and snide, and not very likable—but he is earnest.

The abundance of great close-up photography is what makes this film terrific. Watch it with the sound off, if you just can't stand Dr. Hellstrom. There are great sequences of insects trapped in sundew plants, and very close views of jumping spiders eating insects, and doing their palpic "wave-and-woo" routine. There are close-up shots of a mantis, a mantispa and also water spider (or raft spider) been their prey. Some shots are so up close and personal their truly disgusting.

Other memorable scenes include a female black widow spider eating the male after she mates with him (very close and alarming shots), documentary footage of an African Locust swarm moving by the camera like sleet, and close views of crickets stridulating and cicadas buzzing.

There is close-up footage of grotesquely outsized female tropical termites, frightening shots of a flowing Army of "driver ants" which attack a couple of lizards in their path, and even overtake a scorpion. For Hymenopterists, the best footage is that of domestic honeybee hive (man-made) being attacked by enormous *Vespa* wasps, a genus notable for its size and for a wide vertex, or forehead space above the eyes, easily seen in close-up's. The species filmed is not the giant European hornet *Vespa mandarina*, which is shown in the frontispiece of J.P. Spradbury's 1973 book *Wasps*.

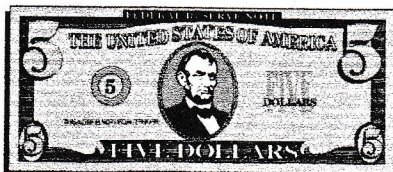
Credits for the film include the Entomology Department of the L.A. County Museum of Natural History, the E.S.A., and the California Institute of Technology.

The *Hellstrom Chronicle* probably appears on Saturday TV or on cable from time to time, but I managed to get a video of it, and will be glad to forward the supplier's name to anyone who asks.

-Monica Russo



We are in the process of updating the MES membership directory. If your contact information has changed, please get corrections to Don Ouellette (see his contact information on the back page). Thanks!



IF YOU HAVEN'T DONE SO, DON'T FORGET TO PAY YOUR 2000 DUES. CHECK THE NUMBER ON YOUR MAILING LABEL TO SEE WHEN YOUR MEMBERSHIP EXPIRES. IF IT READS 99, YOU ARE PAST DUE AND THIS WILL BE YOUR LAST ISSUE OF THE MAINE ENTOMOLOGIST.