

ARGIA

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Happy 75th Birthday, Nick

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The Dragonfly Society Of The Americas

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Journals Published By The Society

ARGIA, the quarterly news journal of the DSA, is devoted to non-technical papers and news items relating to nearly every aspect of the study of Odonata and the people who are interested in them. The editor especially welcomes reports of studies in progress, news of forthcoming meetings, commentaries on species, habitat conservation, noteworthy occurrences, personal news items, accounts of meetings and collecting trips, and reviews of technical and non-technical publications. Membership in DSA includes a subscription to ARGIA.

Bulletin Of American Odonatology is devoted to studies of Odonata of the New World. This journal considers a wide range of topics for publication, including faunal synopses, behavioral studies, ecological studies, etc. The BAO publishes taxonomic studies but will not consider the publication of new names at any taxonomic level.

Membership in the Dragonfly Society of the Americas

Membership in the DSA is open to any person in any country and includes a subscription to ARGIA. Dues for individuals in the US, Canada, or Latin America are \$20 us for regular membership and \$25 us for institutions or contributing membership, payable annually on or before 1 March of membership year. Dues for members in the Old World are \$30 us. Dues for all who choose to receive ARGIA in PDF form are \$15. The Bulletin Of American Odonatology is available by a separate subscription at \$20 us for North Americans and \$25 us for non-North Americans and institutions. Membership dues and BAO subscription fees should be mailed to Jerrell Daigle, 2067 Little River Lane, Tallahassee, FL, USA 32311. More information on joining DSA and subscribing to BAO may be found at <http://www.odonatacentral.org/index.php/PageAction.get/name/DSA_Membership>.

ARGIA and BAO Submission Guidelines

Digital submissions of all materials (via e-mail or CD) are much preferred to hardcopy. All articles and notes should be submitted in Word or Rich Text Format, without any figures or tables embedded. Only minimal formatting to facilitate review is needed. Photographs should be submitted as TIFF (preferred) or JPEG files with a minimum of 300 ppi at the intended print size. Charts, graphs, diagrams, and other vector graphics are best submitted in Illustrator format or EPS. If this is not possible, submit as PNG or TIFF at a minimum of 600 ppi at the intended print size. Charts and graphs may also be submitted in Excel documents. Tables may be submitted as Word or Excel documents. For more information see the entire guidelines at the end of this issue or visit <<http://www.odonatacentral.org/index.php/PageAction.get/name/DSASubmissionGuidelines>>. ARGIA submissions should be sent to John Abbott, Section of Integrative Biology, C0930, University of Texas, Austin TX, USA 78712, <jcabbott@mail.utexas.edu>; BAO submissions should be sent to Ken Tennessen, P.O. Box 585, Wautoma, WI, USA 54982, <ktennessen@centurytel.net>.

Front cover: Nick Donnelly studying a Flap-necked Chameleon in South Africa, January 2006. Photo by John Abbott

In This Issue

This issue is dedicated to our former editor, Nick Donnelly. Nick turns 75 this December and John Michalski delights us with a little history of Nick over the last 75 years. Nick has been a major contributor to the field of odonatology during all of his adult life and it doesn't look like he is quitting anytime soon. We are all looking forward to his North American manual currently in preparation. Nick was one of the first odonatologists I corresponded with over 15 years ago. He was as generous with his knowledge then as he is today. Nick has had a major impact on the study of odonates at a world scale and I suspect he has played a significant role in the learning process for nearly every serious student of North American odonatology. I think he may also be the only odonatologist that can claim his own weather phenomenon! Happy Birthday Nick and thanks for all the great contributions to odonatology you have made over those years.

There are already several announcements regarding meetings next year, so make sure to mark these down on your calendar. We also have reports from several gatherings at the end of this year. 2007 was a great year for discoveries, especially in the southwest.


Jerry Hatfield continues to stir up new things in the Texas Panhandle and summarizes his 2007 findings for us. John Klymko and Gayle Strickland report new species for New Brunswick and Louisiana, respectively. Arizona's list continues to grow and Doug Danforth reports on the fifth new species for that state this year.

Nick Lethaby reports on the discovery of several *Zoniagrion exclamationis* (Exclamation Damsel) populations south of its previously known range in California. On the other side of the country, Derek Bridgehouse reports on the northern expansion of *Erythrodiplax berenice* (Seaside Dragonlet) in Nova Scotia.

We have one article on explorations in Florida this time in which Edwin Keppner reports on Bay County.

There are two contenders for the Guinness Book of Records in this issue. Fred Sibley reports on his encounter with three males of different species all in tandem! Jim Johnson also shares an interesting encounter he had this season. He found a male *Argia vivida* (Vivid Dancer) trying to mate with a female *Octogomphus specularis* (Grapple-tail)!

Cary Kerst shares his memories of one of our great North American odonatologists, Dr. B. Elwood Montgomery. Cary worked with Montgomery at Purdue and gives those of us who did not have the honor of meeting him, a glimpse into his character and life.

We finish with three book reviews. I'd also like to call everyone's attention to some changes in the Bulletin of American Odonatology and our request for short communications to be included in that journal. Finally, please send in your DSA membership dues to Jerrell. You will find a renewal form enclosed and please note, starting in 2008, you can save some money by subscribing to the on-line digital version of ARGIA. 

Renewal Reminder

This is the final issue of the volume, so it's that time of year again. Please renew your membership in a timely fashion, unless you have already paid for 2008 or beyond. If you are unsure of whether you need to renew or not, check the address label on the envelope. If you see "A7" in the upper right corner, it means that your membership expires with this issue. Also remember the PDF-only option now available for ARGIA at a reduced rate.

Calendar of Upcoming Events

For additional information, see <<http://www.odonatacentral.org/index.php/PageAction.get/name/DSAOtherMeetings>>.

Event	Date	Location	Contact
NymphFest 2008	9–10 Feb	Athol, Massachusetts	< http://www.odes.millersriver.net/nymphfest2008.htm >
DSA SE Regional Meeting	8–11 May	Cheraw, South Carolina	Jerrell Daigle < jdaigle@netally.com >
Dragonfly Days	15–18 May	Weslaco, Texas	Jennifer Owen < jennifer.owen@tpwd.state.tx.us >
DSA NE Regional Meeting	26–29 Jun	Adirondacks, New York	Jan Trybula < trybulj@potsdam.edu >


2008 DSA SE Regional Meeting

Jerrell J. Daigle <jdaigle@nettally.com>

The 2008 DSA SE Regional Meeting will be held in Cheraw, South Carolina from 8–11 May. I have reserved a block of 10 rooms at the Inn Cheraw which will be our base hotel. Call 800-535-8709 soon and ask for Roger and mention my name or DSA group to reserve. Try its web site at <<http://www.inncheraw.com>> for more information on this hotel. Also, try the local web site at <<http://www.cheraw.com>> to find out more about the town of Cheraw and its attractions, other motels, maps, and restaurants.

Thanks to the hard work of Chris Hill, we have permits to collect specimens, plus inventory the Odonata fauna in Cheraw State Park and the Sandhills Forest Reserve for the South Carolina park service. Notable species include

Gomphus diminutus (Diminutive Clubtail), *Gomphus parvidens carolinus* (Piedmont Clubtail), *Epithea semiaquea* (Mantled Baskettail), and *Enallagma davisii* (Sandhill Bluet). Also, Ed Lam needs to scan certain species for his new book. We will be helping him out in this endeavor. The plan is to arrive the afternoon of 8 May, get our rooms, and then go collecting out in the field 9–10 May. Sunday the 11th will be optional for field work or just driving back home or exploring in North Carolina and South Carolina for *Gomphus septima* (Septima's Clubtail) and *Ophiogomphus incurvatus* (Appalachian Snaketail). Plenty to keep us busy!

For more information, please contact me by e-mail or call me at 850-878-8787. 

Northeastern NymphFest 2008 in Athol, Massachusetts

Bryan Pfeiffer <bryan@wingsenvironmental.com>


Here is an opportunity for northern odonatologists to spend quality time with dragonflies this winter without heading toward the Equator. NymphFest 2008 will be 9–10 February 2008, in Athol, Massachusetts.

Experts and novices alike will gather at the Millers River Environmental Center to share and swap wisdom (and exuviae) in what is certain to be an entertaining and educational event. NymphFest is sponsored by the Northeast chapter of the DSA and the Athol Bird and Nature Club.

Participants can expect lectures on finding and identifying dragonfly larvae and skins. We are also planning workshops on identification of particular groups. Another idea is to include an "Identification Station" where experts-in-residence can help participants who bring their own exuviae.

NymphFest organizers are seeking presenters and workshop leaders. Topics may include, for example, techniques for larval or exuviae collection, preparation and preservation; identification of key taxa in larval form, or new or informative discoveries.


Organizers are still finalizing details for the weekend event. Consult <<http://www.odes.millersriver.net/nymphfest2008.htm>> for updates on the schedule, lodging, food, participants and registration.

Presenters can contact me at <bryan@wingsenvironmental.com>. Participants seeking more information should check the web site periodically. 

2007 Treasurer's Final Report

Jerrell J. Daigle <jdaigle@nettally.com>, DSA treasurer

We began the 2007 year with a balance forward of \$11,288.94. Our current balance is \$15,225.05. Our projected year-end balance should be about \$12,000. Our total expenses for 2007 were \$6,934.38. It includes \$6,272.38 for ARGIA 18(4) through 19(3), \$61.25 for our annual Florida business registration, \$220.13 for back issue costs, and \$380.62 for maps, buttons, etc. for the 2007 annual DSA

meeting in Springerville, Arizona. Currently, we have a DSA membership of 405. Beginning in 2008, we will file a 990 Tax Exempt Form online. Our 8734 Non-Profit Organization status report has apparently been upheld by IRS. It is anticipated that income and expenses will be lower in 2008 due to the new cost structure of available cheaper electronic versions of ARGIA and BAO. 

Northeast Regional Meeting of the DSA, in the Northern Adirondacks and St. Lawrence Valley of New York, 26–29 June 2008


Jan Trybula <trybulj@potdam.edu>, Biology Department—SUNY Potsdam, 44 Pierrepoint Avenue, Potsdam, NY 13676

Erin White <elwhite@gw.dec.state.ny.us>, New York Natural Heritage Program, 625 Broadway, 5th Floor, Albany, NY 12233-4757

You are invited to visit New York and experience early summer on the northern edge of the Adirondack Park. The 2008 Northeast Regional meeting of the DSA will be held in Malone, New York in Franklin County. Malone is situated between the Adirondack Park and the St. Lawrence River and we will have trips to both of these areas. We hope to explore bogs and rocky streams in the Adirondacks as well as the great St. Lawrence itself. Franklin and neighboring counties have over 125 species of odonates—something for everyone! This will be peek time in the region for many odonates including various spring corduliids, five species of *Leucorrhinea* (white faces), three species of *Cordulegaster* (spiketails), and numerous gomphids such as *Gomphus borealis* (Beaverpond Clubtail), *G. descriptus* (Harpoon Clubtail), *G. vastus* (Cobra Clubtail), *Ophiogomphus anomalus* (Extra-striped Snaketail), and *O. aspersus* (Brook Snaketail). And, if the season holds, we may still be able to find *Arigomphus cornutus* (Horned Clubtail), which is seen

throughout June in Northern New York. Collection data will be forwarded to the New York Dragonfly and Damselfly Survey (NYDDS) and the Adirondack Biodiversity Project (ADK ATBI).

Primary lodging will be at the Malone EconoLodge, which is holding a block of rooms until 13 June. For reservations, call the EconoLodge at (1-800-607-7449) and mention that you want to reserve one of the rooms held by Trybula for the dragonfly meeting. Seniors, AAA, and AARP members receive 10% off the room rate.

If you have any questions, please contact Jan Trybula at the e-mail or address listed above. Also, please let Jan know if you are planning on attending and when you have made your lodging reservations. More information will be posted at the meeting Web site, <<http://www2.potsdam.edu/trybulj/NEDSA>>. 

CalOdes/DSA Ode Blitz III: The Owens Valley: Mono and Inyo Counties 10–13 August

Kathy Biggs <bigsnest@sonic.net>, **Paul Johnson** <pjpolliwog@yahoo.com> and **Don Roberson** <creagrus@monterey-bay.com>

The third annual CalOdes Blitz—a gathering of California dragonfly enthusiasts who otherwise communicate through the CalOdes Yahoo!Group, took place during the second weekend of August 2007 in California's Owens Valley, east of the Sierra Nevada. Past years' Blitz's have concentrated on finding new species for the state list and have been held in the extreme northeast and southeast "corners" of the state. This year we met mid-state, but still in the extreme eastern part. This is an area where the high desert meets the Sierra Nevada and we hoped to find both desert and mountain species in close proximity. The 2003 DSA annual meeting post-meeting participants visited this very area, but the only CalOdes Blitz group members who came on the post trip at that time were the Biggs! We did hope to add more species to this understudied and unique area.

As with the DSA post-meeting trip, this gathering was centered around Bishop, with the vast majority of us camped just northeast of town along the Owens River. We planned to visit spots both within Inyo and Mono counties during the lovely cooler summer days of late August in this high desert. A "baker's dozen" of folks interested in California dragonflies attended, the most ever, many from distant locales. From San Diego in the south came CalOdes founder Doug Aguillard and new Blitz members David and Linda Blue, along with Bob Miller from the Imperial Valley and his friend Jim Diez from the state of Nevada. Central California was represented by Paul Johnson, inland from Monterey County, and Don Roberson from the Monterey coast. Kathy and Dave Biggs, planners of Blitz III drove in straight from the DSA annual meeting in Arizona, although home is the North Bay Area. Perhaps driving the farthest were Ray Bruun and



The group at Little Hot Creek, 11 August 2007. Back (left to right): Ray Bruun, Dave Biggs, Bob Miller, Jim Diez, Doug Aguillard, David Blue. Front: Steven Bruun, Linda Blue, Kathy Biggs, Barbara and Ron Oriti, Paul Johnson (missing, Don Roberson). Photo courtesy Lara Kirkner, Mammoth Times.

son Steven from the Redding area of northern Calif. Two new dragonfly enthusiasts, both Bishop locals and friends of the Biggs, helped plan and then attended the outings, Ron and Barbara Oriti.

With folks arriving on several different days from several different directions, cell phone contact was important, but in the mountains, not always reliable. We ended up leaving messages on a giant dragonfly taped to our tent!

While we gathered on Friday, small groups went out to explore the area nearby our campsite—the Chalk Hills, Owens River, and Fish Slough. These groups were immediately rewarded with 18 species: Paiute and Vivid Dancers (*Argia alberta* and *vivida*), Familiar Bluet (*Enallagma civile*), Pacific and Black-fronted Forktails (*Ischnura cervula* and *denticollis*), Common Green, Paddle-tailed and Blue-eyed Darners (*Anax junius*, *Aeshna palmata*, and *Rhionaeschna multicolor*), Gray Sanddragon (*Progomphus borealis*), Western Pondhawk (*Erythemis collocata*), Eight-spotted, Hoary, and Flame Skimmers (*Libellula forensis*, *nodisticta*, and *saturata*), Blue Dasher (*Pachydiplax longipennis*), Variegated and Western [Band-winged] Meadowhawks (*Sympetrum corruptum* and *occidentale* [*semicinctum*]), Black and Red Saddlebags (*Tramea lacerata* and *onusta*). The group found that the darners, in particular, perched in the scrub to avoid the winds, and the photographers were delighted to be able to get naturally posed shots. See <http://bruunphotography.com/dragonflies_081007.html> and <<http://sdbirds.basiclink.com/paddle.htm>>.

By Saturday morning most of us had arrived, and our first day's trips took us north into Mono County, east of Mammoth into an interesting high desert area of hot springs and fumaroles. Our first stop was Whitmore Hot Spring where *hundreds* of Desert Whitetails (*Plathemis subornata*) were breeding. Literally clouds of them arose as we drove in. A reporter from the Mammoth Times, Lara Kirkner ("a dragonfly virgin"), joined us and we all practiced ignoring gazing at, and also the looks we received from, the naked onlookers sitting in the nearby hot tub. But the tubbers later told Lara, "My kids think you guys are nerds, but I told them we are among the nicest and safest people on Earth." A sort of nice pronouncement—safe that is, as long as you weren't a dragonfly! Kathy, with the help of young Steven Bruun, collected a male, female and young male Whitetail to serve as county vouchers for Mono County (OC# 262877) and to place as scans on her California and Southwest Dragonfly web sites.

Other species, outfitted in more colorful attire than the hot-tubbers, included the beautiful Saffron-winged, Black, and Striped Meadowhawks (*Sympetrum costiferum*, *danae*, and *pallipes*), Spotted Spreadwing (*Lestes congener*), Tule and Alkali Bluets (*Enallagma carunculatum* and *clausum*). Bringing our number of species to 26 were two female Dancers (*Argia*) collected. One was male-colored but none of us felt confident to make the identification. The specimens were later examined by Rosser Garrison and found to be California Dancers (*Argia agrioides*)—a new distribution record (*) for Mono County (OC #263903)!



A spot along the banks of the Owens River itself – reachable only via 4-wheel-drive vehicles. There were other interesting spots too, where naked hot-tubbers had to be circumnavigated. Photo by Don Roberson.

Leaving the nudists behind, we ventured a few miles further to Little Hot Creek. No wonder there were no nudists—the mosquitoes about ate us alive! Finding way more dragonfly food than dragonflies, we ventured quickly on to Hot Creek itself. This incredible area of boiling springs immediately adjacent to the creek, and part of the creek itself, has boiling cauldrons. Only a few Odes braved this area, but it was incredible to behold with beautiful blue pools, roiling black bubbles, hissing vents and rugged scenery.

By the afternoon the group was exploring remote springs high in the mountains on the west side of Hwy 365 in the Sierra Nevada, hoping to add new species to the county lists, but, alas, recent cold weather had literally wiped out the fauna.

Everyone retreated back to the lowlands and “Plan B”! After a sheltered lunch in town, we proceeded south into Inyo County and stopped quickly at Klondike Lake where, although it was very windy, the stop produced a Bleached Skimmer (*Libellula composita*) for our list. Then it was on to the fabled Antelope Spring high in the Deep Springs area of the White Mountains. We were hoping to find the desert race of the Pacific Spiketail (*Cordulegaster dorsalis deserticola*), which would be a “lifer” for almost everyone. There was only one

quick fly-by by a male, but Paul Johnson did find three exuviae, so we are assured that they are still breeding there. Other species not previously seen but found here included Wandering and Spot-winged Gliders (*Pantala flavescens* and *hymenaea*) bringing our list to 30 species.

That night the stars, meteorites, and satellites regaled us. A few of us even attempted sleep! Story has it that some participants chased bats with nets that were chasing dragonflies. I’ll leave it up to you to decide which species had the nets!



Hot Creek. Photo by Don Roberson.

Sunday found the day to be clear and bright and we decided to go back to Klondike Lake before the winds returned. While most of us scoured the shoreline and nearby grassy knolls, Paul took off further down the road. Our group was happy to find the River Bluet (*Enallagma anna*), absent in most of our domains, at the lakeshore, but the Red-veined Meadowhawk (*Sympetrum madidum*) and Desert Forktails (*Ischnura barberi*) eluded us.

Then, Paul returned. He stood watching us for a while and made inquiries as to what we were finding. Finally we asked him what he'd found. He said, that, well, if we were willing/able to travel over some rough 4WD roads, he thought he could show us an Olive Clubtail (*Stylurus olivaceus*)! Believe me, it didn't take the group long to pile into the 4WD vehicles some of us were driving and we were off! The first Olives found were clinging to foliage along the dirt bank cuts of the Owens River, but others were later located in the scrub nearby. All the photographers took turns taking images. There were a *lot* of smiles. This was species number 32 for the group, but also the time when many participants had to start heading home (Ray and Steven Bruun had already left, and therefore missed seeing the Olives).

A few more species were added by the stragglers in the group, the Biggs and Oritis. At a spring near Mazourka, Desert Firetail (*Telebasis salva*) was added, and at ponds off Mazourka Rd., American Rubyspot (*Hetaerina americana*). Along the Owens River overflow channel north of Mazourka Rd. a Desert Forktail (*Ischnura barberi*) was finally found, species number 35.

Pre-trip species found by Kathy and Dave at Deep Springs in the White Mountains and at a scouting trip at the Hot Springs with the Oritis included the Blue-ringed and Emma's Dancers (*Argia sedula* and *emma*) and a Red-veined Meadowhawk (*Sympetrum madidum*), bringing the species list to 38.

Photos of many of the species encountered are available on the participating photographer's web pages.

Plans are brewing to time next year's CalOdes Blitz to follow upon the heels of the 2008 DSA annual meeting in Oregon. Stay tuned!



To Nick Donnelly on the Occasion of his 75th Birthday

John Michalski <Huonia@aol.com>

"Judge a man by his questions rather than by his answers."
— Voltaire

[Relax, everyone, he's in fine health. I just didn't want to put this off for too long—you know how it goes—and so I thought I'd take the occiput by the horns and, so to speak, "put the 'exclamation' back into *exclamationis*."]

I've chosen that quote from Voltaire partly to show how smart I am, but mostly because it captures the essence of our honoree, a point I shall return to later. For now, let's turn back time and peer into Nick's formative years.

A Little History

Nick was born Thomas W. Donnelly on 23 December 1932, in Detroit Michigan. An "army brat", his father's military assignments moved the family around a bit, eventually settling in the Washington, D.C. area for Nick's 'tween-and-teen years. Following his sophomore year in high school, he attended an Audubon Society summer camp in Maine, where all the counselors were trained naturalists—birders mostly, as you might expect. One of them was Donald J. Borror (who produced, among other things,

the classic monograph on *Erythrodiplax* and was half of the team who gave their names to the classic entomology textbook, known to most students simply as "Borror and DeLong"—or, if you were born after 1960, as "Borror, DeLong, & Triplehorn"). It was Borror who planted the dragonfly naiad in young Thomas W.'s mind, and another camp counselor was an expert on ferns—many of you will already know that Nick is also a first-rate fern enthusiast.

Nick was already an intrepid adventurer when, at the age of 16, his mother allowed him to hitch-hike from D.C. to Colorado, for a summer job pumping gas. (And why not? Gas needs pumping in Colorado too, you know.)

When it came time for college, Nick went to Cornell to study not entomology, but geology. That's right, our good friend is not lettered in buggy degrees. Somewhere early in the game, someone told Nick, "If you like chasing bugs, don't become an entomologist," the notion being that lettered bugmen end up paying their bills doing "state work" on mosquitoes or crop pests—or inspecting shipments of tropical produce, as Nick puts it—and they don't necessarily have time to get out and do what they like best. He was encouraged to find another branch of science that

would allow him to get around, and geology fit the bill nicely. After all, you could certainly make rent consulting for oil companies and whatnot, and the work would, if you played your cards right, demand that you travel the world in order to get the job done.

But his time at Cornell was not a sabbatical from dragonflies, and Nick took every opportunity to make use of the University's facilities. (James Needham was still on the faculty, for one thing, though sadly his best days were mostly behind him and the doctor was beginning to show signs of terminal forgetfulness.) After Nick had obtained his Bachelor's degree, he continued his education at Caltech.

It was there, in 1955, that he met (and in 1956 married) Ailsa. A woman of Scots lineage (with a refined British accent and the social graces to match), Ailsa was, like Nick, the offspring of a career military man, and her childhood was spent mostly in India, where she developed a taste for hot curries and a cozy tolerance of tropical weather, which bode well for a lifetime of chasing bugs in the jungle. Together the Donnellys have traveled the world several times over, and brought their three sons along with them for the ride. They have spent considerable time on every continent except Antarctica, and rare is the time I visit them when Ailsa isn't already in the throes of planning their next excursion to someplace interesting and previously untrodden by them. They have stood within stone's throw of wild chimpanzees, gorillas, gibbons, and orangutans, some of whom have possibly thrown stones at the Donnellys just to prove the point. After years of visiting Guatemala, Nick is sufficiently fluent in Spanish to hammer out the details of dragonfly collection with local farm boys; his command of Thai is less impressive, though I can attest that his periodic cries of "Yo!" to the Thai drivers we employed (on a 1993 trip) seemed to get the job done acceptably well.

The Donnellys originally met through Ailsa's job as a secretary at the grad school office. A speedy courtship, they met in the fall and were married within six months—Nick says because he was leaving to start his Ph.D. elsewhere, and he was determined to propose before he selected the school, because if he left without her, he thought the chance would be gone for good (life being what

it is and all). As they packed their red pickup truck for the cross-country ride to Princeton (where T.W. would get his Ph.D.), Nick's roommate innocently asked the new bride, "Has he shown you his collection yet?" Ailsa truthfully did not know what he was talking about, and it was at this precise moment that she first became aware of Nick's passion for dragonflies. The collection, in several wooden crates, was cushioned for the ride using Ailsa's fur coat.

Ailsa reports that she first learned the indications of a disgruntled bughunter when, pausing in the southwest, Nick saw but failed to catch his first *Pseudoleon superbus* (Filigree Skimmer)—a peculiar libellulid with black-spattered wings and woodgrain-patterned eyes. Later they would run into a small boy carrying an insect net who, on encountering Ailsa along the river bank, asked her, "Are you collecting dragonflies or damselflies?" It was Minter Westfall's young son, who had already collected enough *Pseudoleon* to choke a bullfrog.

After Princeton, Nick signed on as Assistant Professor at Rice University in Houston, Texas (where he earned an annual salary of six-thousand dollars—remember when you could support a family and a household on six grand? Because I don't.). Nick and Ailsa produced two sons while they lived in Texas, and a third born in Binghamton, all three now grown into happy and successful young men, responsible for what seems to be an ever-increasing brood of grandkids. After Rice, Nick landed a job teaching geology at the State University of New York at Binghamton, where they've lived ever since.



Nick in his downstairs lab. White arrow indicates bound copy of Tillyard.

Nick had been publishing dragonfly work on and off since the 1960s, and by the early 1980s, he was beginning to make his presence felt with a new generation of American odonatologists (those are the people who study—oh heck, what am I telling *you* for?). Everyone has their own story of how he or she became acquainted with Nick, but I'll share mine because, first of all, I'm the one writing this article, and secondly because I'm reasonably sure that, one way or another, our stories will have much in common.

In my case I got involved with dragonflies through someone more local—for me it was Mike May, one of my professors before I dropped out of Rutgers University (Mike wasn't responsible for my dropping out, though he claims he tried his hardest). Mike, in turn, put me onto the then-newborn DSA in 1988. Carl Cook was at the helm in those days, but there was another leading player living within a manageable drive of my home—Nick, of course—and round about 1989 I was cordially invited to Binghamton for one of the seminal “regional” DSA meetings. While I refuse to conclude this paragraph by saying “and the rest is history,” in fact it is.

An Insatiable Curiosity

What I think many of you will share is the experience of asking for Nick's help with species identifications, ideas for papers, or answers to questions, which are invariably addressed with such personal enthusiasm and attention to detail that, before you know it, you realize Nick's put you onto projects that had not occurred to you when you contacted him in the first place.

“What type of *Sympetrum* is this?” you ask, innocently, little red bug between thumb and forefinger, hoping for a quick, easy answer. In your mind's eye you envision Nick the Expert snapping back immediately with something simple and concise, such as “Oh, that's *Sympetrum corruptum*,” but instead you get something along the lines of, “Well let's take a look . . . oh man, these red *Sympetrum*s present so many problems that we haven't yet worked out . . . In fact, this one has hamules just like Needham's figure of *Sympetrum rubicundulum*, but a genital lobe more like what he calls *Sympetrum internum*. In fact, everyone says they're two different bugs, but actually there are many places where the two seem to intergrade into a myriad of intermediate forms, some having the hamules of . . .” and the jig's up, only what you don't yet realize is, you're about to spend what's left of the summer collecting little red dragonflies, and peering through a loupe at their naughty bits.

Indeed, it is not going too far to say that Nick's curiosity is insatiable, and it's not—by a long shot—restricted to dragonflies. He's equally at home with ferns, and geology

of course, and he's a tremendous fan of the opera, British comedy, and scathing political satire. If you had a compelling point to make, it's my guess that you could engage him in a conversation about Belgian postage stamps. Or maybe the different regional names for rheumatism. But if this makes Nick sound like the neighborhood know-it-all, you've got it all wrong. A conversation with Nick may touch on many topics, but rather than claiming vast personal knowledge, he is more likely to confess profound curiosity and a desire to puzzle out a solution.

A Contented Puzzler, Apt to Drive You Crazy

If you've picked his brain for opinions or insights, you may have encountered Nick's ability to see any problem from more than one direction, even many directions, simultaneously or on alternate weekends. “Here is a taxonomic problem that you could work on” might evolve into “Why would someone care about that?” in six months' time (or vice versa and back again). It's good science—but it may cause restless-leg-syndrome in young writers hoping for pat conclusions. (I have no personal experience with this at all, you understand.)

Over time I've learned that it's in his nature to question the accepted view. And, once you get going on one of these challenges, yours becomes the view that needs questioning.

It's probably best not to be holding a sharp or heavy object at times like these. But, in fact, this is the kind of intellectual rigor that keeps Nick honest, and it will keep you honest too. (It takes a more honest man than myself, however. There were times when my eyes searched his downstairs lab in vain for something that would be heavy enough to make an impression, if you get my drift, but not too expensive to throw. That bound volume of Tillyard? It would get the job done, but on the occasion I'm thinking of it was a little too far out of reach.)

Nick will chafe at the following comparison, but in a biography of Charles Darwin, William Irvine wrote that the coauthor of Natural Selection “faced minor puzzles in his data with an eager, fascinated suffering.” Nick is like that too. Nothing seems to get his juices going like a good, tangled problem. Solutions are boring (and often suspect), but problems are always interesting. (To dispel any tendency in this article to canonize the man, I would like to point out the unlikely but nonetheless true circumstance that the letters in “Thomas W Donnelly” can be turned around to spell “Hymns Not Allowed,” of which I believe Nick would approve heartily.)

But, from all this serious-minded talk, please don't think I find the man humorless. Au contraire, Nick enjoys a



Nick crossing what may be the Arizona–Mexico border, an act that would be entirely illegal and punishable by federal law I understand, if it could be proved.


good laugh as much as anyone I know. Sometimes I get the privilege of being the provider of his merriment—occasionally it even happens on purpose. Some years ago, at the 1995 DSA meeting in Silver City, New Mexico, Nick and I settled on the plan of becoming one another’s Archnemesis (cf. ARGIA, 7[3]: 7-8). Everyone should have an Archnemesis, we agreed, and it helps if you’re at least nominally friends, because such people really know how to stick it to you.

On that occasion Nick and I were collecting bugs at the John Slaughter Ranch in Douglas Arizona, which ran right to the Mexican border—in those days, it was still just a three-strand barbed wire fence in those parts (we actually found a stone marker to confirm that this piece of fencing, which could not have stopped a calf, was actually the national border). Nick got the idea to goad me into climbing half-way over the fence so that he could photograph me in the act—“What a funny picture this will make, hah hah hah!” If you’re thinking post-911 let me disappoint you right here and say that no harm came to me from this prank. The point is, Nick dropped something on my side of the fence and I feigned not being able to reach it or something, prompting Nick to clamber over

the fence himself—and SNAP! It was Michalski who got the evidence of the illegal entry of one Nick Donnelly (see photo).

He’s been getting me back ever since, so it was definitely a good start as far as the Archnemesis-thing is concerned. Watch your back, is all I’m saying.

This might have been the long way around, but by all means, please join me in toasting Nick Donnelly for his outstanding contribution to the science of odonatology, and his dynamic and positive work for the organization we call the DSA. Whether you sit comfortably with his style, attitudes, and opinions about the science is irrelevant—though there are few who do not—comfort (Nick might say) is antithetical to ferreting out problems anyway. Either way, we are all better scientists for his influence on, and assistance with, our work.

Cheers to you, T.W. Donnelly, on your 75th birthday. May your influence continue to make itself felt with us all, for many years to come! 

The Dragonflies and Damselflies of the Llano Estacado: In Search of More New Species Records on the Texas Panhandle South Plains

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Prior to the 2006 odonate season our knowledge of the ode species for Lubbock County was quite limited and totaled less than two dozen. However, as a result of the photographic work I did in 2006 and again in 2007, many gaps have been filled as 28 new species have been added bringing the total to an astounding 51! Not as much has been done to shore up records in the surrounding counties of the region. However, in addition to several records I contributed to Bailey County, I've been able to photograph seven new species for Hockley County that, prior to this, had not even a single documented Ode record! The paucity of records for many counties on the Texas South Plains and the Greater Panhandle makes this region ripe for new discoveries for anyone so inclined. This fact is what led me on my quest for the past couple of seasons to take up the challenge and explore this region in order to see what I could find.

The 2007 Season has proved to be most successful with 15 new Odonata documented in Lubbock County. Three favorite habitats from last season have yielded impressive new records. The areas explored were the upland fields of the Lubbock Lake Landmark (on the northwest side of the city of Lubbock), the playa at Clapp Park (located in the city off of University Avenue and 40th Street), and the riparian habitat (North Fork of the Double Mountain Fork of Brazos River) intersecting the Llano Estacado Audubon Trail of Buffalo Springs Lake (located approximately 9.6 km southwest of the city of Lubbock). I will list each in turn below and the new records associated with each locality.

Lubbock Lake Landmark

Celithemis eponina (Halloween Pennant)

Clapp Park Playa

Ischnura damula (Plains Forktail)

Ischnura denticollis (Black-fronted Forktail)

Telebasis salva (Desert Firetail)

Llano Estacado Audubon Trail

Argia immunda (Kiowa Dancer)

Argia translata (Dusky Dancer)

Dromogomphus spoliatus (Flag-tailed Spinyleg)

Epitheca princeps (Prince Baskettail)

Erpetogomphus designatus (Eastern Ringtail)

Erythrodiplax umbrata (Band-winged Dragonlet)

Gomphus militaris (Sulphur-tipped Clubtail)

Ischnura barberi (Desert Forktail)

Libellula croceipennis (Neon Skimmer)

Phyllogomphoides stigmatus (Four-striped Leaf-tail)

Rhionaeschna psilus (Turquoise-tipped Darner)

In Hockley County (just west of Lubbock), a single playa habitat was explored for the first time this year and yielded more than half a dozen new records.

Northwest Smyer Playa

Enallagma civile (Familiar Bluet)

Ischnura barberi (Desert Forktail)

Orthemis ferruginea (Roseate Skimmer)

Pantala flavescens (Wandering Glider)

Platbemis lydia (Common Whitetail)

Sympetrum corruptum (Variegated Meadowhawk)

Tramea onusta (Red Saddlebags)

Of all the new species recounted above one that stands out as especially significant is *Rhionaeschna psilus* (Turquoise-tipped Darner). Until this year, this species was known only from isolated counties in the lower Rio Grande Valley, the Hill Country of Texas, and a few places in eastern Arizona. The 2007 season brought some significant differences as its range expanded west and north quite significantly. This fascinating and gorgeous species was already on the move as evidenced by documented reports from John Abbott, John Avise, and Dennis Paulson in the previous two issues of ARGIA. Who would have believed it could be found as far north as the Texas Panhandle?

Following my first encounter with *R. psilus* on 2 October 2007, I was to observe it on as many as three additional return trips to the same location. After observing it for some time, it appeared to patrol the semi-shaded marshy area often flying just inches above the ground. Occasionally, to my supreme satisfaction, it came to rest. It settled both on tree branches overhanging the marsh and on marsh vegetation often near ground level. One time it perched roughly 5–6 m up on the underside of a tree branch. This position afforded me several shots of its turquoise-tipped underside. It was always quite wary of my movement so I took note of its favorite perching places and would sit in vigil in the vicinity until its return.

My last visit to the area on 30 October 2007 (after the first freeze) found *R. psilus* still patrolling and making wide circuits over the marshy landscape with an occasional

perch on the marsh vegetation in the midst of the narrowly constricted feeder gulch that lay between the two open expanses of marshy lowland. Only once did I observe its attempt to land, but my approach alarmed it and off it went.

It is amazing the number of species I've observed and photo-documented out here on the Texas South Plains. There's still much work to be done and I've only just grazed the surface of what awaits the patient and diligent observer. I hope to seek out and enlist other enthusiasts to help in the monumental task to put the entire Llano on the Odes map.


Celithemis martha (Martha's Pennant): A New Species for New Brunswick

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On 9 August 2006, I collected a single adult male of *Celithemis martha* (Martha's Pennant) in southern New Brunswick during botanical fieldwork for the Atlantic Canada Conservation Data Centre (Blaney et al. 2007). The specimen was deposited at the New Brunswick Museum, Saint John. This collection is the first, and to date, the only record of the species in New Brunswick. The specimen was captured in the channel between Round Lake and Nelson Lake in Saint John County (45.2815° N 066.2445° W). The channel is shallow with a muck bottom and emergent vegetation, typical breeding habitat for this species (Paul-Michael Brunelle pers. comm.). Emergent plants common at the site were Pickerel Weed (*Pontederia cordata*), Bayonet Rush (*Juncus militaris*), Watershield (*Brasenia schreberi*), Water Lobelia (*Lobelia dortmanna*), Yellow Cowlily (*Nuphar lutea* ssp. *variegata*), and American Water-lily (*Nymphaea odorata*). The channel is bordered by bog mat, with mixed forest on the surrounding hills. The Martha's Pennant was flying with *Celithemis elisa* (Calico Pennant) and *Enallagma minusculum* (Little Bluet).


This relatively rare species has a narrow global range restricted to the eastern North American coastal plain from Virginia to Nova Scotia. It is considered rare in most jurisdictions in which it occurs (NatureServe Explorer 2007). In Canada, the species is ranked as 5 (undetermined) for both Canada and Nova Scotia in Wild Species 2005 (2007). *Celithemis martha* is currently known from only 18 locations in mainland Nova Scotia, from Hants County southward (Bridgehouse 2001, Paul-Michael Brunelle pers. comm.). The New Brunswick collection locale is the highest latitude that the species has been recorded, being a northern range extension of about 0.25° N from the previous record in Hancock County in central Maine (Paul-Michael Brunelle pers. comm.).

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The species appears to be genuinely rare in New Brunswick—the appropriate habitats have been surveyed extensively during its flight period (from the end of June to early September) without previous results for it. The record adds to the small suite of strongly coastal plain associated plant and insect species (e.g. *Enallagma minusculum*) now known to occur in southwestern New Brunswick (Blaney et al. 2007).

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The Discovery of the Exclamation Damsel (*Zoniagrion exclamationis*) South on the Central California Coast to Santa Barbara County

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The counties of the Central California Coast—Santa Barbara, San Luis Obispo, and Monterey—appear to have been very poorly surveyed for Odonata in the past. As a result, recent fieldwork in these counties has produced several new records. The occurrence of many of these species in these counties was correctly predicted by the range maps in Manolis (2003). However, one of the species recently discovered—Exclamation Damsel (*Zoniagrion exclamationis*)—was much less expected. This article documents recent records along the central California coast.

On 29 April 2007, I was returning from a Brown Pelican count near the mouth of San Antonio Creek on Vandenberg Air Force Base in northern Santa Barbara County. As I crossed the creek, I noticed what appeared to be a fork-tail (*Ischnura*) perched in the streamside vegetation. Upon examining it with close-focus binoculars, I noticed that it had obvious exclamation marks on the upper side of its thorax. In addition, the blue at the back of the eyes appeared more obvious than I had noticed on local fork-tail species. Further searching revealed at least one other similar individual in the same area. At the time I had no literature or camera available. On returning home, a check of the literature confirmed my suspicions that Exclamation Damsel was the best fit, but this species supposedly occurred no closer than about 250–300 miles to the north. After consulting expert opinion, it was clear I needed further details and photographs to eliminate the possibility, though less likely, of an andromorphic female Pacific Forktail (*Ischnura cervula*). I returned on 8 May and found at least 14 individuals and was able to obtain photographs to confirm the identification (subsequently confirmed by Tim Manolis and Kathy Biggs).

The habitat at this location is a dense riparian corridor of willows with an extensive undergrowth of poison oak and brambles. Because Vandenberg is a military base, it retains large areas of relatively unspoiled natural habitat. It seems likely, based on the availability of suitable habitat, that this species should occur further to the south along the Santa Ynez River and Arroyo Honda, too, but special permission will be needed to investigate this.

Prior to this observation, Exclamation Damsels were not known to occur south of Santa Cruz County (Manolis 2003), which is about 230 miles north of this location. Following posting of these sightings on the CalOdes Internet group, several observers made special efforts to locate the species in the counties between Santa Barbara and Santa Cruz.

Don Roberson (pers. comm.) visited the Pajaro River at Pajaro in Monterey County on 13 May 2007 and observed about 40 Exclamation Damsels. It was by far the most common odonate present. The Pajaro River has extensive riparian vegetation along its channel.


On 21 May Paul Johnson (pers. comm.) visited the Pajaro River a little further upstream by Pajaro Road in San Benito County and also recorded the species. Subsequent investigation into the species status in San Benito County by Johnson revealed an additional record from San Benito County. This was at San Felipe Lake by R.J. Adams in May or June 2004, at the point where Pacheco Creek enters the lake.

While exciting, the records along the northern borders of Monterey and San Benito counties did not greatly close the gap between the San Antonio site and the previously known range. However, Tim Manolis (pers. comm.) visited San Luis Obispo County shortly thereafter and found Exclamation Damsels (15–20 individuals, one male collected as a county voucher specimen) along Atascadero Creek in the town of Atascadero on 21 May 2007. Habitat along this small, moderately-disturbed, urban creek corridor consists of a canopy of oaks, willows and sycamores with a dense herbaceous undergrowth of blackberry brambles, grasses, etc.

The occurrence of this species on the rather cool and foggy coast of northern Santa Barbara County and in the hotter interior valley around Atascadero in San Luis Obispo County suggests that it may be fairly widespread throughout these counties in suitable habitat.

I would like to thank Tim Manolis for reviewing initial drafts of this article and providing valuable advice and feedback. I would like to thank Tim, Don Roberson, and Paul Johnson for allowing publication of recent Exclamation Damsel records from Monterey, San Benito, and San Luis Obispo counties. I would like to thank Wes Fritz of La Purisima Audubon, Dan Robinette of Point Reyes Bird Observatory, and the naturalists at the Vandenberg Airforce Base for arranging access to San Antonio Creek in Vandenberg Air Force Base.

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Significant Range Extension and County Record for *Erythrodiplax berenice* (Seaside Dragonlet) in Nova Scotia

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Erythrodiplax berenice (Seaside Dragonlet) is broadly dispersed in eastern coastal North America from its northern range extreme in southeast Acadia, south along the eastern Atlantic Coast to Florida, west along the Gulf of Mexico to Texas, and northwest to New Mexico (Abbott 2007). Its range extends into Mesoamerica.

E. berenice is vividly marked yellow and black in teneral and young females, with more mature individuals becoming evenly black. Younger females show brown post-nodal coloration. The species is very similar to *Sympetrum danae* (Black Meadowhawk) which is also territorial at saltmarsh ponds (Brunelle 2000), but *E. berenice* is larger.

Its flight period in Maine is from 13 June to 31 August, and in Nova Scotia from 2 to 28 August (P. Brunelle pers. comm.). The eroded wings and dark color of specimens taken in August in Nova Scotia suggest that emergence occurs earlier, but there have been comparatively few visits before 2 August to saltmarshes in the region.

The species is an obligate inhabitant of saltmarshes, one of the very few insect species adapted to this harsh environment (Brunelle 2000). Although *E. berenice* is infrequently found at inland locations from Florida north to New Hampshire, there is no indication of established populations in these places (Donnelly pers. comm.). However, populations in the southwest United States occur at inland saline habitats.

Erythrodiplax berenice has the global conservation status rank of G5 (i.e. secure, NatureServe 2007). In Maine it is listed as S2S3 (rare, possibly uncommon), with 36 records from 19 sites (P. Brunelle pers. comm.). In Canada the species has been assigned the national status 2 (National General Status, may be at risk), and the same status at the provincial level for both Nova Scotia and Québec. In addition, *E. berenice* is listed as "Indeterminate" (indicating rarity requiring further survey), by the Nova Scotia Department of Natural Resources (Elderkin 1999).

In Canada, *E. berenice* has previously been reported from one site each in southwestern Nova Scotia and southern Québec. The record from Québec is somewhat suspect, being well inland. It was based upon a single male captured on 16 July 1911, and the voucher specimen cannot be found (Pilon & Lagacé 1998). Confusion with *S. danae* is possible, but if valid this record would be at a site in the

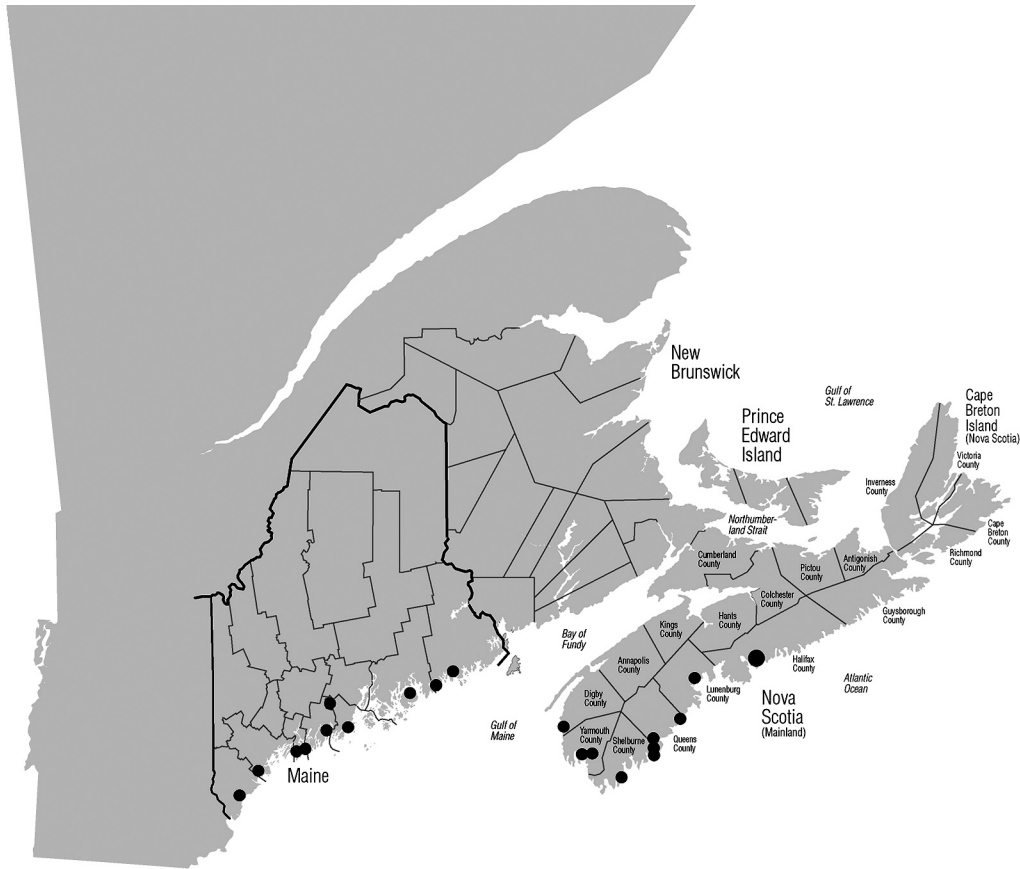
Eastern Townships at 45° to 45.25° N, and hence the most northern record for the species. The next most southern report is near Dummer Ponds, Coos County, New Hampshire, at approximately 44.682° N, again an inland record (Abbott 2007).

The species has been looked for unsuccessfully in 27 saltmarshes in New Brunswick and Prince Edward Island (P. Brunelle pers. comm.). In Nova Scotia, *E. berenice* had originally been recorded from only one site in the south, near Argyle, Yarmouth County, where on 6 August 1957, Douglas C. Ferguson netted 15 adults (Walker & Corbet 1978; also the collection of the Nova Scotia Museum of Natural History, Halifax).

Subsequently, Brunelle (2000) reported that Robert and Jacob Harding had extended the range of the species northeast to Shelburne and Queens counties, and that Brunelle had also taken it to the north in Digby County, and further northeast in southern Lunenburg County. At the time, these extensions, coupled with its known range in Maine, suggested that the species was locally abundant on the Gulf of Maine and Atlantic coasts of southwest mainland Nova Scotia and was likely to be found further up the latter coast. By 2006 a further extension to the northwest in Lunenburg County brought the total knowledge of *E. berenice* in Nova Scotia to 13 records from 10 sites, and a provincial flight period from 5 to 28 August.

Here, I report an additional discovery of *E. berenice* on 2 August 2007, at a saltmarsh in the vicinity of Voglers Cove, Lunenburg County (44.156° N 64.5307° W). This locale is close to, but distinct from, Brunelle's 2000 first locality in Lunenburg County.

I also report the capture of a mature male (fully dark color, it was the smallish size and black color that caught my eye) on 12 August 2007, at a small saline pond on the "Saltmarsh Trail" off Bissett Road in Cole Harbour, Halifax County. The trail is a 6.5 km section of the Trans-Canada Trail network; this section connecting Cole Harbour to Lawrencetown Beach. The pond is approximately 4.5 km to the east of Bissett Road along the trail at 44.6733° N 63.3982° W. This record represents a range extension to the northeast of approximately 75 km. At the time of capture the male specimen was flying with *Libellula pulchella* (Twelve-spotted Skimmer) and *L. quadrimaculata* (Four-spotted Skimmer).



The species appears to be ecologically local and rarely abundant. To date, only adults have been taken in Canada, although it is assumed, since it is not a migrating species, that it is developing in at least some of the Nova Scotian saltmarshes where adults are known. It seems likely that it is present in other saltmarshes within the known range in Nova Scotia and possible that it will be found further northwest than the Halifax County site. Further survey, particularly for larvae or emerging individuals in June and early July, might resolve some questions and shed further light on its flight period and saltmarsh microhabitat preferences in Nova Scotia.

I thank Paul Brunelle and Carl Cook for stimulating my interest in the Odonata.

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Odonata Survey of Bay County, Florida

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We surveyed odonates in Bay County, Florida, USA from April 2003 through September 2007 as part of an ongoing project to document the species diversity of the county. Bay County is located in the Panhandle of Florida along the north coast of the Gulf of Mexico. The habitats present in the county include freshwater lakes and ponds, a number of small streams, a medium stream (Econfina Creek), seepage areas, spring runs, marshes, steepheads, swamps, sandhill lakes, and the St. Andrew Bay estuary. An attempt was made to visit as many of the various habitats as possible.

The following 77 species of odonates have been collected to date, and Mr. Jerrell Daigle has confirmed or corrected the identification of all of the species listed. All specimens but one are in the writers' collection and are available for examination by interested persons. The specimen of *Nasiaeschna pentacantha* (Cyrano Darner) was collected in Bay County by Neil Lamb of Lynn Haven, Florida. The list below contains 48 species of Anisoptera and 29 species of Zygoptera from Bay County (a total 77 species of odonates). Other species undoubtedly occur in the county based on the odonate fauna listed for adjacent counties by Abbott (2007).

Abbott (2007) provided a list of 36 species of odonates from Bay County of which six species are Zygoptera and 30 species are Anisoptera. Of the 29 species of Zygoptera collected during this survey from Bay County, 23 appear to be new records for the County. We collected five of the six species of Zygoptera listed by Abbott (2007) for the county with the exception of *Lestes australis* (Southern Spreadwing).

The list below also contains 48 species of Anisoptera collected during this survey of which 24 species, indicated with an asterisk (*), appear to be new records for the county. Abbott (2007) included on his list of species reported from Bay County six species that we have yet to collect in the county and are not included in the table below: *Celithemis bertha* (Red-veined Pennant), *Coryphaeschna ingens* (Regal Darner), *Erythemis simplicicollis simplicicollis* (Eastern Pondhawk), *Progomphus obscurus* (Common Sanddragon), *Sympetrum ambiguum* (Blue-faced Meadowhawk), *Macromia illinoiensis georgina* (Georgia River Cruiser).

Calopterygidae

- Calopteryx dimidiata* (Sparkling Jewelwing)*
- Calopteryx maculata* (Ebony Jewelwing)*
- Hetaerina titia* (Smoky Rubyspot)*

Lestidae

- Lestes australis* (Southern Spreadwing)

- Lestes vidua* (Carolina Spreadwing)*
- Lestes vigilax* (Swamp Spreadwing)*

Coenagrionidae

- Argia apicalis* (Blue-fronted Dancer)*
- Argia bipunctulata* (Seepage Dancer)
- Argia fumipennis* (Variable Dancer)
- Argia moesta* (Powdered Dancer)*
- Argia sedula* (Blue-ringed Dancer)*
- Argia tibialis* (Blue-tipped Dancer)
- Enallagma civile* (Familiar Bluet)*
- Enallagma coecum* (Purple Bluet)*
- Enallagma concisum* (Cherry Bluet)
- Enallagma daeckii* (Attenuated Bluet)*
- Enallagma divagans* (Turquoise Bluet)*
- Enallagma doubledayi* (Atlantic Bluet)*
- Enallagma geminatum* (Skimming Bluet)*
- Enallagma pollutum* (Florida Bluet)*
- Enallagma signatum* (Orange Bluet)*
- Enallagma vesperum* (Vesper Bluet)*
- Ischnura bastata* (Citrine Forktail)*
- Ischnura kellicotti* (Lilypad Forktail)*
- Ischnura posita* (Fragile Forktail)*
- Ischnura prognata* (Furtive Forktail)*
- Ischnura ramburii* (Rambur's Forktail)
- Nehalennia integricollis* (Southern Sprite)*
- Nehalennia pallidula* (Everglades Sprite)*

Petaluridae

- Tachopteryx thoreyi* (Gray Petaltail)*

Aeshnidae

- Anax junius* (Common Green Darner)
- Anax longipes* (Comet Darner)*
- Epiaeschna heros* (Swamp Darner)*
- Nasiaeschna pentacantha* (Cyrano Darner)*
- Triacanthagyna trifida* (Phantom Darner)*

Gomphidae

- Aphylla williamsoni* (Two-striped Forceptail)*
- Gomphus cavillaris* (Sandhill Clubtail)*
- Gomphus dilatatus* (Blackwater Clubtail)
- Gomphus geminatus* (Twin-striped Clubtail)*
- Gomphus lividus* (Ashy Clubtail)*
- Gomphus minutus* (Cypress Clubtail)*
- Hagenius brevistylus* (Dragonhunter) larva
- Stylurus ivae* (Shining Clubtail)*
- Stylurus laurae* (Laura's Clubtail)*
- Stylurus plagiatus* (Russet-tipped Clubtail)*

Macromiidae

- Didymops transversa* (Stream Cruiser)*
- Macromia taeniolata* (Royal River Cruiser)*
- Macromia illinoiensis georgina* (Georgia River Cruiser)

Corduliidae

- Epithea cynosura* (Common Baskettail)
- Epithea princeps* (Prince Baskettail)*
- Helocordulia selysii* (Selys' Sundragon)*

Libellulidae


- Brachymesia gravida* (Four-spotted Pennant)
- Celithemis amanda* (Amanda's Pennant)
- Celithemis elisa* (Calico Pennant)*
- Celithemis eponina* (Halloween Pennant)
- Celithemis fasciata* (Banded Pennant)
- Celithemis ornata* (Ornate Pennant)
- Erythemis simplicicollis* (Eastern Pondhawk)
- Erythrodiplax berenice* (Seaside Dragonlet)
- Erythrodiplax minuscula* (Little Blue Dragonlet)
- Ladona deplanata* (Blue Corporal)*
- Libellula auripennis* (Golden-winged Skimmer)
- Libellula axilena* (Bar-winged Skimmer)
- Libellula flavida* (Yellow-sided Skimmer)
- Libellula incesta* (Slaty Skimmer)
- Libellula jesseana* (Purple Skimmer)
- Libellula lydia* (Common Whitetail)*
- Libellula needhami* (Needham's Skimmer)*

- Libellula semifasciata* (Painted Skimmer)*
- Libellula vibrans* (Great Blue Skimmer)
- Orthemis ferruginea* (Roseate Skimmer)*
- Pachydiplax longipennis* (Blue Dasher)
- Pantala flavescens* (Wandering Glider)
- Pantala hymenaea* (Spot-winged Glider)
- Perithemis tenera* (Eastern Amberwing)*
- Tramea carolina* (Carolina Saddlebags)
- Tramea lacerata* (Black Saddlebags).

Acknowledgements

We thank Mr. Jerrell Daigle for his interest in the survey, many helpful suggestions, for examining the specimens in the collection, and confirming or correcting the identifications. We also express our appreciation to the St. Joe Company for allowing us to collect on their properties in the area and to the St. Joe Foundation for the grant in 2004 that provided the means to begin and continue the survey.

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A New Dragonfly Species for Arizona

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Continuous above average temperatures in southern Arizona prolonged the odonate season to unheard-of depths this year. In November, minimum temperatures in Tucson did not fall below 49° F until the 23rd where in an average year the first frost occurs on the 24th of the month. Maximum temperatures of 85° F or above were recorded on at least 10 days. Numbers of cities in southern Arizona recorded their latest "first frost" since weather data has been recorded (on the 25th of the month). Fifteen to 20 species of odonates were still being routinely recorded during mid-month surveys.

On the 19th of November, Rich Bailowitz capped off a phenomenal season in Arizona by finding the fifth state record of the year. He visited Cebadilla Pond, a spring-fed, slightly man-altered impoundment in a housing community on the eastern edge of Tucson. Among the *Pachydiplax longipennis* (Blue Dasher) and *Erythrodiplax basifusca* (Plateau Dragonlet) and about a dozen other species were two male *Micrathyria aequalis* (Spot-tailed

Dasher), one specimen of which was taken as a voucher. He phoned Doug Danforth who returned the next morning and was able to locate and photograph the second one. When Rich arrived, the two of us found a total of three males still on the pond!

This closely parallels Rich's discovery of about a half dozen male *Micrathyria hagenii* (Thornbush Dasher) at the Buenos Aires NWR two years ago, a foreshadowing of things to come. As Dennis Paulson said "It makes you wonder what was at the other ponds we didn't visit." Call it global warming or monsoon-assisted influx, but all of the southern Arizona records this year—*Argia harknessi* (Harkness's Dasher) and *Tholymis citrina* (Evening Skimmer) in June and *Macrothemis pseudimitans* (White-tailed Sylph) in September, were of semitropical species moving north. All but the Evening Skimmer are common from central Sonora south. Interestingly, both the Spot-tailed Dasher and White-tailed Sylph were seen in exceptional numbers this fall in southern Sonoran localities. 

GLOM 2007 Visits Northeastern Illinois

Bob DuBois, Department of Natural Resources, Superior, Wisconsin <Robert.Dubois@Wisconsin.gov>

The 7th Annual Great Lakes Odonata Meeting was held 8–10 June 2007, at the Visitor Center in the Volo Bog State Natural Area, Lake County, Illinois. This meeting continued the GLOM tradition of blending day-long outings to a variety of habitats with short, interesting, evening presentations that inform beginners while hopefully giving veterans a few new thoughts to ponder. The educational focus of this year's GLOM was on the federally endangered *Somatochlora hineana* (Hine's Emerald) since the meeting was located not far from some known Hine's Emerald habitat. However, no Hine's Emeralds were observed during this GLOM to my knowledge. GLOM has always provided a relaxed, informal atmosphere where odonate enthusiasts spanning the range from rank beginner to seasoned expert can intermingle and have more fun than adults should be allowed to have!

GLOM 2007 was no exception as 35 participants were treated to expert-led outings to a variety of habitats, good food, great camaraderie, and six evening presentations that covered topics such as Dragonflying Basics (Bob DuBois), a review of the Illinois Dragonfly Monitoring Network (Craig Stettner), restoration efforts for the Hine's Emerald (Tom Valet), Hine's Emerald and other notable species in Northeastern Illinois (Tim Cashatt), confusing

larval characteristics between *Somatochlora hineana* and *S. tenebrosa* (Clamp-tipped Emerald) (Ken Tennesen), and ecology and research of the Hine's Emerald (Dan Soluk). The weather cooperated quite nicely throughout the event, allowing participants to pursue odonates to their heart's content. Yvette Liautaud hosted the event with able assistance from Kathy Kozacky. These folks are to be commended for the exceptional effort they put into all of the many organizational details.

The area of northeastern Illinois near Volo Bog is rich in aquatic habitats, with large rivers, streams, lakes and a variety of wetlands created by the retreat of the Wisconsinian glacier, all within easy driving distance. Participants were presented with an appetizing menu of at least eight sites scattered throughout Lake and McHenry counties from which they could choose perhaps four to visit during the three-day event. Most sites provided more than one habitat type. Volo Bog is the only quaking bog with an open water center in Illinois. The extensive acidic habitats here featured unique plant communities and 22 species of Odonata were found here by the group. Species found at Volo Bog that were not seen at any of the other sites included *Lestes dryas* (Emerald Spreadwing), *L. forcipatus* (Sweetflag Spreadwing), and *Nehalennia irene* (Sedge Sprite). Moraine Hills State Park




contained a variety of wetlands and a section of the Fox River near McHenry Dam. Participants here were treated to a fine marsh buzzing with a kaleidoscope of common but colorful skimmers.

The Rothschild Properties site included a fast-flowing stream with clusters of ovipositing pairs of *Enallagma anna* (River Bluet) and a pond where *Lestes vigilax* (Swamp Spreadwing) and *Arigomphus villosipes* (Unicorn Clubtail) were found. Small fens adjacent to streams were visited at Bluff Spring and Lake of the Hills that both had populations of *Amphiagrion saucium* (Eastern Red Damsel). Species seen at Bluff Spring that were not seen elsewhere included *Epiaeschna heros* (Swamp Darner), *Argia fumipennis violacea* (Violet Dancer), *Argia tibialis* (Blue-tipped Dancer) and *Enallagma exsulans* (Stream Bluet). Several *Nannothemis bella* (Elfin Skimmer) were found at the Lake of the Hills fen.

At Illinois Beach State Park, on the shore of Lake Michigan, two sites were visited in the South Unit: a pond and small stream near the youth camp, and a hiking trail that ran along the Dead River. *Gomphus spicatus* (Dusky Clubtail), a species not recorded in Illinois since 1892, and

Libellula semifasciata (Painted Skimmer) were found during this visit and on subsequent visits along the Dead River and in nearby pannes. We plan to provide further details about the Dead River finds, including description of the habitats, in a note recently submitted by Bob DuBois and Craig Stettner to The Great Lakes Entomologist. Precise locations for any of the sites visited during GLOM 2007 can be obtained from the hosts. A total of 38 species were found during GLOM 2007.

GLOM 2008 will be held 20–22 June in the Hiawatha National Forest at Munising, Michigan. You won't want to miss this GLOM because the area is ecologically diverse and is certainly located in one of the most beautiful parts of the Upper Peninsula. Contact Lucas Langstaff (<langstaff@fs.fed.us>; phone; 906-387-2512) for more information. Previous GLOMs were held at Elliot Lake, Ontario in 2001; Roscommon, Michigan in 2002; Finland, Minnesota in 2003; Northeast Ohio in 2004; the Rainy River District, Ontario in 2005; and Grantsburg, Wisconsin in 2006. 

Two New Species Records for Louisiana

Gayle & Jeanel Strickland, 1354 Brookhollow Drive, Baton Rouge, LA 70810 <gstrick3@cox.net>

This spring, Steven Barney and several of his beetle-chasing friends created an event to bring together bug enthusiasts from all over Louisiana for a weekend of fellowship and bug catching.

It was held at the Barney Farm near the town of Washington in St. Landry Parish, Louisiana. We were privileged to participate in the event which was christened "BugStock". The initial gathering was held 15–17 June 2007 and met with such enthusiastic response that a second one was planned for later in the year.

At BugStock II on Saturday morning, 8 September 2007, while Jeanel and I were surveying the farm pond, we saw a *Lestes* damselfly perched on the sparse emergent vegetation. Before it could be collected, this individual flew toward the center of the pond and disappeared. Shortly thereafter, an individual was seen similarly perched in the emergent vegetation and this one was collected. Later a pair in tandem was also collected. These three specimens represented a new state record, *Lestes forficula* (Rainpool Spreadwing). This one-half acre pond was dug in 2004, and has a maximum depth of about two meters. At least six additional individuals were seen at the pond and one

female was found in a wooded area about 100 meters from the edge of the pond.

During our initial survey of this pond on 19 May 2007, no *Lestes* were seen. None were seen on our second survey during BugStock I on the weekend of 15–17 June. According to Mauffray (1997), the species has not previously been taken in Louisiana. According to Abbott (2005), all US records are from Texas, the nearest to Louisiana being Harris County.

Bried and Krotzer (2005) reported the first Mississippi records of *L. forficula* from the east-central part of the state in September 2004. They suggest that these were probably strays but do not rule out a range extension. They also note that Hurricane Ivan may have played a role in displacement of this species from their usual range.

There appear to be no significant weather events that might have blown *L. forficula* into Louisiana in 2007. The number seen suggests to us that this may be a breeding colony. Further work next year may help to clarify this. It is interesting that all records for Louisiana and Mississippi are in the month of September.

A voucher will be placed in the Louisiana State Collection of Arthropods at LSU in Baton Rouge, Louisiana.

The first Louisiana specimen of *Erythemis vesiculosa* (Great Pondhawk) was collected in Cameron Parish, Louisiana on the morning of 27 October 2007. It was found in a wooded area about two miles east of the town of Johnson's Bayou and about 300 meters from the Gulf of Mexico. According to Mauffray (1997), this species has not previously been taken in Louisiana. Abbott (2005) lists no records for Louisiana, but a number of records for eastern Texas, thus this species was to be expected in western Louisiana. A voucher will be placed in the Louisiana State Collection of Arthropods at LSU in Baton Rouge, Louisiana.

Unusual Three Species Pairing

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Mis-mated pairs of Anisoptera are infrequent but encountered by most collectors. *Ladona julia* × *Libellula quadrimaculata* (Chalk-fronted Corporal × Four-spotted Skimmer) and *Sympetrum internum* × *Celithemis elisa* (Cherry-faced Meadowhawk × Calico Pennant) being pairings I have observed. Pairings involving two males and a female are found often enough in the genus *Leucorrhinia* (Whiteface) to also not warrant a note in ARGIA. However a string of three individuals of three species and all males seems worth reporting.

In the Finger Lakes region of Central New York, *Sympetrum internum* is the dominant member of the genus, with *S. obtrusum* (White-faced Meadowhawk) being rare and *S. rubicundulum* (Ruby Meadowhawk) a vagrant. Along the shore of Lake Ontario, to the north of this region, *S. rubicundulum* is dominant. To the northeast, in the Adirondack Mountains, *S. obtrusum* is dominant. At the northern end of Keuka, Seneca, and Cayuga Lakes the three species are sometimes found together (mismatched pairs are not uncommon) and often in different habitats than they occupy in their area of dominance.

On 3 Sept 2004 I was checking for *Sympetrum* pairs in this contact zone at the northwest corner of Keuka Lake. It

Memories of Monty

Cary Kerst, <cary_k@comcast.net>

In 1964, I was beginning my sophomore year in Entomology at Purdue University. Like most students, I was always in need of money and heard that there was a part-time job


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was a clear 70s degree day between 11 and 11:30 and there was very little activity—one *Aeshna constricta* (Lance-tipped Darner), one *Epitbea princeps* (Prince Baskettail), a pair of *Perithemis tenera* (Eastern Amberwing) and a few *Sympetrum internum*, including one pair. Then what I thought was a pair of *Sympetrum* flew up on the opposite side of a deep roadside ditch. After some difficulty, during which the pair flew up several more times, I got through the high weeds and netted the pair (FCS04-1028). Only then did I realize there were three individuals involved, although it had been obvious from the start that the second individual was showing orange and the frequent short fluttering flights indicated a mismatched pair. Lead species was *Sympetrum internum*, second was *S. semicinctum* (Band-winged Meadowhawk) and the third *Perithemis tenera*.

This is close to the late date for *Perithemis*, while *S. semicinctum* is never common and it had not been recorded from this site on previous visits. One could conclude that a combination of lateness of season, an unusually good flight day and an absence of appropriate partners lead to this bizarre mismatch. 

the job and spent three school years caring for Odonata larvae in growth chambers and recording data. The lab was up a long flight of stairs in one of those old high-ceilinged rooms with creaky wooden floors in the top of a small building behind Agricultural Hall. Agricultural Hall housed the Entomology Department. Dr. Montgomery's lab also contained a large metal cabinet holding his collection which numbered about 10,000 specimens when I was there.

The silver-painted plywood growth chambers in the lab appeared to have been hand made. The chambers had heaters, lights, fans and thermostats which sometimes malfunctioned. Monty worked on those and repaired them himself. We normally fed the larvae in the growth chambers from cultures of worms that Dr. Montgomery grew on bananas buried in soil in containers in a growth chamber. Occasionally, we ran out of these, and Monty would go out himself at night on campus and collect nightcrawlers. I always wondered what campus security thought when they came upon him with his flashlight out there at night. I still recall opening the dishes containing aeshnids in the growth chambers which were at warm temperatures and long photoperiod. They were ready to eat!

Monty would usually appear in the lab in his white lab coat with white shirt and bow tie. This was the attire that he wore in his office and during classes too. He often had a stack of library books under his arm, and I was always straining to see what he was reading. The topics were varied as I recall. Dr. Montgomery taught courses in insect morphology and entomological literature during my time at Purdue. Indeed, I came to realize that these were two of his favorite things. The insect morphology class had three students when I took the course. There was myself, one other student and a technician in the class, and we spent nearly an entire term dissecting a grasshopper. I still recall a feeling of accomplishment when I found the structures that we were studying, and I do remember the long names of some of those structures.

One day, Dr. Montgomery came into the lab with a big smile and a very pleased look on his face to show me a photograph in a newspaper. I believe it was in the Indianapolis Star and showed him with his pants rolled up wading around in the reflection pool in front of the state capital. He had a dip net and was looking for larvae of Odonata. I recall that the caption explained that he was looking for larvae of a species that was moving up into the area seasonally.

One Christmas, Monty invited me over for a post-holiday dinner. During dinner, he began talking about a taxonomy paper that had just been published. He emphatically dis-

agreed with the conclusions of the paper based upon wing venation and became very excited. Up from the table, he headed across the room with his wife calling "Basil, don't start that during dinner," but he was gone. He returned from the basement with poster boards on which he had drawn three-foot dragonfly wings and proceeded to show us specific issues in the wing venation which proved the taxonomic paper was mistaken. Of course, I had no idea what it all meant!


Dr. Montgomery also collected colloquial names used for Odonata and often returned from trips pleased with new names that he had found. He would ask local people wherever he went what they called these insects. In addition, he sent out a survey with *Selysia* in 1965 which prompted the Irish Folklore Commission to conduct a survey of Celtic names (Montgomery, 1972). This was a particular interest of Monty's, and his 1972 paper summarized his work on colloquial names. Most of his papers were published in the *Journal of the Indiana Academy of Science* where he served as the Chair of the History of Science committee.

Jim Curry provides a synopsis of Monty's career in his wonderful book on *Indiana Dragonflies* (Curry, 2001). E.B. Williamson initially interested Monty in the Odonata. Monty was a school teacher and became an instructor in Entomology at Purdue in 1930. Thus, when I came to Purdue as a freshman, he had been teaching at Purdue for 33 years and was still teaching when I graduated. In 1963, he organized the first worldwide colloquium on Odonata, and I attended a reception in his backyard in 1966 during one of the later meetings.

Monty started an international newsletter (*Selysia*) and was honored upon his death in 1983 as the father of the SIO. When I mention to people that I knew Dr. Montgomery and worked for him during my student days, I always get a smile from those who knew him. They remember him for his love of the science and for being a true character in the best sense of the word.

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Love Bites

Jim Johnson, Vancouver, Washington, <jt_johnson@comcast.net>

What is the strangest attempted cross-species copulation you have ever witnessed? Mine occurred this summer on a drive back from the DSA annual meeting in Arizona.

Steve Valley, Cary Kerst, Ken Tennessen, and I were winding our way through Oregon, trying to find species that Ken hadn't seen in life or photographed. One of his target species was *Octogomphus specularis* (Grappletail), so we stopped at Gold Lake in the Cascade Mountains (Lane County)—one of our favorite spots for this unusual species where you can easily see a dozen feeding, sitting, and copulating at the lake's outflow where it becomes Salt Creek.

Well, conditions weren't that great this time. It was unseasonably cold the previous night (and maybe for multiple previous nights), so it took quite a while for the odonates to get warmed up and in the mood for socializing. We continually assured Ken that this is a great spot for *Octogomphus*, but you could see the doubt and disappointment in his eyes.

Eventually the sun got high enough and the ambient temperature got warm enough, and a few *Octogomphus* began to appear. There were only one or two at first, making brief stops to hunt before taking their prey elsewhere, but before long a few individuals started to spend quality time on the rocks and logs.


I spotted a female resting comfortably on a sun-bleached log, so I approached slowly to snap a few pictures. As I was getting in close enough to frame her nicely, a male *Argia vivida* (Vivid Dancer) started to buzz the *Octogomphus*. Well, that was annoying—for me and the *Octogomphus*, I'm sure. He dropped down on her several times and each time she would buzz her wings and shoo him off before resting comfortably again on the log. He was persistent, though, and kept coming back.

I wasn't really sure what the *Argia* was doing until I noticed that each time he approached, he went for the head/thorax area with his abdomen arched down and forward. I have to assume that he was trying to go into tandem with the *Octogomphus*, which means that he had copulation on the mind.

I only wish that I had realized what was going on sooner so that I could have tried to snap a few pictures at the right moments. However, by the time I figured out what he was doing, the love-crazed *Argia* made one last drop toward

the *Octogomphus*; she buzzed her wings and flew up a short distance to chase him away and when he was a few feet above her, she flew up, caught him, and took him to some nearby alders where she devoured him. I did get a couple distant shots of her eating the *Argia*, but that's the least interesting aspect of this whole interaction.

Certainly, the *Argia's* ego was much bigger than his physique, and he seemed to recognize the *Octogomphus* as a distant cousin worth pursuing, but it seems particularly amazing that he identified her as a female. Is it really possible for a Zygopteran to recognize the gender of an Anisopteran? I wouldn't have thought so. As far as I know the *Argia* didn't harass any of the male *Octogomphus* which were in the area.

So ends the story of one of my strangest observations, Ken Tennessen's first experience with live *Octogomphus*, and what can happen when one little male *Argia* puts the moves on an unreceptive female *Octogomphus*. Imagine what it would have looked like if the *Octogomphus* had similar feelings for the *Argia*! 

LIBELLULA

'Round and 'round in a figure-of-eight,
Over the hemlock pool;
Gauzy wings in the sunshine gleam
Where, here and there, a fitful beam
Pierces the shadows cool.

'Round and 'round in a figure-of-eight,
Playfellows blue and green,
Evenly matched in a tireless jig,
A perfect mechanical whirligig,
The liveliest ever seen.


This poem was originally published in *Entomological News* (1910, volume 10, p. 119) and sent in to ARGIA by Ken Tennessen. It was published anonymously and Dr. Henry Skinner was the editor at the time. Dr. Phillip P. Calvert took over as editor in January of 1911 and given his propensity for both Odonata and poetry, it is a reasonable bet he is the author. 


Photo Documentation of *Stylurus spiniceps* (Arrow Clubtail) Nymphal Ecdysis

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During this past summer's field season in northern Massachusetts I was able to document the emergence of a *Stylurus spiniceps* (Arrow Clubtail) nymph as it emerged from the Connecticut River. The photographs and field notes were recorded on 5 July 2007.

The nymph was first observed at 1:05 PM, and was 3.1 m from the water line. Two minutes later the nymph crawled an additional 1 m to a shaded location under a piece of driftwood. At 1:12 the nymph began to elevate its head and thorax by bracing its front and middle legs. There was no additional movement by the nymph until 53 minutes later when it crawled onto a small branch located 20 inches from the driftwood. At 2:10 PM actual ecdysis began. The nymph curled the tip of its abdomen dorsally and excreted a green colored liquid along its dorsal line. This was followed by lateral movements (side-to-side) of the entire nymphal body and additional secretion of the liquid. During this time, the front limbs alternated between grasping the branch and repeatedly wiping the head and antennae. Following cessation of this "grooming" behavior, the nymph began to move in vertical "push-up" movements, with the front limbs providing the force of motion, and the hind limbs continuing to power the lateral "side-to-side" movements.

This behavior continued at a rate of two lateral movements per second until 2:25 PM.

At 2:25 PM the lateral movements ceased, and the teneral head was seen emerging between the nymphal protowings. Two minutes later the head and first pair of limbs had emerged from the exuviae. One minute later, the second pair of limbs had emerged. At 2:34 PM all limbs had emerged, and ½ of the abdomen had emerged, although the teneral's wings were still tightly folded over its back. At 2:36 emergence was complete. At 2:39 a drop of green liquid began to be exuded from the dorsal base of the thorax. Additional droplets emerged from around the teneral's eyes. At 2:46 the teneral's wings were unfurled, and the abdomen began to become darker in coloration. At 2:54 PM the teneral's wings turned opaque, and clear droplets of liquid were exuded from the tip of the abdomen. The teneral took a short flight up into overhanging branches where it remained for the next 20 minutes. 


Book Review: *Ants of North America. A Guide to the Genera* by Brian L. Fisher and Stefan P. Cover. University of California Press, Berkeley, 194 pp., soft cover. \$34.95 (ISBN 978-0-520-25422-0)

Nick Donnelly, Binghamton, New York <tdonnelly@binghamton.edu>

Most odonatists—indeed most naturalists—tend to view ants as pests: something to keep away from one's food, out of one's collected specimens, off of one's body and indeed right out of one's life. However, to regard ants only as enemies may be to overlook one of the nature's most interesting creatures.

This pocket-sized guide makes it fairly easy to identify North American ants to genus (there are about as many genera of ants as odonates in North America, but considerably more species.). The main part of the guide is a long illustrated key, which I found rather easy to use. The key is followed by accounts of the ten subfamilies into which the authors assign the North American species. Each genus is separately discussed and illustrated by very clear color photomicrographs of specimens. For some larger and/or more important genera (*Camponotus*, *Formica*, *Lasius*, *Solenopsis*) subgeneric groups are further identified and illustrated. There is a brief synopsis of the life styles

and habits (further treatment would require a very large book, of course). If I could express one drawback, it is the arrangement of all ant genera in alphabetic order, rather than grouping them by subfamily. It is as though in an odonate guide *Argia* were followed by *Aphylla*.

I heartily recommend this attractive guide. The next time you return from dinner to find your day's collection reduced to wings and fine powder, or the next time your arm is numb from a sting, I suggest that you simply pull out this guide and get the satisfaction of learning which ant did you in! 

Book Review: Damselflies of North America. Color Supplement by Michael L. May and Sidney W. Dunkle. Scientific Publishers (Gainesville, FL). Available as a separate for \$110. (This supplement is also sold with the 2nd edition of Damselflies of North America, by Minter Westfall and Michael May, for \$175 for the set.) ISBN 0-945417-98-5. Cloth, 156 pp, mainly color plates. (The book replaces the six pages of color photos in the first edition of the book.)


Nick Donnelly, Binghamton, New York <tdonnelly@binghamton.edu>

This book does not fall easily into a category. It is a compendium (very nearly complete) of color photos of live, unposed male and female damselflies of North America, the Greater Antilles, and the border states of Mexico. I find it very useful as a basic reference. The color patterns are very clear in almost all cases.

The colors themselves are less true. Part of the problem is that color photos are taken under differing light conditions, with varying amount of yellow and green in the ambient light. The colors most affected are blue and violet, and the photos here show these differences. For example, many damselflies are marked with a structurally derived blue (from light scattering) that is highly uniform. Bluelets of the genus *Enallagma* have abundant examples. Yet several species shown here (*annexum*, *vernale*, *clausum*, for example) show very different blue color, apparently because of differences in the illumination or in the subsequent image processing. For some species several color variants are shown. For some others, including the very

common Powdered Dancer (*Argia moesta*), only a single male and a single female image are given. In my experience, the common variants in color make this abundant and widespread species one of the most challenging for beginners. The only male Smoky Rubyspot (*Hetaerina titia*) image shows totally dark wings; however, over most of its North American range the male wings are clear with a small red basal spot.


All of the images are scaled to fit the page width. A beginner might think that the juxtaposed *Protoneura viridis* and *Mecistogaster ornatus* are the same size, but in fact the *Protoneura* is only a third the length of the *Mecistogaster*.

I recommend this book for any serious odonatist who doesn't want to spend hours on the Internet trying to find useful images of North American damselflies. Instead this reference presents them in one convenient package. The authors are to be congratulated for this novel and useful presentation 

Book Review: Dragons in the Ponds by Robert H. Armstrong, John Hudson, and Marge Hermans. Nature Alaska Images (Juneau, Alaska). ISBN 978-1-57833-362-2. Paperback, 31 pp. \$9.95.


John C. Abbott, Section of Integrative Biology, The University of Texas at Austin, Austin, Texas <jcabbott@mail.utexas.edu>

Dragons in the Ponds is meant to teach children just how beautiful and beneficial these insects are. It provides a general overview of the adult and nymphal dragonfly body plan. It gives a summary of the number of species and reviews all the major North American families providing examples. The majority of the book is dedicated to taking the reader through the life history of a dragonfly. It is full of color photos showing nymphs feeding, adults emerging,

mating, laying eggs, and even being preyed upon. There are a number of nice flight shots as well. The book also has useful information like which states have a dragonfly as their official state insect; there are only two, do you know which ones they are? I recommend this book for anyone trying to encourage a young child's interest in dragonflies and damselflies. The authors do a great job of presenting quite a bit of material, in a practical, but easy to digest way. 

BAO Manuscript Acceptance

At present, there is a shortage of manuscripts for the Bulletin. We hereby solicit future papers for publication. In the past, most papers published in BAO were of considerable length. The DSA editorial staff has adopted a slight change in policy and will now accept short communications for publication. Scientific notes of one to a few pages

in length will also be considered for inclusion. All manuscripts, regardless of length, are sent to at least two reviewers. Please see the Submission Guidelines near the end of this issue or <<http://www.odonatcentral.org/index.php/PageAction.get/name/DSASubmissionGuidelines>> for instructions. 

ARGIA and BAO Submission Guidelines

Digital submissions of all materials (via e-mail or CD) are vastly preferred to hard-copy. If digital submissions are not possible, contact the Editor before sending anything. Material for ARGIA must be sent directly to the John C. Abbott, Section of Integrative Biology, C0930, University of Texas, Austin TX, USA 78712, <jcabbott@mail.utexas.edu>; material for BAO must be sent to Ken Tennessen, P.O. Box 585, Wautoma, WI, USA 54982, <ktennessen@centurytel.net>.

Articles

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Back cover: (upper) *Micrathyria aequalis* (Spot-tailed Dasher) at Cebadilla Pond near Tucson, Arizona. This represents the first record of this species in Arizona. Photo by D. Danforth. **(lower)** *Gynacantha tibiata* in Corcovado National Park, Costa Rica, February 2007. Photo by John C. Abbott.

