

Maine Entomological Society Newsletter 1998



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

Number 4, Winter



Seasons Greetings From The President

An enthusiastic group of 16 supporters attended our September meeting at the Holt Research Forest in Arrowsic to hear Ph.D. student Dawn Nelson discuss her research work on "The Invertebrate Community of Tree Bark." Director Jack Witham outlined the history and purpose of the Holt Research Forest which is affiliated with the University of Maine. Following lunch, we accompanied Dawn on a collecting tour of the area. Although some interesting insects were collected, numbers and diversity were somewhat limited due to the weather. However, Sam Ristich found a wide variety of interesting and colorful mushrooms. The day closed with a trip to the scenic Squirrel Point Lighthouse on the lower Kennebec River. I hope to see many of you at our spring meeting at Colby College.

As president of the Maine Entomological Society and a devoted "bugman", I am encouraged to see our organization moving forward. Our membership has grown to over 40 individuals, and I hope the society can soon take on a few simple projects. Our success is made possible by the support and encouragement of our dedicated membership. I want to take this opportunity to thank our newsletter editor, Nancy Sferra, who cobbles our e-mail messages and handwritten notes into a readable format; our treasurer Don Ouellette for keeping our membership roster up to date and handling our finances; Sam Ristich, a great motivator; and all of you who have submitted entries for the newsletter and attended our meetings. Thank you all.

-Dick Dearborn

Spring Meeting Maine Entomological Society

When: Friday, April 2, 1999 at
7:00 pm

Where: Colby College, Mudd
Room 218

Guest Speaker:
F. Russell Cole, Oak Professor
of Biological Sciences at Colby
College

**"Impacts of Exotic Organisms
on the Endemic Fauna and
Flora of Hawaii"**

STUMPED
ON
STOCKING
STUFFERS

We have many solutions

LIBERTY GRAPHICS

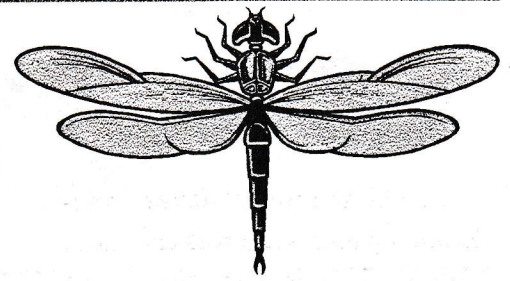
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*In the Heart of Liberty Village
Thursday thru Sunday 9am-5pm
888-660-2505*

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Keeping Track of Winged Jewels: The Maine Dragonfly and Damselfly Survey



Phillip deMaynadier, Ph.D. Department of Wildlife Ecology, University of Maine, Orono, ME 04469

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Maine's dragonflies and damselflies (Odonata) comprise a significant and conspicuous component of the state's wildlife diversity. With 155 species documented to date, Maine hosts nearly 35% of the total North American fauna (~450 species; Needham and Westfall 1955, Westfall and May 1996) and fully 81% of the species currently known from greater Atlantic Canada and New England (~191 species; Brunelle pers. comm.). Undoubtedly, the state's diverse wetland habitats help to support a rich odonate fauna, many of whom exhibit distinct breeding preferences for specific aquatic community types including peatlands, ponds, streams, swamps, marshes, and even vernal pools. Additionally, Maine is a large state and geographically positioned in an ecological transition zone between the northern boreal and temperate deciduous ecoregions, offering habitat to several species at the southern and northern end of their ranges, respectively.

As beautiful and familiar as dragonflies and damselflies are as a group, we actually know very little about the distribution

and abundance of individual species at the state or global level. In fact, considering that a recently updated checklist of Maine Odonata (Brunelle 1998) expanded the current state list by 35% (from 115 to 155 species), it is likely that the number of known species will continue to grow with additional survey effort. Based on the habitat associations and geographic distributions of dragonflies and damselflies in neighboring regions it is reasonable to expect the occurrence of as many as 10 to 20 new species in Maine. Not only do we need to improve our basic knowledge of species richness on a state level, but more study is needed on the ecology and distribution of those species currently believed to exist in Maine. A very small number of professional and amateur biologists have contributed to most of what we know of Odonata in Maine, and many historical records have not been reconfirmed for decades. To help emphasize this point, Paul Brunelle estimates that an average of only 1.8 animals per square kilometer have been collected in the last 75 years in one of the most intensively sampled regions of the state Mount Desert Island (for most areas of the state

the number would be ca. 0.015 records/kilometer/75 years!).

Clearly, there is still room to make important contributions to our knowledge of aquatic biodiversity in Maine for those enthusiasts willing to get their feet wet swinging a dragonfly net.

In addition to improving information on the group as a whole, there are some immediate conservation incentives in learning more about dragonflies and damselflies in Maine. As most of you are aware, Maine's legislature recently authorized the inclusion of invertebrates to the state list of endangered and threatened species. Included on this list now are the ringed boghaunter dragonfly (*Williamsonia lintneri*) and the pygmy snaketail dragonfly (*Ophiogomphus howei*). In addition, MDIFW lists 24 odonates as Species of Special Concern. These species are believed to be rare, but require additional information to accurately assess their status. Indeed, many of these species are known from just a few or a single historical record. Distinguishing those species that are simply cryptic and under-surveyed (how many of us have visited remote bog-pool complexes in September in search of "rare" Darners?) from those species that are genuinely rare requires much more collection data

SIGHTINGS

Polistes dominulus in Maine

In 1995, the first *Polistes dominulus* paper wasp was caught in Maine. This is a species native to Europe and the Mideast, so it will be interesting to see if it interferes with our only native species of paper wasp, *Polistes fuscatu*s. It's clear that this species is overwintering well. It was first collected in Biddeford; however, as of this past summer, I have captured a specimen in Sanford, which does seem to have a colder and snowier winter than the coastal plain. Anyone who has seen a typical paper wasp nest (a down-hanging lampshade with open cells) with attendant wasps that are yellow-banded like yellowjackets instead of dark brown may indeed have this species. I'd be happy to hear about it next year. If you have old *Polistes* carcasses on your windowsills, garage shelves, in your shed, outhouse or whatever, I'd be HAPPY to see those, even if they're in bad shape. How interesting it will be to see how fast a newcomer like this can spread!

-Monica Russo

The Beetle-Hunting Wasp *Cerceris fumipennis* in Maine

Specimens of a fossorial wasp, which I suspect are *Cerceris fumipennis*, have been collected at two sites in Arundel: the Arundel Town Dump, and a site on Route 111. This is a large solitary species - call them single

working mothers if you like - in which the females work individually to construct underground nurseries. They nest in loose colonies in open bare areas and collect beetles to stock their burrows: *Agrilus* and *Buprestis* for instance. I would appreciate a second opinion, if anyone feels familiar with this genus. Specimens exhibit a single yellowish band on the second tergum, have quite dark wings, mandibular sculpting like that in Scullen's *Review of the Genus Cerceris* (1965), and lacks a clypeal awning to give it a flat-faced appearance. This would be an interesting addition to Maine's Hymenoptera list, since it's only supposed to range as far east as New Hampshire, according to the Krombein Catalog.

-Monica Russo

New Moths in Steuben

The palearctic moth, *Blastodacna atra* (Haw.) (Agonoxenidae), an apple pest, was first reported from America from Massachusetts orchards in 1995 and has since been on a watch list for Maine. It turned up in Steuben in July.

Another new Maine species, which appears to be the tortricine *Archips fuscocupreanus*, was also collected in 1998 in Steuben. This new Asian arrival has recently been reported from Massachusetts and Connecticut.



Since I have only females and the generic assignment is in doubt, I will have to wait until I see preparations of the genitalia for diagnosis. But if not the above, this is something rarer still.

In the last issue, I reported on three far western moth species that had somehow found their way into Maine in 1998. A fourth can now be added to the list. *Synanthedon novaroensis*, a clear-wing moth (Sesiidae), the larvae of which bores in conifers, appeared at Steuben in pheromone survey traps set out for sesiids. This species was previously known only from California to Alaska in the west and east only as far as Montana. It could be transcontinental in the Canadian Zone.

-Tony Roberts

Another Western Invader

Moths aren't the only western invaders. Those friendly leaf-footed bugs (Coreidae) which have been plaguing so many homeowners again this season are western conifer seed bugs, *Leptoglossus occidentalis*. These insects hibernate as adults and are in search of winter hiding places. *L. occidentalis* has only moved eastward within

the last ten years, and our first Maine record was from Mt. Vernon in 1994. It now occurs throughout southwestern Maine.

-Dick Dearborn

A Psocid Party

What are 3,010 psocids doing on my giant white pine? I collected specimens of this bluish black insect which were congregating in clusters of 50 to 200 on the bark of the pine. They stayed for several weeks and then they were gone. The specimens have a diagnostic triangular white mark on the middle of the front wing. I am seeking a binomial of this remarkable hexapod, but why the gregarious habit?

-Sam Ristich

(Try *Cerastipsocus venosus* Sam-D.D.)

Hey, Someone Ate My Aphid!

Recently, I collected the woolly alder aphid, *Prociphilus tessellatus*, to observe its progressive parasitism by the charcoal fungus, *Scorias*. The fungus proliferates on the carbohydrate exudate from the aphid then invades the body, causing a charcoal-like embalming. Before I left for a week-long trip, I put the colony in the refrigerator. When I checked on my return, I could not find the aphids, and after a search, I found two fat syrphid larvae under a twig. This left me with two remarkable observations: one, a syrphid female deposited eggs on the aphid prior to my collection of the colony, and two, the larvae that hatched were capable of feeding on the aphids at 45° F.

-Sam Ristich

Hot Off The Press!

Northeastern Tiger Beetles: A Field Guide to Tiger Beetles of New England and Eastern Canada by Jonathan Leonard and Ross Bell. 1998. CRC Press.

This paperback is a must for the beetle enthusiast in the Northeast. It is well illustrated with hundreds of line drawings and four color plates. A prepublication special of \$31.95 is available from Patricia Ledlie Booksellers until February 15, 1999 (www.ledlie.com). The price thereafter will be \$39.95.

Happy Holidays
From The



The deadline for copy for the spring newsletter is February 15, 1999. Send your notes, favorite websites, and any interesting entomological news to Nancy Sferra, 8 Seymour St., Sanford, ME 04073 (sferra@psouth.net).

than is currently available. Unfortunately, this level of information is not likely to be forthcoming in the near future without proactive efforts to survey specific habitats during the appropriate season.

The Maine Dragonfly and Damselfly Survey (MDDS) is a new project designed to improve our knowledge of the distribution, abundance, and habitat associations of Odonata in Maine. The intent is to initiate a 5-year directed survey, from 1999 to 2004, that will greatly expand our current knowledge of the order by recruiting volunteers from across the state to help with surveys of adults near their breeding habitats. While detailed protocol is yet to be determined, it is likely that distribution data will be township-based with volunteers encouraged to visit several different wetland types at different times of the year within their local area. Pre-printed collecting envelopes distributed by MDIFW will prompt collectors to record observations on habitat, numbers, behavior, and other useful data. Aware that few individuals have had experience collecting dragonflies and damselflies, MDIFW will offer introductory workshops by an MDDS coordinator and invited experts from the region (e.g. Nick Donnelly, Ginger Carpenter, Paul Brunelle), where helpful information on techniques for field collection, preservation, and identification will be conveyed. In addition to receiving a field manual on collecting and

identifying dragonflies and damselflies, volunteers will be kept informed via periodic newsletters summarizing new statewide discoveries and other project updates.

To our knowledge, the MDDS is among the first state-sponsored comprehensive Odonate atlasing projects in North America. In the past, similar volunteer-based atlas initiatives sponsored by MDIFW for breeding birds (1978) and amphibians and reptiles (1992 and 1998) have been extremely successful, both in terms of enhancing our baseline knowledge of the taxa in Maine, and at garnering support and involvement from non-consumptive wildlife enthusiasts. Charismatic microfauna like dragonflies and butterflies can serve as valuable tools for raising public awareness about biodiversity and conservation of invertebrates. We hope that students, professionals, and amateurs from the Maine Entomological Society will consider involvement with the MDDS as an opportunity to expand their breadth of knowledge while at the same time helping the state collect valuable scientific baseline information. Stay tuned for an official announcement on the initiation of the Maine Dragonfly and Damselfly Survey.

Citations

Brunelle, P.M. 1998. Maine Dragonfly and Damselfly Survey. Report 1: Baseline Information on Maine's Odonata. Report prepared for Maine Department of Inland

Fisheries and Wildlife, Bangor, Maine.

Westfall, M.J. and M.L. May. 1996. Damselflies of North America. Scientific Publishers, Gainesville, Florida.

Needham, J.G., and M.J. Westfall, Jr. 1955. A Manual of the Dragonflies of North America (Anisoptera). University of California Press, Berkeley, California.

Sign Up Now!

If you are interested in participating in the Maine Dragonfly and Damselfly Survey, please contact Phillip:

(207) 581-2876

demaynad@umenfa.maine.edu

or Mark:

(207) 941-4475

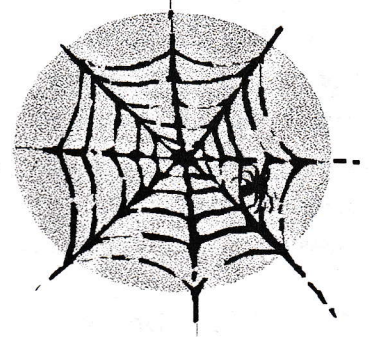
mark.mccollough@state.me.us

Butterflies on Monhegan

I have made some observations of butterflies on Monhegan Island and want to hear from anyone else who has other observations or knows anything about the Lepidoptera there. Please contact: Ernest H. Williams, Professor and Chair, Department of Biology, Hamilton College, Clinton, NY 13323.

Web Sites (Without the Spiders)

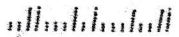
For those of you with access to the Internet, hang ten with the MES. As a regular feature of the newsletter, I hope to compile a list of interesting insect-related websites, and I encourage you to submit your favorites to us for future issues. Dick Dearborn and I have supplied these for starters:



Young Entomologist's Society: <http://members.aol.com/YESedu/welcome.html>

US National Museum with links to other sites:
<http://www.sel.barc.usda.gov/selhome/others.htm>

Insects of Canada: <http://www.nature.ca/english/insects/index.html>



Patricia Ledlie Booksellers: <http://www.ledlie.com>

Iowa State Entomology Index: Checklists: <http://www.ent.iastate.edu/List/checklists.html>

Interested in learning more about Odonata? Visit these websites:

Links to worldwide odonate sites: <http://www.fortunecity.com/greenfield/mother/49/links.htm>

Links to US odonate sites: <http://www.ifas.ufl.edu/~entweb/draghome.htm>

-Nancy Sferra

The *Northeastern Naturalist*, published quarterly by the Humboldt Field Research Institute in Steuben, Maine, is a quarterly journal publishing scientific articles, research papers, research summaries, general interest articles, field notes, and other special features. Articles on insects appear in the journal on a regular basis. Subscriptions are \$40 or \$30 for students. For information on writing articles or subscribing contact: *Northeastern Naturalist*, Humboldt Field Research Station, PO Box 9, Dyer Bay Road, Steuben, Maine 04680-0009; Phone: (207) 546-2821; e-mail: humboldt@nemaine.com; <http://maine.maine.edu/~eaghill/AFORM.html>

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