The Maine Entomologist

The Newsletter of the Maine Entomological Society

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

Volume 4, Number 2, May 2000

From the President

It has been a busy spring for most of our members, but this didn't prevent eleven loyal supporters from attending our important April 1 business meeting. Despite the rather dry discussion topic of our draft Constitution and Bylaws, we made significant progress in finalizing those documents. Thanks to the excellent support of Bob Nelson and many helpful suggestions from Dan Jennings, we were able to deal with your concerns and now have a completed version ready for your approval.

Other matters discussed included our financial situation, which is on solid footing, our updated membership directory, and meeting plans for the summer season. Those present also shared stories and items from the past year.

Appreciation was again expressed to our newsletter Editor who is able to take material in a variety of conditions and come up with a great newsletter - Thanks Nancy.

We now have roughly 75 members that span the range of invertebrate interests, not to mention expertise in other biological disciplines. We urge you to use the directory enclosed with this issue and stay in touch directly with each other. As we proceed into another great field season we hope to see many of you.

Thanks again for your support. We hope you enjoy our newsletter and will try to attend as many of our field trips as possible.

-Dick Dearborn

Exercise Your Right to Vote!

Enclosed with this issue of The Maine Entomologist are revised versions of the proposed Constitution and Bylaws, which have been modified to accommodate concerns raised at the last meeting in Augusta. **Please read these over carefully** before deciding whether or not you believe they provide appropriate guidelines for the future structure and operation of the Society.

Also enclosed are a ballot, and an addressed envelope for mailing same. Please mark your ballot with a check mark or "x" in the appropriate boxes, either to accept or reject the proposed Constitution and Bylaws. (Note that you must vote separately on the Constitution *and* on the Bylaws - so *two* boxes need to be checked on your ballot.) Then, please return the ballot in the envelope provided, **to arrive no later than Friday, June 23rd.** Since all members of record are receiving original ballots, we will only count original ballots - not photocopies or handwritten ballots. Ballots will not be opened until counting day, so please do not enclose any other correspondence.

Voting results will be announced in the next issue of The Maine Entomologist. Approval by at least 75% of those returning ballots is required for confirmation of either document. If either fails to meet that approval rating, further discussion must take place at another Society meeting, followed by further revision and another vote.

Since we are a fledgling society with only about 80 registered members, *your* vote counts tremendously! These documents will govern the operation of the Society for years to come, so this *is* important! Please read the documents and cast your vote! Thanks much!

- Bob Nelson

Inside This Issue:

Maine Coleopterists

by Dick Dearborn

Although not as fetching as moths and butterflies, over the years beetles too have drawn their share of followers. This month we will touch briefly on the life of the first of two early coleopterists who collected in Maine.

John Witt Randall (1813-1892)

John W. Randall was one of five children of a prominent and wealthy Boston family and like his father John, John W. attended Harvard where he received a medical degree in 1834. (He never practiced medicine however). While at Harvard John W. took one or more entomology courses from the early dynamo Thaddeus William Harris who became his mentor. Giles (1) states "John Witt Randall was a very gifted and intellectual man. He was educated at Harvard University, and displayed an interest and aptitude for entomology, the study of insects. He spent many hours of the day on his property in Stow (Mass.), ever in search of new insect species. His real talent, and one he pursued contrary to the wishes of his physician father, (however) was poetry."

Following graduation from Harvard, Randall spent fifteen months in Hallowell, Maine where he proceeded to collect beetles to add to a larger assemblage of beetles collected while a student of Harris at Harvard. Later after "....having collected quite a large cabinet of Coleoptera, very many of which were undescribed, (Randall) commenced in the year 1837 to prepare for publication in the Journal of this Society (The Boston Society of Natural History) descriptions of those species which he supposed least likely to have been at that time noticed." (2) Two lists were published, one for Maine (3) and one for Massachusetts. Of the 52 species described for Maine roughly 32 still remain valid, albeit with different genera names. Others have become synonyms. Randall's two publications in 1838 were his only entomological publications so far as is known.

Randall's efforts in later life centered on collecting artwork, investing and writing poetry. There is little indication that he ever pursued entomology to any degree after 1840, however, "like his knowledge of insects, many of his ideas and poems were inspired by things that he saw and experienced while on his estate in Stow." (1) His approach to the world around him was symbolized by a special exhibition at the Fogg Art Museum at Harvard in 1998 entitled The John Witt Randall Collection: Seeking the True and the Beautiful.

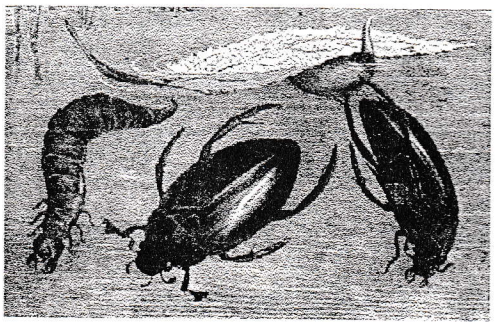
Randall never married and much of his large estate went to Harvard University, including his sizeable art collection and enough money to construct Randall Hall. Unfortunately Randall's insect collection has been lost like those of many other early American entomologists.

1) Giles, K. L. The history of Stow Acres Country Club.

http://www.stowacres.com/StowHistory.html

2) Sprague, P.S. and E.P. Austin. 1875. On the species of Coleoptera described by Mr. J.W. Randall. Proc. Boston Soc. N.H. XVII:373-385

3) Randall, J.W. 1838. Description of new species of coleopterous insects inhabiting the State of Maine. Boston Jour. of N.H. 2(1):1-33.



The Birds and the Bees

To Ornithologists, one of the best classic references is the series of books known as "Bent's." Arthur Cleveland Bent authored more than a dozen volumes of life histories of birds, mostly published from the 1920s through the 1940s by the Smithsonian. The books amass detailed information about songs, courtship, nesting, egg dates -- and food. Including insects. Curiosity drove me to try to find the Maine species of birds which ate the most bees and wasps. I took a look at a few of the most likely fast and agile birds:

- Eastern Kingbird: Of 281 stomachs analyzed, only 14 contained the remains of honeybees.
- Eastern Phoebe: "In bulk they (Hymenoptera) amount to 26.69 percent of the yearly diet."
- Barn Swallow: "Hymenoptera other than ants" amount to only 12.82 percent of the diet.
- Eastern Wood Pewee: Hymenopteran food was only 28 percent.
- Great Crested Flycatcher: Of 265 stomachs analyzed, the Hymenoptera were only 13.69 percent, and included bees, wasps, sawflies, but only one honeybee.

The biggest surprise came when I consulted the U.S. Department of Agriculture Handbook # 552, published in 1981, THE YELLOWJACKETS OF AMERICA NORTH OF MEXICO. It reports American Robins as minor predators of ground nesting yellowjackets, since they will "stand near the nest entrance where they catch and eat returning foragers." Sounds like a very hot lunch to me!

-Monica Russo

NEW ORNAMENTAL PESTS IN MAINE IN RECENT YEARS

By Dick Folsom

The sale of ornamental nursery and greenhouse plants is a strong segment of agriculture nationwide, with much movement of plant material between states and countries. Insects commonly get moved with nursery stock. In fact, US and state plant regulatory agencies were created in the early years of the 20th century because so many serious insects (and diseases) were coming into this country from abroad and pests were being moved around from state to state. Regulatory agencies require inspection and certification of plant material for pests and can order quarantines, treatments or destruction of infested plants. Countries of the world have agreed on uniform certification of plants and plant products in commerce using Phytosanitary Certificates and similar certification is used between states.

Even with inspections and certifications, pests still get moved around to some extent, sometimes in ways unrelated to direct plant shipments such as the Asian longhorn beetle (*Anoplophora glabripennis*) which has come into the US from China in wood packing material and pallets. A variety of insects come into Maine on occasion but are detected and destroyed, such as western tent caterpillar (*Malacosoma pluviale*) which came in on some nursery stock in 1977. The following is a list of new insects which have come into Maine in recent years: Rhododendron gall midge (*Clinodiplosis rhododendri*), a native insect found throughout the range of *Rhododendron maximum*, was first found in Maine damaging rhododendrons in 1980 and is becoming more widespread here. Western flower thrips (*Frankliniella occidentalis*) has spread (with plants) over the whole country reaching Maine in 1981, and is now the most serious and difficult to control greenhouse insect.

Oriental beetle (*Anomala orientalis*) was first found here in a Gorham perennials garden in 1984, but has spread little. Leopard moth (*Zeuzera pyrina*) was found damaging nursery trees in 1985 and seems to be established in a few southern York County towns. Columbine sawfly (*Pristiphora aquilegiae*)is a european insect introduced into Canada around 1964 which has been spreading southward, first reported from New York in 1985 and reaching Maine by 1988. This serious defoliator of columbine is now found pretty much statewide. Silver leaf whitefly (*Bemisia argentifolii*) has spread nationwide and first appeared in Maine in 1988. In many cases, it has displaced the more common greenhouse whitefly and is now the most commonly found whitefly on poinsettias.

Euonymus caterpillar (*Yponomeuta cagnagella*) first showed up in Maine in 1990 with some spectacular news accounts of euonymus shrubs encased in webbing with hanging gobs of caterpillars. There are spotty reports of the insect each year in landscapes, but it does not appear to be a big problem in nurseries. Viburnum leaf beetle (*Pyrrhalta viburni*) is another european insect introduced into Canada some years ago which is spreading southward, first being reported from the US from Maine in 1994 (and in New York in 1996). The beetle is a serious defoliator of viburnum over much of the state. Rose stem girdler (*Agrilus aurichalceus*) was introduced into the US in infested rose bushes from Europe around 1913. Reports of damage on rugosa rose in Maine from this beetle were seen by 1994.

A little known leafminer (*Lyonetia latistrigella*) of PJM rhododendrons was first identified in Pennsylvania in the late 1970's and by 1995 was being found regularly at numerous Maine locations. The pest causes minor leaf blotches on tender new growth. Citrus leafminer (*Phyllocnistis citrella*) is an Asian pest first detected infesting citrus in Florida in 1993. The insect probably arrived as a hitchhiker in smuggled citrus. Since 1995, the leafminer has appeared in Maine on small ornamental citrus from time to time. Florida fern caterpillar (*Callopistria floridensis*) was first found on a shipment of ferns from the south in 1997, and has been intercepted a few more times since. There are no established populations here. The lily leaf beetle (*Lilioceris lilii*) is a european insect introduced into areas of Canada around Montreal in the 1940's. It first appeared in the US in eastern Massachusetts in 1992 and in Maine in 1997. This serious defoliator of *Lilium* has now been found in York, Ogunquit, Wells, Portland and Bridgton.

The hemlock woolly adelgid (*Adelges tsugae*), (an Asian insect first found in North America at Vancouver in 1922, Virginia in 1951 and Connecticut in 1985), came into Maine on a shipment of unsprayed hemlocks from Connecticut in the spring of 1999. The 165 trees were delivered to two Maine garden centers and many trees had been sold before the adelgid was detected. By September, nearly all the trees had been located and either destroyed or sprayed. The trees will be checked again this spring, and we are hopeful that the pest has been eradicated.

Upcoming Field Trips

May 27th Field Trip to South Berwick

Join Bob Nelson and Dick Dearborn in South Berwick for a collecting trip to a unique Maine forest of black birch, shagbark hickory, scarlet oak, and white oak. Call Dick (home-293-2288; work 287-2431) for particulars if you are interested. It should be fun.

June 13 Field Trip to Vermont's Northeast Kingdom

Join the Vermont Department of Forests, Parks and Recreation, the Vermont Entomological Society, and Maine Entomological Society for a field trip to Nulhegan Basin of the Silvio O. Conte National Wildlife Refuge. This meeting and field trip will take place on Tuesday, June 13 from 9 am to 4 pm. A short introductory session explaining the land acquisition of the former Champion International lands will be held at the Agency of Natural Resources, 1229 Portland St. in St. Johnsbury, Vermont. The Agency office is located off of Route 2. Directly past the "Welcome to St. Johnsbury" sign, take the first driveway on the right after the sign. The Agency is on the second floor above the Sheriff's Office. For more information, contact Trish Hanson (802-241-3606; thanson@fpr.anr.state.vt.us).

July Meeting and Collecting Trip

The July MES meeting will be held at Colby College at 10:00 a.m. on Friday, July 7th, in room Mudd 218. We'll have a brief business meeting (with refreshments!), followed by collecting on the campus. Open meadows, two ponds (one a beaver pond), hardwood and conifer forests, and a small rocky creek provide a host of varied habitats. This may be a better opportunity for those who find weekend meetings conflict with family events.

To get to Colby from I-95, take Exit 33 (from the south) or 34 (from the north) and follow the signs. Mudd is off the NE corner of the main library, and in the summer you can park almost anyplace parking is allowed at all. Contact Bob Nelson (renelson@colby.edu; 872-3247) if you need more explicit instructions on how to get to the campus.

Other Upcoming Events:

August: Oyster River Bog in Rockland

September: Great Wass Island in Beals

October: Dick Dearborn's place in Mt. Vernon

The deadline for the next newsletter is August 1, with a mailing date of August 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

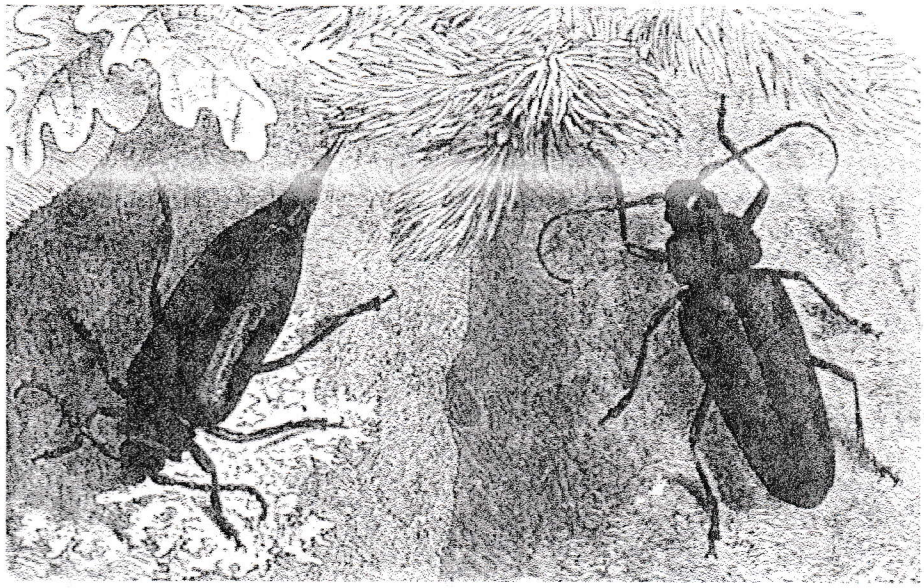
The Longhorned Beetle Larva That Seems to Live Forever

In 1989, I was gifted with four beautiful longhorned beetles. These remarkable beetles had a yellow-brown color with a pair of ivory spots on each elytron. The name of this magnificent creature is the Ivory-marked Beetle, *Eburia quadrigeminata* (Say).

An unusual story is connected to the beetle. Bessie Pritchard's aunt bought a varnished cherry cabinet in 1971. In 1988 they found four of these beetles inside the cabinet. There were four emergence holes on the door. I suggested an X-ray of the cabinet. The X-ray photo showed evidence of three more larvae in the cabinet.

Craighead reported examples of beetles living in wood for 21 years! A recent book on cerambycids by Yanega remarks: " The Ivory-marked Beetle is notorious for emerging from furniture and flooring after as many as 10-40 years!"

- Sam Ristich



Hummingbird Moths-Bumblebee Moths!

Every year I get calls from individuals who spot what they think are very small hummingbirds or large bumblebees at early spring flowers such as lilac, honeysuckle, blueberry, etc. These usually turn out to be clearwing sphinx moths. These fascinating creatures are not only very beautiful but fun to watch as they hover above flowers probing fresh florets for nectar and often scrapping with bees and flies for a place at the table. There are three species in Maine of varying degrees of scarcity, *Hemaris thysbe* (the Hummingbird Clearwing), *H. diffinis* (the Snowberry Clearwing) and *H. gracilis* (the Slender Clearwing). I have seen all three at my lilac at the same time in late May and early June. Some feel that we have second broods in some seasons and there does seem to be renewed activity. All seem to like bee-balm (*Monarda* spp.) too.

- Dick Dearborn

Books, Videos, Movies, and Websites

Recent Entomology Titles from Johns Hopkins University Press 2715 North Charles Street, Baltimore, MD 21218 (www.press.jhu.edu)

THE BEES OF THE WORLD, by Charles D. Michener (872 pp., 433 line drawings,40 B&W photos, 48 Color photos; ISBN 0-8018-6133-0; pub. 2000; $135). Covers 1200 genera and subgenera of the bees of the world, including more than 16,000 species. Covers topics as diverse as the evolution of the bees from the wasps, the relationships of bee families to one another, the evolution of bees related to that of flowering plants, nesting behavior of solitary and social bees, and body structure and development in bees. Includes, for each genus and subgenus, geographic range, number of species, and information on nesting and floral biology. A thorough if pricy reference for anyone seriously interested in bees.

FORM AND FUNCTION OF INSECT WINGS, by Dmitry L. Grodnitsky (280 pp., 76 illustrations; ISBN 0-8018-6003-2; pub. 1999; $49.95). A comprehensive overview of the functional morphology of insect wings, including insect flight, vortex aerodynamics, diversity and evolution of flapping flight, wing morphology, and general evolutionary considerations.

THE PRAYING MANTIDS, edited by Frederick R. Prete, Harrington Wells, Patrick H. Wells and Lawrence E. Hurd (560 pp., 113 line drawings, 22 half-tones and 33 four-color illustrations; ISBN 0-8018-6174-8; pub. 1999; $89.95). A synthesis of the current state of knowledge of this fascinating group of insects, including taxonomy, ecology, reproduction, sensory systems, motor behavior, and defense strategies. Final section of the book discusses rearing and breeding techniques.

(All information is from an informational flyer from the publisher.)

-Bob Nelson

Movie Review: "Them!"

The stereotypical 1950s "giant ant" science fiction film? Yes. Stupid? Not so. The father and daughter scientific team is basically cool and calm, polite and professional. They use and discuss several entomological words you can talk about with your kids, after the movie is over: formic acid, stridulation, myrmecologist. The scientists use the correct terms: they identify the enormous ants as a species of *Camponotus* from the Family Formicidae. They make it clear to the local police that they must review the data, ask questions, make observations and then discuss the problem themselves. Perhaps the most pleasing scenes are those in which the scientists make the decisions, and not the police!

Outdoor scenes and indoor sets are shot very well. Those interested in cinematic composition and good lighting will be glad to see this film. However, those of us who know that the antennae of ants don't look like shaggy strips of rugs won't be so thrilled. It's probably too scary for small children, but otherwise a good family popcorn drama.

-Monica Russo

Bee Websites

These websties were reported in the Autumn/Winter edition of TRANSECT, the newsletter of the California Natural Reserve System.

See the world through the eye of a honeybee at

http://cvs.anu.edu.au/andy/beye/beyehome.html

For the American Apitherapy Society home page, go to

http://www.apitherapy.org/aas/

For the Carl Hayden Bee Research Center (USDA) in Tucson, Arizona,

http://gears.tucson.ars.ag.gov/

USDA Bee Biology and Systematics Laboratory at Utah State University,

http://www.loganbeelab.usu.edu/

APIS, the on-line newsletter of the University of Florida's Cooperative Extension Service, is at

http://www.ifas.ufl.edu/~mts/apisht-m/apis.htm

The Virtual Beekeeping Gallery is at

http://www.beekeeping.com/index_us.htm

Another beekeeping site, with information in English, Spanish, French and German, is available at

http://www.apiservices.com/

Last but not least, a general insect page that includes a lot of basic material suitable for school use can be found at the Insect World home page at

http://www.insectworld.com/main/six.html

-Bob Nelson

Vermont Entomological Society Website

The Vermont Entomological Society website can be accessed through the UVM homepage at http://www.uvm.edu/ and click on libraries. From there go to Zadock Thompson to check out the invertebrates.