



# THE BOGHAUNTER

Occasional News About the Dragonflies and Damselflies of Vermont

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## From the Editor:

Welcome to the second issue of *THE BOGHAUNTER*, occasional news about the dragonflies and damselflies of Vermont. The start of another field season is a lot like opening day to baseball season – full of hope and anticipation. Yet a rainy end to May kept many of us from finding odes. Even so, as the songbird migration came to a close, I noticed a Common Grackle eating a Baskettail species (*Epiheca* sp.) and an Eastern Kingbird feasting on an emergence of Eastern Forktails (*Ishnura verticalis*). So let the season begin! To be sure, many legends of this insect order have swung their nets in the waters of this state. Nevertheless, Vermont remains fertile turf for new discoveries. And we can't discover without more of us out there getting wet and swinging nets. Accordingly, I'm devoting much of this issue to "odonata fundamentals" – advice for the many beginners among us about studying and enjoying these insects. I ask for indulgence (even leniency) from veterans. Much of this issue reflects my own humble and fresh experiences learning Odonata. Finally, three corrections from the Winter 2003 issue: Blair Nikula gets the photo credit for his fine shot of *Argia apicalis* (Blue-fronted Dancer). Mike Blust gets credit for the phrase, "Good things come to those who wade." And while *Stylurus scudderi* (Zebra Clubtail) certainly frequents the Montpelier municipal pool, our author wasn't entirely sure he's actually seen females ovipositing in the pool. Stay tuned.

Bryan Pfeiffer

## Dragonflies for Dummies

By Bryan Pfeiffer

Paul-Michael Brunelle had to chuckle. I was perched and wobbling on a boulder at the edge of Bailey Pond in Marshfield. A male *Anax junius* (Common Green Darner) drifted by within reach of my net. I took a swing, missed, and slipped off the boulder, landing waist-deep in the pond. Our group got a cheap laugh.

Brunelle, the mentor on my first ode outing, offered no sympathy from his spot on higher ground, saying something to the effect: "That swing was pathetic. You've got to work on your follow-through."

So it goes for an apprentice odonatist. That *Anax junius* toyed with me only three years ago. Ever since I've enjoyed a crash-course in the discovery of these remarkable insects. Vermont is loaded with eager novices. We have much work to do and many dragonflies to discover. So with that in mind, and my own learning



*Calopteryx aequabilis*  
River Jewelwing

Bryan Pfeiffer

still fresh (and still happening), here are 10 tips for the beginning dragonflyer. Be aware that this is how I myself have learned odes. Your results may vary.

**1) Find a Mentor** – The only thing that beats a good field guide is a good guide in the field. Seek out the experts. To be sure, there's tremendous value in discovery on your own with a good guidebook. Yet while wading in a wetland, it's often easier to learn when someone *shows* you

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## Entomology Etymology: My Big Fat Greek Dictionary

By Mike Blust

Birdwatchers do not need to deal with scientific names. The common names are standardized. Only when I have gone overseas and had to reconcile field guides from different countries have I needed to pay close attention to genus and species. The study of odonates has a foot in both streams (so to speak), and as a result it is useful to gain familiarity with the scientific names. Some publications and people use common names, some use scientific, so it is good to be bilingual – trilingual, actually – since scientific names may come from Greek or Latin.

If the names appear to be meaningless combinations of letters (the *Thaskrinogw leinsslcihelsek* are emerging!) they can be difficult to remember. But the names are not meaningless. Odonata translates to "toothed jaw" and shares a Greek root with orthodontist – someone you visit to get "straight teeth." Any prey of dragons and damsels will no doubt agree that the name is appropriate.

Occasionally, scientific names become common names. For instance, everyone knows of the flying dinosaurs, the pterodactyls. "Ptero" is Greek for wing. "Dactyl" is Greek for

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## Dragonflies for Dummies

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why the ode you just caught is *Aeshna canadensis* (Canada Darner) rather than *Aeshna verticalis* (Green Striped Darner). Join guided dragonfly walks. Those are hard to find in Vermont (we're hoping to change that), but more common in southern New England.

**2) Love Your Field Guide** – Peruse it regularly. Gaze wistfully at the photos. Read the species descriptions. Know in advance what to look for on a given ode when it pops into view or your net. (You might want to start now with *Leucorrhina*, the Whitefaces, which fly early.) Your goal is know to how to approach the identification of a species in a given genus *before you encounter it*. The mosaic darners (*Aeshna* sp.) in Vermont, for example, are readily identifiable (sometimes in flight) by a look at the face, thoracic stripes, and abdominal markings. On the meadowhawks (*Sympetrum* species) it helps to look (though a hand lens) at genitalia. On male baskettails (*Epiptera* species) you'll want to look at (among other features) the cerci. Here are a few field guides:

*Beginners Guide to Dragonflies* by Blair Nikula and Jackie Sones (in the Stokes nature guide series). This little book is an essential introduction to damselflies and dragonflies for the novice (with accounts of more than 100 species).

*A Field Guide to the Dragonflies and Damselflies of Massachusetts* by Blair Nikula, Jennifer Loose, and Matt Burne. Once published (soon), this will be an ideal field guide for Vermont. It will be available (and quite affordable) from the Massachusetts Natural Heritage & Endangered Species Program or the Ode News web site <[www.odeneews.net](http://www.odeneews.net)>.

*Dragonflies Through Binoculars* by Sidney Dunkle. For advancing odonatists, this supreme guide covers all the dragonflies (Anisoptera) of North America, but not damselflies (Zygoptera). It's loaded with essential information about each species, including characteristics observable with the critter in the hand. Its only weakness is the sub-standard quality of some photographs. I never leave home without this guide.

**3) Swing A Net** – The experts can identify most dragonflies though binoculars. The rest of us often need to catch them. Catching dragonflies is challenging, exhilarating, fun, and the quickest way for novices to learn. (Don't forget your follow-through.)

**4) Use A Sturdy Net** – Although I've only been dragonflying for three years, I've tried about every net out there. One popular net I *dislike* (except maybe for damselflies) is the style available from BioQuip <[www.BioQuip.com](http://www.BioQuip.com)>. I find the net rings on BioQuip nets too flimsy and flexible for sudden and fast swings at swift dragonflies. I prefer a more robust handle and a stiffer net ring. Borrowing a design from Brunelle, I buy long-handled fishing dip nets (the best are the Lucky Strike nets available at Canadian Tire stores in Canada for about \$15). You can carefully remove the ring from the handle of most dip nets, and replace the fish netting with one of BioQuip's standard, polyester 18-inch aerial net bags. The result is a net light and wide and fast to swing. It'll also serve as reliable brace for those awkward, unbalanced moments rock-hopping in rivers or lunging in peatlands. You might

also consider nets available from Rose Entomology <[www.roseentomology.com](http://www.roseentomology.com)>. They're great (but expensive).

**5) Take Some Specimens** – Responsible collecting of voucher specimens is an essential tool of entomology. We'll do far more to help these insects if we can learn them and unequivocally establish their presence now by taking a few individuals as voucher specimens. If you'd rather not collect, that's fine. Take good photos. But, remember, these are invertebrates laying lots of eggs. Hunters shoot 10,000 white-tailed deer in Vermont each year with barely a protest. Combined, we'll all take fewer than 1,000

dragonflies this year, while motorists on Vermont roads will probably kill at least scores of thousands. Please recognize that taking voucher specimens includes the duty to preserve them so that they can be of value to you and others.

**6) Buy a Hand Lens** – If you don't own a hand lens, you're missing a profound view of our world – sort of like watching birds without binoculars. A 14X hand lens is fine for most encounters with small things in nature. Search the web for

deals on Bausch & Lomb hand lenses – either the “Coddington” or the “Hastings” (more expensive but nice). Always wear your lens on a nylon string around your neck (unless you want to lose it). Looking through the big end of your binoculars will also magnify a small object held close. Or those on a budget can buy a fine 10X hand lens at hobby shops or the University of Vermont bookshop for about \$12.

**7) Use Close-focusing Binoculars** – Birdwatchers turning their binos to dragonflies (or butterflies) may find that they have to back up to get a bug into focus. Many newer binoculars will focus on objects as close as six feet. Don't buy compact binos, which are generally hard to use and have substandard optics. But moderate-sized models (8x32 or so) are lightweight and great in the field.

**8) Make Cheat Sheets** – I “enhance” my field guides with drawings and notes in the margins. Some ode field guides group on a single page excellent drawings of diagnostic features on certain genera – the side view of cerci and paraprocts on *Enallagma* species, for example, or the thoracic patterns on various *Aeshna* species. Make color photocopies of these, trim the margins, plastic-coat them, and carry your new “ID cards” into the field. Even a small spreadsheet comparing similar species will help you “key out” individuals in the field. You can tape it to the inside cover of your field guide.

**9) Join the Dragonfly Society of the Americas** – For \$15 a year you'll join a community of ode-lovers – academics, the self-taught-hard-core, as well as plenty of casual observers. The DSA hosts national and regional meetings. Its quarterly newsletter, *Argia*, will be daunting at first. But you'll soon be devouring every word and looking forward to the next issue.

**10) Go Outside** – Get thee to water. Wet and muddy your feet, swing your net with grace and agility, and dwell long in the good company of sparkling insects.



*Hagenius brevistylus*  
Dragonhunter

Bryan Pfeiffer

# A Preliminary List of the Odonata of Vermont

*Editor's Note: The Boghaunter is honored to present this preliminary account of the state's Odonata fauna from Paul-Michael Brunelle. As the author himself points out, this list is by no means complete. There are most certainly unpublished records that are not reported below (particularly at the county level). Nevertheless, this list should serve not only as an account of what's here, but also a call to discover more. Brunelle offers some great hints for finding species new to Vermont. So grab a net and get thee to water.*

By Paul-Michael Brunelle

For a number of years I have been tracking the knowledge of Odonata in Vermont. Recently I have been delighted to see the increase in interest in the state. With the entry into the study of Don Miller, Bryan Pfeiffer, Michael Blust, and others, I expect our knowledge of Vermont odonate fauna to increase greatly in the near future.

To assist in these studies, I have prepared the following cursory list, which should be reasonably up to date on the state level as of this publication. The county lists, however, are very thin, and I know there has been survey work for which I do not have the data. Currently in the Atlantic Dragonfly Inventory Program (ADIP) database, I have 562 records of Odonata from Vermont, mostly from the literature, about 20 percent from my own survey, and 20 percent from Hal White's records.

Below I give some details of odonate distribution in the state to the county level. Species presented in brackets [ ] are known from nearby states and provinces, and hence are a possibility for Vermont. The G and N numbers are NatureServe <www.natureserve.org> (formerly The Nature Conservancy) status indicators for Global and National (United States) respectively. The lower the number, the higher the conservation concern, e.g.: G5 and G4 are considered secure, G3 somewhat at risk, and G2 and G1 are considered to be at risk to varying degrees. Question marks in G and N ranks are from NatureServe data.

English names are those adopted by the Dragonfly Society of the Americas (Paulson and Dunkel 1996). Note that for taxonomic reasons my numbers for state lists may differ slightly from those published by others. In addition there are some state inclusions



*Leucorrhinia hudsonica*  
Hudsonian Whiteface

Photo by Bryan Pfeiffer

which have not yet been published. I anticipate many additions to the Vermont and county lists in the future. Have fun.

## Summary Species Numbers

**Vermont (VT):** 130 Odonata species

**Counties:** Addison (Ad) 16 species, Bennington (Be) 5, Caledonia (Ca) 24, Chittenden (Ch) 6, Essex (Es) 60, Franklin (Fr) 4, Grand Isle (GI) 7, Lamoille (La) 3, Orange (Or) 11, Orleans (Ol) 14, Rutland (Ru) 57, Washington (Wa) 30, Windham (Wi) 16, Windsor (Ws) 11. (U indicates I have only a state-level report.)

**Adjacent or Nearby States and Provinces:** Connecticut (CT) 149 species, Maine (ME) 163, Massachusetts (MA) 171, New Hampshire (NH) 147, New York (NY) 170, Rhode Island (RI) 131, Eastern Quebec (EQ) 127, New Brunswick (NB) 129, Ontario (ON) 175.

*Paul-Michael Brunelle has been studying the Odonata of the Atlantic provinces of Canada and northern New England for more than a decade. He planned and helped coordinate the Maine Damselfly and Dragonfly Survey, was retained by Parks Canada to study Odonata in Cape Breton Highlands, and discovered *Neurorodulia michaeli*. He also founded the Atlantic Dragonfly Inventory Program.*

## Suborder Zygoptera (Damselflies) – 41 species

### Family Calopterygidae (Broadwings)

#### Genus Calopteryx (Jewelwings) – 3 species in VT

- C. aequabilis* Say 1839, River Jewelwing – G5, N5 - VT (Ad, Be, Ca, Es, Ol, Ru, Wh), NY, EQ, MA, NH, CT, ME, RI, ON
- C. amata* Hagen 1890, Superb Jewelwing – G4, N4 - VT (Ca, Es), NY, EQ, MA, NH, CT, ME, RI
- C. maculata* (Beauvois. 1805), Ebony Jewelwing – G5, N5 - VT (Ad, Be, Ca, Es, Ol, Ru, Wa, Wh), NY, EQ, MA, NH, CT, ME, RI, ON
- [*C. dimidiata* Burmeister 1839, Sparkling Jewelwing – G5, N5 - NY, MA, NH, CT, RI. This little species, very similar to *C. aequabilis*, is quite possibly present in clear rivers and streams in the south of Vermont, as it is known from the Nissitissit River, 5 km. southeast of Brookline in southern NH.]

#### Genus Hetaerina (Rubyspots) – 1 species in VT

- H. americana* (Fabricius 1788), American Rubyspot – G5, N5 - VT (GI), NY, MA, NH, CT, ME, RI, ON
- [*H. titia* (Drury 1773), Smoky Rubyspot - G5 - ON]

## Family Lestidae (Spreadwings)

### Genus Archilestes (Great Spreadwings)

- [*A. grandis* (Rambur 1842), Great Spreadwing – G5 - CT, ON]

### Genus Lestes (Spreadwings) – 10 species in VT

- L. congener* Hagen 1861, Spotted Spreadwing – G5, N5 - VT (Wa, Wi, Ws), NY, EQ, MA, NH, CT, ME, RI, ON
- L. d. disjunctus* Selys 1862, Common Spreadwing – G5, N5 - VT (Es, Wa), NY, EQ, MA, NH, CT, ME, RI, ON
- L. d. australis* Common Spreadwing – G5T5 - VT (none), NY, MA, CT, ME, ON
- L. dryas* Kirby 1890, Emerald Spreadwing – G5, N5 - VT (Ad, Es, Fr, Gi, Ru, Ws), NY, EQ, MA, NH, CT, ME, RI, ON
- L. eurinus* Say 1839, Amber-winged Spreadwing – G4, N4 - VT (Wa, Wh), NY, EQ, MA, NH, CT, ME, RI, ON
- L. forcipatus* Rambur 1842, Sweetflag Spreadwing – G5, N5 - VT (none), NY, EQ, MA, NH, CT, ME, RI, ON
- L. inaequalis* Walsh 1862, Elegant Spreadwing – G5, N5 - VT (Wa), NY, EQ, MA, NH, CT, ME, RI, ON
- L. rectangularis* Say 1839, Slender Spreadwing – G5, N5 - VT (Ru, Wa, Ws), NY, EQ, MA, NH, CT, ME, RI, ON

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## Dragonflies of Vermont (continued)

- L. unguiculatus* Hagen 1861, Lyre-tipped Spreadwing – G5, N5 - VT (Be, Gi, Ru), NY, EQ, MA, NH, CT, ME, RI, ON  
*L. vigilax* Hagen in Selys 1862, Swamp Spreadwing – G5, N5 - VT (Ru), NY, MA, NH, CT, ME, RI, ON

### Family Coenagrionidae (Pond Damsels)

#### Genus Amphiagrion (Red Damsels) – 1 species in VT

- A. saucium* (Burmeister 1839), Eastern Red Damsel – G5, N5 - VT (Ad, Es, Fr, Or, Ol), NY, EQ, MA, NH, CT, ME, RI, ON

#### Genus Argia (Dancers) – 3 species in VT

- A. apicalis* (Say 1839), Blue-fronted Dancer – G5, N5 - VT (Ru), NY, MA, CT, RI, ON  
*A. fumipennis violacea* (Hagen 1861), Variable Dancer – G5T5, N5 - VT (Es, Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON  
*A. moesta* (Hagen 1861), Powdered Dancer – G5, N5 - VT (Es), NY, EQ, MA, NH, CT, ME, RI, ON  
*[A. sedula* (Hagen 1861), Blue-ringed Dancer - G5 - ON]  
*[A. tibialis* (Rambur 1842), Blue-tipped Dancer - G5, - ON]  
*[A. translata* (Hagen in Selys) 1865, Dusky Dancer - G5, N5 - NY, MA, CT, ME, RI, ON]

#### Genus Chromagrion (Aurora Damsel) – 1 species in VT

- C. conditum* (Hagen in Selys 1876), Aurora Damsel – G5, N5 - VT (Ad, Ca, Es, Fr, Or), NY, EQ, MA, NH, CT, ME, RI, ON

#### Genus Coenagrion (Bluets) – 2 species in VT

- C. interrogatum* (Hagen in Selys 1876), Subarctic Bluet – G5, N3? - VT (Es), EQ, ME, ON  
*C. resolutum* (Hagen in Selys 1876), Taiga Bluet – G5, N4 - VT (Es), NY, EQ, MA, NH, CT, ME, ON  
*[C. angulatum* Walker 1912, Prairie Bluet - G5 - ON]

#### Genus Enallagma (Bluets) – 14 species in VT

- E. antennatum* (Say 1839), Rainbow Bluet – G5 - VT (Ru), NY, EQ, ON  
*E. aspersum* (Hagen 1861), Azure Bluet – G5, N5 - VT (Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON  
*E. boreale* Selys 1875, Boreal Bluet – G5, N5 - VT (Es), NY, EQ, MA, NH, CT, ME, RI, ON  
*E. carunculatum* Morse 1895, Tule Bluet – G5, N5 - VT (Ch), NY, EQ, MA, CT, ME, ON  
*E. civile* (Hagen 1861), Familiar Bluet – G5, N5 - VT (Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON  
*E. c. cyathigerum* (Charpentier 1840), Northern Bluet – G5, N5 - VT (Wa), NY, EQ, MA, NH, CT, ME, RI, ON  
*E. c. vernale* (Gloyd 1943), Springtime Bluet – G4Q, N4 - VT (none), NY, EQ, MA, NH, ME, ON (Note 1.)  
*E. ebrium* (Hagen 1861), Marsh Bluet – G5, N5 - VT (Ad, Ca, Ch, Es, Gi, Ru, Wa, Wh, Ws), NY, EQ, MA, NH, CT, ME, RI, ON  
*E. exsulans* (Hagen 1861), Stream Bluet – G5, N5 - VT (Es, Ru), NY, EQ, MA, NH, CT, ME, RI, ON  
*E. geminatum* Kellcott 1895, Skimming Bluet – G5, N5 - VT (Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON  
*E. hageni* (Walsh 1863), HagenUs Bluet – G5, N5 - VT (Ca, Es, Ru, Wa), NY, EQ, MA, NH, CT, ME, ON  
*E. signatum* (Hagen 1861), Orange Bluet – G5, N5 - VT (Fr, Ws), NY, EQ, MA,

NH, CT, ME, RI, ON

- E. t. traviatum* Selys 1876, Slender Bluet – VT (Ru), NY, MA, CT, RI, ON  
*E. vesperum* Calvert 1919, Vesper Bluet – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON – (anna Williamson 1900, River Bluet - G5 - ON)  
*[E. basidens* Calvert 1902, Double-striped bluet - G5 - ON]  
*[E. clausum* Morse 1895, Alkali Bluet - G5, N5 - NY, EQ, ON]  
*[E. daeckei* (Calvert 1903), Attenuated Bluet - G4, N4 - MA, RI]  
*[E. divagans* Selys 1876, Turquoise Bluet - G5, N5 - NY, MA, NH, CT, ME, RI.

A tiny bluet with considerable black on the abdomen. Like *I. Kellikotti*, it likes to perch on water lily pads.]

*[E. doubledayi* (Selys 1850), Atlantic Bluet - G5, N5 - NY, MA, NH, CT, RI]

*[E. durum* (Hagen 1861), Big Bluet - G5, N5 - NY, MA, CT, ME, RI]

*[E. laterale* Morse 1895, New England Bluet - G3, N3 - NY, MA, NH, CT, ME, RI. Somewhat difficult to determine, although the black dash on the side of abdominal segment 8 is diagnostic, other Enallagma species can show this feature, though of a smaller size.]

*[E. minusculum* Morse 1895, Little Bluet - G3G4, N3N4 - NY, MA, NH, CT, ME, RI. A small species, generally found in the shallows of lakes with rush beds, in the field. It's royal blue shoulder stripe is distinctive.]

*[E. pictum* Morse 1895, Scarlet Bluet - G3, N3 - NY, MA, NH, CT, ME, RI. Similar to *E. signatum*, but *E. pictum* has a red thorax, which is distinctive in the field; inhabits

vegetated lakes and pond, and shows a tendency to fly at the outer margins of the plant beds.]

- [E. recurvatum* Davis 1913, Pine Barrens Bluet - G3, N3 - NY, MA, NH, ME, RI]

#### Genus Ischnura (Forktails) – 4 species in VT

- I. hastata* (Say 1839), Citrine Forktail – G5, N5 - VT (none), NY, MA, CT, ME, RI, ON  
*I. kelleicotti* Williamson 1898, Lilypad Forktail – G5, N5 - VT (Ru), NY, MA, NH, CT, ME, RI, ON  
*I. posita* (Hagen 1861), Fragile Forktail – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON  
*I. verticalis* (Say 1839), Eastern Forktail – G5, N5 - VT (Ad, Ca, Es, Gi, Or, Ol, Ru, Wa, Wh, Ws), NY, EQ, MA, NH, CT, ME, RI, ON  
*[I. prognata* (Hagen 1861), Furtive Forktail – G4, N4 - NY, MA, CT]  
*[I. ramburii* (Selys 1842), Rambur's Forktail – G5, N5 - NY, MA, CT, ME, RI]

#### Genus Nehalennia (Sprites) – 2 species in VT

- N. gracilis* Morse 1895, Sphagnum Sprite – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON  
*N. irene* (Hagen 1861), Sedge Sprite – G5, N5 - VT (Ca, Ch, Es, Gi, Or, Ru, Wa, Ws), NY, EQ, MA, NH, CT, ME, RI, ON

## Suborder Anisoptera (Dragonflies) – 89 species

### Family Petaluridae (Petaltails)

#### Genus Tachopteryx

- [T. thoreyi* (Hagen in Selys 1857), Gray Petaltail - G4, N4 - NY, MA, NH. There are rumors of this large, gray species in Vermont. Its moist, hillside seep habitat should be present in the state.]

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*Gomphaeschna furcillata*  
Harlequin Darner

Photo by Bryan Pfeiffer

# Dragonflies of Vermont (continued)

## Family Aeshnidae (Darners)

### Genus Aeshna (Mosaic Darners) – 9 species in V

- A. canadensis* Walker 1908, Canada Darner – G5, N5 - VT (Ad, Es, Ol, Ru), NY, EQ, MA, NH, CT, ME, RI, ON
- A. clepsydra* Say 1839, Mottled Darner – G4, N4 - VT (Ru), NY, MA, NH, CT, ME, RI, ON
- A. constricta* Say 1839, Lance-tipped Darner – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON
- A. eremita* Scudder 1866, Lake Darner – G5, N4 - VT (Ru), NY, EQ, MA, NH, ME, ON
- A. i. interrupta* Walker 1908, Variable Darner – G5, N5 - VT (none), NY, EQ, MA, NH, CT, ME, ON
- A. sitchensis* Hagen 1861, Zigzag Darner – G5, N3 - VT (Es), EQ, NH, ME, ON
- A. tuberculifera* Walker 1908, Black-tipped Darner – G4, N4 - VT (Ad, Wa), NY, EQ, MA, NH, CT, ME, RI, ON
- A. u. umbrosa* Walker 1908, Shadow Darner – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON
- A. verticalis* Hagen 1861, Green-striped Darner – G5, N5 - VT (Ad, Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON
- [*A. juncea* (Linnaeus 1758), Sedge Darner – G5, N4 - EQ, NH, ME, ON. A northern species of marshes, lateral thoracic markings straight and thick, similar to *A. tuberculifera*, but *A. juncea* has two strong blue dots on the dorsolateral area of abdominal segment 10.]
- [*A. mutata* Hagen 1861, Spatterdock Darner – G3G4, N3N4 - NY, MA, NH, CT, ME, RI, ON. Associated with Spatterdock (*Nuphar* sp.) in ponds and at lake margins.]
- [*A. septentrionalis* Burmeister 1839, Azure Darner – G5, N5? – ON. Very northern, there is a dubious record from New Hampshire.]
- [*A. subarctica* Walker 1908, Subarctic Darner – G5, N2 - NY, EQ, MA, ME, ON. A northern peatland species, look for bright green sphagnum in wet areas of fens and bogs.]

### Genus Anax (Green Darners) – 1 species in VT

- A. junius* (Drury 1770), Common Green Darner – G5, N5 - VT (Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON
- [*A. longipes* Hagen 1861, Comet Darner - G5, N5 - NY, MA, CT, ME, RI, ON]

### Genus Basiaeschna (Springtime Darner) – 1 species in VT

- B. janata* (Say 1839), Springtime Darner – G5, N5 - VT (Es, La, Ol, Ru), NY, EQ, MA, NH, CT, ME, RI, ON

### Genus Boyeria (Spotted Darners) – 2 species in VT

- B. graffiana* Williamson 1907, Ocellated Darner – G5, N5 - VT (Es), NY, EQ, MA, NH, ME, ON
- B. vinosa* (Say 1839), Fawn Darner – G5, N5 - VT (Es, Gi, La, Ol, Ru), NY, EQ, MA, NH, CT, ME, RI, ON

### Genus Epiaeschna (Swamp Darner)

- [*E. heros* (Fabricius 1798), Swamp Darner - G5, N5 - NY, EQ, MA, NH, CT, ME, RI, ON]

### Genus Gomphaeschna (Split-tail Darners) – 1 species in VT

- G. furcillata* (Say 1839), Harlequin Darner – G5, N5 - VT (Es, La, Ol), NY, EQ, MA, NH, CT, ME, RI, ON
- [*G. antiope* (Hagen 1874), Taper-tailed Darner – G4, N4 - MA, RI]

### Genus Nasiaeschna (Cyrano Darner)

- [*N. pentacantha* (Rambur 1842), Cyrano Darner – G5, N5 - NY, MA, NH, CT, ME, RI, ON. A beautiful, large, turquoise species of slow streams.]

## Family Gomphidae (Clubtails)

### Genus Arigomphus (Clubtails) – 2 species in VT

- A. furcifer* (Hagen in Selys 1878), Lilypad Clubtail – G5, N5 - VT (Ad, Es, Wa), NY, EQ, MA, NH, CT, ME, ON
- A. villosipes* (Selys 1854), Unicorn Clubtail – G5, N5 - VT (none), NY, MA, NH, CT, ME, RI, ON
- [*A. cornutus* (Tough 1900), Horned Clubtail - G4, N4 - EQ, ON.]

### Genus Dromogomphus (Spinylegs) – 1 species in VT

- D. spinosus* Selys 1854, Black-shouldered Spinyleg – G5, N5 - VT (Ca, Es, Ru), NY, EQ, MA, NH, CT, ME, RI, ON
- [*D. spoliatus* (Hagen in Selys 1858), Flag-tailed Spinyleg – G4G5 - ON]

### Genus Gomphus (Clubtails) – 8 species (Note 2) in VT

- G. adelphus* Selys 1858, Moustached Clubtail – G4, N4 - VT (Es, Ru), NY, EQ, MA, NH, CT, ME, RI, ON
- G. borealis* (Needham 1901), Beaverpond Clubtail – G4, N5 - VT (Ca, Es, Wh, Ws), NY, EQ, MA, NH, CT, ME, ON
- G. descriptus* (Banks 1896), Harpoon Clubtail – G4, N4 - VT (Ca, Es, Ol), NY, EQ, MA, NH, CT, ME, ON
- G. exilis* Selys 1854, Lancet Clubtail – G5, N5 - VT (Ad, Ch, Ru), NY, EQ, MA, NH, CT, ME, RI, ON
- G. lividus* Selys 1854, Ashy Clubtail – G5, N5 - VT (none), NY, EQ, MA, NH, CT, ME, RI, ON
- G. quadricolor* Walsh 1863, Rapids Clubtail – G3G4, N3N4 - VT (Ru), NY, MA, NH, CT, ME, ON
- G. spicatus* Hagen in Selys 1854, Dusky Clubtail – G5, N5 - VT (Es, Wh), NY, EQ, MA, NH, CT, ME, RI, ON
- G. ventricosus* (Walsh 1863), Skillet Clubtail – G3, N3 - VT (Wh), NY, EQ, MA, NH, CT, ON
- [*G. abbreviatus* Hagen in Selys 1878, Spine-crowned Clubtail - G3G4, N3N4 - NY, MA, NH, CT, ME, RI]
- [*G. fraternus* (Say 1839), Midland Clubtail - G5, N5 - NY, EQ, MA, CT, ME, ON]
- [*G. grasilinellus* Walsh 1862, Pronghorn Clubtail - G5 - ON]
- [*G. vastus* (Walsh 1862), Cobra Clubtail - G5, N5 - NY, EQ, MA, NH, CT, ME, ON]
- [*G. viridifrons* Hine 1901, Green-faced Clubtail - G3 - ON]

### Genus Hagenius (Dragonhunter) – 1 species in VT

- H. brevistylus* Selys 1854, Dragonhunter – G5, N5 - VT (Ca, Es, Wa), NY, EQ, MA, NH, CT, ME, RI, ON

### Genus Lanthus (Pygmy Clubtails) – 2 species in VT

- L. parvulus* (Selys 1854), Northern Pygmy Clubtail – G4, N4 - VT (Ad, Be, Ca, Es, Ol, Wh, Ws), NY, EQ, MA, NH, CT, ME
- L. vernalis* Carle 1980, Southern Pygmy Clubtail – G4, N4 - VT (Ca, La, Ol), NY, MA, NH, CT, ME, RI

### Genus Ophiogomphus (Snaketails) – 4 species in VT

- O. aspersus* Morse 1895, Brook Snaketail – G3G4, N3N4 - VT (Ca, Es, Ru), NY, EQ, MA, NH, CT, ME, RI
- O. carolus* Needham 1897, Riffle Snaketail – G5, N5 - VT (none), NY, EQ, MA, NH, ME, ON
- O. mainensis* Packard 1863, Maine Snaketail – G4, N4 - VT (Ca, Es, Ol), NY, EQ, MA, NH, CT, ME, RI, ON
- O. rupinsulensis* (Walsh 1862), Rusty Snaketail – G5, N5 - VT (none), NY, EQ, MA, NH, CT, ME, ON
- [*O. anomalus* Harvey 1898, Extra-striped Snaketail - G3, N3 - NY, EQ, ME, ON. The antennae of the larvae and exuviae of this species are distinctive in the region due to the broad cap of segment 4.]
- [*O. colubrinus* Selys 1854, Boreal Snaketail - G5, N4 - EQ, NH, ME, ON]
- [*O. howei* Bromley 1924, Pygmy Snaketail - G3, N3 - NY, MA, ME. Tiny and distinct, with an orange cloud to the base of the hindwings, this species flies at considerable speed over the water surface in slow reaches of clear rivers.]
- [*O. susbehcha* Vogt and Smith 1993, Wisconsin Snaketail - G1G2 - ON]

### Genus Progomphus (Sanddragons)

- [*P. obscurus* (Rambur 1842), Common Sanddragon - G5, N5 - NY, MA, NH, CT, ME, RI, ON]

### Genus Stylogomphus (Least Clubtail) – 1 species in VT

- S. albistylus* (Hagen in Selys 1878), Least Clubtail – G5, N5 - VT (Es), NY, EQ, MA, NH, CT, ME, RI, ON

### Genus Stylurus (Clubtails) – 2 species in VT

- S. scudderi* (Selys 1873), Zebra Clubtail – G4, N3N4, VT (Es), NY, EQ, MA, NH, CT, ME, RI, ON

(Continued on page 6)

## Dragonflies of Vermont (continued)

*S. spiniceps* (Walsh 1862), Arrow Clubtail – G5, N4 - VT (Ch, Ws), NY, EQ, MA, NH, CT, ON

[*S. amnicola* (Walsh 1862), Riverine Clubtail - G4, N3 - NY, EQ, MA, CT, ME, ON]

[*S. laurae* (Williamson 1932), LauraUs Clubtail - G4 - ON]

[*S. notatus* (Rambur 1842), Elusive Clubtail - G3, N3 - NY, EQ, ME, ON. Flies in mid-river just over the surface, apparently earns its English name.]

[*S. plagiatu*s (Selys 1854), Russet-tipped Clubtail - G5 - ON]

### Family Cordulegastridae (Spiketails)

#### Genus Cordulegaster (Spiketails) – 2 species in VT

*C. diastatops* (Selys 1854), Delta-spotted Spiketail – G5, N5 - VT (Es, Or, Ol), NY, EQ, MA, NH, CT, ME, RI, ON

*C. maculata* Selys 1854, Twin-spotted Spiketail – G5, N5 - VT (Be, Es), NY, EQ, MA, NH, CT, ME, RI, ON

[*C. obliqua* (Say 1839), Arrowhead Spiketail - G4, N4 - NY, EQ, MA, NH, CT, ME, RI, ON]

### Family Macromiidae (Cruisers)

#### Genus Didymops (Brown Cruisers) – 1 species in VT

*D. transversa* (Say 1839), Stream Cruiser – G5, N5 - VT (Es), NY, EQ, MA, NH, CT, ME, RI, ON

#### Genus Macromia (River Cruisers) – 1 species in VT

*M. illinoensis* Walsh 1862, Illinois River Cruiser – G5, N5 - VT (Es, Ru), NY, EQ, MA, NH, CT, ME, RI, ON

[*M. taeniolata* Rambur 1842, Royal River Cruiser - G5 - ON]

### Family Corduliidae (Emeralds)

#### Genus Cordulia (American Emerald) – 1 species in VT

*C. shurtleffii* Scudder 1866, American Emerald – G5, N5 - VT (Ca, Es, Wa), NY, EQ, MA, NH, CT, ME, ON

#### Genus Dorocordulia (Small Emeralds) – 2 species in VT

*D. lepida* (Hagen in Selys 1871), Petite Emerald – G5, N5 - VT (Es), NY, MA, NH, CT, ME, RI

*D. libera* (Selys 1871), Racket-tailed Emerald – G5, N5 - VT (Es, Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON

#### Genus Epithea (Baskettails) – 4 species (Note 3) in VT

*E. canis* (McLachlan 1886), Beaverpond Baskettail – G5, N5 - VT (Es, Wa, Wh), NY, EQ, MA, NH, CT, ME, RI, ON

*E. cynosura* (Say 1839), Common Baskettail – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON

*E. princeps* (Hagen 1861), Prince Baskettail – G5, N5 - VT (Ad, Or), NY, EQ, MA, NH, CT, ME, RI, ON

*E. spinigera* (Selys 1871), Spiny Baskettail – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON

[*E. semiaquea* (Burmeister 1839), Mantled Baskettail - G4, N4 - NY, NH, ME. Very difficult to discriminate from *E. cynosura*, sight records of these two species are untrustworthy.]

#### Genus Helocordulia (Sundragons) – 1 species in VT

*H. uhleri* (Selys 1871), Uhler's Sundragon – G5, N5 - VT (Ca, Es), NY, EQ, MA, NH, CT, ME, RI, ON

#### Genus Neurocordulia (Shadowdragons)

[*N. michaeli* Brunelle 2000, Broadtailed Shadowdragon - G2, N2 - ME, ON. Rocky, clear, rivers and streams.]

[*N. obsoleta* (Say 1839), Umber Shadowdragon - G4, N4 - NY, MA, NH, CT, ME - rocky lakes]

[*N. yamaskanensis* (Provancher 1875), Stygian Shadowdragon - G5, N5 - NY, EQ, MA, CT, ME, ON. Rocky, clear, rivers and streams. The Shadowdragons generally fly after sundown, and past 21:00 EST. This likely explains the infrequency of our encounters with them, although the number of exuviae collected in Maine have proven all three species mentioned above to be common.]

#### Genus Somatochlora (Striped Emeralds) – 10 species in VT

*S. albicincta* (Burmeister 1839), Ringed Emerald – G5, N4 - VT (none), NY, EQ, NH, ME, ON

*S. cingulata* Selys 1871, Lake Emerald – G5, N4? - VT (Es), NY, EQ, MA, NH, ME, ON

*S. elongata* (Scudder 1866), Ski-tailed Emerald – G5, N5 - VT (Es), NY, EQ, MA, NH, CT, ME, ON

*S. forcipata* (Scudder 1861), Forcipate Emerald – G5, N4 - VT (Es, Ru), NY, EQ, MA, NH, ME, ON

*S. franklini* (Selys 1861), Delicate Emerald – G5, N3? - VT (Ca, Es), EQ, NH, ME, ON

*S. kennedyi* Walker 1918, KennedyUs Emerald – G5 - N3?, VT (Es), NY, EQ, MA, NH, ME, ON

*S. minor* Calvert 1898, Ocellated Emerald – G5, N4 - VT (Es), NY, EQ, MA, NH, CT, ME, ON

*S. tenebrosa* (Say 1839), Clamp-tipped Emerald – G5, N5 - VT (none), NY, EQ, MA, NH, CT, ME, RI, ON

*S. walshii* (Scudder 1866), Brush-tipped Emerald – G5, N4 - VT (Es, Ru), NY, EQ, MA, NH, CT, ME, RI, ON

*S. williamsoni* Walker 1907, WilliamsonUs Emerald – G5, N5 - VT (Es), NY, EQ, MA, NH, CT, ME, RI, ON

[*S. brevicincta* Robert 1954, Qubec Emerald - G3 - N1, EQ, ME. Until recently, a very rare northern species, now known from a number of sites in Maine. Look for shallow green sphagnum pools in peatlands and fens.]

[*S. ensigera* Martin 1906, Plains Emerald - G4 - ON]

[*S. georgiana* Walker 1924, Coppery Emerald - G3G4, N3N4 - MA, RI]

[*S. hudsonica* (Hagen in Selys 1871), Hudsonian Emerald - G5 - ON]

[*S. incurvata* Walker 1918, Incurvate Emerald - G4, N3 - MA, ME, ON. A large, slim, graceful species of the same habitat type as *S. brevicincta*.]

[*S. linearis* (Hagen 1861), Mocha Emerald - G5, N5 - NY, MA, CT, RI]

[*S. septentrionalis* (Hagen 1861), Muskeg Emerald - G5 - NB, EQ, ON. Found generally at the secondary ponds in bogs.]

#### Genus Williamsonia (Boghaunters) – 1 species in VT

*W. fletcheri* Williamson 1923, Ebony Boghaunter – G3G4, N3N4 - VT (Wa), NY, EQ, MA, NH, ME, ON

[*W. lintneri* (Hagen in Selys 1878), Ringed Boghaunter - G3, N2 - NY, MA, NH, CT, ME, RI. Small fens.]

### Family Libellulidae (Skimmers)

#### Genus Celithemis (Pennants) – 2 species in VT

*C. elisa* (Hagen 1861), Calico Pennant – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON

*C. eponina* (Drury 1773), Halloween Pennant – G5, N5 - VT (Ru, Ad), NY, EQ, MA, NH, CT, ME, RI, ON

[*C. fasciata* Kirby 1889, Banded Pennant - G5, N5 - NY, MA, CT, RI, ON]

[*C. martha* Williamson 1922, MarthaUs Pennant - G4, N4 - NY, MA, NH, CT, ME, RI Small and colorless, often associated with Pickerelweed beds.]

#### Genus Erythemis (Pondhawks) – 1 species in VT

*E. simplicicollis* (Say 1839), Eastern Pondhawk – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON

#### Genus Erythrodiplax (Dragonlets) – 1 species in VT

*E. berenice* (Drury 1770), Seaside Dragonlet – G5 - VT?, NY, MA, NH, CT, ME, RI (Note 4)

#### Genus Ladona (Corporal Skimmers) – 2 species (Note 5) in VT

*L. exusta* (Say 1839), White Corporal – G4, N4 - VT (Ad, Ru), NY, MA, NH, CT, ME, RI

*L. julia* (Uhler 1857), Chalk-fronted Corporal – G5, N5 - VT (Ca, Es, Wa, Wh), NY, EQ, MA, NH, CT, ME, RI, ON

[*L. deplanata* (Rambur 1842), Blue Corporal - G5, N5 - NY, MA, CT, RI]

#### Genus Leucorrhinia (Whitefaces) – 5 species in VT

*L. frigida* Hagen 1890, Frosted Whiteface – G5, N5 - VT (Es, Ru, Wh), NY, EQ, MA, NH, CT, ME, RI, ON

*L. glacialis* Hagen 1890, Crimson-ringed Whiteface – G5, N5 - VT (Ca), NY, EQ, MA, NH, CT, ME, RI, ON

*L. hudsonica* (Selys 1850), Hudsonian Whiteface – G5, N5 - VT (Es, Or), NY, EQ, MA, NH, CT, ME, RI, ON

(Continued on page 7)

## Dragonflies of Vermont (continued)

*L. intacta* (Hagen 1861), Dot-tailed Whiteface – G5, N5 - VT (Or, Ru, Wa, Wh), NY, EQ, MA, NH, CT, ME, RI, ON

*L. proxima* Calvert 1890, Red-waisted Whiteface – G5, N5 - VT (Ca, Es, Or, Wa, Wh), NY, EQ, MA, NH, CT, ME, RI, ON

[*L. borealis* Hagen 1890, Boreal Whiteface - G5 - ON]

[*L. patricia* Walker 1940, Canada Whiteface - G4 - EQ, ON. A small species, very similar to *L. hudsonica*, which in New Brunswick flies at bog ponds in mid-June.]

### Genus *Libellula* (King Skimmers) – 5 species (Note 6) in VT

*L. incesta* Hagen 1861, Slaty Skimmer – G5, N5 - VT (Ru, Or), NY, MA, NH, CT, ME, RI, ON

*L. luctuosa* Burmeister 1839, Widow Skimmer – G5, N5 - VT (Ad, Ru), NY, EQ, MA, NH, CT, ME, RI, ON

*L. pulchella* Drury 1770, Twelve-spotted Skimmer – G5, N5 - VT (Ch, Es, Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON

*L. quadrimaculata* Linnaeus 1758, Four-spotted Skimmer – G5, N5 - VT (Es, Or, Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON

*L. semifasciata* Burmeister 1839, Painted Skimmer – G5, N5 - VT (none), NY, MA, NH, CT, ME, RI, ON

[*L. auripennis* Burmeister 1839, Golden-winged Skimmer - G5, N5 - NY, MA, CT, RI]

[*L. axilena* Westwood 1837, Bar-winged Skimmer - G5, N5 - NY, MA, CT, RI]

[*L. cyanea* Fabricius 1775, Spangled Skimmer - G5, N5 - NY, MA, NH, CT, ME, RI. The two-colored pterostigma of this slow-water species are distinctive.]

[*L. flavida* Rambur 1842, Yellow-sided Skimmer - G5, N5 - NY, MA]

[*L. needhami* Westfall 1943, NeedhamUs Skimmer - G5, N5 - NY, MA, NH, CT, ME, RI]

[*L. vibrans* Fabricius 1798, Great Blue Skimmer - G5, N5 - NY, MA, NH, CT, ME, RI, ON]

### Genus *Nannothemis* (Elfin Skimmer) – 1 species in VT

*N. bella* (Uhler 1857), Elfin Skimmer – G4, N4 - VT (Or, Wa), NY, MA, NH, CT, ME, RI, ON

### Genus *Pachydiplax* (Blue Dasher) – 1 species in VT

*P. longipennis* (Burmeister 1839), Blue Dasher – G5, N5 - VT (Ru, Wa), NY, MA, NH, CT, ME, RI, ON

### Genus *Pantala* (Glidors) – 2 species in VT

*P. flavescens* (Fabricius 1798), Wandering Glider – G5, N5 - VT (Ad), NY, EQ, MA, NH, CT, ME, RI, ON

*P. hymenaea* (Say 1839), Spot-winged Glider – G5, N5 - VT (Ad), NY, EQ, MA, NH, CT, ME, RI, ON

### Genus *Perithemis* (Amberwings) – 1 species in VT

*P. tenera* (Say 1839), Eastern Amberwing – G5, N5 - VT (none), NY, MA, NH, CT, ME, RI, ON

### Genus *Plathemis* (Whitetail Skimmers) – 1 species (Note 7) in VT

*P. lydia* (Drury 1770), Common Whitetail – G5, N5 - VT (Ca, Es, Or, Ru, Wa), NY, EQ, MA, NH, CT, ME, RI, ON

### Genus *Sympetrum* (Meadowhawks) – 8 species in VT

*S. costiferum* (Hagen 1861), Saffron-winged Meadowhawk – G5, N5 - VT (Ws), NY, EQ, MA, NH, CT, ME, RI, ON

*S. danae* (Sulzer 1776), Black Meadowhawk – G5, N5 - VT (none), NY, EQ, MA, NH, ME, RI, ON

*S. internum* Montgomery 1943, Cherry-faced Meadowhawk – G5, N5 - VT (Es, Ru), NY, EQ, MA, NH, CT, ME, RI, ON (Note 8)

*S. janeae* Carle 1993, JaneUs Meadowhawk (Note 8) – G5 - VT (none), EQ, MA, NH, ME, RI, ON



***Tramea carolina***  
Carolina Saddlebags

Photo by Bryan Pfeiffer

*S. obtrusum* (Hagen 1867), White-faced Meadowhawk (Note 9) – G5, N5 - VT (none), NY, EQ, MA, NH, CT, ME, RI, ON

*S. rubicundulum* (Say 1839), Ruby Meadowhawk (Note 8) – G5, N5 - VT (Ad, Gi, Ol, Ru), NY, EQ, MA, NH, ME, RI, ON

*S. semicinctum* (Say 1839), Band-winged Meadowhawk – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON

*S. vicinum* (Hagen 1861), Yellow-legged Meadowhawk – G5, N5 - VT (Ru), NY, EQ, MA, NH, CT, ME, RI, ON

[*S. ambiguum* (Rambur 1842), Blue-faced Meadowhawk - G5, N5 - MA, ME, ON]

[*S. corruptum* (Hagen 1861), Variegated Meadowhawk - G5, N5 - NY, MA, CT, ME, ON. Generally found along the seashore, and thought to be a vagrant from western North America.]

### Genus *Tramea* (Saddlebags) – 1 species in VT

*T. lacerata* Hagen 1861, Black Saddlebags – G5, N5 - VT (Ru, Ad), NY, EQ, MA, NH, CT, ME, RI, ON

[*T. calverti* Muttkowski 1910, Striped Saddlebags - NY, MA]

[*T. carolina* (Linnaeus 1763), Carolina Saddlebags - G5, N5 - NY, MA, CT, ME, RI, ON.

Strongly marked in red, in the northern northeast generally found along the seashore.]

[*T. onusta* Hagen 1861, Red-mantled Saddlebags - G5, N5 - MA, ON]

### Notes

Note 1: *Enallagma cyathigerum vernale* (Gloyd 1943), Springtime Bluet – By some considered a species in its own right, *Enallagma vernale*. Very difficult to discriminate from *Enallagma c. cyathigerum*.

Note 2: Genus Gomphus (Clubtails) – In Needham, Westfall and May 2000, this genus is broken into three subgenera: Gomphus, Gomphurus, and Hylogomphus.

Note 3: Genus Epitheca (Baskettails) – In Needham, Westfall and May 2000, this genus is broken into two genera: Epicordulia (princeps only), and Tetragoneuria.

Note 4: *Erythrodiplax berenice* (Drury 1770), Seaside Dragonlet – A species of brackish waters, very similar to *Sympetrum danae*. Care should be taken in determination.

Note 5: Genus Ladona (Corporal Skimmers) – Included in the genus *Libellula* in some works.

Note 6: Genus *Libellula* (King Skimmers) – Includes the genera *Ladona* and *Plathemis* in some works.

Note 7: Genus *Plathemis* (Whitetail Skimmers) – Included in the genus *Libellula* in some works.

Note 8: *Sympetrum internum* Montgomery 1943, Cherry-faced Meadowhawk – The species complex of *internum*, *janeae*, and *rubicundulum* are taxonomically in question and difficult to discriminate. Sight records will be untrustworthy for these species

Note 9: *S. obtrusum* (Hagen 1867), White-faced Meadowhawk – I suspect that this species hybridizes frequently with species of the *S. internum* complex. Sight records will be untrustworthy for this species.

### References Cited

Needham, J.G., M.J. Westfall, and M.L. May. 2000. Dragonflies of North America: revised edition. Scientific Publishers, Gainesville, Florida. 940p. ISBN 0-945417-94-2.

Paulson, D.R., and S.W. Dunkle. 1996. Common names of North American dragonflies and damselflies, adopted by the Dragonfly Society of the Americas. *Argia* 8(2) (supplement).

# A Proposed Odonata Field Voucher Card

By Bryan Pfeiffer

In our ongoing efforts to learn more about the status of Odonata in Vermont, I humbly offer a voucher card for collected specimens. One goal is for us all to collect similar data during field work or even casual excursions for dragonflies and damselflies. The card is designed to make that easy (at least that's the intent).

This voucher card is far from perfect – or final. I welcome criticism and suggested improvements. The card may indeed be a prototype for a more formal survey of dragonflies and damselflies in Vermont at some future date. Please copy the card onto cardstock (it may take a bit of doing to get the copier to line up the front and back exactly) and put it to use.

I intend to pre-mark each of my cards with a unique voucher number. In the field, the completed card will go into the glassine envelope with the ode specimen. I'll also mark the voucher number in pencil (not ink) on the glassine. I'll remove the card during the ode's acetone bath (which won't dissolve the pencil's graphite), and reunite them in a Mylar Odonata envelope for long-term storage. I'll eventually enter data from my voucher cards (and perhaps yours) into my database during the winter (the biologist's season for catching up on paperwork).

By the way, if you take photos instead of specimens, you can easily include a copy of the photo or slide with the card in the Mylar ode envelope. For some species, a photo that's diagnostic will make a perfectly fine voucher.

Most of the fields on the card are obvious. But here are some pointers on a few of them:

**Voucher #** – Feel free to use your own system. Every voucher in my computer database will have another unique number along with your own voucher number.

**Date** – Never use numerals for the month in the date field. Depending on the system, 6/7/2003 could be either June 7 or July 6. Go instead with 7 Jun 2003 for the format.

**Time** – Use the 24-hour clock, i.e. 13:50 for 1:30 p.m.

**Latitude and Longitude** – Decimal degrees would be great. Or use whatever works best for you, and be clear about units. If you don't know the latitude and longitude coordinates or the USGS map name, include directions to the site in the **Site Notes** field. General road directions and E-911 addresses are fine.

**Method** – Check off the system you used to determine the location coordinates.



**Williamsonia fletcheri**  
**Ebony Boghaunter**

*Photo by Bryan Pfeiffer*

**USGS Quad Name and the Block #** – These should be familiar to participants in the Vermont Butterfly Survey or the Vermont Breeding Bird Atlas project. At the very least, if you know the name of USGS 1:24,000 quadrangle map you're in, please include it. If you'd like more information about this, give me a call.

**Habitat** – Feel free to check off more than one habitat type. For example, if the specimen came from a *brook* outlet to a *pond*, check off both.

**Surroundings and Landscape** – These are general descriptions of what's around the immediate habitat.

**Shore Plants/Aquatic Plants** – Record species if you know them.

**Plant Association** – If the specimen was interacting in some way with a plant (i.e. ovipositioning or resting) then note that here.

**Observed** – In this small table, estimate the number of individuals of this species at the site. I recognize that these entries won't always be exact. Use your best estimates.

**Behavior** — Check off one or more behavior types you notice for the species at the site.

Please try the cards. We all know that the taking of any insect carries a responsibility to curate it properly and make use of the data. The more we know about dragonflies and damselflies, the more we can do for them in the way of conservation and discovery.

*Bryan Pfeiffer, editor and publisher of The Boghaunter, is founder of a nature touring company, Vermont Bird Tours, and is chief field staff for the Vermont Butterfly Survey. He chases odes on his spare time.*



# Dragonfly Field Trips and Workshops

Here's an excuse to visit Massachusetts this summer: The Bay State is fertile ground for odes and odonatists willing to share their expertise. Below is a list of field outings. (Many thanks to Blair Nikula and Ode News for sharing these listings.)

## Massachusetts

**June 14 (Saturday) / 9 AM to 1 PM / Athol & vicinity** – One in a series of trips in search of dragonflies in the North Quabbin Region to add to the known information about flight periods and distribution in this area. Bring field guides, binoculars, dragonfly net and be prepared to wade in shallow water. Meet at the Millers River Environmental Center, 100 Main Street, Athol, at 9 AM. Leader: Dave Small (978-249-2094; dhsmall@gis.net).

**June 28 (Saturday) / 9 AM to 1 PM / Athol & vicinity** – Details same as June 14. Meet at the Millers River Environmental Center, 100 Main Street, Athol, at 9 AM. Leader: Dave Small (978-249-2094; dhsmall@gis.net).

**June 29 (Sunday) / 9:00 AM / Connecticut River Canoe Trip** – A canoe trip for clubtails and other “Big River” specialties. Bring a canoe or kayak and lunch. Meet at the small dirt parking area on the west side of the river on River Road, at the intersection of Route 116 (west end of the Sunderland Bridge) in Deerfield. Leader: Blair Nikula (508-432-6348; odenews@odenews.net).

**July 15 to August 2 / Dragonfly Institute at Broadmoor Wildlife Sanctuary / Natick, Mass.** – A three week course for beginners at the Broadmoor Wildlife Sanctuary in Natick, Massachusetts. We will be looking at the life cycle, habitat, behavior, and identification of family, genus and species. Slide lectures on Tuesday evenings (7:00 – 8:30 PM) July 15, 22, and 29, with field trips on Saturdays (10:00 AM – 2:00 PM), July 19 and 26, and August 2. Close-focusing binoculars are recommended.

Instructors: Bob Bowker and Dave Small; Field Trip Leaders: Bob Bowker and Blair Nikula. The fee is \$45 for Mass Audubon members; \$55 for non-members. To register, call the Broadmoor Sanctuary at (508) 655-2298. For more info, visit the Broadmoor Wildlife Sanctuary website via the Massachusetts Audubon web site at <<http://www.massaudubon.org>>.

**July 19 (Saturday) / 9:00 AM / Plymouth, MA** – A trip to coastal plain ponds in search of the special dragonflies in this habitat. Co-sponsored by The Nature Conservancy and *Ode News*. Meet at the TNC headquarters on 204 Long Pond Road in Plymouth. Leaders: Tom Maloney (508-747-4307; tmaloney@tnc.org) and Blair Nikula (508-432-6348; odenews@odenews.net)

**July 20-23 / Dragonflies and Damselflies of Cape Cod Field School** – Mass Audubon's Wellfleet Bay Wildlife Sanctuary is offering this field course. Enjoy a week of learning in the beautiful coastal setting of Cape Cod. The instructor is Gail Howe, who, prior to moving to Canada last year, was a master naturalist and conservation coordinator for Mass Audubon's

Broadmeadow Brook Sanctuary in Worcester. Cost for the course is \$220 for members of Massachusetts Audubon and \$250 for non-members; it includes instruction, boat and field trips, and one group dinner. Participants may need to provide their own transportation to and from study sites. Housing is available for an additional fee of \$125. For more information please check the Wellfleet Bay Wildlife Sanctuary website at <[www.wellfleetbay.org/fieldschool.html](http://www.wellfleetbay.org/fieldschool.html)> or call 508-349-2615.

**August 9 (Saturday) / 9 AM / Connecticut River Canoe Trip** – A canoe trip for clubtails and other “Big River” specialties. Bring a canoe or kayak and lunch. Meet at the small dirt parking area on the west side of the river at the intersection of Route 116 & River Road (at the west end of the Sunderland Bridge) in Deerfield. Leader: Blair Nikula (508-432-6348; odenews@odenews.net).

**August 16 (Saturday) / 9 AM / Mt. Tom and vicinity** – A trip to survey newly protected land on the mountain, as well as nearby sites in the Holyoke area. Meet at the Bray Lake parking area in the Mt. Tom State Reservation (take Reservation Road off of Route 5). Leader: Lynn Harper (413-532-2799; HarperLynn@msn.com) and Blair Nikula (508-432-6348; odenews@odenews.net).

**August 30 (Saturday) / 9:00 AM / Northern Berkshire County** – A trip to look for *Aeshnas* and other late season species in the Savoy State Forest and vicinity. Meet at the dirt parking area on the north side of Route 2 just east of the entrance to the Mohawk State Forest. Leader: Blair Nikula (508-432-6348; odenews@odenews.net).

**September 6 (Saturday) / 9:00 AM / Millers River, Athol** – A trip to look for late season specialties such as Arrow Clubtail (*Stylurus spiniceps*), Ocellated Darner (*Boyeria graefiana*), and American Rubyspot (*Hetaerina americana*). Details same as June 14. Leader: Dave Small (978-249-2094; dhsmall@gis.net).

## Vermont

**In Search of Bugs / June 10, July 15, August 5 / 3-4 PM / Montpelier** – Join this casual walk around the North Branch Nature Center in Montpelier for butterflies, dragonflies and other insects. Fee is \$2 for VINS members and \$4 for nonmembers. Call (802) 229-6206.

**Skippers and Skimmers / June 21 / Plainfield / 10 AM to 3 PM** – Bryan Pfeiffer, founder of Vermont Bird Tours, leads a dragonfly and butterfly walk. Fee is \$25. Call (802) 454-4640 to register.

**VES 10th Anniversary Meeting and Picnic / June 14 / Grand Isle** – Join an insect celebration with members of the Vermont Entomological Society. It'll include a field trip to the Fisk Preserve on Isle La Motte and a potluck picnic (about 11:30 AM) at the home of Scott and Rachael Griggs on Grand Isle. Contact them at VTLEPS@aol.com or (802) 372-5906.

# Give That Dragonfly a Hand

## A Father and Son Get Up-Close and Personal With a Backyard Darner

By Tad Dippel

The Odonata have always had a great appeal to me. Their morphology, behaviors, natural history and life cycle had always been rather fascinating. As familiar as I was with those aspects of the Odonata, I'd never really tried to learn the names of the various damselflies and dragonflies that frequent our area. After purchasing a couple of good field guides last summer, I began to take more of an interest in these amazing creatures. Soon I was focusing on their markings, how they perched on vegetation and other specifics about their behavior.

One sunny afternoon in late August I noticed a darner patrolling a section of my backyard that bordered my deck and butterfly garden. I watched it fly about in its regimented fashion, and when it landed on some aging *Liatris* blooms I moved in for a closer look. It was a magnificent specimen, vibrant in color, wings shining in the sun.

The thought crossed my mind that I should run inside and bring my 8-week-old son out to take a look at this incredible insect. Now I know that Max could barely focus on my face let alone a dragonfly, but I thought it was worth a shot.



*Aeshna canadensis*  
Canada Darner

Photo by Bryan Pfeiffer

So I returned with the baby in my arms facing out. The darner unfortunately had left its perch and resumed its patrols

about the yard. We positioned ourselves where we could watch it flying.

Max hadn't a clue as to what I was continuously pointing him towards. Suddenly the darner made a couple of quick maneuvers and landed on my hand a scant six inches from Max's nose. We both watched in amazement (O.K., only dad was amazed) as the dragonfly consumed some sort of Syrphid fly right before our eyes. It systematically made quick order of the fly, moving it forward and back and rotating it with its forelegs in order to eat everything worth eating. After completing its consumption of the fly, the darner flew off, leaving only a pair of wings and a few legs to remind us of its handy work.

This was a nature experience that will certainly stay with me for a long, long time. As a neophyte to collecting and observing the Odonata, I found this event rather inspirational to say the least. Although Max may never remember it, I thought that his introduction to the Odonata was pretty remarkable.

*Tad Dipple, whose interests range from botany to bugs, is a science teacher at the Williston Central School and a former naturalist for the Vermont state parks system.*

## Notes from the Lesser Orders

### Random Thoughts on Other Insects

By Bryan Pfeiffer

Take a swing at other insects. The **Vermont Butterfly Survey** needs your help. Here's a chance to join the first statewide survey of butterfly abundance and diversity. (Besides, after swinging for dragonflies, catching butterflies is a breeze.) The survey will accept sight records, photographs, voucher specimens, as well as historic records. For more information visit <[www.vinsweb.org/conservation/vbs](http://www.vinsweb.org/conservation/vbs)>. Once the butterfly project is done (in 2007) we can start the Vermont Damselfly and Dragonfly Survey!

If you find yourself with some free time at night, consider spending it in the good company of **moths**. A new book, *Discovering*

*Moths: Nighttime Jewels in Your Own Backyard*, by John Himmelman, can help. *Discovering Moths* is not a field guide. (Those are scarce now that Charles V. Covell Jr.'s *A Field Guide to Moths* is out of print.) But this fine book offers all the tools to get a beginner (or skeptic) hooked on moths, not the least of which is John's informed, easygoing approach to the subject.

If moths (about 2,000 species in VT) aren't enough to keep you busy, try **fireflies** (about 20 species in VT). I'll be convening a small group of firefly fanatics in late June and early July for nocturnal excursions. Males of some species can be identified by their flashing patterns during courtship. So for some cheap thrills with fireflies contact me at [Bryan@VermontBirdTours.com](mailto:Bryan@VermontBirdTours.com).

# A New Field Guide Is Coming Soon

## Massachusetts Publication Should be Great for Vermont

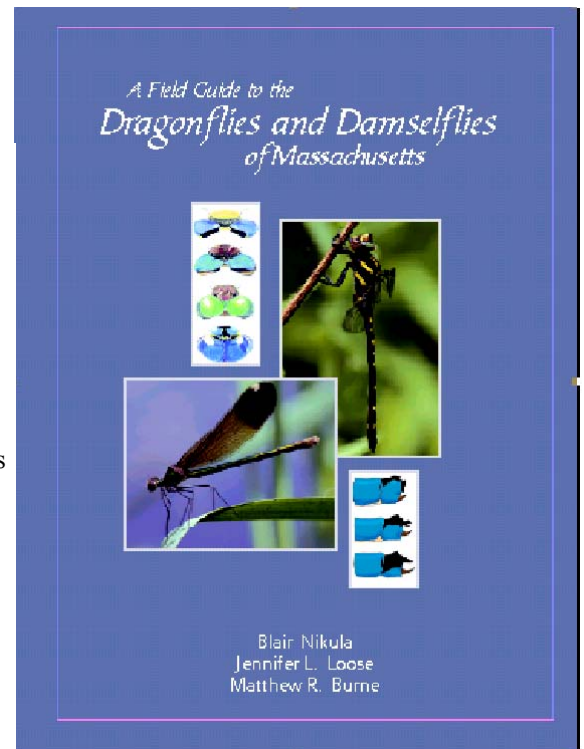
By Bryan Pfeiffer

The explosion of great Odonata field guides continues. *A Field Guide to the Dragonflies and Damselflies of Massachusetts* should be available sometime this field season.

Authored by Blair Nikula, Jennifer Loose, and Matt Burne, the guide continues the fine tradition of ode discovery from the Bay State. At 200 pages with more than 300 color photographs of all 166 species known from Massachusetts, the guide will perhaps become the best tool yet for Vermont odonatists.

Included among this book's informative pages will be a number of Matt Burne's illustrations of key field marks for various ode species – darter thoracic patterns, for example.

Even more amazing should be the guide's affordable price – perhaps under \$10 – thanks to the support of grant funding. Stay tuned for news about availability of the guide by checking Blair's *Ode News* web site at <www.odeneews.net> or the Massachusetts Natural Heritage and Endangered Species Program <www.state.ma.us/dfwele/dfw/nhesp/nhesp.htm>. The Heritage Program generates a wealth of useful publications.



## Entomology Etymology

(Continued from page 1)

finger or toe. This makes sense. It also gives us useful information for Odonates because many names include “ptero” or a derivative. The two suborders are Zygoptera (damselflies) and Anisoptera (dragonflies). “Zygo” means “yoke, paired, together” and indeed one distinction of damsels is that they rest with their wings together – zygo-ptera.

Sometimes however, the intent of the person who named the insect may not be clear. “Zygaen” is a Greek reference to hammerhead sharks which indeed resemble the heads of damselflies. Another distinction between the two suborders is that the front and hind wings of damselflies are much more similar to each other than the front and hind wings of dragonflies. “Anis” picks up on this character; dragonflies, or “Aniso-ptera,” have “unequal wings.”

As we move down to the family level, be aware that the ending “idae” indicates a family level name – Calopterygidae, Aeshnidae, and Libellulidae, for example. The root of the family name is often the same as the most common genus in the family. For these three examples, these genera are:

**Calo - pteryx** = “beautiful wing” (certainly appropriate!)

**Aeshna** = “shame, ugly” (I suspect this refers to the Aeshna nymphs.)

Some genera are descriptive of looks:

**Leucor - rhinia** = “white – nose” (Rhino means nose, but given

odonate features, that is equal to the common name “Whiteface.”)

**Somato - chlora** = “body – green” – (The Emeralds often have green eyes and a greenish sheen to the body.)

**Gomphus** = “bolt shaped” – (This is the characteristic shape of the abdomen on many Gomphids.)

**Cordule - gaster** = “Club shaped – belly” – (This one's a little confusing since the common name of the Gomphids is Clubtails, but “-gaster” comes from the same root as “gastro” in gastrointestinal, and thus refers to the abdomen.)

Other genera are descriptive of behaviors:

**Sym - petrum** = “with rock” – (That's sometimes where you find them perching.)

**Coen - agrion** = “Common” – “in the field” – (Same root as in “agriculture.”)

If you want to piece together your own interpretations of scientific names (odonate, bird or otherwise), pick up a copy of Donald Borror's “Dictionary of Word Roots and Combining Forms.” It contains Greek and Latin roots used in scientific names and only costs about \$11. Oh yeah, it's pocket sized, not big and fat.

*Mike Blust has a doctorate in entomology, did his masters work on the life history of Stylogomphus albistylus, and teaches biology at Green Mountain College in Poultney. He runs the Vermont Odonata listserv and still manages to spend many hours in the field.*

# Early-Season Ode Reports

Unlike the 2002 season, which began with a heat wave, as well as *Anax junius* (Common Green Darner) in April, the 2003 season took flight in May, with Mike Blust finding what was most likely *A. junius* on May 4. Two more were hunting at a small pond at Herrick's Cove in Rockingham on May 18. *Basiaeschna janata* was patrolling a woodland dirt road in Bellows Falls on the 18th, with a lone *Ishnura verticalis* (Eastern Forktail) nearby.

Two days later, at Coggman Marsh near West Haven, warm temperatures prompted an emergence of *I. verticalis*, with some *Epiptera spinigera* (Spiny Baskettail) and *Leucorrhinia intacta* (Dot-tailed Whiteface) mixed in. Also on May 20, *Libellula julia* (Chalk-fronted Corporal) was flying in force along woodland trails (not far from a constructed pond) in Georgia. *Coenagrion resolutum* (Taiga Bluet) was flying in Alburg on May 21.

On May 31, at the Winooski Valley Park District's Macrea Farm in Colchester,

Bryan Pfeiffer netted his first *Gomphus borealis* (Beaverpond Clubtail) and *Libellula lydia* (Common Whitetail) of the year, along with a few *Epiptera canis* (Beaverpond Baskettail). Mary Burnham located *Didimops transversa* (Stream Cruiser) the same day.

Here's a list of what was flying as of June 4, just before The Boghaunter went to press:

*Amphiagrion saucium* (Eastern Red Damsel)  
*Chromagrion conditum* (Aurora Dancer)  
*Coenagrion resolutum* (Taiga Bluet)  
*Enallagma boreale* (Boreal Bluet) — probable  
*Ishnura verticalis* (Eastern Forktail)  
*Anax junius* (Common Green Darner)  
*Basiaeschna janata* (Springtime Darner)  
*Gomphus borealis* (Beaverpond Clubtail)  
*Lanthus parvulus* (Northern Pygmy Clubtail)  
*Lanthus vernalis* (Southern Pygmy Clubtail)  
*Cordulegaster maculata* (Twin-spotted Spiketail)  
*Didimops transversa* (Stream Cruiser)  
*Epiptera canis* (Beaverpond Baskettail)  
*Epiptera spinigera* (Spiny Baskettail)  
*Williamsonia fletcheri* (Ebony Boghaunter)  
*Ladona julia* (Chalk-fronted Corporal)  
*Libellula quadrimaculata* (Four-spotted Skimmer)  
*Leucorrhinia hudsonica* (Hudsonian Whiteface)  
*Leucorrhinia intacta* (Dot-tailed Whiteface)

**THE BOGHAUNTER** is an occasional newsletter about the dragonflies and damselflies of Vermont. It is available for no charge (although contributions to help offset postage and printing are welcome).

**CONTRIBUTIONS** to **THE BOGHAUNTER** can take two forms: financial and editorial. The newsletter appears two or three times per year. Even a donation of \$5 to \$10 would help offset printing and postage expenses, which are borne entirely by the editor. Your articles, photos, and ideas are welcome as well. The next issue should appear in August or September.

## THE BOGHAUNTER

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Editor ..... Bryan Pfeiffer

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