

# ARGIA

THE NEWS JOURNAL OF THE DRAGONFLY SOCIETY OF THE AMERICAS

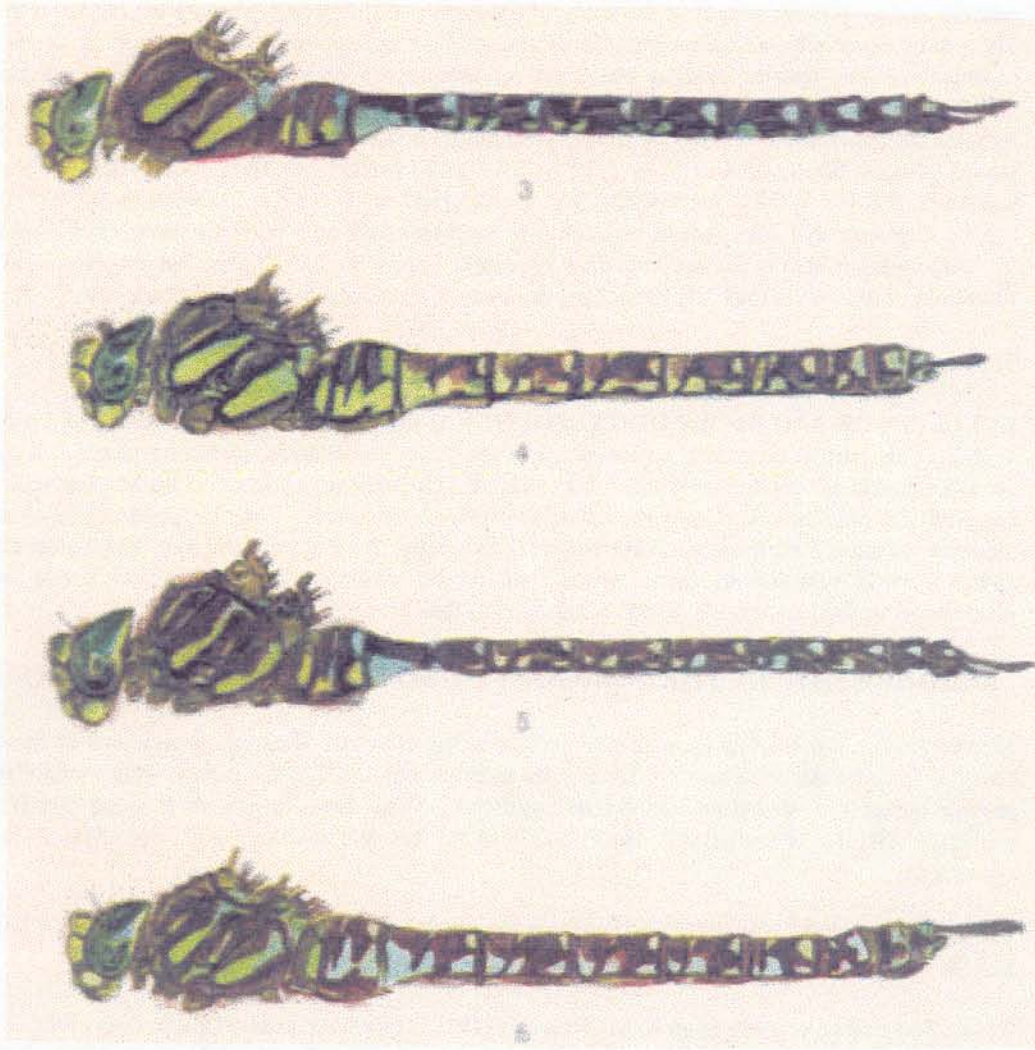
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# THE DRAGONFLY SOCIETY OF THE AMERICAS

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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. Articles for publication in **ARGIA** should preferably be submitted as hard copy and (if over 500 words) also on floppy disk (3.5" or 5.25"). The editor prefers MS DOS based files, preferably written in WORD, WORD for WINDOWS, WordPerfect, or WordStar. Macintosh WORD disks can be handled. All files should be submitted **unformatted and without paragraph indents**. Each submission should be accompanied by a text (=ASCII) file. Other languages should be submitted only as text (=ASCII) files. Line drawings are acceptable as illustrations.

T. Donnelly (address below) is the interim editor of **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. Enquiries and submission of manuscripts should be made to **BAO** editor T. Donnelly, 2091 Partridge Lane, Binghamton NY 13903. Final submissions (after review) should be made on floppy disk, as above, with illustrations in final form and preferably adjusted to final size.

## MEMBERSHIP IN THE DRAGONFLY SOCIETY OF THE AMERICAS

Membership in the **DSA** is open to any person in any country. Dues for individuals in the US, Canada, or Latin America are \$15 for regular membership and \$20 for contributing membership, payable annually on or before 1 March of membership year. Dues for members in the Old World are \$20. **ARGIA** is mailed Air Mail outside of the US and Mexico, and First Class in those countries.

The **BULLETIN OF AMERICAN ODONATOLOGY** is available by a separate subscription at \$15 for members and \$18.75 for non-members and institutions.

Cover: Part of a color plate from E. M. Walker's (1912) "North American Dragonflies of the Genus *Aeshna*". Shown are males and females of *A. juncea* and *A. subarctica*, both of which the ADIP meeting participants found in New Brunswick.

# ARGIA - The News Journal of the D.S.A.

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## IN THIS ISSUE

We start this issue with an announcement of the next annual meeting - at Paul Smiths, in the heart of the Adirondacks. The place and time were designed so that DSA members could move on to the Colgate Symposium in Hamilton NY. We hope to see all of you there (and at Colgate, too).

The big event for everyone this summer was the Valentine meeting. It was a great success, as Roy Beckemeyer relates. For me, the most fascinating part was the stifling heat - and the effect of this heat on the dragonflies as well as the collectors. When each day gets well over 100°, things change in the dragonfly world, as we all saw. My most enduring memory was of a small cedar looming all of ten feet above the red hot prairie. On the ground in the shade of this cedar were literally hundreds of *Enallagma carunculatum* trying to find coolness. Interspersed with them were many dozen *Sympetrum obtrusum*. Hanging on the tree itself like Christmas tree ornaments were dozens of *Libellula pulchella* and several *Anax junius* and *Leucorrhinia intacta*. They were too hot for territorial behavior - simple survival was the order of the day!

A smaller but very successful meeting was held a few weeks after the Valentine meeting, in New Brunswick. The very active Maritime group explored several bogs and found a wide variety of northern species. This has been a somewhat neglected part of North America until recently. It is not destined to stay that way.

Paul Brunelle writes of his adventures in Cape Breton Island. Ailsa and I went with him there after the ADIP meeting, and I now share his enthusiasm for this magnificent place.

As the result of the efforts of several people, *Somatochlora brevicincta* has been found to range widely in the Maritimes. Perhaps this is the real center of its range?

I continue my series of articles on Odonata History with an account of the life of E.B. Williamson, or "Mr. Williamson" as Dolly Gloyd

called him. As readers will note, part of the reason for this series has become the chance to use some old photos, loaned in this case by Mark O'Brien. In previous articles, I seemed to have confused many readers. I discussed both "Phase One" and "Phase Two" for the first number, and the second number started with "Phase Three". Thus I have more phases than numbers. Sorry about that.

I have also put in a plea for inspection of your *Sympetrum* specimens to try to settle the question of face color of *S. internum* and wing color of *S. rubicundulum*.

Ken Tennesen adds a fascinating observation on another use of the ovipositor of *Calopteryx maculata*. Keep your eyes open for this sort of thing.

Dennis Paulson notes a profound (pun intended) difference in the odonate faunas of deep and shallow ponds. What is going on? Informed people want to know!

One of the more bizarre behaviors reported recently involves the attack by a large dragonfly on the black cap of a goldfinch. I doubt that there will be many more reports like this.

Fall migration season is beginning to produce more dragonfly (DF to birders) reports. Sadly, they don't record the species, but it has in this case to be *Anax junius*, which certainly migrates along with the hawks in very large numbers. I was fascinated by the report of how kestrels catch them. Keep your eyes open.

Rae Osborn, who comes from South Africa, has been studying dragonflies at the University of Texas at Arlington. She writes of the odonate species in this area.

Kathy Biggs answers some of the questions raised in an earlier issue - just how do you establish a dragonfly pond. Joe Smentowski also has provided some tips. Strangely, few dragonfly workers seem to do this simple exercise themselves. Perhaps we should all give it a try. (Apartment dwellers are excused.)

Paul Brunelle tells of a week spent introducing beginners to dragonflies at a lovely spot in Maine. His observations will be useful to others contemplating this exercise.

We have a several reports of bugs taken in odd or new places - *Nehalennia integricollis* (and *Enallagma pictum*) from southern New England, *Sympetrum corruptum* on Cape Cod, *Enallagma civile* in Oregon, *Stylurus olivaceus* in the Northwest, *Leucorrhinia glacialis* in West Virginia, *Enallagma weewa* on Long Island, and a possible *Orthemis ferruginea* in Washington D.C., where it is probably came in with aquatic plants. Wouldn't it be a hoot if it were *discolor*!

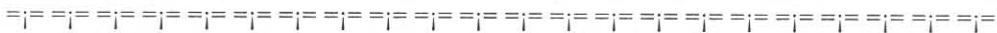
Bill Mauffray gives several records from one of the most neglected states - Georgia, and also supplies a record of *Brechmorhoga pertinax*

from Arizona. Bill also brings us up to date on the IORI.

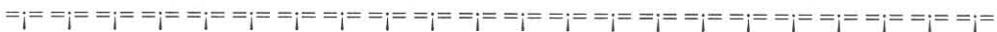
Dennis Paulson is in despair over the plastic envelope problem - both size and static electricity.

Nancy Vanderpoorten has successfully distributed the reprints of the Walker volumes and announces she will accommodate orders for further sets from those of you who were too lazy to buy this important set when it was first announced.

I have included references to two newspaper articles. Dragonflies are growing in interest as birders and butterflyers discover the charm of this lovely group of insects.



CALENDAR OF UPCOMING MEETINGS AND TRIPS		
Group and Place	Date	Contact
DSA Southeastern meeting, W. Tennessee	May 1999	Ken Tennesen or George Harp
DSA annual meeting; Paul Smiths NY	8-11 July 1999	Nick Donnelly
Dragonfly Symposium, Hamilton NY	11-17 July, 1999	Vicky McMillan



**1999 ANNUAL MEETING - THE ADIRONDACKS**

**Nick Donnelly**

At the Valentine meeting the group voted to accept the proposal to meet on 8 - 11 July 1999 in the Adirondacks, in New York state. The meeting was scheduled for New York at this time so that members could also participate in the Colgate Odonata Symposium.

The meeting place will be Paul Smiths College, which is about 20 minutes drive from Saranac Lake. It is on Lower St. Regis Lake, which is one of numerous lakes in this part of the Adirondacks which comprise world-famous canoe day tripping and has abundant odonate localities.

The group will gather Thursday evening and go into the field all day Friday and Saturday. On Sunday, those attending the symposium can be in

the field for a half day and then reach Hamilton comfortably in less than three hours.

There will be meetings on Friday and Saturday evening in the college auditorium, which is very suitable for showing slides and presenting papers. We intend to organize sessions both of the nights.

There are some superb camp grounds maintained by New York nearby. The Fish Creek Ponds campground is especially good for persons who want to bring their canoe and launch it at their camp site.

**ODONATA ACTIVITIES:**

(1) Ausable River. There will be five species of *Ophiogomphus* here at this time, including *O. colubrinus*. *Sympetrum danae* has been taken in a marsh adjacent to the river.

(2) Bloomingdale Bog. An abandoned railroad track gives superb access to this very large bog. *Somatochlora elongata* is common here; *walshi*, *incurvata*, and *forcipata* have been taken also. *Stylurus scudderi* has a good population here.

(3) Hitchins Pond Bog. This is a very large, easily accessed bog. I have taken *Somatochlora forcipata* here and seen numerous other *Somatochlora* which remain unidentified.

(4) Visitors Interpretive Center. This is about a mile from Paul Smiths College. I found *Coenagrion interrogatum* here, and another specimen was found nearby. There is a very good wetland, with swamp, pond, and bog - all accessed easily on a boardwalk. There are fine interpretive exhibits here also.

There are several other sites nearby, and, slightly farther away, the Hudson River, where Bob Barber found *Ophiogomphus anomalus* and *howei*, is a superb gomphid stream. By the time of the meeting I will have arranged several additional trips, including more bogs.

For those planning to attend, it will be important to get your name into me as soon as possible. I anticipate that there will be several additional non-members who may want to make this trip before they visit the Colgate Symposium.

#### ACCOMMODATIONS:

The accommodations for most participants will be in a college dorm at Paul Smiths College, with two to a room. Breakfast and dinner will be served at the college. Past personal experience and the experiences of several of my friends is that the food is very good. The dorm will cost \$22 per person per night, and meals will be approximately \$15 more. There will be a small fee for all attendees for the use of the facilities at the college.

For those who wish to use motel facilities, there are many at Saranac Lake, about twenty minutes drive. The rates will be considerably higher than at the college, but are mainly based on units and not individuals. I have information for 1998; the 1999 information is not yet available. These motels, cottages (some on the water), and hotels include:

Adirondack Comfort Inn (800-228-5150) (daily rates from \$49-\$115)  
 Adirondack Motel (800-416-0117) (\$35 - \$95)  
 Cochran's Cabins (518-891-5721) \$65 - \$105  
 Crescent Bay, Inc. (518-891-2060) (\$55 - \$85)  
 Dusty's Hideaway (518-891-3959) (\$25 - \$45)  
 Flint's Motel (800-801-1020) (\$35 - \$58)  
 Fogarty's B&B (800-525-3755) (\$55 dbl)  
 Harbor Hill Cottages (518-891-2784) (\$95 - \$165)  
 Hillman's Cottages (518-891-2263) (\$40 - \$50)  
 Hotel Saranac (518-891-2200) (\$50 - \$99)  
 Indian Rock Cabins (518-891-33100) (\$45 - \$65)  
 Indian Cottage B&B (518-891-9998) (\$55 - \$85)  
 Lake Flower Motel (518-891-2310) (\$38 - \$75)  
 Lakeside Motel (518-891-43330) (\$49 - \$89)  
 Mallard Hill Cottages (518-891-1213) (\$45 - \$60)  
 The Porcupine (518-869-3017) (\$55- \$110)  
 Sara-Placid Motor Inn (518-891-2729) (\$48-\$12)  
 Sunday Pond B&B (518-891-1531) (\$49 - \$65 dbl)  
 Turner's Cottages (518-891-1781) (\$40 - \$75)

There are three superb New York State camping sites. *These will require reservations.* These camp grounds will be especially interesting to people who bring their canoes with them.

**Fish Creek Pond** (about 15 miles south of Paul Smiths)

**Rollins Pond** (adjacent to F.C.P.)

**Meacham Lake** (9.5 miles north of Paul Smiths)

The reservation service for all of these is **800-456-CAMP**

#### OTHER ACTIVITIES

Other nearby activities available include some of the world's finest flat-water canoeing, and great hiking in the world-famous High Peaks area.

There will be a quilting camp at the College just before our meeting. For further information, write Stephanie Donaldson, Director, Conference Services, Paul Smiths College, PO Box 265, Paul Smiths NY 12970-0265 (518-327-6000)

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COULD VALENTINE, NEBRASKA BE  
ODONATA HEAVEN? THE 1998 DSA  
ANNUAL MEETING

Roy Beckemeyer and Steve Hummel

The 1998 Annual Meeting of the Dragonfly Society of the Americas was held on the 18th, 19th and 20th of July in Valentine, Nebraska. Post meeting activities included a canoe trip on the Niobrara River on the 21st, and larval and adult collecting and identification at the Nature Conservancy's Niobrara Valley Preserve from the 22nd through the 24th. The meeting was hosted by Steve Hummel of Lakeview, Iowa, and Roy Beckemeyer of Wichita, Kansas. Local field trips were led by Steve, Roy, and Nick Donnelly. (Nick and Ailsa helped guide us beginners through this process, and deserve a lot of thanks for all their help. Also, the fact that it didn't rain the entire time even though Nick was involved in putting on the meeting indicates that the traditional rainy Donnelly northeastern US collecting meetings might have more to do with geography than with hexes.)

The big question that was often heard prior to the meeting, "Why would anyone go to Nebraska to collect dragonflies?", can now be answered by any of the attendees: "Because that is where the dragonflies are!" The sheer numbers of odonates flying or hanging in the vegetation was astounding. The biomass of Odonata flying around led one to wonder how many prey insects must be present. Wading Boardman Creek was an interesting example: the experience resulted in clouds of *Sympetrum*s rising up with every step, and dozens of *Hetaerina* and *Calopteryx* (*maculata* and *aequabilis*) perching on nets, hats, and shirts. One day at the Valentine National Wildlife Refuge saw *Aeshna multicolors* hanging from trees like Christmas tree ornaments; they could literally be plucked from their perches. Quality was pretty fair, too, with *Stylurus* and other Gomphidae being caught with regularity, and *Somatochlora ensigera* taken by a number of collectors. There should now be lots of great photos appearing as well, from the festoons of *Aeshnas* hanging from tree limbs to exotic olive-colored female *Enallagma clausum* perching prettily in the grass and rainbow-colored *Enallagma antennatum* males hanging on overhanging vegetation along the banks of the streams. At times there were as

many cameras trained on the bugs as there were nets swinging at them.

A total of 48 folks attended the meeting or portions of it. They are listed in the DSA minutes, by Sid, in the following article.

We racked up a pretty good species list for the meeting. While detailed county listings are still in preparation (nearly everyone has been very conscientious and timely in getting their collecting records in), we can list the following species (either collected in Cherry or Brown counties near Valentine, or in other counties on people's trips to or home from the meeting):

*Aeshna canadensis*, *A. constricta*, *A. interrupta lineata*, *A. multicolor*, *A. umbrosa*, *Anax junius*, *Boyeria vinosa*, *Arigomphus cornutus*, *A. submedianus* (Ken Tennessen, Buffalo Co.), *Gomphurus externus*, *Gomphus graslinellus* (New state record, Mike May, Middle Creek, Keya Paha Co.), *G. militaris* (New state record, Red Willow Co., Sid Dunkle), *Ophiogomphus severus*, *Progomphus obscurus*, *Stylurus amnicola*, *S. intricatus*, *S. notatus* (New state record, Hal White, Minnechaduzza Creek), *Epitheca costalis* (New state record, Lincoln Co., Sid Dunkle, Holt Co., Steve and Mary Jane Krotzer), *E. cynosura* (Dennis Paulson, Sioux Co.), *E. princeps* (Paul Bedell, Lancaster County, Nick Donnelly, Antelope County), *Somatochlora ensigera*, *Celithemis elisa* (New state record, taken first, I think, by Oliver Flint and Ken Tennessen), *C. eponina*, *Erythemis simplicicollis*, *Leucorrhinia intacta*, *Libellula luctuosa*, *L. lydia*, *L. pulchella*, *L. quadrimaculata*, *Pachydiplax longipennis*, *Pantala flavescens*, *P. hymenaea*, *Perithemis tenera*, *Sympetrum corruptum*, *S. costiferum*, *S. internum*, *S. obtrusum*, *S. occidentale*, *S. rubicundulum*, *S. vicinum*, *Tramea lacerata*, *Calopteryx maculata*, *C. aequabilis*, *Hetaerina americana*, *Lestes congener*, *L. disjunctus australis*, *L. forcipatus*, *L. rectangularis*, *L. unguiculatus*, *Amphiagrion* species, *Argia alberta*, *A. apicalis*, *A. emma*, *A. fumipennis violacea*, *A. moesta*, *A. plana* (yes, both *vivida* and *plana* were there), *A. sedula* (Roy Beckemeyer & Joe Smentowski, Dundy Co.), *A. vivida*, *Enallagma anna* (Dennis Paulson, Dawes Co., Steve & Mary Jane Krotzer, Cherry Co.), *E. antennatum*, *E. aspersum* (New state record, George Harp, Otoe Co.), *E. basidens* (Nick Donnelly, Custer Co., Ken Tennessen, Hall Co.), *E. carunculatum*, *E. civile*, *E. clausum*, *E.*

*cyathigerum*, *E. exsulans*, *E. geminatum* (Ken Tennessen, Hall Co.), *E. hageni*, *E. praevarum* (Roy Beckemeyer, Dundy Co.), *E. signatum* (Roy Beckemeyer, Dundy Co.), *Ischnura damula* (Dennis Paulson, Sioux Co., Roy Beckemeyer & Joe Smentowski, Dundy Co.), *I. hastata* (New state record, Paul Bedell, Lancaster Co.), *I. perparva* (Dennis Paulson, Dawes Co.), *I. verticalis*, *Nehalennia irene*.

Collecting spots included the city park, the fish hatchery, Minnechaduza Creek and the Niobrara River, a number of tributaries of the Niobrara, Smith Falls State Park, Fort Niobrara and Valentine National Wildlife Refuges, and the Merrit Reservoir area. Pre- and post-trip collecting was also done at other state parks as well as The Nature Conservancy's Jumbo Valley Fen and Niobrara Valley Preserve. Thanks to the state, federal, and Nature Conservancy management for giving us permission to collect; their kind cooperation was vital to the success of the meeting and to the advances we made in the knowledge of Nebraska odonates. We will be preparing a set of representative voucher specimens to deposit with Brett Ratcliffe, curator of the University of Nebraska Lincoln insect collection. Our permits require this, and furthermore, it will help to advance the study of Odonata in the state if they have a good reference collection there. I encourage any of you who are so inclined (particularly if you collected new state records) to either send specimens to Roy Beckemeyer (957 Perry, Wichita, KS 67203-3141) or directly to Dr. Brett C. Ratcliffe (Curator & Professor, Systematics Research Collections, W436 Nebraska Hall, University of Nebraska, Lincoln, NE 68588-0514).

If we totaled up correctly that is 76 species including seven species newly added to the Nebraska list. A load of county records have also been established, and the final results will be tallied in the next **ARGIA**. Also, we are missing a few people's records, and some of us (Roy included) have some final ID work to do (too busy at the computer). If any of your records are missing or you notice anything wrong with this list, let us know and we will get it corrected for the yearly roundup next issue. Things seemed to work out quite nicely in Valentine, even though the Nebraska Star Party was going on at the same time as our meeting; and the traditional canoeing crowds were on the water over the weekend. We generally had little trouble finding enough tables

to accommodate our group at restaurants, and the traffic certainly isn't a problem in Valentine!. There was a nice little article in the Valentine newspaper about our meeting the week before it started, and that issue of the paper was in the local news racks on our arrival. A follow-up photo, a picture of Roy Beckemeyer and Babs and Loren Padelford collecting at the Valentine Fish Hatchery, appeared in the issue published the week after the meeting. There was also a short article in the Omaha Sunday World-Herald of July 26th; the environmental columnist for the paper had interviewed Roger Long while he was collecting at Smith Falls State Park. A number of collectors, including Jeff Ballard, Paul Bedell, Steve Hummel, Roy Beckemeyer, and Roger Long and Dylan and Dakota Blackhorse entertained some Valentine residents at the Valentine City Park one evening by having an *Aeshna* challenge. And of course every canoeist floating down the river wanted to know if we were catching butterflies. All in all, the Valentine residents were friendly and welcoming. Official meeting activities other than collecting included a great cook out at Valentine City Park, which is a lovely site for such an event, even in 100 degree heat.

We also had two evening meetings this year, an informal affair on Friday night at which we were entertained by slides of exotic and familiar odonates, and informed about research progress on *Cordulegaster erronea* by Bob Glotzhofer and *Somatochlora hineana* by Tim Cashatt. Saturday's meeting was the annual DSA business meeting. Both meetings were handled with typical acumen and style by our esteemed President, Rosser Garrison, and despite some meaty issues which had to be resolved, the business meeting, which began at 7:00 P.M., was over before 11:00 P.M.. Thanks to the Cherry County Clerk, Tom Elliott, for allowing the use of the Cherry County Office Building Meeting Room for our evening meetings. Once we got the air conditioning figured out, the facilities were quite nice. Sunday found Blair Nikula valiantly trying to round us all up for the group photo. His race to beat the timer on his camera has become an annual event. Perhaps we should start a pool...

As Steve Valley and Ken Tennessen had to leave Monday, we ended up having an impromptu mini-larval workshop in the breakfast room area of the Super-8 Motel on Sunday night. At

Dennis Paulson's suggestion, we also did a preliminary "compilation" there, a process borrowed from birders in which we ran down the list of species and tallied which had been collected or seen. As far as we know, this was a first for our meetings, and we hope that it becomes a tradition. The Valentine meeting proved to be a good one for larvae, particularly for gomphids. *Gomphurus externus*, *Stylurus intricatus*, and other species were observed emerging, and large numbers of exuviae were collected. This proved to be advantageous, as the bass had grown rapidly this year, and the Valentine Fish Hatchery personnel were unable to hold off on draining one of their ponds while we were there. So our larval stomp was done in Minnechaduza Creek and the Niobrara River.

Participants in the post-meeting canoe trip down the Niobrara included Jeff Ballard, Carol Flint, Jerrell Daigle, Pam Guy, Nick and Ailsa Donnelly, Hal White, Roger Young, Mariah, Dylan and Dakota Blackhorse, Rosser, Jo, Phillip, and Anna Garrison, Steve and Marcia Hummel and Branden Vessels, Joe Smentowski, and Roy Beckemeyer. The river was up enough to make for very pleasant floating, and moved at a pretty good rate. Although it was a hot day, nearly 105 degrees, there were some nice cold waterfalls coming into the river from the south, and stops at those vied in popularity with attempts to catch the many *Stylurus* flying over the river nearly the entire way from Cornell Bridge to the end of the trip.

Tuesday found the temperature dropping and the skies clouding up, and the folks who stayed for the larval workshop at The Nature Conservancy's Niobrara Valley Preserve spent the day wading Minnechaduza Creek and collecting larvae and exuviae. Jeff Ballard, Hal White, Jerrell Daigle, Pam Guy, Joe Smentowski, Roger Long, Mariah, Dylan, and Dakota Blackhorse, Steve Hummel, and Roy Beckemeyer then went on to the preserve and set up camp in the beautiful and functional bunkhouse facilities there. With a nice kitchen, a work area with tables and chairs, and two separate bunkhouses with men's and women's bathroom facilities, the place was very cozy. Roy Beckemeyer had brought along a mini-video camera that attaches to a microscope eyepiece and outputs a video signal to a tv monitor, so we could all look at the same portion of the same specimen and work our way through

the keys to get practice in identification. Worked out very nicely.

Wednesday was a lovely day and more collecting was done along the Niobrara and at Plum Creek between the preserve and Johnstown. Thursday was the only rainy day, making up for the rest of the week's good weather, but affording a chance to id many of the specimens collected during the week. Steve Hummel had a dissecting scope along and Jeff Ballard declared that his daughter's college education would just have to wait until after he had a scope of his own. We also left with the Conservancy a display case with spread (and acetoned) specimens of some of the local odonates. Thanks to all the folks who donated specimens for the display.

All in all, this was a very successful annual meeting, that added substantially to the state of knowledge of Odonata in the Great Plains, and at the same time provided a good time for the attendees. See you next year in New York!

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### DSA 1998 BUSINESS MEETING MINUTES

Sid Dunkle, DSA Secretary

The 1998 DSA business meetings were held in the Cherry County Office Building, Valentine, Nebraska, on the Friday and Saturday evenings of 17-18 July. Roy Beckemeyer (Kansas) and Steve Hummel (Iowa), hosts and organizers of the overall meeting, and who in this scribe's opinion did a really fine job of it, presented announcements and information. Remember to send Roy your Nebraska collection data for his reports to various agencies who allowed us to collect on their lands, and for preparation of distributional maps for the state. Other attendees of the meeting were John Abbott, Sid Dunkle, and Brandon Vessels (Texas), Jeff Ballard (Maryland), Paul Bedell (Virginia), Tim and Dan Cashatt (Illinois), Bernie Counts and Bob Glotzhofer (Ohio), Duncan Cuyler (North Carolina), Jerrell Daigle and Bill and Carol Mauffray (Florida), Nick and Ailsa Donnelly (New York), Ollie and Carol Flint (Virginia), Rosser, Jo, Anna, and Philip Garrison (California), Marcia Hummel and O.J. Gode (Iowa), Pam Guy, Steve and Mary Jane Krotzer, and Ken Tennesen (Alabama), George and Phoebe Harp (Arkansas), Molly Hukari and



Dennis Paulson (Washington), Roger, Maria, Dakota, and Dylan Long (Idaho), Mike May (New Jersey), Blair Nikula (Massachusetts), Loren and Babs Padelford and Jules Russ (Nebraska), Fred and Peggy Sibley (Connecticut), Joe Smentowski (Missouri), Steve Valley (Oregon), John Weber (Minnesota), and Hal White (Delaware). Altogether, 48 people from 23 states!

At 7:15 on Friday evening President Rosser Garrison called the meeting to order, and each attendee briefly introduced him or herself. Some members then gave presentations as follows: Nick Donnelly — Dot Map Project, *Enallagma vernale* problem (needs relevant northeastern and north central specimens), and *Sympetrum* taxonomy; Mike May — Status of update of North American Anisoptera Manual (probably to be printed in 1999); Dennis Paulson — Common Names for Odonata (should be co-ordinated with Entomological Society of America), and Odonata of South Africa; Sid Dunkle — Status of Field Guide to North American Anisoptera (hopefully to appear in 1999); Bob Glotzhober — Ecology of *Cordulegaster erronea* in Ohio; Blair Nikula — Odonata of Mexico, Florida, and New England; Ken Tennessen — *Ophiogomphus edmundo* in Tennessee and Georgia, and some Ecuadorian Odonata; and George Harp — Odonata of Chamela, Mexico. The Friday meeting adjourned at 11 PM.

The Saturday Meeting began at 7:30 PM, again presided over by President Rosser Garrison. Jerrell Daigle issued commemorative buttons with an image of *Somatochlora ensigera*, and John Abbott presented a poster paper on the Odonata of the south-central U.S. Jerrell Daigle presented the Treasurer's Report, which was accepted. Our current balance is \$11,406.73, and our projected expenses for **ARGIA** and BAO mailings for the rest of this year are about \$8,000, although printing costs are expected to increase. After discussion, it was decided that the Treasurer's report in the future should cover a Calendar Year, not a Fiscal Year, and that the Treasurer's Report should appear in the first issue of **ARGIA** each year.

Nick Donnelly proposed that the DSA Meeting in 1999 should be held 8-10 July (just before the Hamilton, New York, International Odonata Symposium) at Paul Smith's College in the Adirondacks, and this suggestion seemed

agreeable to everyone. The Southeastern DSA meeting for May 1999 will be held in the area of Jackson or Bolivar, Tennessee, organized by Ken Tennessen and George Harp. The DSA Meeting for 2000 will be held in the Northwest, organized by Dennis Paulson and Steve Valley. Possible locations are Pocatello, Idaho; Vancouver, British Columbia; or north-central B.C. Roger Long described the museum and university facilities and other benefits of meeting in Pocatello, but a final decision will be voted on at the 1999 DSA Meeting.

The BAO Upgrade Committee, chaired by Nick Donnelly, has decided that BAO will stay basically as it is now, in the 8 ½ by 11 size, with some format changes but no increase in subscription charges. After some discussion, it was decided that no new scientific names should be published in BAO until we see how "PANTALA" (journal of World Dragonfly Association) functions in this regard. Mike May is the President-elect, and John Abbott, Roy Beckemeyer, and Steve Valley were unanimously voted in as Regular Members.

Tim Cashatt discussed some issues regarding listing species as Endangered, such as arranging permits to collect voucher specimens to document new localities for *Somatochlora hineana*.

There was a lengthy discussion on whether DSA should Affiliate with Foundation Societas Internationalis Odonatologica and/or the World Dragonfly Association (WDA). It was decided that when any such organization approaches the DSA requesting affiliation (as the WDA has done), that DSA will write it a letter saying that we wish to co-operate but remain independent. President Garrison will write this letter, to be reviewed by the Executive Committee.

A lengthy discussion also ensued on whether or not to provide a financial contribution to the publication of Philip Corbet's forthcoming book on the Biology of Odonata by Cornell University Press. It was decided that DSA has neither the means nor the organizational machinery for making such donations. However, the DSA can collect contributions made as individuals by DSA members, and forward a lump sum to Cornell University Press, requesting it to account for how this money is spent. Mike May will write a letter to members for publication in **ARGIA** about this

issue. The Saturday meeting adjourned at 10:30 PM.

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**ADIP MEETING IN NEW BRUNSWICK**

**Stuart Tingley**

Nine members of ADIP (Atlantic Dragonfly Inventory Project) met in northern New Brunswick for three days of dragonfly study August 8-10. In attendance were Nick and Ailsa Donnelly, Paul Brunelle, Robert and Jacob Harding, Jim and Jackie Clifford, Jean-Marc Cormier and Stuart Tingley. The weather throughout the meeting was outstanding with sunny skies and daytime highs around 30°C.

On Saturday we explored two bog areas just off the Plaster Rock - Renous Highway (Route 108) in York and Northumberland Counties. A large bog in the latter county had *Aeshna sitchensis*, *subarctica*, *juncea*, *canadensis* and *interrupta*, lots of *Sympetrum danae* and a couple of tantalizing *Somatochloras* that stayed out of net range but based on appearance and behaviour were almost certainly *septentrionalis*, as this species was found here in good numbers about one month earlier. The York County bog also had lots of *Aeshna sitchensis* and *subarctica*, and after a long search a worn male *Somatochlora brevicincta* was netted by Jean-Marc. This species was discovered in large numbers at this bog for the first time on June 25th of this year.

Sunday found us exploring beautiful Mount Carleton Provincial Park where Bald Mountain Brook Meadow yielded several *Aeshna juncea*, one of the few known sites for this species in the Maritime Provinces. Other odes found in this meadow included many *Aeshna interrupta*, *canadensis*, *umbrosa*, *Somatochlora elongata*, *kennedyi* and *walshii* and again *Sympetrum danae* was present in numbers. Our afternoon picnic site on the shores of Lake Nictau at the mouth of the Little Tobique River yielded large numbers of *Aeshna eremita*, *Basiaeschna janata*, *Boyeria grafiana* along with several *Somatochlora albicincta* and *cingulata*. What a pleasant spot!

On Monday we visited a bog in Gloucester County in the northeastern corner of the province

which again held *Aeshna sitchensis* and *subarctica* along with *canadensis*, *eremita* and *interrupta*, *Enallagma cyathigerum* and many *Leucorrhinia glacialis*. The access road leading to the bog produced *Aeshna tuberculifera* as well as *Somatochlora incurvata*, *minor* and *walshii*. A quick afternoon visit in the sweltering heat to a bog right in the town of Caraquet turned up *Aeshna sitchensis*, *subarctica*, *canadensis*, *interrupta* and *umbrosa* right in the roadside ditches!

In all about 40 species of odonates were tallied over the long weekend and a most enjoyable time was had by all.

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**IDYLL ON CAPE BRETON ISLAND**

e-mail from Paul Brunelle

On my recent July trip to Cape Breton Island I was treated to benign weather on the plateau for two days, the first on Everlasting Barren where I had taken a *Somatochlora septentrionalis* female last year, and the second near where *S. brevicincta* was taken in the 1980's. The weather was brilliantly sunny, mornings calm but with a courteous little wind in the afternoon to blow the blackflies away. Based on last year's experiences, these are atypical conditions for the Highlands before August.

At Everlasting Barren I took *Enallagma cyathigerum* and *E. boreale* at the larger ponds, and *Aeshna sitchensis* at the small flark ponds (less numerous and of fresher colouration than in August last year - suggesting a wandering period away from the ponds, no breeding or laying females were seen as well), *A. eremita* (fewer than in August but a wheel was seen which apparently interrupted laying), *Leucorrhinia glacialis*, *Libellula julia* males in full pruinescence, *Cordulia shurtleffi* and *S. cingulata* males at the larger ponds.

In the morning, with virtually no wind, I took a female *S. septentrionalis* laying in a flark pond in a manner reminiscent of a Libellulid or Gomphid, tail tapping in small circles over the (shallow) waters. Males were seen but in the confused pond structure they moved around without scrutinizing each pond fully and freely

from pond to pond - making them difficult to anticipate and hence catch (a reprise of the frustrations of last year). Whereas *A. sitchensis* males patrol the flark edges assiduously and are caught fairly easily even in a confused pond area, *S. septentrionalis* males are much less predictable - I expect this behaviour is based on the laying habits of the female; it would be much more time-consuming for *A. sitchensis* to find its perched ovipositing mate than for *S. septentrionalis* to find a female tapping out in the open. In the afternoon, in a stronger wind, I finally took two male *S. septentrionalis*, they were pausing longer at the ponds and were more readily taken, although a number were missed nonetheless, and other laying females were seen.

Of interest were the small stream valleys which cross the barren. Last year I had taken larvae of *S. minor* and *Cordulegaster diastatops* in these streams, and seen *A. umbrosa* males patrolling them in September. The streams are slow-moving, unvegetated, and have cut to the bottom of the peat, hence being sandy-bottomed with rocks. They have cut "canyons" about 1-2m deep in the peat, further deepened by the bordering 1-1.5m high Krumholtz (wind-distorted dwarf coniferous trees). The streams are looped and the curves are grassed, making a pleasant little valley with almost complete wind protection. *S. minor* males in numbers were patrolling the streams at about 10m intervals, frequently scrapping when they met, and present in greater numbers than they were seen last year on the non-barrens streams of the Plateau where *S. elongata* and *C. diastatops* were abundant. *A. eremita* males were occasionally seen patrolling the streams in a lazy sort of way, not troubling the *S. minor*, and occasionally a *L. hudsonica* was encountered protecting a length of stream from a perch, usually on contorted Krumholtz sticks which are decidedly net-proof.

In one valley a wheel was seen which I believe to have been *S. septentrionalis* from a pond less than 50m away. It flew slowly around in depressions in the Krumholtz and should have been easy to take, but it is impossible to move quickly through that stuff and they were wary. These wind-shadowed areas down-wind from ponds are ideal places for seeing wheels, as another was seen later (or the same one if *S. septentrionalis* stays in the wheel for a long time, as I suspect). At another site later in the day I

saw a wheel of *S. septentrionalis* form over a pond and immediately fly down-wind to the shelter of the forest.

After eight hours on the barren I decided to have a rest on a mossy rock in the center of the main stream which drains the barren to Cheticamp Flowage. This stream is less than 2m wide, the bottom and margin are formed of mossy boulders, water speed is fairly quick, and the banks are about 1 meter high. *S. minor* males patrol much longer stretches than on the small streams of the barren, and in fewer numbers, moving up and downstream about 25cm from the water surface and occasionally flying up to the 1m high marginal brush. I idly netted and released a few to vindicate my laziness, then noticed a dragonfly flying atypically about a meter up from the water surface to close to that distance above the brush, much higher than *S. minor*, and proceeding up the stream in a lazy sort of fashion. It proved to be the first *S. albicincta* for Nova Scotia - a species looked for last year, and obviously wandering from its breeding habitat, which in northern New Brunswick is beaver ponds and slow streams.

The following day I drove across the Plateau to the barrens on North Mountain within Cape Breton Highlands National Park - probably the locale for J.H. MacDunnough's 1941 collection of *S. septentrionalis*, and of the Biosystematics Research Center collection of *S. brevicincta* in the 1980's. The latter was not seen but *S. septentrionalis* was much in evidence, as were other species seen at Everlasting Barren. Given the habitat for *S. brevicincta* seen at "Stuart's Bog" in northern New Brunswick recently, a water-saturated sphagnum swamp or fen, these bogs are possibly not appropriate breeding sites, however the dates of the BRC's *brevicincta* collection (July 8 to August 15) suggest that it should have been in the area, and further search is warranted.

The next day I drove to the east coast of CBI, where there are a number of coastal bogs. At a large bog in North Forchu I was surprised to find the flight season not as far progressed as it had been on the Plateau, most likely because of the modifying influence of the Atlantic Ocean about 5 kilometers away. *L. julia* was dominant; *A. eremita*, *A. sitchensis*, *C. shurtleffi* and other

species seen on the Plateau were not seen though all are known from the Lowlands.

One interesting collection was of a female *S. cingulata* emerging from Cricket Lake, adjacent to the bog. As I sat on a boulder at the shore I noticed what appeared to be a large *Libellula* larvae intriguingly emerging on an exposed rock on an exposed point, rather than in the backwaters. It moved with alacrity into the bush a meter from the water edge; I retrieved it and put it on my shirt front, but after an hour boxed it and returned to my jeep. It survived and when released in the Jeep it investigated for 15 minutes or more until choosing an emergence perch on the passenger seat belt. During my trip to Halifax it emerged into a female *S. cingulata*, somewhat undermining my faith in my ability to determine larvae by general appearance.

Although 13 species is a short list for three days, the collecting was pleasant and the interest value of several of the species quite high. And, perhaps best of all, the abundance of biting insects, and of precipitation, was equally low.

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#### *SOMATOCHLORA BREVICINCTA* IN ANTICOSTI ISLAND, AND IN MAINLAND NOVA SCOTIA

reported by Stuart Tingley and Paul Brunelle

The Spring 1998 issue of ANTENNAE (Vol. 5, no. 2), the bulletin of the Societe D'Entomologie Du Quebec, reports the taking on 26 July of a young male of *Somatochlora brevicincta* in La Reserve Ecologique de Point-Heath on Anticosti Island (Quebec).

More recently Paul Brunelle found a female of this species in mainland Nova Scotia, just east of the New Brunswick border.

These captures establish this species thoroughly in the Maritime area, with two occurrences in New Brunswick and one on Cape Breton Island in addition to these latest finds.

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#### HISTORY OF ODONATA STUDY: E.B. WILLIAMSON

Nick Donnelly

Edward Bruce Williamson (1877 - 1933) is without any doubt the most famous American odonatist. He was also the most productive and the most colorful. Although seven years younger than Philip Calvert, because of his early death there is no living American odonatist that has actually met him. His influence is profound and pervasive. Born in Marion, Indiana, in 1877, he was taken by his family to Bluffton, Indiana, when he was two years old; subsequently Bluffton became one of the most famous North American locations for dragonfly study.

By the time E.B. was ready to enter college (Ohio State in 1894) he was already an accomplished naturalist. In college he met Prof. David S. Kellicott, who was probably responsible for starting him on Odonata studies. His first find, made on a brief trip to New Jersey, was a new *Ischnura*, which he named for his mentor (*I. kellicotti*).

After college he briefly held a curatorial position at the Carnegie Museum which enabled him to join an expedition to Wyoming. Although he found the Wyoming fauna "less favored odonatologically than many of the other states", he found his next undescribed species, which he named *Enallagma anna* after the woman who became his wife.

Returning home, he taught high school for a year in Ohio. During the summer of 1900 he visited the Youghiogheny River of western Pennsylvania, where he was thrilled to take the first *Calopteryx angustipennis* since Abbott's original specimen a century previously. As Calvert noted, he took more than a hundred specimens and supplied the museums of the world with specimens. He also found the new species *Macromia alleghaniensis*, which he described a few years later.

His uncertain future (he had briefly contemplated going to medical school) was resolved by 1902 when he joined his father's bank in Bluffton. Later becoming cashier and then president of this bank, he watched it fail and close in the wave of bank failures following the stock market crash of 1927. This was the most painful event of his life,



The infant Williamson.

but in the four and a half years remaining before his death, he managed to pay back the deposits of all of the customers of the bank.

Williamson quickly realized that his position with the bank could be manipulated to provide time (and resources) for trips to far away places. In 1905 he took his first tropical trip, to British Honduras and Guatemala. Some of the fruits of this trip (and a second trip in 1909) were published by Ris shortly after World War I, in the supplement to his monumental "**Die Libellulinen**", where descriptions of many of the new species on this trip appeared.

The tropical bug bit hard, and Williamson found it difficult to resist returning. He went to Trinidad and British Guiana in 1912 (with his father, among others), and to Panama and Colombia in 1916-17. On the latter trip he was accompanied by his devoted cousin Jesse, who was his life-long companion in dragonfly studies. Jesse's own contributions are often overlooked because of the eminence of his cousin, but he undertook several tropical trips without the company of E.B., visiting Mexico, Peru, Bolivia, and Brazil. The results of these trips included numerous new species and genera, many of which was co-authored with E.B.



Williamson in his 30's

E.B. was noted for his ability to charm the townspeople of Bluffton to accompany him on his many trips. Dolly Gloyd told me that the various people who spent months with him in the field included the postman who delivered the mail and various other citizens. These trips were not all tropical, nor was the time spent entirely in dragonfly collecting. On his Texas and Oklahoma trip (1907), he recounts,

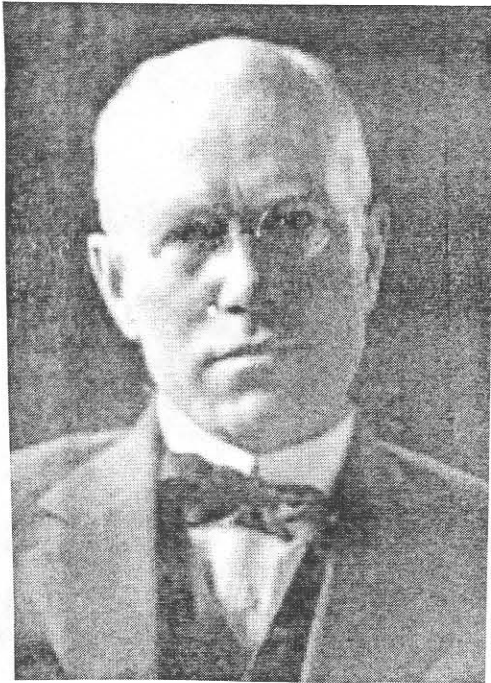
"In one day we caught 39 alligators, one of them over 9 feet in length".

Discussing his discovery of *Lestes sigma* in Texas, he says,

"Add to these difficulties that the poisonous and sluggish cotton-mouth snakes were common at the same place that the *Lestes* occurred, and some idea of the labor and excitement involved in the capture of these dragonflies may be grasped."

Williamson's writing always had a wonderfully evocative flavor. His descriptions of episodes and habitats are gems of clear description and invariably give the reader nostalgic twinges. Take this passage describing the capture of a new *Archaeogomphus*:

"... I returned to the river to search for more specimens of the species. Cutting across



The elderly Williamson

country, I struck the river at the coffee planting, which, in view of our observations of *A. hamatus* in Colombia, seemed to me to be the most likely spot along the river for specimens of the genus. A thorough search over the entire coffee plantation yielded nothing, so I started up river, working carefully adjacent cane patches, dry woods, a small banana field, and the broad expanses of waist-high convolvulus leaves, but without success. About two miles of the river was thus worked and I then returned, working down stream as carefully as I had worked up, and arriving without success about 4:30 in the coffee planting. Here I found many small libellulines resting on the tips of the dead twigs of the coffee trees (really bushes). These libellulines were busily inspected for half an hour in the hope of detecting an *Archaeogomphus* among them, and about 5 o'clock I gave up the search and started home. Passing from the coffee planting near the river, I looked back for the last time and

saw, resting on a dead twig about three feet from the ground, a small dragonfly whose wings were horizontal instead of slightly drooping in the almost invariable small libelluline position. I retraced my steps, and as I approached I saw the separated eyes of a gomphine, which, after a few literally breathless seconds, was safely fluttering in the cyanide bottle. This specimen is the type of the species. "

It is difficult to state where Williamson's influence was the greatest. He was one of the first to describe correctly the copulatory mechanism of odonates. He wrote on wing venation and was one of the first to subdivide the complex family Gomphidae.

Williamson's 92 described species are almost all North American (he described a few southeastern Asiatic species in papers for the U.S. National Museum, but, of course, he never visited the region.). His 'Dragonflies of Indiana (1900), along with Kellicott's "Odonata of Ohio" (1899), and Calvert's "Odonata - Dragonflies in the vicinity of Philadelphia" (1893), truly laid the foundation for the study of Odonata in North



Cousin Jesse somewhere in Brazil







*Aeshna palmata* - few  
*Anax junius* - few  
*Libellula forensis* - few  
*L. lydia* - few  
*Sympetrum costiferum* - common  
*S. illotum* - few  
*S. pallipes* - few  
*S. vicinum* - common

The second, Square Lake, a fairly deep and steep-margined lake with a smaller diversity of species, seemed dead in comparison:

*Enallagma boreale/cyathigerum* - one  
*Ischnura cervula* - one pair  
*Aeshna canadensis* - common (additional *Aeshna* probably present)  
*Libellula forensis* - few  
*Pachydiplax longipennis* - one

While damselflies abounded at the pond, they were essentially absent from the lake, and that condition had prevailed since early August. The change was especially notable in *Enallagma cyathigerum* and *Ischnura cervula*, which were common at Square Lake through July and then virtually disappeared.

How to explain this discrepancy? One reason certainly lies in the abundance of fish (including bass and bluegills) at Square Lake and their absence from the pond. This may explain at least the relative abundance of *Lestes* and *Sympetrum* at the pond. However, I think water temperature also played a significant part in the difference.

The long, cool spring we experienced probably delayed emergence at both localities, but larvae from the spring-emerging damselflies did not have time to develop to emergence in the deeper, cooler lake, while such larvae in the shallow pond were able to develop more rapidly in the warm water and emerged in large numbers as an additional brood by the end of summer. Damselfly abundance, in fact, was considerably greater at the pond than at a visit several weeks earlier, a veritable bloom of adults in the interval.

This difference between warm and cold water bodies must have profound effects on larval development and thus adult occurrence, abundance, and flight seasons. This dichotomy might, in fact, be as significant as the fishless-fishy lake dichotomy is to odonates. In fact, I can imagine that differences in water-temperature

regimes provide different selective pressures and thus perhaps different genotypes in different types of water bodies, a fertile field for investigation.

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### DRAGONFLY ATTACKS GOLDFINCH!

Sally Nelson [nelson4245@worldnet.att.net]  
bracketed comments by Dennis Paulson

At Page Springs [a desert oasis in Harney County, Oregon] I spent a few minutes focusing the binocs on two male American Goldfinches perched close at hand (too hot for anything else to be in the sun, including me). Into the picture flew a large and robust red dragonfly [probably *Libellula saturata*], which hovered over the head of one of the birds and then tried to PICK UP the little black patch on the goldfinch's head! It actually grabbed the head feathers with its feet and tugged. The cap resembled a black insect closely enough to fool the dragonfly...or it was really hungry. The bird ducked its head and squirmed but did not fly. The dragonfly moved on to the second finch and peered at ITS black cap, but had already learned not to bother trying to grasp it and soon left. Was it Yogi Berra that supposedly said, "you can see a lot by observing"? He was right.

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### DRAGONFLIES OBSERVED DURING HAWK WATCH - KESTRELS REVEAL HOW THEY CATCH THEM!

e-mail from Kirk Moulton  
[kirk.moulton@unisys.com]

"As an addendum of our hawk watch report from yesterday 9/16, I forgot to add the highlight of the day for many of our observers in our northern count sites. We had a magnificent DRAGONFLY migration yesterday 9-16 over three sites (Pleasant Valley, Lake Nockamixon, and Danboro) about centered about 15 miles north of Doylestown, PA . The majority of the bug-wave came with the Broad Wings in the late afternoon, around the time the wind shifted. All three sites described the DFs as "too numerous to count", citing 50 or more dragonflies in your bins no matter where you put your bins. This made me think of how many college students you could





ODONATA SEMINAR AT HUMBOLDT  
FIELD RESEARCH INSTITUTE,  
STEUBEN, MAINE

Paul-Michael Brunelle

In early July of this summer I instructed a 5-day introductory seminar on Dragonflies and Damselflies at Humboldt (formerly Eagle Hill), a facility which supports introductory, advanced and specialist courses in a broad range of natural history subjects.

The introduction of the Odonate course at Humboldt was largely at the instigation of Dr. Mark McCollough, Maine Department of Inland Fish and Wildlife, and reflects the rapidly increasing interest in the order among government departments and other organizations with environmental impact and rare species mandates. My selection as instructor was due to work I have been doing with MDIFW to prepare for a 5-year survey of the order in that state. The course was accepted for academic credit by the University of Maine, Orono.

I was somewhat apprehensive at doing the course as I have never taught before and was an appallingly bad student myself, but in the event it worked out rather well, in large measure due to the enthusiasm of the thirteen students, the fine infrastructure at Humboldt, and the generosity of Blair Nikula and Stuart Tingley in providing a really superb set of slides. I also had along a selection of 150 specimens, about 100 lbs of reference books, and a few quick keys for selected groups (preponderantly male terminalia).

The thirteen students (this is a good number for a beginning course) were from a broad range of backgrounds - undergraduate, graduate, natural history enthusiasts such as bird watchers, botanists and lichenologists, employees of public or private land trusts, government employees and consultants. Few had any prior exposure to the order, although all were knowledgeable in one area of natural history or the other. They were; Linda Berard (MA), Phillip deMaynadier (ME), Karen Frolich (NY), Edward Hatfield (NH), James MacDougall (MA), Anna McAninch (VA), Mark McCollough (ME), Joan Milam (MA), Donald Miller (VT), Betsy Newcomer (ME), Juan

Sanchez (CT), David Sterling (NY), Larry Weber (MN).

Starting on Monday, emphasis was on adults, where I expected the greatest initial interest to be, but by Wednesday afternoon we had covered the various families well, there was a popular uprising and I was picketed until I could come up with an adequate basic presentation on larvae. The ringleaders of this movement were named Karen and Joan and I now know how King George felt when the colonies got out of hand.

I had intended to use mornings for slide programs, specimen keying and other lab work, and afternoons for field work, but the weather was inclement on Monday and Tuesday and we laboured in the lab all day and well into the evening. By Wednesday the group was beginning to squirm and the indiscreet appearance of the sun late Wednesday morning aroused such unrest that I was forced to take them all out and fling them at a local marsh, where *Libellula julia*, *L. quadrimaculata*, *Leucorrhinias*, *Enallagma*, *Ischnura verticalis*, *Cordulia shurtleffi*, *Dorocordulia lepida* and *Anax junius* were kind enough to appear on cue, with *Calopteryx maculata*, *Cordulegaster diastatops* and *Gomphus borealis* gracing the adjacent stream. For a beginner looking at Odonata in the hand (and for that matter trying to get Odonata in the net) for the first time these species were perfectly adequate to sustain enthusiasm and the locale looks like it might yield more interesting things in a better season. Not named in DeLorme, the site is now known as 'Larry's Marsh and stream' after the first student to fall into it.

Subsequently my carefully planned schedule went all to heck and we visited a peat bog which had been harvested for fuel peat (although we didn't know that going in) and which now bears a resemblance to the battlefields of World War I; the Narraguagus River (*Macromia illinoensis*, *Cordulegaster maculatus*, *Calopteryx aequabilis*, *C. maculata*, *Basiaeschna janata*, *Ophiogomphus mainensis*); Bog Lake Flowage and stream with a comparatively large range of species, and after an interminable tramp through a cedar swamp forest, The Great Heath with very interesting bog ponds dominated by *Libellula julia* (darn), but also housing *Lestes vigilax*, *Enallagma aspersum*, *Leucorrhinias*, and *Cordulia shurtleffi*. On the heath I

demonstrated to the admiring students my physical prowess, agility of net and keen field determination capabilities by bounding 'hundreds of yards' (it felt like hundreds of years) through the sphagnum to narrowly miss collecting a *Libellula julia* male in full pruinescence which, if memory serves, I had mistaken for a cordulid. Possibly the apex of my odonatological and academic career to date. I subsequently demonstrated the firm, mattress-like nature of the surface of a good domed bog.

By the end of the course the students appeared to have an adequate grip on basic morphology and behaviour, collection and documentation, determination to family in the field and to species in the lab (for adults, incomplete but quite impressive progress for five days), preservation, storage, a basic grip on the literature and resources available, and a sense of the sharing so important in our (or any) field of interest. They appeared content when we parted. I would estimate that they came further in five days than I did in my first three years.

A few lessons I learned, for the use of others teaching such a course for the first time;

- 1) A clear basic key to families of adults and larvae is important and the need is easily overlooked by someone who recognizes them by sight.
- 2) 'A battle plan rarely survives contact with the enemy' (Clausewitz, I think).
- 3) Early on you should point out that being hit by a net is like running into the back of another vehicle, in traffic law that is called 'close following' and the guy in back is always to blame; obviously that doesn't apply if the hitter had to run more than ten feet to wallop the hittee, and it doesn't really matter if it was an *Anax*, be firm (maybe if it was a *Somatochlora* you should consider that a mitigating circumstance, but only if the hittee did not need hospitalization and you are sure that they were only swatted once).
- 4) Whatever you didn't prepare for will be the topic they will be most interested in.
- 5) Watch the botanists, they tend to wander away from the group with their nose to the ground, after which.... (see 9b).
- 6) Watch the birders, they are probably not all looking at an *Epitheca* through those binoculars, rein them in quickly or the primary topic will suffer.

7) Slide programs are initially better than videos because you can annotate and respond to questions, videos are best for showing behaviour and aesthetics, and are great for giving the instructor time to look up all the answers to all the questions he had initially to respond to by saying 'I'll get back to you a little later on that, right now I have to rotate my tires'.

8) For a beginner, any species is interesting, don't labour to reach rare habitats when the local *Typha* pond will be more rewarding.

9) Breaking the students into pairs is great (a) for their learning curve and (b) to reduce your fear of ending up a few noses short in the field (of course it also means that you are liable to lose a minimum unit of two students rather than just one). Valium addresses this problem nicely, for the instructor at any rate, even in quaking bogs. Find out who has some knowledge and pair them with the raw recruits, the more knowledgeable learns further by explaining, and the benefits for the newcomer are self-evident.

10) Students are liable to take about 30 specimens per field day, so do the math and have sufficient supplies (acetone, containers, envelopes, etc.) ready.

11) Students will want information on where to get supplies and publications; a contact sheet would be welcomed.

12) Teaching is the best way to learn, and teaching interested people is a delight.

With governments becoming more involved in our area of interest we are at some risk of being sidestepped when decisions are made, and those decisions may not be sensible in some cases because those making them are not necessarily (in fact are rarely) well acquainted with the topic. Higher public visibility will help to ensure that our voices carry weight in this process, and public talks and teaching are outreach methods of considerable value - particularly if we can influence government employees directly (they are often eager for advice, if it is courteously presented). It is something we should all be trying to do.

There is talk of two courses next year, one on larvae in May with rearing (visions of Ophiogomphus dance in their heads) and one on adults in late July or early August (*Somatochlores*, Aeshnids, all that good stuff). I'm looking forward to them, but intend to pack plenty of Geritol.

If you are interested in learning more about Humboldt, their address is:  
Humboldt Field Research Institute, Dyer Bay Road, PO Box 9, Steuben, Me, 04680-0009, <http://maine.maine.edu/~eaghlhill>

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**NEHALENNIA INTEGRICOLLIS IN RHODE ISLAND**

e-mail from **Ginger Carpenter**

I wanted to alert you to an interesting occurrence here in Rhode Island, which I suspect may be a New England record. On Saturday, 25 July, while checking ponds in southern Rhode Island for *Enallagma pictum*, I collected our first *Nehalennia integricollis*. I find no reference to it occurring in New England in any of the recent publications, and therefore believe this may be the first record for this region. The population looked quite large, with many mated pairs and individuals present. The habitat is what I would consider optimal for such species as *Enallagma pictum*, *E. laterale*, and *E. recurvatum*. In fact, all of these species are known to occur at the site. We also had *Enallagma daeckii* there. The pond is primarily a sand-bottomed coastal plain pond with a wide shoreline of emergent vegetation (*Juncus*, *Scirpus*, etc.), and areas of floating *Nymphaea*. There is quite a bit of muck on the bottom in the emergent zone...at times nearly up to my knees.

Also, I am interested in range-wide information for *Enallagma pictum*. As you may know, The Nature Conservancy and the Natural Heritage Network recently 'promoted' this species' global status to imperiled. I did quite a lot of work on it during the 1980s in southeastern Massachusetts, and as a result have a number of records for this region. We have only a few here in Rhode Island, as the habitat (described above) is scarce. If anyone has occurrences in other eastern states, I'd be interested in getting the data. I believe this species is quite restricted, even more so than either *E. recurvatum* or *laterale*, and in my experience, it never reaches the numbers that *laterale* and *recurvatum* do. Natural Heritage Programs in the northeast should track *Enallagma pictum*, and consider it of conservation interest.

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**SYMPETRUM CORRUPTUM ON CAPE COD**

e-mail from **Blair Nikula**

Today, Jackie Sones caught a female *Sympetrum corruptum* (Variegated Meadowhawk) on South Monomoy island. To our knowledge, this is the first Massachusetts (and New England?) record in at least a couple of decades.

Variegated Meadowhawk is a common western species that periodically appears in the east, mostly along the coast, and mostly in the late summer and fall. Thus, there may be others out there, so keep your eyes open. They are quite easily distinguished from the other New England *Sympetrums* by the two pale stripes on the sides of the thorax and the pale markings down the sides of the abdomen. Like the other Meadowhawks, the males are reddish and the females golden-yellow (see the photos on our Web site or in Dunkle's Florida guide). There are historical records from Cape Cod and Essex counties in Massachusetts. (It's interesting, though perhaps just coincidental, that a Variegated Fritillary was seen yesterday on Martha's Vineyard.)

We have also heard from Bob Barber that a Striped Glider (*Tramea calverti*) was recently reported from the NY city area - another vagrant to be looking for in southern New England (again most likely along the coast).

If you find either of these species, please let us know, and try to obtain either a specimen or photos (side view preferable). This steamy weather may be good for something after all!

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**STYLURUS OLIVACEUS IN WASHINGTON AND OREGON**

**Jim Johnson**

During late summer of 1997, the known distribution of *Stylurus olivaceus* in the Pacific Northwest changed significantly with discoveries of healthy populations along the lower Columbia River in Clark and Cowlitz Counties, Washington, and Multnomah County, Oregon. These discoveries furnished the first adult

specimens from western Washington, and the first specimens from Oregon. The species has also been recorded in British Columbia, California, Utah, Nevada, and more recently, Idaho (Cannings & Stuart 1977, Kennedy 1917, Musser 1962, Paulson & Garrison 1977, Paulson 1998).

Prior to 1997, *S. olivaceus* was found sporadically in the Columbia Basin of Washington, east of the Cascades, with records from Yakima, Benton, Grant and Whitman Counties (Paulson 1983, Paulson & Garrison 1977, Valley 1993). The Yakima River at Horn Rapids County Park in Benton County was the only area where the species was found regularly; however, none has been found there since 1993 (D.R. Paulson, pers. comm.). Exuviae found in King Co. before the turn of the century were the only evidence of this species' presence west of the Cascades. They were originally identified as *Gomphus sobrinus* (= *kurilis*) by Needham (1904), but were reidentified as *Gomphus* (= *Stylurus*) *olivaceus* by Kennedy (1917).

Needham and Westfall (1955) listed Oregon among the states within the species' range and provided a date of "October 10", but there were no known specimens from Oregon (S. Valley and D.R. Paulson, pers. comm.), and inquiries with IORI yielded no results. Therefore, the Needham and Westfall reference needs confirmation. Recent searches for *S. olivaceus* adults and larvae along eastern Oregon streams, in particular the Deschutes, Crooked, John Day and Grande Ronde Rivers, were unsuccessful (S. Valley, pers. comm.).

I began surveying the lower Washougal River in the town of Camas, Clark County, Washington, in early August 1997 after finding a number of *Pantala hymenaea* in the area, not captured in the state since the 1970's. Subsequently, this site also produced the first Washington specimens of *P. flavescens* (2 males, 15 Aug 1997) and the first known population of *Argia emma* west of the Cascades Range in Washington.

A couple of miles upstream from its confluence with the Columbia River, the Washougal River changes from rock-polishing rapids to a lazy, shallow, soft-bottomed river, flanked by flood-plain grassy clearings in woodlands of Oregon ash (*Fraxinus latifolia*), willow (*Salix* sp.), and black cottonwood (*Populus trichocarpa*). There

is little bare shore (except on a small island) with tall grass and some trees and shrubs growing to the water's edge. It was along this slow stretch of the river and its tributary, Lacamas Creek, that I first found *S. olivaceus* on 29 August 1997 (one male, one female).

David Nunnalee joined me the following morning in a search for more *Stylurus*. We captured three between the two of us and saw several others. We determined that the population was concentrated along the Washougal about one-quarter mile upstream from Lacamas Creek. They seemed especially fond of perching on the outer leaves of small trees, in particular Oregon ash, but were also found on other vegetation such as waist-high grass and shrubs, and more rarely on the ground. We found that a helpful method for finding *Stylurus* was to brush the outer leaves of overhead branches with our nets. Flushed individuals typically did not fly far. David visited the Washougal River site again on 6 September 1997 with his wife Jo, and Idie Ulsh. Between them, they captured seven *S. olivaceus* and observed ten others.

I continued to find *S. olivaceus* on the lower Washougal River and on Lacamas Creek during occasional visits through 29 September (the latest Washington record). Individuals on Lacamas Creek were much more scarce, but I found them up to about one-third mile from its confluence with Washougal River.

On 31 August 1997, I visited the Sandy River Delta, Multnomah County, Oregon, to look for *S. olivaceus*. The Sandy River empties into the Columbia River almost directly opposite the mouth of the Washougal River of Washington. The Sandy River is rather similar to Washougal River in that it changes fairly abruptly from rapid and rocky to sluggish and muddy within just a few miles of its mouth. I walked through a black cottonwood woodland from the Interstate Highway 84 crossing to a point on the Sandy River about one mile from its mouth. Here the Sandy differs from the Washougal in that the shore is largely bare sand. I found nothing walking along the shore, then decided to walk through an area of young willows and cottonwoods in a dry, sandy floodway. Here I finally found and captured a male *S. olivaceus*, the first in Oregon. I continued to walk through the young trees, finding about a dozen

individuals and capturing two additional males and one female. All were found perching in the trees, usually cottonwood, at least one meter off the ground.

I called Steve Valley, coordinator of the Oregon Dragonfly and Damselfly Survey, that afternoon to notify him of the discovery. He and Eric Coombs visited the Sandy River on 3 September and captured nine *Stylurus* between them.

On 6 September 1997, I surveyed the north shore of the Lewis River, in Cowlitz County, Washington, at the confluence of its North and East forks, about two miles south of Woodland. I found one or two male *S. olivaceus* (one captured) perched on young black cottonwoods on a wide sandy beach. This record constituted the first record for Cowlitz County and extended the known range of the species about 30 river miles down the Columbia River from the Washougal and Sandy River sites. The best looking and most extensive flood-plain/riparian habitat in this area is actually on the Clark County side of the North Fork Lewis River and along the East Fork, which is entirely within Clark County.

One additional *S. olivaceus* specimen came from Multnomah County, Oregon, when David Bailey found a dead male on 24 September 1997 floating in a small canal at Coon Point on Sauvie Island, north of Portland (near the confluence of the Willamette and Columbia Rivers). The specimen currently resides in my collection.

It seems likely that *S. olivaceus* occurs over a wider area, if locally, west of the Cascades Range in Washington and Oregon, in particular, along the Willamette River and its tributaries, and perhaps in the Puget Trough, as the early exuviae suggest. Searches for gomphids in the region were typically conducted earlier in the summer, and the species' habit of perching in trees away from water may have precluded earlier discoveries. The King County, Washington, exuviae, noted above, were considered unlikely on ecological grounds (Paulson and Garrison, 1977), but the 1997 discoveries along the lower Columbia River lend support to that early record.

I thank Dennis Paulson and Steve Valley for reviewing an early draft of this article and providing many helpful comments.

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#### **ENALLAGMA CIVILE RECORDED IN OREGON**

##### **Jim Johnson and Dennis Paulson**

During a trip through southern Oregon, Jim Johnson collected one male *Enallagma civile* in the town of Kerby, Josephine County, on 9 June 1998 - Oregon's first. It was captured at what appeared to be an old log pond in the middle of town. A search for additional specimens among the many *E. carunculatum* and *E. boreale* was unsuccessful. The specimen was donated to Steve Valley and Eric Coombs of the Oregon Dragonfly and Damselfly Survey to be stored in their voucher collection.

At the time of the capture, the nearest known *E. civile* site was in Tenama County, California - at



least 150 miles from Kerby, but since then Dennis Paulson collected the species in Del Norte and Modoc Counties, California, leaving the Oregon find less isolated.

This species is among those favored by human activities such as the construction of ponds and reservoirs. Paulson and Garrison (Pan-Pacific Ent. 53: 147-160, 1977) first reported it from California from specimens taken in the period 1963-1975, from areas in which Kennedy (Proc. U.S. Natl. Mus. 52: 483-635, 1917) collected early in the century but failed to find it. It may continue to spread into the Pacific Northwest, as it is common at higher latitudes to the east.

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**LEUCORRHINIA GLACIALIS IN WEST VIRGINIA**

**Dave Czaplak**

On 5 July 1998 I photographed a male *Leucorrhinia glacialis* in a bog at the head of Fisher Spring Run, Dolly Sods Wilderness, Tucker County, West Virginia. To the best of my knowledge this is the first record for West Virginia. The site is a very large open bog, surrounded by spruce, with a small stream flowing through the middle, at an elevation of 3800 ft. I first visited this locality in 1997. At that time there were several long abandoned beaver dams, and little open water. There were a few *Leucorrhinia hudsonica* utilizing a tiny puddle at the edge of the bog. This year beavers have restored one of the dams, and a small pond has formed. *L. hudsonica* were abundant, and I observed 3-4 male *L. glacialis* as well. Other species at this site include: *Amphiagrion saucium*, *Enallagma hageni*, *Ischnura verticalis*, *Nehalennia irene*, *Cordulia shurtleffi*, *Leucorrhinia intacta*, *Ladona julia*, *Libellula pulchella*, and *Sympetrum obtrusum*.

Historically, the range of *L. glacialis* in eastern North America extended south to Pennsylvania. In 1995 Richard Orr discovered a healthy population in Garrett County, MD. The Dolly Sods site is about 45 miles farther south, and nearly a thousand feet higher. Topographic maps suggest that there might be several other suitable bog sites in Dolly Sods.

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**ENALLAGMA WEEWA IN LONG ISLAND**

**Steve Walter**

members.aol.com/nyodes

It gives me great pleasure to announce a new addition to the New York State list. In its honor, I will break my policy of not using images of the same species twice in a year. A few weeks ago I put up on my web site a picture of a Blackwater Bluet (*Enallagma weewa*) from southern New Jersey, figuring it would be the 'only opportunity to do so. On July 19, in perhaps the biggest surprise I've had in studying odonates, I discovered Blackwater Bluets in Cranberry Bog County Park near Riverhead, Long Island. Although this site has been visited several times over the last few years, most of the attention has been focused on the bog and on Sweyze Pond. A trail circles the pond; otherwise access is a problem. A boardwalk crosses over a slow, wide stream flowing into the pond. The species seen here are the same as those on the pond. A smaller boardwalk crosses over a narrow outflow. Violet Dancers (*Argia fumipennis violacea*) regularly land on it. Otherwise there is no sign of stream species. For some reason, I got the idea to take my shoes off and walk the stream. I was only about 20 feet beyond the boardwalk when the stunning sighting of the first individual took place -- a male landing on a small branch over the water (above). Off that success, it became imperative to try to gain access to the second, somewhat wider outflow. Under thickets, over poison ivy, and across a 2 1/2 foot deep soft bottomed section of the stream, I made it onto a high sand bar in about 1 foot deep water. I surveyed surrounding bushes overhanging the two stream banks and found about 5 more individuals. Wow!

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**ORTHEMIS FERRUGINEA IN WASHINGTON D.C.?**

from **Dave Czaplak**

Ottavio Janni, one of the most reliable birders in the area, told me he saw *Orthemis ferruginea* in DC, at the National Arboretum (on the only large pond on the property, (its near a road) on July 18th. He described it as hot pink. He has seen

these in the tropics as well. I think this is a good report.

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**SOME NEW GEORGIA ODONATA RECORDS**

**Bill Mauffray** International Odonata Research Institute Gainesville FL. USA

In preparation of the preliminary list of Odonata for Georgia, found on the web at [www.afn.org/~iori/galist.htm](http://www.afn.org/~iori/galist.htm), data for eight new species previously unreported from Georgia have been found. This brings the total for the state to 165 species.

I have decided to publish the preliminary list on the web first before finally publishing it in the traditional way. There is no comprehensive list for Georgia Odonata. Very little has been recently published regarding Georgia Odonata. It is hoped that others will contribute data that they have or inform me of other sources of data that might help with this list. Please examine the web site described above. New data, critiques, discrepancies, typos, etc. can be reported to me by e-mail. Please send supporting data for any discrepancies.

Thanks to Jerrel Daigle and Ken Tennesen for providing their data on these.

*Gomphus (Gomphus) apomyius* Donnelly, 1966. Talbot County: Upatoi Creek at Route 80, east of Geneva, 22 April 1989, Coll. and det. by JJD 1 male; Richmond County: Sandy Creek, US Hwy. 1, Augusta, 16 May 1982, Coll. and det. by JJD 1 male

*Gomphus (Gomphus) diminutus* Needham, 1950. Richmond: One male at South Prong of Spirit Creek at US Hwy 1, 16 miles N. of Wrens, about noon, May 11, 1985. Collected and determined by Jerrell J. Daigle.

*Ophiogomphus edmundo* Needham, 1950 Murray: Conasauga R, Alaculsy Valley, 5 ml E of Cisco on old hwy 2, 1000' 1 male, 17-May 1998, Coll.. K. J. Tennesenn); White: Robertstown, Smith Creek near Jct, with Chattahoochee., 2 males 14-May-1998, Coll. W. F. Mauffray.

*Ophiogomphus mainensis* Packard, 1863. Murray County: Conasauga R, Alaculsy Valley, 5 ml E of Cisco on old hwy 2, 1000' 4 males, 17-May-1998, Coll. K. J. Tennesen.

*Helocordulia uhleri* (Selys, 1871). Murray County: Cisco: Chattahoochee Natl Forest, near E. Cowpen Rd along Conasauga River, (USGS-BM 1032) 34.57.6 N 84.38.0 W, 16-May-1998, 1 male, Coll. W. F. Mauffray; Chattahoochee Natl Forest, E. Cowpen Rd @ Conasauga River (USGS-BM 979), 34.58.5N, 84.38.7W, 1 male, 16-May-1998, Coll. W. F. Mauffray; Chatsworth, E at Holly Creek, 1 male Coll. K. J. Tennesen, 16-May-1998, Conasauga River, Alaculsy Valley, 5 ml E of Cisco on old hwy 2, 1000' 17-may 1998, Coll. K. J. Tennesen.

*Neurocordulia obsoleta* (Say, 1839). Toombs: "Cobb Cr., Hwy. 147", 1-Apr-95, Coll. K. J. Tennesen.

*Somatochlora tenebrosa* (Say, 1839). Rabun: Rabun County, Dicks Creek at Hwy. 76, 3 August 1981, Coll. and det. by JJD 1 male. Also I examined specimens at the University of Georgia entomological Collection, Athens, Georgia from Dade and Fulton Counties. (I did not record specific information since I did not know that it was a new state record at that time).

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**ANOTHER NEW RECORD FOR THE U.S. FROM ARIZONA**

**Bill Mauffray** International Odonata Research Institute Gainesville FL. USA

After editing and posting the HTML version of George Bick's North American Anisoptera list ([www.afn.org/~iori/nalist.html](http://www.afn.org/~iori/nalist.html)) on the internet, many have sent in comments, suggestions, and remarks regarding errors and additions. Upon Sid Dunkle's suggestion, I checked the FSCA collection for specimens of *Brechmorhoga pertinax* Hagen collected in Arizona. I found 2 specimens collected by Minter J. Westfall Jr. in 1958 with the following data: Arizona: Cochise County, S.W. Research Station, 5 ml W of Portal, 5400', John Rands Picnic Grounds: 1 male 25-Jun-1958, Coll.. Minter J. Westfall Jr. and ibid.: 1 male, 26-Jun-1958. It is uncertain how this record was overlooked.

**COMING SOON: TWO SIGNIFICANT PUBLICATIONS !!!!**

**Bill Mauffray** International Odonata Research Institute Gainesville FL USA

Hopefully by the time you read this, I will be able to start taking advance orders for Westfall & May's updated "Manual of the Dragonflies of North America" (est. price about \$70.00) and Sid Dunkle's "Dragonflies through Binoculars" (est. price \$20.00). Both are expected in 1999. Until the publishers set a final price on each, I cannot take advance orders. Please keep in touch with my web site at [www.afn.org/~iori/](http://www.afn.org/~iori/)

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**INTERNATIONAL ODONATA RESEARCH INSTITUTE (I.O.R.I) : NEW FUND RAISING TECHNIQUES---YOU CAN HELP !!!**

**Bill Mauffray** International Odonata Research Institute Gainesville FL. USA

1. Donate your used car, boat, etc !!!! The I.O.R.I. has entered into an agreement with a company that accepts any type of vehicle, boat, tractor, bike, or other machinery as a tax deductible donation. The donated item can be anywhere in the contiguous 48 states. The cooperating company will pick the item up, tow it, and dispose of it; giving 80% of the proceeds to the I.O.R.I. There was no upfront fee to the I.O.R.I. nor are there any expenses to the donor. Please call me or e-mail if you know of anyone who has a vehicle or any other item to dispose of. Many times a vehicle has a greater donation value than its sales value.

2. Sell or buy a home, land etc--- a portion of the Realtor's fee goes to the I.O.R.I. The way this works is: If you (or anyone else you might know) is fixing to buy or sell real estate, anywhere in the world; then call me, or my assistant on my real estate business number 1-800-226-5822 (real estate business only please). Provide me or my assistant with a lead, which we will refer back to the person's local area through the RE/MAX International Relocation and Referral System. 10% of any referral fee that I make will be donated to the I.O.R.I.

3. Long distance service--- 8 cents a minute, 6 second billing.....

The I.O.R.I has a deal with another company that will provide long distance service at 8 cents a minute, 6 second billing increments, no up front fees etc. A portion of the cost for each call is donated to the I.O.R.I. [Oh No! not another long distance service!!!! ]

This is where the money goes:

Proceeds have been used to buy a computer, hire data entry personnel, build Odonata cabinets etc...I do not receive any compensation for my management of the IORI. Also remember the IORI accepts cash, Odonata publications, reprints, and specimen donations, all which are fully tax deductible. Please contact me at [iori@afn.org](mailto:iori@afn.org) for additional info.

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**A PLEA FOR STANDARDIZED DRAGONFLY ENVELOPES**

**Dennis Paulson**

BioQuip has recently begun selling dragonfly envelopes that are larger than the ones that have been used in most collections to date. Subsequently I have received specimens from several newcomers to odonate collecting that won't fit in my collection boxes because of this, and I think this may represent a problem for other well-established collections.

The BioQuip envelopes are 3-9/16" in height, as opposed to the 3-5/16" that has long been the standard. This extra quarter-inch in height is sufficient to preclude use in my collection. I'm sure some other collections use higher boxes, which would then cause no problem of storage, but I think envelopes of different sizes will also prove awkward to handle together.

I sent BioQuip an e-mail message about this but got no response. If anyone else is concerned, it would be good if you could do the same; perhaps a common cause could convince them. Their address is <[bioquip@aol.com](mailto:bioquip@aol.com)>. Of course the standard envelopes are still available from the International Odonata Research Institute <[iori@afn.org](mailto:iori@afn.org)>.



# TRAMEA

by Roy Beckemeyer

[I am indebted to Roy for preparing this column in less time than it takes a Green Darner to fly across a pond. Ed.]

New and interesting web sites related to Odonata just keep on popping up. This issue's list includes material for new enthusiasts as well as for the more serious researchers.

The World Dragonfly Association site at: <http://powell.colgate.edu/wda/drgonfly.htm> not only has a wealth of information about the society and various up and coming meetings, but has some interesting links. There is, for example, a nice introductory summary of the order Odonata in the "Beginner's Guide to Dragonflies", at:  
[http://powell.colgate.edu/wda/Beginners\\_Guide.htm](http://powell.colgate.edu/wda/Beginners_Guide.htm)

There is also a running summary of inputs and responses submitted by dragonfly folks on a variety of their observations and opinions at the Odonatological News link:  
[http://powell.colgate.edu/wda/odonatological\\_news.htm](http://powell.colgate.edu/wda/odonatological_news.htm)

For the odonate systematist / taxonomist, there are two new sites that contain some valuable information. The first is Rosser Garrison's New World Odonata List (the latest - August, 1998 - edition), which is hosted at Dennis Paulson's web site: <http://www.ups.edu/biology/museum/NewWorldOD.html>

Next is Martin Schorr's and Martin Lindeboom's collaborative effort, the World Wide Checklist of dragonfly species (11 Sept., 1998). It can be linked to from the WDA site, or directly accessed at:  
<http://members.aol.com/odoweb/species.htm>

These lists are really useful, and will at some point in the future contain lists of references to the primary literature as well.

For those with an interest in dragonfly migration, there are now at least two web sites devoted to this subject. Hopefully these will eventually generate enough interest to yield a much better understanding of Odonata migration in North America. The west coast site is hosted on Steve Valley's web pages. A summary of 1998 reports for the west coast is at: [http://www.ent.orst.edu/ore\\_dfly/migrate.htm](http://www.ent.orst.edu/ore_dfly/migrate.htm)

On the east coast, Bob Barber and Mike May have a 1998 summary report at:  
<http://www.hsrl.rutgers.edu/BOB/migrant/reports-98.html>

Furthermore, they have included a summary of information on major frontal movements and their relationship to dragonfly migrations.

Animated weather maps are accessible from the following page:  
<http://www.hsrl.rutgers.edu/BOB/migrant/maps.html>

Speaking of maps, Dennis Paulson's site also has fantastic maps showing distribution of western Odonata species by county throughout the western sites. Access them at:  
<http://www.ups.edu/biology/museum/westernOD.html>

Want to practice your French and learn something about European odonates as well? Connect with the web site of the Societe Francaise d'Odonatologie at: <http://perso.wanadoo.fr/sto.jean-louis.dommanget/>

Finally, for those with an interest in Neotropical entomology, the Boletin de Entomolgia Venezuela is being placed on line, with many years worth of articles accessible, pictures and all, by links. Included are many of J. DeMarmels' papers on the Odonata of Venezuela. Look up this site at: <http://www.redpav-fpolar.infoine/entomol/>

As you surf the web and come across sites of interest that you think would be of interest to other DSA members, drop me an email message at: [royb@southwind.net](mailto:royb@southwind.net)

**BACK ISSUES OF ARGIA AND THE BULLETIN OF AMERICAN ODONATOLOGY**

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# ARGIA

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Vol. 10, No. 3, 20 October 1998

IN THIS ISSUE		1
CALENDAR OF UPCOMING MEETINGS AND FIELD TRIPS		2
1999 ANNUAL MEETING - THE ADIRONDACKS	Nick Donnelly	2
COULD VALENTINE, NEBRASKA BE ODONATA HEAVEN? THE 1998 DSA	Roy Beckemeyer and Steve	4
DSA 1998 BUSINESS MEETING MINUTES	Sid Dunkle	6
ADIP MEETING IN NEW BRUNSWICK	Stuart Tingley	8
IDYLL ON CAPE BRETON ISLAND	Paul Brunelle	8
<i>SOMATOCHLORA BREVICINCTA</i> IN ANTICOSTI ISLAND, AND IN	Stuart Tingley and Paul Brunelle	10
HISTORY OF ODONATA STUDY: E.B. WILLIAMSON	Nick Donnelly	10
FACE COLORS OF <i>SYMPETRUM INTERNUM</i> - AND WING COLORS OF	Nick Donnelly	13
WHEN IS AN OVIPOSITOR NOT AN OVIPOSITOR?	Ken Tennesen	14
WHAT A DIFFERENCE A DEPTH MAKES	Dennis Paulson	14
DRAGONFLY ATTACKS GOLDFINCH!	Sally Nelson	15
DRAGONFLIES OBSERVED DURING HAWK WATCH - KESTRELS REVEAL	Kirk Moulton	15
PEREGRINES EATING DRAGONFLIES	Jean Held	16
ODONATA OF ARLINGTON, TEXAS	Rae Osborn	16
MORE ON REARING DRAGONFLIES IN PONDS	Kathy Biggs	17
IN RESPONSE TO YOUR QUESTION IN ARGIA, "STOCKING PONDS WITH	Joseph Smentowski	17
ODONATA SEMINAR AT HUMBOLDT FIELD RESEARCH INSTITUTE,	Paul-Michael Brunelle	18
<i>NEHALENNIA INTEGRICOLLIS</i> IN RHODE ISLAND	Ginger Carpenter	20
<i>SYMPETRUM CORRUPTUM</i> ON CAPE COD	Blair Nikula	20
<i>STYLURUS OLIVACEUS</i> IN WASHINGTON AND OREGON	Jim Johnson	20
<i>ENALLAGMA CIVILE</i> RECORDED IN OREGON	Jim Johnson and Dennis Paulson	22
<i>LEUCORRHINIA GLACIALIS</i> IN WEST VIRGINIA	Dave Czaplak	23
<i>ENALLAGMA WEEWA</i> IN LONG ISLAND	Steve Walter	23
<i>ORTHEMIS FERRUGINEA</i> IN WASHINGTON D.C.?	Dave Czaplak	23
SOME NEW GEORGIA ODONATA RECORDS	Bill Mauffray	24
ANOTHER NEW RECORD FOR THE U.S. FROM ARIZONA	Bill Mauffray	24
COMING SOON: TWO SIGNIFICANT PUBLICATIONS !!!!	Bill Mauffray	25
INTERNATIONAL ODONATA RESEARCH INSTITUTE (I.O.R.I): NEW FUND	Bill Mauffray	25
A PLEA FOR STANDARDIZED DRAGONFLY ENVELOPES	Dennis Paulson	25
ADDITIONAL NOTE ON STATIC ELECTRICITY - IF YOU CAN'T BEAT 'EM,	Nick Donnelly	26
WALKER VOLUMES STILL AVAILABLE	Nancy Vanderpoorten	26
ODONATES IN THE NEWS		26
WILSON'S HONG KONG BOOK		26
TRAMEA	Roy Beckemeyer	27