



# ***VES NEWS***

The Newsletter of the Vermont Entomological Society

Number 53  
Fall 2006



On the web at [www.VermontInsects.org](http://www.VermontInsects.org)

# VES NEWS



The Newsletter of the  
Vermont Entomological Society

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The **Vermont Entomological Society** is devoted to the study, conservation, and appreciation of invertebrates. Founded in 1993, VES sponsors selected research, workshops and field trips for the public, including children. Our quarterly newsletter features developments in entomology, accounts of insect events and field trips, as well as general contributions from members or other entomologists.

VES is open to anyone interested in insects and other invertebrates. Our members range from casual insect watchers to amateur and professional entomologists. We welcome members of all ages, abilities and interests.

You can join VES by sending dues of \$10 per year to:

Scott Griggs  
VES Treasurer  
49 Lover's Lane  
Grand Isle, Vermont 05458

## Cover Photo:

This Cecropia Moth (*Hyalophora cecropia*) larva was photographed in Plainfield, Vermont, on August 23, 2006, by Bryan Pfeiffer.

## Back Page Photo:

Two-spotted Skippers (*Euphyes bimacla*) turned up at a few new sites in Vermont this past season. Bryan found this one at a bog in the Northeast Kingdom.

See this newsletter in living color  
on the web at:  
[www.VermontInsects.org](http://www.VermontInsects.org)

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# WANTED

Your discoveries, announcements, book reviews, photos, or other items for the next issue of  
**VES News.**

(We'll also still entertain suggestions for a better name for this newsletter.)

**The deadline is January 15**

Notify Bryan Pfeiffer at:  
[bryan@wingsenvironmental.com](mailto:bryan@wingsenvironmental.com)

## Insect Dreams

By Bryan Pfeiffer

OK, I admit this is a risky and unorthodox (perhaps eccentric) president's report. But with winter approaching, and many of us only dreaming about adult, flying insects, I thought I'd share my latest insect dream, which I had just before Thanksgiving. (Feel free to turn the page now -- or make me an appointment with a psychoanalyst.)

The dream involved four dragonfly species. I was making a quick stop at Dennis Pond Bog (which actually exists) in the Northeast Kingdom. A short walk to the bog revealed *Nanothemis bella* (Elfin Skimmer), which is North America's smallest dragonfly, stockier but shorter than most damselflies; the males are powdery blue and the females are bee mimics. Also flying in my dream was *Stylurus scudderii* (Zebra Clubtail), a stunning dark Clubtail with glowing green eyes and yellowish rings around its abdominal segments. Oh, I also had dry feet at all times (hey, this was a happy dream). *N. bella* is indeed a bog species; *S. scudderii* isn't. But I've actually seen *S. scudderii* on the road to this bog, so while these two species would not normally be flying concurrently, they were nevertheless habitat-appropriate.

I dashed back to the car for the camera. (*N. bella* can be surprisingly skittish for photos.) Just as I got the gear ready to go, a Mountain Lion (*Puma concolor*) appeared in full view -- and I got amazing photos! (But that's another story.)

Things got a bit strange back at the bog. I returned to find two other species -- only these weren't actual species (which is the case with nearly all of my arthropod dreams). One was *Aeshna celethemis* (I'm not making this up). He had the thorax of a typical eastern *Aeshna* and the abdomen of *Perithemis tenera* (hey, my dreams aren't always taxonomically correct). The other species I did not know. It was a damselfly dream come true -- a cross between a *Calopteryx* (*Jewelwing*) and *Hetaerina* (*Rubyspot*). I never caught these, but they glowed and flashed emerald and ruby in flight. It made me think of those bright, sour Jolly Rancher candies. It was delightful. Waking up was a drag.

As I mentioned, my insect dreams (always in color) tend to result in some intelligently designed species. I'm partial



"*Aeshna celethemis*" (The Dream Dragonfly)

to *Colias* spp. (sulphur butterflies); and some time ago "Marine Sulphur" -- a resplendent orange-and-yellow butterfly with vibrant aquamarine wing edges and body parts -- was among the most stunning insects ever to appear in my dreams.

Dream on, entomologists!

### Web Site Update

The VES web site is overdue for an overhaul. I plan to do that in coming months.

I recognize that our site — [www.VermontInsects.org](http://www.VermontInsects.org) — isn't something that folks visit as part of their daily web routine. But, as its name implies, the site has the potential to meet many of your entomological needs. So rather than being the online presence of VES alone, perhaps the site can become a hub for other insect news and activities.

Please take some time to visit the site and suggest some changes. I'll also welcome to the site any content or announcements you'd like to contribute. Send ideas and items to me at [Bryan@WingsEnvironmental.com](mailto:Bryan@WingsEnvironmental.com). Thanks.

*Bryan Pfeiffer, VES president, specializes in butterflies and dragonflies.*

## VES Winter Pot-Luck January 21

**B**ring your food and insects specimens (but not necessarily together) to the annual VES winter pot-luck brunch meeting on Sunday, January 21 at 11 am at Wake Robin in Shelburne

We'll eat and plan for the coming field season. We'll also use the meeting as an opportunity to share and discuss any curious specimens from the past field season.

So if you care about the future of VES, at least for this coming year, please attend. We had quite a feast at the last winter pot-luck.

Ross and Joyce Bell have graciously offered to host our meeting at Wake Robin. To get there from Route 7 in

Shelburne, turn west on Bostwick Road and drive approximately one mile to Wake Robin Drive. You'll see a sign.

Turn left onto Wake Robin Drive, head up the hill and then look for a sign that says "Hornbeam Visitor's Parking." The road goes under a pedestrian covered bridge and the parking lot is ahead on the right. It holds about eight cars but there is additional parking 30 feet past that spot to the left alongside the road the goes to the top of the hill.

When you enter the door at Hornbeam, you are on the first floor. Walk straight ahead about 15 ft, turn left by the elevator and proceed into the lounge. We'll hope to see you there!

## Our Own Electronic Bulletin Board

**H**ere's your chance to communicate easily with other VES members about all things entomological. The VES now has its own Google Group.



For those of you unfamiliar with these sorts of Internet bulletin boards, the idea is simple. Once you join the group, you can post messages to other members.

Say, for example, you've got some Tiger Beetle you can't identify. Post a description — even a photograph — to our group for everyone to see. Odds are good that

someone will post a reply.

Many of us get too much email these days. And the good news is that you can choose to receive post by email or simply view them online. It's up to you.

Perhaps our Google Group can become a vital link among VES members — for Society events, announcements or breaking news. So, far 19 of us have signed on. We've discussed everything from bee fossils to book lice.

You can take a tour at:

<http://groups.google.com/group/Vermont-Entomological-Society>

Please join us!

## Get Your 2007 MES Calendar

Our friends at the Maine Entomological Society have published another version of their fine, full-color calendar.

This one features everything from orb weaving spiders to halictid bees (an amazing photo).

The calendar is \$15 (including postage) or \$12 should you be in Maine to pick it up.

To place your order, contact Dick Dearborn at (207) 293-2288 or by e-mail at [modear@prexar.com](mailto:modear@prexar.com).

(By the way, that's VES President Bryan Pfeiffer's Monarch photo on the cover.)



# CUTTING TO THE CHASE: BUTTERFLIES AND MOWING

By Jessica Stager

I am that girl you drove past this summer. The one who stood out among the spandex-strapped cyclists, pedaling with heavy green Muckboots and long pants. The girl with a piece of PVC pipe hose-clamped to her bike rack, an indispensable invention that cradled the handle of my butterfly net, keeping it safely away from the back wheel. The net itself waved like a flag in the wind – caught it, actually, like a kite, enhancing my ridiculous appearance as I pedaled like a madwoman, going nowhere. What was I up to, you wondered.

This June, July and August I spent each sunny day pacing transects across several fields of the Champlain Valley, from Swanton to Charlotte, counting butterflies. Each of the fields I visited was managed differently; that is, they were brush-cut or hayed at different times and different frequencies. My mission was (and continues to be) to determine whether a pattern exists that links a field's mowing regime to its butterfly community.

A little background. Most of us will recall the story of 200 years ago when European settlers transformed our Vermont landscape from a rolling blanket of thick, dense forest into an agrarian panorama. The change had tremendous ecological consequences: flooding and erosion increased as woods were cleared, swamps were drained, and streams were dammed. The wild turkey, beaver, and deer were extirpated due to habitat loss and hunting.

But the spread of agriculture also created new habitat for species whose ranges had previously been limited by the north woods. Vast pastures and hayfields connected Midwestern prairie to coastal dunes, and it didn't take long for new communities of winged wildlife to occupy them. The Dickcissel (*Spiza americana*) spread eastward from the tallgrass prairies in the early 1800s. The prairie subspecies of the Horned Lark (*Eremophila alpestris praticola*) arrived in Michigan and Ontario in the 1870s, New York in the 1880s, and New England by 1891.

Current ranges of many larval food plants suggest a similar route of expansion for grassland-dependent Lepidoptera. For example, it is widely believed that the Regal Fritillary (*Speyeria idalia*), a prairie species, followed its host, the violet (*Viola* spp.), to New England meadows. The Regal Fritillary reached its peak in abundance in New England during colonial times.

Though agriculture continues to play an important role in Vermont's economy and identity, throughout New



Regal Fritillary (*Speyeria idalia*)

England grassland area has declined by 60 percent since the 1930's, and a young forest is rapidly erasing signs of the nineteenth century. The turkey, beaver, and deer have rebounded tremendously in recent decades, while grassland birds have become the most threatened avian group in North America, and the Regal Fritillary has been extirpated from all New England states.

Farmland is becoming increasingly fragmented and more intensively managed, and grassland butterflies find themselves trapped on islands of low-quality habitat surrounded by encroaching succession and commercial development. The relatively recent arrival of these organisms has caused some debate over the prioritization of grassland flora and fauna in the Northeast; but this position ignores rates of habitat loss in the Midwest (a region that would presumably be considered grassland species' center of abundance), where original prairie habitat has been reduced by an estimated 80-99 percent. Northern New England's remnant grasslands may provide a critical alternative for many species whose original habitat has all but disappeared.

As amateur and professional entomologists, as naturalists, citizen scientists, concerned environmentalists, and -- above all -- landowners, what can we do to create or enhance grassland butterfly habitat?

Enter a girl and her bike. I believe that one answer may lie in how we choose to manage our remnant old fields -- those that are leased to a farmer for hay or brushcut to maintain a good view. Mowing is, of course, a disturbance that maintains butterfly habitat, but like any disturbance, it also causes some destruction where it occurs. Cutting your field at the "wrong" time may

(Continued on page 7)

# A STREAMSIDE DRAGONFLY FUNNEL TRAP

By Kevin Hemeon

During the 2006 field season I was sampling a forest stream for the New York Odonata Survey. On a visit in June I noticed a patrolling *Cordulegaster maculata* (Twin-spotted Spiketail).

This would be a county record for Rensselaer County, so I went about attempting to net a voucher specimen. This species patrols the bank low to the water in a seemingly unhurried fashion. In my naiveté, I thought netting one would be easy. Over an hour later and pressed for time, I left empty handed.

During the winter months, I had given some thought to attempting to set up traps that could be easily monitored along flyways. Malaise traps, I was told by a biologist, were out of the question for most odonates as their vision allowed them to avoid such structures.

I have a job site where I have had to put up mesh to keep out the deer. On occasion, Baskettails and Darners would get caught in the mesh. Apparently, the mesh was so fine the dragonflies could not see it. Maybe I could make a trap of this instead of the insect mesh which appears more solid? After all, I didn't need to catch mosquitoes and gnats.

I decided to give it a try and, after some early failures, came up with a trap that could be left untended and emptied at leisure.

The materials are five, four-foot metal fence stakes and a roll of fine deer mesh. My goal was to make a funnel along the flyway at the edge of the stream. I placed two of the stakes four to five feet apart (the funnel opening), then two more about 10 feet downstream. This pair was two to three feet apart. The fifth stake was about three feet farther back and would be the tip of a funnel. One side of the funnel was on the bank a few inches in a patch of sedge and the other side was in the stream.

The mesh was then fastened to the stakes from the bank-side front of the funnel, down to the funnel tip and back up the in-stream side. The excess length was stretched across the stream and tied to a tree to herd in any mid-stream fliers. I then folded the excess height of mesh across the funnel to form a roof. I had to double up the mesh as the Odes could "worm" their way out of a single layer.

Finally, I also hung an 18-inch flap of mesh from the roof at the back pair of stakes. This was because I noticed that as the dragonflies hit the back of the funnel they would fly up then back out the entrance. The flap kept them in the back of the funnel. Another flap at the entrance that could be used to close the trap while not in use completed the design.

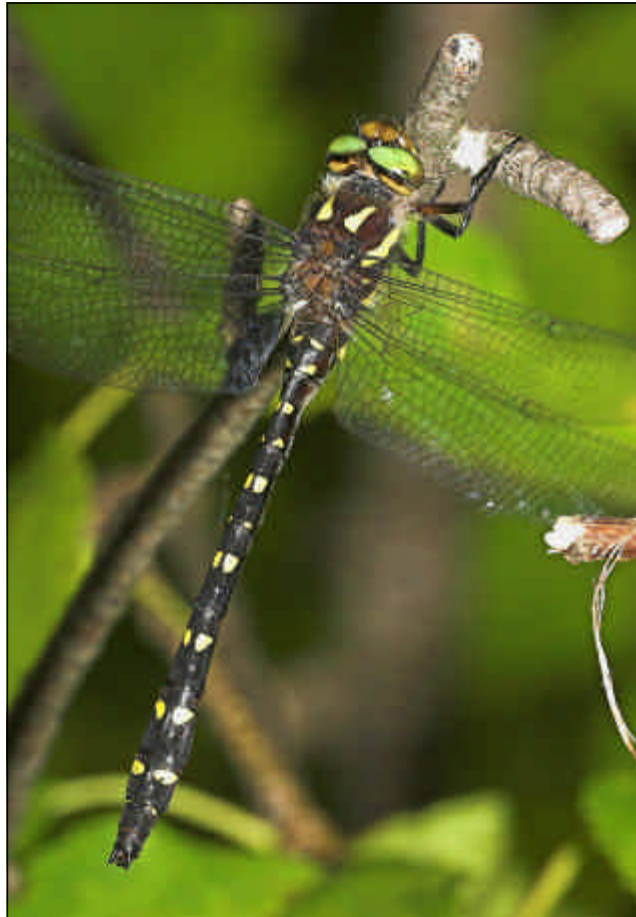
By the end of the season, I had tallied three species; *Cordulegaster maculata* (which got this whole thing started), *Boyeria vinosa* (Fawn Darner) and a single *Aeshna umbrosa* (Shadow Darner).

The first two species were caught in surprising numbers. Had I counted only the number of flying dragonflies any given visit, the total would have been two or three individuals in most cases. Yet

there were days when close to 20 individuals were in the trap. Quite a miscount!

I think this trap could be used for most low flying Odonata that patrol banks or "straight" line patterns. It would be especially useful for estimating population size at a given site or determining flight periods. In addition, the insects can be released to go about their business unharmed.

*Kevin Hemeon lives in Hoosick Falls, NY, and has always been interested in nature. He's an active participant in the Vermont Butterfly Survey and the New York Dragonfly and Damselfly Survey, which has allowed him to gain new knowledge of and appreciation for the creatures in our own backyards.*



*Cordulegaster maculata* (Twin-spotted Spiketail)

© Michael Blust

**Insects: Their Natural History and Diversity: With a Photographic Guide to Insects of Eastern North America**  
By Stephen A Marshall. Firefly Books. 2006, 718 pages in 8.5x11 inch format

By Dick Dearborn

There have been many excellent new books published over the last few years on insects and these valuable references written by specialists certainly deserve a place on the bookshelf of amateur and professional alike. Before you put away your credit card, however, you must see Stephen Marshall's new book. This one will "blow you away" with its broad yet in-depth content.

Since I was shown a copy by my daughter Linda in early March I have not ceased to "ooh and ahh" over it and to use it almost daily as I continue with my entomological endeavors. It's a classroom on paper and must reflect the enthusiasm and fascination with insects that Dr. Marshall had as he taught entomology for more than 20 years. While he draws deeply from his special interest in Diptera (Flies), he is obviously comfortable in dealing with other orders as well. This great contribution to the field of entomology also reflects the input on many levels of Dr. Marshall's fellow entomologists from across Canada and the United States. It won't matter what your area of interest is, I'm sure that you will use this book as a reference often.

This comprehensive book covers all orders and major families of insects (Class Insecta) likely to occur in eastern North America. Related Classes of arthropods such as Arachnida are covered as well but to a lesser degree. While the impressive selection of more than 4,000 (I did not count them) live action photos (for the most part) is hard to top, the associated text has those just-needed bits of information you have been looking for. I have already corrected a couple of misconceptions that I had in groups with which I only had passing familiarity. And the keys – well, for those of you who have labored long over keys that used terms

## CUTTING TO THE CHASE

(Continued from page 5)

destroy many butterflies during their early, immobile (caterpillar and chrysalis) stages, or cause the dispersal of adult butterflies from a site before they can mate and oviposit. Mowing also has indirect effects on butterfly communities by leveling the unevenness of a field, which butterflies depend on to regulate their temperature and moisture levels.

If we are interested in allowing our fields to serve as

that are totally beyond comprehension -- you will find relief in the clear yet concise pictorial keys to order and family found in Marshall's book.

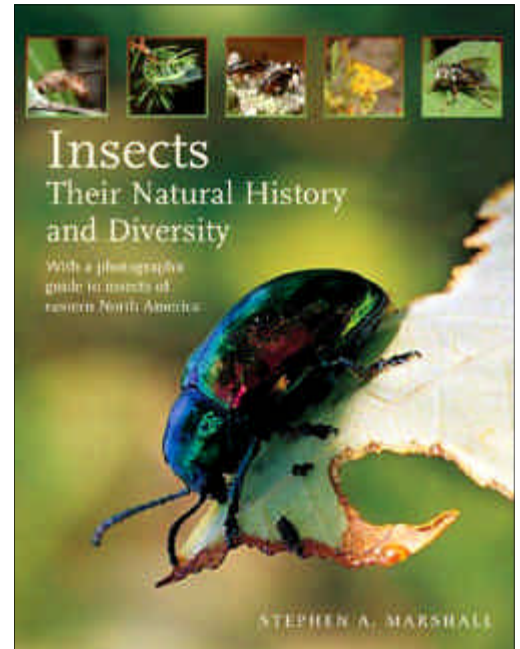
Several Maine Entomological Society members have already put these keys to the test, successfully.

And the systematics are up to date! By now it should be obvious that I am thoroughly sold on this great book. Buy a copy now before it goes out of print as many good books have in the past and put it into current use. Don't wait! Try it and I feel sure that you will like it too. It will be a book that you will return to often -- and skimming through the pictures will be a common activity. The only part of the book I found limiting was the index, as you need a pretty good idea where you want to go before you use it. But this is understandable; you would have to have an index three times as long to cover all of the insects and terms included, and I rather enjoy skimming the book in search of a particular insect anyway, which is easy to do.

*Noted entomologist Dick Dearborn is president of the Maine Entomological Association. This review appeared in the fall issue of The Maine Entomologist.*

butterfly habitat, when is the best time to cut them? Is it possible to manage our fields with an eye toward butterfly diversity? I hope to answer these and other questions this winter as I move through data analysis.

*Jessica Stager is pursuing an M.S. in Conservation Biology at Antioch University New England. She studies insect ecology and conservation, landscape heterogeneity and biodiversity, and agroecology, and has worked in each of these areas throughout New England and in the tropics.*





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