



THE BOGHAUNTER

Occasional News About the Dragonflies and Damselflies of Vermont

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Spring 2004

The Fab Five: Vermont's Next Odes

By Mike Blust

It's mid June. Mosquitoes buzz in your ear as you slog through a shrubby wetland bordering a swampy area. A large dragonfly zips out from the trees and back in again. At the same time, a brilliant green spreadwing damsel flutters past. Which do you pursue?

There is no wrong answer, of course, because all records are valuable. They contribute to our knowledge of odonate range and abundance – both in space and time. BUT! If you knew that the date and habitat were just right for *Epiaeschna heros* (Swamp Darner), and if you knew that *Epiaeschna heros* had never before been recorded in Vermont, and if you knew that the likelihood of that spreadwing damsel being a new state record was almost nil – would that influence your decision?

Although there is always an element of luck, people with the most interesting discoveries often succeed because they've done their homework. They know in advance what to watch for, where, and

when. That is the rationale behind this article – to increase our awareness on the eve of a new field season. In the spirit of fun, *The Boghaunter* asked me to predict the next five species to be encountered in Vermont.

What's here that hasn't yet been discovered. I agreed to the task, knowing that my own "awareness factor" would be greatly enhanced in the process.

One of the primary goals of science is to improve our understanding of the way



Jackie Sones

Cordulegaster obliqua (Arrowhead Spiketail)

things work to the point where we can make educated predictions about the future. So, how does one attempt to predict the next species to be found in Vermont?

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Big Turnout Expected For DSA Meeting

By Bryan Pfeiffer

Odonatists from as far away as Virginia and Maine will converge on Hartford, Vermont, for a regional gathering of the Dragonfly Society of the Americas from June 24-27.

Details on collecting outings, food, lodging and evening presentations are falling into place. There is still time to register before the **June 7 deadline**. Details are at www.vinsweb.org/BioBlitz/DSA-NE.html. Or email Bryan Pfeiffer at bpfeiffer@vinsweb.org.

The DSA gathering will coincide with the Vermont BioBlitz www.vinsweb.org/BioBlitz, which will be the greatest gathering of biologists and naturalist ever assembled in Vermont.

Here's a tentative agenda for the DSA meeting:

Thursday, June 24 – DSA members convene in Hartford, either at free reserved campsites at Quechee State Park or at local motels. (Directions and motel information is on the web site.) Group supper.

Friday, June 25 – Collecting trips to various locations in the Connecticut River Valley, including checks for *Gomphus vastus* (Cobra Clubtail) and *Neurocordulia yamaskanensis* (Stygian Shadowdragon). Evening speaker: Mark McPeck will cover 10 million years of damselfly evolution in a single evening. Group supper at local restaurant.

Saturday, June 26 – Collecting and investigations at the BioBlitz site. Evening Event: BioBlitz grand tally cookout supper (free for DSA members).

Sunday, June 27 – Optional field trips, including a bog visit for northern species.

Fab Five

(Continued from page 1)

The first criterion is “gappiness.” Does Vermont represent a gap in the known range of the species? Thankfully, my efforts have been greatly simplified by the publication, in the *Bulletin of American Odonatology*, of Nick Donnelly’s dot maps for the dragonflies of North America and by Ed Lam’s stellar book on *Damselflies of the Northeast* (reviewed in this issue), complete with county-level range maps. Eyeballing the maps, I rated species from zero to 10, with a grade of 10 being applied to a species that has been found on several of our borders, but not yet within the state. Zero would represent a species found only in, say, San Diego.

Next I used my relatively scant field experience to put a number on the not-so-scientific concept of “findability.” In other words, they may be here, but how easy is it to find them? This combines the availability of suitable habitat with behavioral characteristics that make a species easy or hard to find and identify.

Overall, this is a rather crude approach. But it’s a tool to get us looking. Let us get out, swing some nets and see if it works. So (the envelope, please), the winners are, in order of probability:

- *Cordulegaster obliqua* (Arrowhead Spiketail)
 - *Epiaeschna heros* (Swamp Darner)
 - *Gomphus abbreviatus* (Spine-crowned Clubtail)
 - *Nasiaeschna pentacantha* (Cyano Darner)
- and... wait! We have a three-way tie for fifth place:
- *Progomphus obscurus* (Common Sanddragon)
 - *Neurocordulia obsoleta* (Umber Shadowdragon)
 - *Enallagma divigans* (Turquoise Bluet)

If I had to break the tie (luckily, there are no real rules here), I would go with *Progomphus obscurus*. I have seen it not too far away in New York State, and I have trouble believing it is not here as well.

I’m keen to see how my predictions pan out. But, from a broader perspective, I have included a table of 26 additional species on a sort of “watch list” (table on next page). This should further help us determine where to focus out attention in the field when faced with something we

don’t recognize. My goal here is for us to avoid odonate complacency.

Got a *Libellula incesta* (Slaty Skimmer) in the net? Before you let it go, be sure to check the wings for extra black markings, or



Progomphus obscurus
(Common Sanddragon)

the eye color to see if it’s dark or light. He might turn out to be a *Libellula vibrans* (Great Blue Skimmer). How about that *Calopteryx aequabilis* (River Jewelwing)? Does the extent of the black on the wingtips appear less than normal – especially if the front and hind wings show equal amounts of black? Check the face for white on the “upper lip” (labrum) and the base of the antennae. And to think you might have passed that *Calopteryx dimidiata* (Sparkling Jewelwing) had you not been aware.

Let me re-emphasize that there is much value in “ordinary species” records. In large part, searching for new state or county records stimulates us to get out and about, investigate new habitats and generally increase our knowledge of species abundance and distribution. There is also a lot to be said for spending time at one location to gain a deeper knowledge of odonate interactions and behaviors. But however you decide to relate to odonates or other critters, it never hurts to be on the lookout for something different.

There is of course the confounding factor that by publishing the “Fab Five” we might be more likely to search specifically for them, thus leading to a degree of “self-fulfilling prophecy.” I’d hate to have pursued a potential #3 of the

Fab Five (*Gomphus abbreviatus*) only to ignore what might have been a *Williamsonia lintneri* (Ringed Boghaunter) flying up off the path. Of course, all our mistakes and risks should be so perilous.

Author’s Note: Information on flight seasons and habitats are based on the Maine Damselfly and Dragonfly Survey website; Sidney Dunkle’s *Dragonflies Through Binoculars*; Ed Lam’s *Damselflies of the Northeast*; and Needham and Westfall’s *Dragonflies of North America*. Range information is from Nick Donnelly’s dot maps in the *Bulletin of American Odonatology* (Volumes 7:4 and 8:1) and Ed Lam’s *Damselflies of the Northeast*.

Mike Blust, a regular contributor to The Boghaunter, 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 Odonata of Vermont Web Site (<http://campus.greenmtn.edu/dept/NS/Dragonfly>) and still manages to spend many hours in the field.

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 July.

THE BOGHAUNTER is on the web in color at:
www.vermontbirdtours.com/boghaunter.

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Editor Bryan Pfeiffer

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The Vermont Watch List

Family	Genus	species	Common Name	When To Look					Sections of Vermont to Search	Where To Look
				M	J	J	A	S		
Petaluridae	—	—	—	—	—	—	—	—	—	—
Aeshnidae	Epiaesha	heros	Swamp Darner		X X				Entire state	Swamps, shady ponds or slow streams
	Nasiaesha	pentacantha	Cyrano Darner		X X				Southern and Eastern	Ponds, slow streams, lake covers
	Aesha	junceae	Sedge Darner			XX XX			Northern	Waters with emergent vegetation, esp. sedges
	Aesha	mutata	Spatterdock Darner		XX XX				Southern	Ponds and marshes, esp. with yellow water lily
Gomphidae	Gomphus	abreviatus	Spine-crowned Clubtail		XX X				Southeastern	Connecticut River
	Gomphus	fraternus	Midland Clubtail		XX X				Northwestern & Southeastern	Missisquoi region & Connecticut River
	Progomphus	obscurus	Common Sanddragon		X	XX			Entire state	Lowland sandy-edged streams, lakes
	Ophiogomphus	anamolus	Extra-striped Snaketail		XX X				Entire state	Rivers - clear, rapid, medium-large
	Ophiogomphus	colubrinus	Boreal Snaketail		XX	XXX			Northern	Rivers - clear, rapid, gravel bottom
	Stylurus	annicola	Riverine Clubtail		X	XXX			Southern	Connecticut River
Cordulegastriidae	Cordulegaster	obliqua	Arrowhead Spiketail		X	XX			Entire state	Spring-fed, small, mucky forest streams
Macroniidae	—	—	—	—	—	—	—	—	—	—
Cordulidae	Neurocordulia	obsoleta	Umber Shadowdragon		XX X				Southern	Rivers, lakes, reservoirs
	Neurocordulia	michaeli	Broad-tailed Shadowdragon		X X				Entire state	Fast, rocky streams with boulder shorelines
	Somatochlora	incurvata	Incurrate Emerald				XX X		Entire state	Sphagnum bogs
	Williamsونيا	linleri	Ringed Boghaunter		XX X				Southern	Soupy, sphagnum bogs
Libellulidae	Libellula	vibrans	Great Blue Skimmer		XX	XX XX			Southern	Swampy pools and streams
	Libellula (ladona)	deplanata	Blue Corporal		XX				Southeastern	Lowland ponds
	Ceithemis	fasciata	Banded Pennant			XXX			Southern	Ponds, lakes, reservoirs
	Tramea	carolina	Carolina Saddlebags			XX XX			Southern	Temporary pools and lowland ponds
	Leucorrhinia	patricia	Canada whiteface			XXX			Northern	Bogs, lakes with floating moss
	Sympetrum	corrupum	Varigated Meadowhawk		X	XX XX			Entire state	Ponds, marshes
Calopterygidae	Calopteryx	dimidiata	Sparkling Jewelwing		XX				Southeastern	Slow-flowing streams, emergent vegetation
Lestidae	—	—	—	—	—	—	—	—	—	—
Coenagrionidae	Enallagma	divigans	Turquoise Bluet		XX	XX			Southern and Eastern	Slow streams, marshy ponds
	Enallagma	laterale	New England Bluet		X	XX			Southern	Sandy ponds, ponds with emergent vegetation
	Ischnura	haslata	Citrine Forktail		XX	XX XX			Western and Southern	Marshy ponds, vernal pools, slow streams, seeps
	Argia	translata	Dusky Dancer			X	XX		Southern	Rivers, streams, open ponds and lakes

The Insect Calendar:

VERMONT

Seeing that Vermont remains in teneral stages in Odonata discovery, we've included some of the "lesser orders" among these events, as well as a list of outings from Massachusetts.

Vermont Butterfly Survey Outings

June 5 / Brattleboro / 10 am – 2 pm

June 6 / South Burlington / 10 am – 2 pm

VBS staff member Bryan Pfeiffer will guide a butterfly walk and training session for VBS volunteers and others. Contact Bryan (bpfeiffer@vinsweb.org) for details.

Vermont Entomological Society Annual Picnic

June 12 / Grand Isle / 10 am

Members of the Vermont Entomological Society will gather for a pot-luck picnic and insect outing at Grand Isle State Park. Meet at the park. Bring a dish (and your net).

Skippers and Skimmers

June 19 / Groton State Forest / 10 am – 3 pm

Bryan Pfeiffer of Vermont Bird Tours will guide an outing to discover butterflies and dragonflies in varied habitats and learn a bit about their biology and ecology. Fee: \$25. Register at <www.vermontbirdtours.com>.

Dragonfly Society of the Americas – Regional Gathering

June 24-27 / Hartford

Join odonatologists from across the Northeast for this regional gathering, which coincides with the Vermont BioBlitz. For information visit <www.vinsweb.org/DSA-NE.html> or contact Bryan Pfeiffer at bpfeiffer@vinsweb.org.

The Vermont BioBlitz

June 25-26 / Hartford

Join the greatest gathering of biologists and naturalists ever assembled to identify every living thing at the VINS preserve in Quechee and adjoining conserved lands. Visit <www.vinsweb.org/BioBlitz> for details.

Butterfly Walk at Birds of Vermont Museum

July 10 / Huntington / 10 am – 1 pm

Join the Vermont Entomological Society for this annual butterfly walk on the museum's preserve.

Join Entomology Society Meeting

July 24-25 / Groton State Forest

This will be a weekend joint meeting of the Vermont Entomological Society and the Maine Entomological Society, involving lots of insect investigations. Contact Bryan Pfeiffer (bryan@vermontbirdtours.com) for details.

VINS Bugfest

August 1 / Montpelier

Join entomologists at the VINS North Branch Nature Center for a day of insect investigations for kids and adults. Call VINS for details at 229-6206.



Macromia illinoiensis (Illinois River Cruiser)

Bryan Pfeiffer

Bug Walk in Manchester

August 14 / 10 am – 1 pm

VINS Manchester sponsors an insect outing with members of the Vermont Entomological Society. Contact Susan Morgan at smorgan@vinsweb.org for details.

Skippers and Skimmers

August 25 / Rumney, NH

In stories and colorful slides, author and naturalist Bryan Pfeiffer will reveal the delights of watching butterflies, dragonflies and other sparkling insects. Bryan will discuss the tools and tricks you'll need for close (real close) and enjoyable encounters with these bright wings of summer. 7 pm. Free admission. For information consult the Quincy Bog Nature Center at <www.quincybog.org>.

Insects of the Mount

September 12 / Orwell / 1– 3 pm

Experts from the Vermont Entomological Society will lead a walk to discover some of the Mount's insects. Admission \$5 for adults and free for children under 15. Ticket includes admission to museum and access to all the trails. Call 802-948-2000.

Outings, Lectures, Events

MASSACHUSETTS

Quabbin Reservoir Trip

June 6 / Athol, MA / 8 am - 3 pm

Join Dave Small on this annual trip into Quabbin Reservation. This all-day event inside the reservation will feature birds, butterflies, dragonflies and whatever nature has to offer. Bring lunch, snacks, water, field guides, dragonfly net and binoculars. *Pre-registration required.* Call the Millers River Environmental Center (978-248-9491) or e-mail abnc@millersriver.net.

Ode Institute – Athol Bird and Nature Club

June 16-July 21 / Athol, MA

Dave Small, club president, will run this series of classes and field trips to discover the diversity of dragonflies and damselflies found in Massachusetts. Field trips will be on the Saturdays following each Wednesday evening class. Fee: \$40 for members of ABNC and \$50 for non-members. For info or to register call 978-248-9491 or visit the club's web site at www.millersriver.net/abnc.

Connecticut River Canoe Trip

June 19 / Deerfield, MA / 9 am

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).

Ware & Quabog Rivers Outing

June 20 / Palmer, MA / 9 am

A trip to explore some poorly known riverine habitats (on foot; no canoes necessary) in southern Worcester County, searching for clubtails and other early season species. Bring lunch, drinks, and a sense of exploration. Meet at the commuter parking lot behind the McDonald's on Route 32 in Palmer (about a mile north of Exit 8 off the MassPike). Leaders: Lynn Harper (413-532-2799; HarperLynn@msn.com) and Blair Nikula (508-432-6348; odenews@odenews.net).

North Quabbin Odonate Trip

July 1 / Athol, MA / 5-9 pm

An evening trip to look for Umber Shadowdragons. Meet at 5 pm at the Millers River Environmental Center, 100 Main Street Athol. Leader: Fred SaintOurs (fred.saintours@umb.edu).

Dragonfly Institute at Broadmoor Wildlife Sanctuary

July 7-24 / Natick, MA

This is a course for beginners sponsored by the Broadmoor Wildlife Sanctuary in Natick, Massachusetts, consisting of three evening lectures and three field trips. Slide lectures on Wednesday evenings (7- 8:30 pm) July 7, 14, and 21, with field trips on Saturdays (10 am – 2 pm), July 10, 17, and 24. Instructor: Bob Bowker. Field Trip Leaders: Bob Bowker and Blair Nikula (7/21). Fee: \$45 for Mass Audubon members; \$50 for non-members. To register, call Broadmoor at 508-655-2296.

Arcadia Sanctuary Talk and Walk

June 9-10 / Easthampton, MA

A Friday-evening slide program followed by a Saturday walk at MassAudubon's Arcadia Sanctuary in Easthampton. *Fee & Pre-registration required:* \$20/members; \$25/non-members. To register call: 413-584-3009. Leader: Michael Veit.

Newburyport Talk and Walk

July 17 / 10:30 am – 2:30 pm / Newburyport, MA

An introductory slide talk at the MassAudubon's Joppa Flats Sanctuary followed by a walk. *Pre-registration required & fee.* Contact the sanctuary (978-462-9998) for details and to register. Leader: Blair Nikula.

Coastal Plain Odonates

August 1 / 9 am / Plymouth, MA

A trip sponsored by The Nature Conservancy to search for coastal plain pond dragonflies. *Pre-registration required.* Contact The Nature Conservancy in Plymouth (508-747-4307). Leaders: Tom Maloney (tmaloney@tnc.org) and Blair Nikula (508-432-6348; odenews@odenews.net).

Odes by Canoe/Kayak

August 14 / 9 am / Athol, MA

This trip will focus on an area to be determined in Worcester County. Participants are responsible for their own watercraft, safety equipment, nets, lunch, drinking water, and transportation. Be prepared to wade in shallow water. Meet at the Millers River Environmental Center, 100 Main Street, Athol. Leaders: Dave Small (978-249-2094; dhsml@gis.net) and Lynn Harper. (413-532-2799; HarperLynn@msn.com).

Northern Berkshire County Outing

August 21 / 9 am

A trip to look for darners 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).

Millers River Trip

September 4 / 9 am / Athol, MA

A trip to look for late-season specialties such as Arrow Clubtail and American Rubyspot. Meet at the Millers River Environmental Center, 100 Main Street, Athol. Leader: Dave Small (978-249-2094; dhsml@gis.net).

Green River Outing

September 12 / 8:30 am / Athol, MA

Search for Ocellated Darner and other late-season species. Meet at the Millers River Environmental Center, 100 Main Street, Athol at 8 am or 9 am at the Tourist Information Center on the Rte 2 rotary in Greenfield. Leaders Dave Small (978-249-2094; dhsml@gis.net) and Lynn Harper (413-532-2799; HarperLynn@msn.com).

Damselflies Revealed

Damselflies of the Northeast By Ed Lamm
Biodiversity Books / \$20
5.5 x 8.5 inches / 96 pages / ISBN 0-9754015-0-5
<http://homepage.mac.com/edlam/book.html>

By Bryan Pfeiffer

No longer is there an excuse to leave a Vermont damselfly unidentified. The surge of fine odonate field guides continues with Ed Lam's *Damselflies of the Northeast*. No Vermont odonatist will want to leave home during the field season without this book.

We are indeed fortunate that the Northeast is an epicenter of odonate discovery and study. The crowd of 120 or so people in Massachusetts for the New England Odonate Conference this past April was perhaps the greatest gathering of odonatologists and other interested folks ever assembled in North America. Many left the meeting clutching their copy of Lam's book.

With good reason. With life-like drawings, range maps and concise text, Lam has crafted a masterpiece — arguably the greatest breakthrough in Zygoptera since Ginger Carpenter's seminal work, *The Dragonflies and Damselflies of Cape Cod*. If Ginger was our Roger Tory Peterson of Odonata, then Lam has become the David Sibley of damselflies.

Damselflies of the Northeast begins appropriately with a crisp, basic introduction to damselflies: their life cycle and anatomy, as well as just enough advice for novices who may be hesitant to pursue these spectacular but at times confusing insects. Lam points out that many of our region's damsels can indeed be identified in the field as free-flying gems (owning in large part to this book) with close-focusing binoculars or the naked eye. But Lam also recognizes that capture and closer examination (with a hand lens) of terminal appendages and other features is critical to the precise study of damselflies. The guide excels in this regard (but more on that later).

Each Zygoptera family (and certain genera) get their own one- or two-page introductions. What makes an Argia (Dancer) species distinct? And why aren't they Enallagma (American Bluets)? Lam's no-frills explanation of the harmony of traits shared among members of a given family or genus offers a solid foundation for learning these insects.

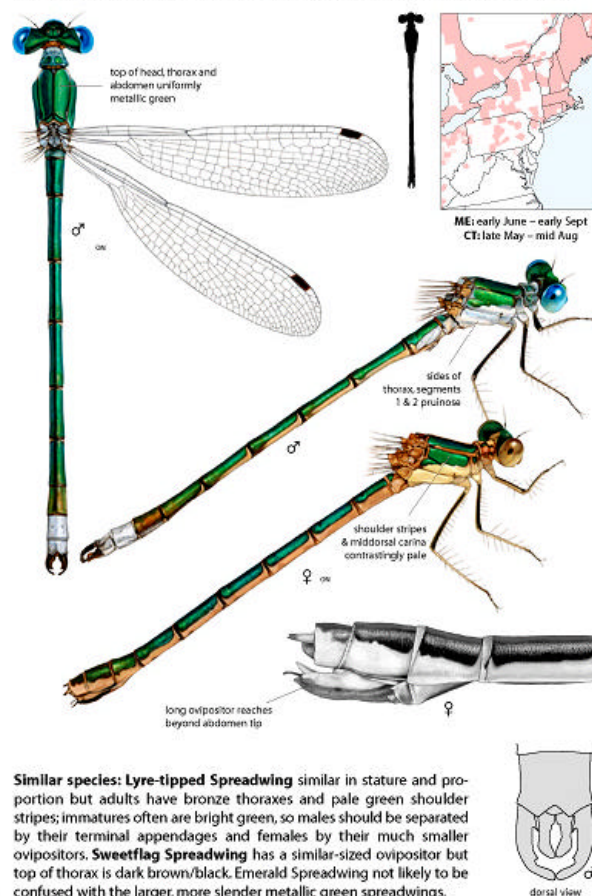
Lam's treatment of each species is complete. Images of males and females fly off the pages. We get dorsal and lateral views. And like Peterson and Sibley, Lam adds text and arrows pointing out diagnostic field marks. We quickly learn to notice not only the thorax patterns on Ischnura species (Forktails), for example, but also the extent of blue coloring on the last abdominal segments. This is basic stuff; birdwatchers have been looking at this level of detail for decades. But in no other odonate field guide is it so clearly presented.

Each species gets its own page. And graphic icons — binoculars, hand lens, and microscope — indicate the level of scrutiny

Emerald Spreadwing • *Lestes dryas*

MF 

32 – 40 mm, 1.3 – 1.6 inches. Short, stocky species, common and widespread in the Far North. Absent from the Coastal Plain, occurs mainly at higher elevations southward. Breeds in partially shaded, permanent ponds, small temporary pools, and slow streams. Male is uniformly metallic emerald green above. Female similarly-patterned and even more stockily-built.



Similar species: Lyre-tipped Spreadwing similar in stature and proportion but adults have bronze thoraxes and pale green shoulder stripes; immatures often are bright green, so males should be separated by their terminal appendages and females by their much smaller ovipositors. Sweetflag Spreadwing has a similar-sized ovipositor but top of thorax is dark brown/black. Emerald Spreadwing not likely to be confused with the larger, more slender metallic green spreadwings.

28 SPREADWINGS

necessary for identification. For each species, its habits and habitats are explained in an introductory paragraph. And for each, Lam includes a section on "Similar Species." (My minor gripe here is that only common names of similar species are used in these sections.)

Finally, and importantly, we get close-up, schematic illustrations of male and female terminal appendages. These are simple gray and white drawing. It might have been nice to see Lam's talents as an observer and an artist extended — in color and with more dimension — to these illustrations as well. When necessary, Lam shows close-ups of certain critical — and diagnostic — abdominal segments. And, for the truly dedicated, the book concludes with amazing illustrations of mesostigmal plates on female *Enallagma* species.

So, in conclusion: quit your job, sell your house, become an odonatologist, and spend many days with this guide in the good company of damselflies.

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Williamsonia fletcheri (Ebony Boghaunters) were busy making more
Williamsonia fletcheri in Washington County on May 17, 2004.



Bryan Pfeiffer

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