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Front cover: Female Edmund’s Snaketail (*Ophiogomphus edmundo*) on the Chattooga River, 28 May 2011, at the DSA Southeast regional meeting. Photographed by Giff Beaton.

In This Issue

The DSA annual meeting will be held very soon in Ft. Collins, Colorado. I know I'm looking forward to escaping this oppressive (more so than normal) Texas heat and seeing new and old friends. It looks like this will be a well-attended meeting. There is still time to join us if you haven't already made plans. See the meeting web site at <<http://tinyurl.com/5s7s6t>> for details.

There are several announcements and details in this issue of additional upcoming meetings including the Ohio Odonata Society, the CalOdes/DSA Dragonfly Blitz, and the DSA northeast regional meeting. Seth Bybee and Jessica Ware also announce a special symposium on Odonata that they are organizing at the Entomological Society of America annual meeting in Reno, Nevada. This looks to be a very nice symposium.

Giff Beaton and Marion Dobbs provide an account of the recent southeastern DSA regional meeting. It sounds like a really successful meeting in which all had fun; note the great photo of Christian Cotten-Dixon in their article.

Sue and John Gregoire are keeping busy as usual and have several unusual sightings to report for New York and Massachusetts in 2010. Steve Hummel documents Western Forktail (*Ischnura perparva*) in Iowa for the first time and Rick Cheicante discovers Coppery Emerald (*Somatochlora georgiana*) in Maryland.

François Meurgey reports on his latest trip to the Antilles, this time with Céline Poiron. They made several discoveries on St. Lucia and came away a few stories to tell as well.


James Stuart, Leland Pierce, and Robert Larsen discuss their studies of the odonates found in Rio Arriba County of northern New Mexico. Among their discoveries was

Boreal Whiteface (*Leucorrhinia borealis*), which can be seen on the back cover of this issue as well as in their article.

Ken Tennessen reveals one of his long sought-after dragonfly photographs which he eventually got in spades! Mick McHugh is continuing to document distributions in Kansas and reports on more northern range extensions.


Chip Krilowicz reports on his findings from a survey of the Franklin Parker Preserve in New Jersey and Kathy Biggs discusses some of the new distributional data and flight season records she has collected in California.

Skyler McLean of Arkansas provides an account of his first year seriously looking at, learning about, and exploring the world of odonates. He is one of a number of recent dragonfly enthusiasts that have been really contributing to our knowledge of distributions by submitting records to OdonataCentral.org.

There are a number of new books coming out this year. We have one announcement, *Dragonflies and Damselflies in the Hand: an Identification Guide to Boreal Forest Odonates in Saskatchewan and Adjacent Regions* by Gord Hutchings and David Halstead. We also have three different book reviews, so I hope you are making room on your shelves for these new entries to the Odonata literature. 

Calendar of Events

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

Event	Date	Location	Contact
DSA Annual Meeting	8–11 July 2011	Fort Collins, Colorado	< http://tinyurl.com/DSA-Colorado >
DSA Northeast Meeting	14–17 July 2011	Delmarva Peninsula	< http://tinyurl.com/4s4vls >
Int. Congress of Odonat.	postponed	Odawara, Japan	< http://www.odonata.jp/wda2011/ >
Aeshna Blitz	26–28 Aug 2011	Diamond Lake, Oregon	Jim Johnson, < jt_johnson@comcast.net >
CalOdes/CA DSA Blitz	26–29 Aug 2011	Colorado River, Cal./Nev.	Kathy Biggs, < bigsnest@sonic.net >
2011 Ohio Odonata Soc. Meeting	27 Aug 2011	Hamilton Co., Ohio	Bill Hull, < mangoverde@gmail.com > 

2011 Ohio Odonata Society Meeting

It is confirmed, the date for the OOS meeting and field trips this year is Saturday, 27 August 2011 in southwest Ohio. The meeting will be held at the Fernald Preserve, Hamilton County, beginning at 9:00 AM. The day will include the annual business meeting of the Ohio Odonata Society, Odonata talks, field trips, and mingling with Ohio Odonata folks. We anticipate ending the indoor session by about 1:00 PM and heading into the field for odonate collecting, photographing, viewing, nature walking, etc. You may contact the event organizer Bill Hull at <mangoverde@gmail.com>. At this time a lot of details are still being arranged, but are becoming firm each passing day. See <<http://tinyurl.com/64gtna6>> for details on the meeting site.

Events, Talks, OOS Member Meeting, Field Trips, etc.

If you are interested in presenting a talk, please contact either Bill Hull at <mangoverde@gmail.com> or the newsletter editor Steve Chordas III at <stevechordas@sbcglobal.net> or contact Steve by phone at 614-421-7159.

Items to be accomplished at this meeting: Election of Officers for the 2012 year, Election of two new members to the OOS Photographic Records Committee (including a new chairperson).

Three separate afternoon field trips are projected for the day. We should head into the field at about 1:00 PM.

1) Fernald Nature Preserve property—probably not of interest to many OOS members. The Fernald staff will likely do an afternoon activity in which they can invite the public. Bill Hull, and any other interested OOS members (see volunteering below), will lead dragonfly walks on the property.

2) Great Miami River, Kilby Road property—possible species of interest: *Erpétogomphus designatus* (Eastern Ringtail), *Dromogomphus spoliatus* (Flag-tailed Spinyleg), *Hetaerina titia* (Smoky Rubyspot), hopefully *Stylurus* sp. and *Macromia* sp. Note to tiger beetle enthusiasts: Bill Hull has found the Cobblestone Tiger Beetle (*Cicindela marginipennis*) at this location.

3) Little Miami River, Armleder Park and other sites (to be determined)—possible species of interest: *Stylurus plagiatus* (Russet-tipped Clubtail), *S. notatus* (Elusive Clubtail), maybe *S. spiniceps* (Arrow Clubtail).

For those that want to stay in the area longer, please let

us know and Friday or Sunday outings will be organized.

Registration, Hotels and other info

Registration is quite a bargain this year: *FREE!* However, meeting space is somewhat limited, so knowing the expected attendance will be extremely helpful. Please contact Bill Hull at <mangoverde@gmail.com> to register.

Hotel? Sure, here are some close to the meeting place:

Ross Motel (2.8 mi NE) 2518 Cincinnati Brookville Road, Hamilton, OH (513) 738-1240

Comfort Inn (5.8 mi W), 391 Comfort Drive, Harrison, OH, (513) 367-9666, <www.comfortinn.com>

Howard Johnson Hotel Harrison (6.1 mi W), 10900 New Haven Rd, Harrison, OH, (513) 367-5200, <www.hojo.com>

Holiday Inn Express & Suites Harrison (6.3 mi W), 10906 New Haven Road, Harrison, OH, (513) 367-1111, <www.hiexpress.com>


Holiday Inn Express (6.6 mi S), 5505 Rybolt Road, Cincinnati, OH, (800) 543-3018, <www.hiecincinnatihotel.com>

Comfort Suites (8.9 mi E), 1234 Omniplex Drive, Cincinnati, OH, (513) 551-5028, <www.comforsuites.com>

Best Western Cincinnati West (8.8 mi E), 11967 Chase Plaza, Fairfield, OH, (513) 825-9600, <www.book.bestwestern.com>

Check the OOS web page often for more details, <<http://www.marietta.edu/~odonata/index.html>>.

Call for Volunteer Field Trip Leaders! Step up and be a leader

Please let Bill Hull know before 1 August if you are willing to volunteer as a trip leader (contact Bill at <mangoverde@gmail.com>). For this job, it is not critical that you be an “expert” in Odonata, nor that you know intimately the sites you will take a group of folks to visit. Pertinent information and materials will be provided to each group leader. We need some OOS members to help with each of the above listed group field trips. 

CalOdes/DSA California Dragonfly Blitz 2011

Kathy Biggs <bigsnest@sonic.net>

This year the CalOdes/DSA California Dragonfly Blitz will be held in southeastern California/western Arizona on 27 August. We'll be focusing on the area along both sides of the Colorado River and also the northern part of Lake Havasu. We'll especially be looking for Striped Saddlebags in California, and any other species we can find to add to these two under-censused counties: San Bernardino County in California and Mohave County in Arizona (just the other side of the river). Four-wheel drive may be required in some areas, so car-pooling may be necessary.

The following 33 species have been found in one or the other of these counties, but not in *both* counties. There are also ten possible state records that could be made!

Dragonflies

Pacific Spiketail, *Cordulegaster dorsalis* (desert race *C. d. deserticola* possible?)
Grappletail, *Octogomphus specularis*
Brimstone Clubtail, *Stylurus intricatus*
Persephone's Darner, *Aeshna persephone*
Walker's Darner, *A. walkeri*
California Darner, *Rhionaeschna californica*
Red-tailed Pennant, *Brachymesia furcata*
Great Pondhawk, *Erythemis vesiculosa*
Plateau Dragonlet, *Erythrodiplax basifusca*
Bleached Skimmer, *Libellula composita*
Eight-spotted Skimmer, *L. forensis*
Hoary Skimmer, *L. nodisticta*
Twelve-spotted Skimmer, *L. pulchella*
Four-spotted Skimmer, *L. quadrimaculata*
Marl Pennant, *Macrodiplax balteata*
Roseate Skimmer, *Orthemis ferruginea*
Filigree Skimmer, *Pseudoleon superbus*
Cardinal Meadowhawk, *Sympetrum illotum*
Striped Meadowhawk, *S. pallipes*
Band-winged Meadowhawk, *S. semicinctum*
Striped Saddlebags, *Tramea calverti*

Damselflies

Canyon Rubyspot, *Hetaerina vulnerata*
Spotted Spreadwing, *Lestes congener*
Emerald Spreadwing, *L. dryas*
Springwater Dancer, *Argia plana*
Amethyst Dancer, *A. pallens*
Apache Dancer, *A. munda*
Fiery-eyed Dancer, *A. oenea*
Dusky Dancer, *A. translata*
Double-striped Bluet, *Enallagma basidens*

Painted Damsel, *Hesperagrion heterodoxum*
Plains Forktail, *Ischnura damula*
Mexican Forktail, *I. demorsa*


Other less likely possibilities, currently not known in either San Bernardino or Mohave Counties, but species that have been found in nearby counties include:

Paddle-tailed Darner, *Aeshna palmata*
Olive Clubtail, *Stylurus olivaceus*
Russet-tipped Clubtail, *S. plagiatus*
Western River Cruiser, *Macromia magnifica*
Great Spreadwing, *Archilestes grandis*
Emma's Dancer, *Argia emma*
Lavender Dancer, *A. hinei*
Kiowa Dancer, *A. immunda*
River Bluet, *Enallagma anna*
Boreal Bluet, *E. boreale*
Alkali Bluet, *E. clausum*

For those considering coming from out of state(s) or from northern California, these southwestern species might be present:

White-belted Ringtail, *Erpetogomphus compositus*
Gray Sanddragon, *Progomphus borealis*
Giant Darner, *Anax walsinghami*
Pale-faced Clubskimmer, *Brechmorhoga mendax*
Western Pondhawk, *Erythemis collocata*
Comanche Skimmer, *Libellula comanche*
Flame Skimmer, *L. saturata*
Red Rock Skimmer, *Paltobemisia lineatipes*
Mexican Amberwing, *Perithemis intensa*
Desert Whitetail, *Plathemis subornata*
California Dancer, *Argia agrioides*
Aztec Dancer, *A. nahuana*
Vivid Dancer, *A. vivida*
Arroyo Bluet, *Enallagma praevarum*
Desert Forktail, *Ischnura barberi*
Pacific Forktail, *I. cervula*
Black-fronted Forktail, *I. denticollis*
Desert Firetail, *Telebasis salva*

Current distribution maps for these species can be found as links from the Southwest Dragonflies web site, <<http://southwestdragonflies.net/>>.

We'd love to have your help! Please contact Kathy Biggs at <bigsnest@sonic.net> if you are interested. 


Dragons and Damsels to Meet in Reno: Upcoming Symposium on Odonata at the Entomological Society of America in Reno, Nevada, 2011

Seth Bybee <seth.bybee@gmail.com> and **Jessica Ware** <jware42@andromeda.rutgers.edu>

This year's Entomological Society of America's meeting will be held in Reno, Nevada, 13-16 November 2011, <<http://entsoc.org/entomology2011>>. During the meeting, Seth Bybee and Jessica Ware will be moderating a special symposium entitled, "An overlooked insect group: dragonflies and damselflies (Odonata), model organisms for systematics, ecology and evolutionary biology studies". This symposium is sponsored by the Systematics and Evolutionary Biology section of ESA ("SysEB").

There are 15 speakers on the symposium schedule, giving a range of talks on the behavior, systematics, taxonomy, evolution and ecology of dragonflies and damselflies. Talks will include: Odonata in the digital age (John Abbott), *Nesobasis* damselflies of Fiji (Christopher Beatty), the future of odonate phylogenetics (Seth Bybee), gynochrome females and polymorphisms (Adolfo Cordero-Rivera), Odonata as model organisms (Alex Cordoba), Odonata of the Middle East (Henri Dumont), the damselfly genus *Argia* (Rosser Garrison), female polymorphisms in Hawaiian damselflies (Eben Gerring), phylogeography of Hawaiian damselflies (Steve Jordan), ovariole morphology (Kamilla Koch), dragonfly migration (Mike May), climate change

and forest fragmentation (Goran Sahlen), conservation of Odonata (John Simaika and Michael Samways), desert dragonflies (Frank Suhling), odonate nymphs (Ken Tennessen), Australian odonate taxonomy (Gunther Theischinger), and the evolutionary age of dragonflies (Jessica Ware).

We hope you will be able to come to this exciting symposium! More information about the meeting can be found on the ESA web site, <<http://www.entsoc.org/>>. We're looking forward to showcasing the remarkable diversity of Odonata. Additionally, this meeting will represent an excellent opportunity to form collaborations for all those involved. This symposium will promote a greater clarity of the broad spectrum of dragonfly and damselfly research for not only odonate workers but entomologists in general. See you there! 

2011 Southeastern Regional DSA Meeting Summary

Giff Beaton <giffbeaton@mindspring.com> and **Marion Dobbs** <ecurlew@mac.com>

Being Georgia's turn to host the Southeastern Regional DSA meeting once again, we built the meeting around the fabulous Chattooga River along the northeast border of Georgia with South Carolina. This gorgeous river has provided several new state records for both states in the last few years, so we spent a lot of time on it and some other nearby sites. Scheduled for Memorial Day weekend, a number of participants arrived early on Friday, 27 May so we made an afternoon out of it.

Our first site was Blackrock Mountain State Park, up in extreme northeast Georgia in Rabun County (all the sites for this meeting were in this county). The first five DSAers patrolled a really sweet mountain lake, near the eastern continental divide at about 2300 feet, and found 26 species of odonates without really trying. We had several nice species, including *Cordulegaster bilineata* (Brown Spiketail), but the highlight was several *Ophiogomphus incurvatus* (Appalachian Snaketail) feeding on the berm

of the lake dam. The fields and forest edges were also full of a variety of robber flies to keep things interesting. After



Christian Cotten-Dixon and a female Edmund's Snaketail (*Ophiogomphus edmundo*) that decided to use his hand as a resting spot while she reloaded her egg mass. Photo by S. Krotzer.

several enjoyable hours there, we retired to the hotel to clean up and get ready for a staple of these meetings, dinner at a cheesy Mexican restaurant. By the time dinner rolled around we had 17 participants in town, and had a lot of fun and laughs catching up over dinner, especially those who ordered the humongous margaritas.

On Saturday, 28 May we had a pretty decent breakfast at our hotel and loaded everyone up to carpool to the river and spend all day on the Chattooga. We were pleasantly surprised to find few rafters or kayakers present when we arrived, so we patrolled this gorgeous river for several hours, looking especially for *Ophiogomphus edmodo* (Edmund's Snaketail) which did not disappoint. There were many males on territory, and a few females seen resting on rocks between bouts of ovipositing. The many other good species seen here included *Gomphus viridifrons* (Green-faced Clubtail), *G. parvidens* (Piedmont Clubtail, the northern form), *Boyeria grafiana* (Ocellated Darner, early), and *Calopteryx angustipennis* (Appalachian Jewelwing). Collectors and photographers alike were pleased with the numbers and diversity, and perhaps the nicest comment of the day was made by budding odonatist Christian Cotton-Dixon, who exclaimed, "In all my eleven years, this is the most beautiful river I have ever seen!" Hard to argue that point! We basically spent all day here, working the rocks in the river, the shoreline, and the few open areas of vegetation along the river. One of the main targets was an

adult of *Ophiogomphus howei* (Pygmy Snaketail), since a couple of exuviae thought to be of this species or perhaps a very similar undescribed one have been found in recent years, but this was not to be. Dedicated exuviae hunters did find many more exuviae thought to be of this species, but no nymphs or adults were collected. The hoped for *Macromias* were not on the river yet either, but it was a great day anyway. Late in the afternoon we finally left here for town, and headed to a well-reviewed Italian restaurant for dinner. After dinner, several intrepid collectors went back to the river to try for *Neurocordulia virginiensis* (Cinnamon Shadowdragon), and though we saw quite a few only steely-eyed Chris Hill managed to catch one.


Though Sunday was billed as the last full day of the trip, most people wanted to go back to the Chattooga for another shot at *howei* or a cruiser, so back we went first thing. We mostly got the same great species as the day before, and dipped on the two targets, but caught a few more and photographed a few more for a great morning. After a quick stop in town for lunch, most of us went up to Sarah's Creek for a much different habitat, a small cold stream. We were besieged by *Cordulegaster maculata* (Twin-spotted Spiketail) here, which kept looking like *Macromia* until they were in the net, and also added a few *Gomphus rogersi* (Sable Clubtail) and one newly-emerged *Stylogomphus albistylus* (Eastern Least Clubtail). This is another beautiful little area, and a lone *Anax longipes*



Attendees of the Southeastern DSA meeting in Georgia. Photo by G. Lasley.

(Comet Darner) also was a crowd-pleaser though out of the right habitat. Some folks had to leave, but others went back to Blackrock Mountain and were rewarded for their efforts with several more *Ophiogomphus incurvatus*. More good food and fun was had Sunday night, and then Monday many of the participants had to head out.

Forty-three species were found over the weekend, with ten clubtail species. There were also eight new county records

in a fairly well surveyed county and eleven early flight dates for the Blue Ridge physiographic region of Georgia, so in addition to all the fun and renewed friendships we added some valuable data. Look forward to seeing every-one again next year in central Tennessee! 

Some Unusual Sightings in the Northeast

Sue and John Gregoire, Kestrel Haven Avian Migration Observatory, Fitzgerald Road, Burdett, NY 14818-9626 <khmo@empacc.net>

The flight season of 2010 turned out to be an exciting one in New York and Massachusetts.

The spring of 2010 was very warm, very early, in the eastern part of the country. In many states spring heat waves wreaked havoc with the normal phenology of all manner of living things.

Here in mid-April it was in the upper 50s, which is high for us, then jumped into the 70s for a few days and spiked all the way up to 90. It remained hot for the rest of the month as buds swelled, frogs sang and some migrating birds showed up early. It became cold again, but the second part of the month of May was crazy hot. A long stretch of temperatures in the 80s caused tree leaves to burst forth, wildflowers to bloom at record early dates and amphibians to go into a frenzy weeks earlier than normal.

We mentioned in the last issue of ARGIA that our *Celithemis elisa* (Calico Pennant) population also responded by emerging early and so did a few other species. But the marvel didn't stop there.

In early June Meena Haribal spotted three *Tramea carolina* (Carolina Saddlebags) in the Finger Lakes National Forest, just a few miles from us. As this would be a Schuyler County record we ran up there four days later and found all three *Tramea* after a short search. As we watched them a male *Anax longipes* (Comet Darner) came in to view and began interacting with the *Tramea*. A few days later I saw another *A. longipes*/*Tramea carolina* team at a different pond, then on 11 June the first *A. longipes* showed up at our own pond and more followed. Yet two more checked in at different forest in our county.


For a good while the Northeast Odes listserv was abuzz with multiple sightings of *A. longipes* in Shirley, Massachusetts (Tom Murray and Steve Price), Devens, Massa-

chusetts (Steve Price) and at Cranberry Lake in Westchester County, New York (Walter Chadwick). The sightings were within normal range, but uncommon. Some of the ones in Devens and the in Westchester County were also teamed up with bright red *Tramea*, also uncommon.

Both species are migrants with large wings that can carry them far and wide. Considering all the early activity with plants, birds and amphibians it occurred to us that the very warm temperatures coming so early in the spring enabled these dragonflies to stay on the move longer and fly further as they made their normal northward journey.

That the two species were seen together so often raises some interesting questions. Obviously they travelled together and stayed together for quite some time. Why? Do they recognize a color similarity and unite? Are they "friendly" to each other or are they staying together in an ongoing territorial battle all the way?

We had as many as five *A. longipes* here at one time and came to know one in particular. It was a male with a bent abdomen, so was easily recognized day after day. He stayed with us from 11 June through 31 June. On 1 July a big front came through and blew him and the others "away".

We did see one and only one female ovipositing in some cattails at our pond so we are anxious to see what happens this year as they have bred here in the past. That breeding population lasted only two years so we know not to count on them as a permanent species, but I hope the folks in Massachusetts are lucky. 

Ischnura perparva (Western Forktail), New to Iowa

Steve Hummel <shummel@iowatelecom.net>a

On 28 July 2009, while checking a few streams for *Somatochlora ensigera* (Plains Emerald), I stopped at a tributary of Odebolt Creek in the town of Odebolt, Sac Co., Iowa. There were no *S. ensigera* to be seen, but a good number of *Calopteryx maculata* (Ebony Jewelwing) were observed along the stream. Since I had never sampled the odonate fauna of this stream in spite of it being just 10 miles from my home, and I've driven past it literally hundreds of times on my way to work, I decided it would be worth a few minutes of wading.

The stream is shallow, a few to 50 cm in depth, and 2 to 3 m in width. The substrate is a combination of gravel, sand, and soft, deep silt. The stream has been channelized for most of its length with steep banks two to three meters high. Access to the stream was fairly easy on the south bank upstream from the bridge. The sampling site was 20 to 50 m east of the bridge on North Main Street at N 42° 18.975' W 95° 15.001'.

A few minutes of collecting and a few vouchers kept produced a short list of species including *Calopteryx maculata* (1 male), *Amphiagrion* sp. (Red Damsel) (1 female), *Enallagma anna* (River Bluet) (2 males and a tandem pair), and 3 *Ischnura*. After processing and drying and a closer look at the *Ischnuras* found a male and female *I. verticalis* (Eastern Forktail), plus a male *I. perparva* (Western Forktail), a new record for Iowa.


A return visit to the site was made on 5 August 2009. The same species were present. A random sampling of *Ischnuras* produced 6 *perparva* (4 m, 2 f) and 2 *verticalis* (1 m, 1 f).

On 15 July 2010, while collecting *C. maculata* as part of a research project conducted by Chris Hassall of Carleton University, Ottawa, Ontario, I visited an area about 1 km upstream from the 2009 site. Here the stream is smaller, only about 1 m in width, 5–25 cm deep, with cut banks less than 50 cm in height. The stream bed is mostly gravel with some sand and silt. The site is less than 0.5 km from the stream's origin from drainage tiles on the south edge of Odebolt. Along with 49 *C. maculata* captured in less than a city block, numerous *Argia* sp. were seen and a male *A. plana* (Springwater Dancer) and a male *I. perparva* were taken.

These collections represent not only a new record of *Ischnura perparva* in Iowa, but a slight eastern extension of the species range as well. The main range of this species is west of a line from northwest North Dakota southeast

to central South Dakota, south to central Nebraska, and southwest to northwest Kansas. The previous easternmost records for the species were Yankton Co., South Dakota, (county center at N 43.00° W 97.38°) (Bick et al., 1977), and from Brown County State Lake, Brown Co., Kansas, (Huggins, 1977). The Sac Co., Iowa, location is an eastern extension of 0° 7.678' of longitude (10.55 km) from the Brown Co., Kansas, location. The Yankton Co., South Dakota, Brown Co., Kansas, and Sac Co., Iowa, records are all far to the east of the normal range for this species.

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Incredible New Insect Discovered!

The Luna-Hawk has been found in West Virginia. See <<http://tinyurl.com/lunahawk>> for details.



2011 Collecting Trip to St. Lucia—In the Search for *Argia concinna*

Céline Poiron <celine-poiron@hotmail.fr> and François Meurgey <francois.meurgey@mairie-nantes.fr>, Museum of Natural History, Nantes, France

This year, our studies on the Lesser Antillean dragonfly fauna led us to St. Lucia, for a three weeks study. Our main objective was to gather distributional data for Céline's Master in Science degree. Other objectives were to update checklist of species and . . . to search for the vexing *Argia concinna*. We also wanted to gather ecological and biological data for a new book on the Lesser Antillean Dragonflies.

The trip started with a 160 XCD lift from Castries airport to Vieux-Fort, at the extreme south of the island. We stayed at the Charlery's Inn right in the middle of Vieux-Fort, a nice place run by Charlemagne, right in front of Hewanorra international airport and next to a gas station. All in all, this place was quite practical because of its proximity to a supermarket, a KFC, a Domino's Pizza and True Value (our official acetone supplier). After about 8 hours in the sky from France, before we could think about dragonflies, our major objective was to find something to eat (especially for Céline, who is always hungry). We then started collecting early in the morning and decided to separate the island into three parts, spending a week in each area. The aim was to homogenize the number of surveyed locations and to explore the maximum aquatic habitats.

Despite the fact that we already rented a 4WD car (very useful, keep that in mind for later!), because driving on the left is not the norm in France, we prudently decided to walk to the airport to obtain our international driving license. On the way, we collected several common species such as *Orthemis macrostigma*, *Erythemis vesiculosa* (Great Pondhawk), *Micrathyria aequalis* (Spot-tailed Dasher) and *Pantala flavescens* (Wandering Glider). This first day ended with the survey of a ditch just in front of the inn, that had the invasive plant Water Hyacinth.

This first week was then devoted to the exploration of the south part of the island. We surveyed 37 locations and visited most of available aquatic habitats. The south part of the island is characterized by its dryness and the lack of standing water habitats. Nevertheless, we collected 19 species in the south including *Miathyria marcella* (Hyacinth Glider), which was new for the island. This species was found at Gayabois, around a large forested lake invaded with Water Lettuce (*Pistia stratiotes*), about 50 individu-

als were seen, accompanied by *Ischnura ramburii* (Rambur's Forktail), *Telebasis corallina* and *Tramea abdominalis* (Vermilion Saddlebags). We observed one female *T. abdominalis* ovipositing in Water Lettuce.

The Forestry Department Adventure

We devoted an entire day for visiting Rebecca Rocks at the Forestry Department at Castries. We woke up early in the morning and got ready for a 1-hour drive from the south to the extreme north of the Island. We experienced many difficulties trying to find the Forestry Department from Castries with because there were absolutely no road signs . . . anywhere! We arrived at the presumed junction, where we hesitated to follow a very muddy road leading to



a Forestry Nature Trail and Botanical Garden. We finally reached the Forestry Department, a full hour late.

One of our objectives during this week was to find and collect *Dythemis* to complete our on-going study of this genus in the Lesser Antilles. We had success in collecting more than 15 specimens all belonging to *Dythemis sterilis*. We noted however that all specimens have a trace of metallic blue on the frons and the vertex, and seemed to represent an intermediate form between *D. sterilis* from the islands north of St. Lucia and *D. multipunctata* from St. Vincent, south of the island.

During this week we especially searched for the endemic *Protoneura ailsa* for mapping study and definition of protected areas by Céline. This species, absent in lowlands becomes common up to 100 m high. In general, *Protoneura*

ailsa, seems to be more abundant and distributed in St. Lucia than in Martinique. Although belonging to the same species, specimens from St. Lucia differ from those found on Martinique in having a brighter yellow venter and the underside of the abdominal segment and inferior caudal appendages are slightly different.

The second week was entirely devoted to the center of the island. We went to the west coast in the search for streams and eventually to find *Argia concinna*. We stopped at Anse La Raye which is a nice village where one can eat a very good meal at Emma's Restaurant (Céline is still hungry!) and drink a Piton, the local beer. We collected along Petite Rivière despite the fact that local people warned us about poisonous snakes. While François collected along the bank, a local man wanted to help him by showing him every dragonfly that was flying around—especially a big red one. François was fed up and decided to catch the red dragonfly in an effort to appease the man. He successfully netted the ode and identified it as a male *Tramea calverti* (Striped Saddlebags)! Another new island record! Thanks to this anonymous guy.

We took a day off and spent it in the nice town of Soufrière which is the oldest town on the island situated just at the foot of the two Pitons. On the road to Soufrière, we met a man who handled a Boa constrictor. We decided to stop to talk with him and we had the opportunity to see how he handled this snake for several minutes. We visited the Big Bamboo café, a pirate's cove where we had a very good dinner with peas, chicken, rice, beans, black boudin, cheese cake and a lot of Piton which is the local beer (Céline hungry again). We spent time with nice people and tried delicious old rum, the Chairman's Reserve (just 40°)!

The Fond d'Or River Experience...

One day we went to Fond D'Or River, in the middle of the island to search for mangrove swamps. After a long walk along the river banks, we decided to survey a small highly vegetated marsh where we found *Ischnura ramburii*, *Erythrodiplax umbrata* (Band-winged Dragonlet) and *Erythemis vesiculosa*. Disappointed, Céline decided to do some collecting near the riverbank. She tried to estimate the depth of the river by soaking her boot in the water and fell in the muddy water with her backpack, camera, net and GPS! We had to wait about two hours to dry her clothes without seeing any dragonfly. But, all in all, this long stay was fruitful with a beautiful observation of the endemic St. Lucia Warbler!

On the 23rd we went back home late in the evening, trying to prepare the work for the following day. We drove by

night along a road at l'Orangerie, on the east coast, near Dennery and stopped because a big dragonfly was seen in front of the car. After a few minutes we caught it; a male *Gynacantha nervosa* (Twilight Darner). This second week ended with 63 locations surveyed.

Next, we decided to explore some rainforest habitats in an effort to find new species. We went to Mahaut which is situated in the central part of the island and reach the natural reserve. We walked along a small trail in the middle of a banana plantation. While walking we looked at other insects and found the beautiful endemic long horn beetle *Solenoptera luciae* (Cerambycidae) and the moth *Napata quadrastigata* (Arctiidae) in the same area. We finally reached the top of the hill. Two dragonflies were seen flying around and one was collected which turned out to be a female *Brechmorhoga archboldi*, representing the third new island record. This species was previously known from Guadeloupe, Dominica and Martinique.

On the way back to Vieux-Fort we stopped near a mangrove swamp at Praslin Bay, near Dennery on the east coast in the search for *Erythrodiplax berenice* (Seaside Dragonlet), but had no luck! We however, did find several other species, including *Lestes tenuatus* (Blue-striped Spreadwing).

Our last week led us to the north of the island where we visited Gros Islet, which is nothing more than a heavily urbanized area devoted to tourism, especially near Cap Estate. We failed to find *Brachymesia furcata* (Red-tailed Pennant) mentioned by Sibley in 2009 and flew away from this area.

Updated Checklist of Species

The following list comprises species surveyed during this study and species observed by Fred Sibley in 2009. New records are indicated in bold, species from Sibley's list but not recorded during our study are underlined. *Dythemis multipunctata* (Sibley's 2009 list) has been removed, as it is only present on St. Vincent.

Lestes forficula (Rainpool Spreadwing)
Lestes tenuatus (Blue-striped Spreadwing)
***Lestes spumarius* (Antillean Spreadwing)**
Protonaura ailsa
Enallagma coecum
Ischnura ramburii (Rambur's Forktail)
Telebasis corallina
Gynacantha nervosa (Twilight Darner)
***Triacanthagyna caribbea* (Caribbean Darner)**
Triacanthagyna trifida (Phantom Darner)
Brachymesia herbida (Tawny Pennant)
Brachymesia furcata (Red-tailed Pennant)


Brechmorhoga sp.
Dythemis sterilis
Erythemis vesiculosa (Great Pondhawk)
Erythrodiplax umbrata (Band-winged Dragonlet)
Miathyria marcella (Hyalinid Glider)
Micrathyria aequalis (Spot-tailed Dasher)
Micrathyria didyma (Three-striped Dasher)
Orthemis macrostigma
Pantala flavescens (Wandering Glider)
Tibolymis citrina (Evening Skimmer)
Tramea abdominalis (Vermilion Saddlebags)
Tramea calverti (Striped Saddlebags)
Tramea insularis (Antillean Saddlebags)

We were surprised to notice that *Protoneura ailsa*, the single endemic species from St. Lucia (also Martinique and Dominica) is fairly abundant and was found at the majority of locations surveyed. This species shows an interesting ecological plasticity, being present in clear water, but also in some slightly polluted habitats (banana plantation). On Martinique and Dominica, *P. ailsa* is less common and distributed principally in rain forest (Dominica) or in streams in dry parts of Martinique.

The majority of aquatic habitats on St. Lucia consist of rivers and streams. Stagnant water habitats are scarce and generally confined to pasture lands or on the golf course

at Cap Estate in the north. However, many stagnant water species were observed at rivers and streams (*E. vesiculosa*, *M. aequalis*). This is not the case in islands north of St. Lucia where ponds and lakes are abundant.

Hurricane Tomas reached St. Lucia in November 2010 and heavily impacted habitats on the island and especially opened many forested areas. We observed that several streams and rivers are now open, without canopy and colonized by vagrant species such as *P. flavescens*, *O. macrostigma* and *T. abdominalis*. It is difficult to have an idea of what species could be present in these habitats before Tomas.

We wish to warmly thank Mrs. Rebecca Rocks from the Forestry Department who kindly provided us with maps and GIS data, Joel Ramine from the Water Resources Department for providing us with rainfalls data, Mr. Leroy St. Louis consultant Plant Quarantine Unit (Vieux-Fort) who kindly provided us with export permit, Mr. Junior Mathurin who provided us with hurricane Tomas data and for his help in finding contacts on St. Lucia. Thanks to Alwin Dornelly who provided us with collecting and export permits. Also thanks to Charlemagne for her kindness and his help in finding acetone. This study was financed by the LHNHS (L'Herminier Natural History Society). 

Florida Panhandle trip

Jerrell J. Daigle <jdaigle@nettally.com>

On 4 April I met up with biologists Rick Abad and Don Ray of the Pensacola FDEP district office to go looking for *Ophiogomphus australis* (Southern Snaketail) adults. They had been collecting exuviae in March, but they haven't collected any since 15 March. We figured they would be mature and returning to the streams like Boggy Creek and the Perdido River.

After a few tense moments trying out keys to the locked gate, we got to the first site and started looking along the wooden bridge and the hedgerows along the banks. I saw a few Hessel's Hairstreak butterflies, but that was about it. It was about noontime before I spied a mated pair of small gomphids hanging up in the bushes. I thought it might be *Hylogomphus geminatus* (Twin-striped Clubtail), but as I got closer, I could see the bright emerald green on the thorax! With my heart pounding, I scooped up the docile pair and looked at them closely. It was *O. australis*! Unbelievable luck, and

only after about 10 minutes of searching! I had a good feeling about this place!

Rick and I got a few more adults, all in the open fields, before we left around 1630 hours. The adults behaved just



Male *Ophiogomphus australis* collected at Boggy Creek.



Ophiogomphus australis nymphs at Boggy Creek.

like *Erpetogomphus designatus* (Eastern Ringtail), perching on fallen branches and twigs about 6 to 12 inches above the ground, but not on the ground itself like *Gomphus hodgesi* (Hodges' Clubtail). We did not see any adults perched along the creek or on the gravel bars. However, Don found lots of 1st and 2nd year nymphs in the quartz gravel, even showing us a single random net scoop containing about 6–7 nymphs!

The next day, we visited another old wooden bridge further upstream and found even more nymphs and several more adult *O. australis*. Later, we went downstream to the Perdido River where Don and Rick had gotten *O. australis* nymphs before, but we did not see any adults as it got windy and cloudy by then.


These early spring *O. australis* nymphs can be found at cold gravel streams in northwest Florida. It has been taken at Canoe Creek, Chipola River, Boggy Creek, the Perdido River, and other streams. Also, one should look at the gravel streams on the west side of the Perdido River on the Alabama side to see if they could be there. Its range extends out to Mississippi, Louisiana, and southern Alabama. It has been found recently in southwest Georgia.

On 14 March Rick and Don observed emerging gomphids at the Choctawhatchee River boat landing at Hwy 2 in Holmes County. They collected several and they showed me a teneral male back at the office. At first, I didn't recognize it. It looked like either *Gomphus septima* (Septima's Clubtail) or *G. hybridus* (Cocoa Clubtail). I wasn't sure.

So, I stopped by the river on the way back on Wednesday morning. I did not see anything at the boat land-

ing or in nearby fields. As it warmed up, I went to the northeast corner into some open scrubby sand terrain, where I found *Gomphus lividus* (Ashy Clubtail), *G. minutus* (Cypress Clubtail), and some redbanded hairstreaks, but no big gomphids. All of a sudden, I flushed up a big brown gomphid which landed in front of me a little ways. I swooped it up and examined it after it was secured in a cellophane envelope. I finally decided it could be *G. hybridus*.

Later comparisons with specimens in my collection confirmed it! This species has not been seen in Florida since 1951 and 1953 when Dr. Minter J. Westfall, Jr. collected specimens at Sweetwater Creek near Torreya State Park in Liberty County, and on the Apalachicola River at Chattahoochee in Gadsden County. The subsequent construction of the Jim Woodruff dam there wiped out the populations of several dragonflies in the river including *E. designatus* and *G. hybridus*. *Gomphus hybridus* specimens collected on the river in the 1970s by Ken Knopf were re-examined several years later and determined to be *Gomphus vastus* (Cobra Clubtail), a new Florida state record. Hopefully, one can find more populations of *G. hybridus* next spring here and elsewhere in northwest Florida.

Authors note: Evidently, folks have been finding *G. hybridus*. Troy Hibbitts wrote that he got one at the Choctawhatchee boat landing at Hwy. 20 in Walton County on 19 March 2010. Ed Keppner told me he got one (26 April 2011) at the Cedar Tree boat landing north of Ebro/Hwy. 20 in southern Washington County. It seems to be up and down the Choctawhatchee River! 

DSA is on Facebook



For those of you who stay connected using the social networking web site Facebook, The Dragonfly Society of the Americas now has a Facebook page. Information, announcements, and links relating to the Society as well as photos and discussion contributed by those who "like" the page will be found here. The page is located at <<http://www.facebook.com/DragonflySocietyAmericas>> or just search for "dragonfly society" within Facebook and the page will appear in the results list.

Somatochlora georgiana (Coppery Emerald) Discovered and Observed in Maryland

Rick Cheicante, Bel Air, Maryland, <rickcheicante@yahoo.com>

Mention *Somatochlora georgiana* (Coppery Emerald) and you will attract attention. At least if you mention this before a group of odonate enthusiasts you will. Some species possess that star quality. Whether rare, ecologically unique or simply aesthetically pleasing, mention a species possessing one or more of these traits and folks will join and share in the enthusiasm. Most would agree that *S. georgiana* is one of those species.

On 12 June 2010, Dan Bogar accompanied by regional expert Hal White and his team of Delmarva odonatists visited Idylwild WMA near Federalsburg, Maryland. Idylwild WMA is a naturally recovering, former sand pit operation, and has evolved recently into a regional “hotspot” hosting many new and rare Maryland odes. On this day, Dan and team would observe and photograph Maryland’s first Coppery Emerald—a teneral female.

On 20 August 2010, I headed into the Nassawango Creek drainage (Wicomico) in search of rare and uncommon odes. The area is part of the larger Pocomoke River system, and ultimately, the Chesapeake Bay watershed. Collectively, the floodplains and bottomland forests of the Pocomoke and Nassawango comprise the southern edge to the northern most stand of bald cypress, which extend into southern Delaware. The Nassawango area has produced a number of rare Maryland ode discoveries to include *Ischnura prognata* (Furtive Forktail) and *Telebasis byersi* (Duckweed Firetail). On this steamy mid-Atlantic day, I found neither. However, I arguably found better.

An accessible feeder creek leading to the Nassawango was mostly dry, with intermittent dark, tannic-stained puddles. The peaty substrate was littered with timber debris; the cypress knobs, ankle breaking. A few sunlit pockets of greenery existed and I decided to explore them.

At a partially sunlit, tannic puddle, *Libellula vibrans* (Great Blue Skimmer) and *Somatochlora linearis* (Mocha Emerald) did constant and ferocious aerial battle. In the shadows, a third dragonfly was present. An inconspicuous and unassuming brownish dragonfly was executing sorties just over the surface of the less than one and a half inch deep water. With short, angular flights, the mystery dragonfly maintained a constant horizontal position to the water surface. The flight seemed methodical; with purpose. It made short flight distances (6–8”), 90° turns, momentarily hovering an inch or two off the water, and all as if in slow motion. Abdomen tapping to the water surface suggested ovipositing. The time of day was late morning.



Female *S. georgiana* with eggs (Idylwild WMA).



S. georgiana (posed) found along Nassawango Creek in August 2010.




The shallow puddles of a remnant floodplain creek make for excellent *S. georgiana* habitat.

Periodically, a Mocha Emerald did take notice and sometimes chased this third party away. In an instant, the oddly orange-brown dragonfly vanished, only to return a short time later seemingly dropping in out of nowhere. This reclusive ode seemed unwary of my presence. It negotiated its mission at times flying within inches in and around my partially submerged and muck-covered boots. It did not appear distressed by my presence or movements. I moved in for the identification. What I found and photographed was Maryland's second *Somatochlora georgiana* which was yet another female.

I continued the day's pursuits finding three more Coppery Emeralds in a neighboring county (Worcester). These three were together, and were behaving in the same exacting manner. Maintaining short, turning, angular flights, the emeralds always stayed close to the surface, hovering briefly and negotiating the fallen timber seemingly with patience and ease. They had no reservation to go under or through timber, limbs and debris that straddled the puddles and creek beds. All flight locations were mostly devoid of direct sunlight, preferring the very shallow, shaded, tannic puddles that dotted the floodplain floor. The patrolling flight style was reminiscent of the more com-

monly observed *Epitheca cynosura* (Common Baskettail), but now miniaturized to fit into this dark, narrow, adverse and less-visited micro-niche.

On 31 August 2010, I found and photographed another ovipositing Coppery female (with eggs) while visiting the Marshyhope Creek bottomlands in Idylwild. The Marshyhope does not have bald cypress and offers more sunlight than the Nassawango. However, in a dark, frothy puddle of less than two inches of water that "looked right", a Coppery dropped in after only a brief stakeout. The distinct methodical flight was now characteristic: short, angular flight, brief hovering, 90° turns and low to the water surface. I observed this Coppery come and go from the puddle. The flight was unusual. The Coppery's movement was such that it followed the contour of the floodplain greenery, puddles and tannic bare spots as if magnetically attached to the landscape. Maintaining a very low height, it rolled over the sub-canopy terrain more so than it seemed to fly. I thought to myself, "no wonder the Coppery is difficult to find outside of a mixed evening swarm" ... and even then still extremely rare. It's habitat and habits don't make it any easier. 

Notes on Boreal Odonates of Rio Arriba County, Northern New Mexico

James N. Stuart, Leland J. S. Pierce, and Robert R. Larsen, New Mexico Department of Game & Fish, Santa Fe, NM 87504-5112 (JNS, LJSP); and Roswell, NM (RLL); <james.stuart@state.nm.us>; <leland.pierce@state.nm.us>; <robllrsn@yahoo.com>.

The arid state of New Mexico is not known for its boreal habitat, and yet the montane areas of the northern part of the state, at the southernmost extent of the Rocky Mountains, do in fact have a cooler, wetter climate more typical of higher latitudes. Consequently, these mountains support a variety of animal and plant species more representative of the Saskatchewan, Montanian, Canadian and Hudsonian biotic provinces of North America. During repatriation and monitoring work involving one such species, the Boreal Toad (*Bufo* [= *Anaxyrus*] *boreas boreas*), two of us (LJSP, JNS) have had the opportunity to collect information on the odonate fauna at a high-elevation site in the Tusas Mountains of Rio Arriba County, New Mexico. The site, Trout Lakes, also known as Nutrias Lakes, is a complex of beaver ponds (both active and abandoned) and developed trout fishing ponds on the Rio Nutrias within the Carson National Forest (N 36.6059°, W 106.3760°; circa 9,200 feet elevation). Damming by both beavers and humans has produced a variety of small ponds, marshes, and moist-soil areas dominated by sedges (*Carex* sp.) and associated wetland plants. Overstory vegetation in this area consists of spruce, fir, and aspen. In this note, we discuss

two boreal odonates recently discovered at Trout Lakes (at or near their southernmost range limits) and other dragonflies and damselflies from this area. These records are also documented by voucher photographs catalogued in the OdonataCentral (OC) database (Abbott, 2011).

Leucorrhinia borealis (Boreal Whiteface): This species was unknown in New Mexico until one of us (LJSP) photographed an unusual dragonfly at his Boreal Toad repatriation site at Trout Lakes on 8 July 2009 (OC 314624) and RLL identified it from photos. During 2010 we observed Boreal Whiteface at Trout Lakes on 22 June (several adults) and 22 July (1 live and 1 dead adult); at present, these are the earliest and latest flight dates for the state (OC 320101, 321245). A dead specimen found on the latter date was deposited in the Museum of Southwestern Biology, University of New Mexico. Efforts to find *L. borealis* at Trout Lakes during visits in the first week of June (when the road into the site usually becomes accessible following the spring thaw) and from 29 July through late August have been unsuccessful, suggesting a flight season from approximately mid-June to the 3rd or 4th week in July. We



Leucorrhinia borealis (Boreal Whiteface) from Trout Lakes, Rio Arriba Co., New Mexico. Photo by J.N. Stuart.

have observed this species at only three small abandoned beaver ponds within the Trout Lakes wetland complex, all of which are too shallow to support trout but do support non-native Fathead Minnow (*Pimephales promelas*) populations; the larger, developed fishing ponds seem to be avoided by this dragonfly. On 22 June we saw a single mating pair, in the “wheel” position, perched on Alpine Pondweed (*Potamogeton alpinus*) at the surface of one shallow pond, in addition to single individuals perched or in flight. *Libellula quadrimaculata* (Four-spotted Skimmer) was abundant here and seemed to dominate the less common Boreal Whiteface for perch sites. Our discovery of *L. borealis* at Trout Lakes was rather unexpected given that records in Colorado are limited to Larimer and Mesa counties in the northern and western parts of that state, respectively (Paulson, 2009; Abbott, 2011). We believe its presence in northern New Mexico suggests a much wider distribution in Colorado.

Coenagrion resolutum (Taiga Bluet): This damselfly was not verified from New Mexico until June–July 2008 when Relf Price and Dustin Huntington documented its occurrence in Sandoval County (OC 284309) and Colfax County (OC 284246), respectively (Abbott, 2011). In 2010



Coenagrion resolutum (Taiga Bluet) from Trout Lakes, Rio Arriba Co., New Mexico. Photo by J.N. Stuart.

we photo-documented this species at Trout Lakes (OC 320100), a new county record. Many individuals and a few mating pairs were found on 22 June among dense stands of sedges near water, including at ponds supporting trout, and smaller numbers were seen on 22 July. Taiga Bluet was also photo-documented in a small sedge marsh along the Rio Vallecitos on a private ranch in Rio Arriba County on 13 July 2010 (OC 320758), less than 10 miles from Trout Lakes. Robert Parmenter and others have taken this species at the Valles Caldera National Preserve, Sandoval County, from 11 June to 25 July (OC 327640–641), the earliest and latest flight dates recorded so far in the state. Undoubtedly this boreal species has a much wider range in northern New Mexico and southern Colorado than current records indicate.



Leucorrhinia borealis (Boreal Whiteface) from Trout Lakes, Rio Arriba Co., New Mexico. Photo by J.N. Stuart.


These two species apparently have similar and fairly brief flight seasons in the southern Rocky Mountains. We suggest that surveys for Boreal Whiteface and Taiga Bluet in high-elevation wetlands elsewhere in New Mexico and Colorado should be conducted during late June or early July when mature individuals of both species are most likely to be encountered.

In addition to Boreal Whiteface and Taiga Bluet, other odonate species photo-documented at Trout Lakes during June–August in 2008–2010 are as follows (voucher records are catalogued at OC; Abbott, 2011): *Lestes disjunctus* (Northern Spreadwing); *Enallagma boreale* (Boreal Bluet); *Aeshna palmata* (Paddle-tailed Darner); *Libellula quadrimaculata* (Four-spotted Skimmer); *Sympetrum danae* (Black Meadowhawk); *Sympetrum internum* (Cherry-faced Meadowhawk); and *Sympetrum pallipes* (Striped Meadowhawk). We have photo-documented *Lestes dryas* (Emerald Spreadwing) in the nearby Rio Vallecitos drainage system (9,370 feet elevation) but not at Trout Lakes. Although *S. danae* represented a new county record, the other seven species were known from Rio Arriba County prior to our surveys (Abbott, 2005, 2011).

We suspect that the low diversity of odonates we have recorded at Trout Lakes (nine species total, not counting *L. dryas* from nearby) reflects the high elevation of this site and its relatively brief warm season. We intend to search for additional species here over the next few years in conjunction with other monitoring projects.

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A Prince Baskettail Trifecta


Ken Tennesen <ktennesen@centurytel.net>

I have been trying to get photographs of a female of *Epitheca princeps* (Prince Baskettail) for a number of years. This agile, strong-flying species stays on the wing for long periods of time, and I have not often had the good fortune of stumbling across perched individuals. The few times I have seen them hanging up, they were too high to get good quality photographs, except for a male several years ago.

On 14 June 2011, I was hiking the trail to Bass Lake fen (Wisconsin, Waushara County), surrounded mostly by white pine and small oaks. When I came to a grassy opening, I spied an *E. princeps* individual in what appeared to be a feeding flight, but it quickly flew toward a small dead branch of an oak. I snuck up and found three females hanging in close proximity to each other. They were slightly higher than I would have wished, but I wasn't going to pass up the opportunity to get some shots. They appear to be somewhat young; I saw a few other females nearby, but I did not see any males in the immediate area.

Slight variation in dark wing marking is evident in these




females. The middle one has a distinctly smaller spot at the nodus, whereas the markings on the other two look similar in size. I have seen individuals in Wisconsin with almost no dark marking at the nodus or at the wing tips. Populations in northern states have much less extensive dark wing pigment than southern populations. Variation in wing markings has yet to be quantitatively studied in this wide-ranging, variable species. 

Two Northern Range Extensions along the Eastern Border of Kansas

Mick McHugh, Kansas City <emchugh2@kc.rr.com>

Didymops transversa (Stream Cruiser) was documented (OC#327783) for Linn Co., Kansas. This is an extension of about 75 miles north of the closest records in south-central Kansas, and the only record for eastern Kansas.

Ladona deplanata (Blue Corporal) was well seen, but undocumented, on 29 April 2011, in Johnson Co. Kansas. Close visual looks at 3–4 young females in a forest edge/opening were made. This would be a further extension of 50 miles to the north on the eastern Kansas border. 

Odonata Survey at Franklin Parker Preserve, New Jersey

Chip Krilowicz <chippop@verizon.net>

Franklin Parker Preserve (is approximately 10,000 acres in the heart of the New Jersey Pine Barrens, and is accessible by a network of sandy roads that wind through pitch pine forest and blueberry fields, and run along the preserve's cedar swamp, shallow lakes and pristine tributaries of the West Branch of the Wading River (<<http://www.njconservation.org/franklinparkerpreserve.htm>>).

The preserve was formerly a cranberry farm, but was purchased by New Jersey Conservation Foundation (NJCF) in December 2003, after the owner decided he wanted the property to be protected forever as a nature preserve. NJCF began an ambitious fund-raising campaign and was able to cover most of the property's cost.

The property is a rare ecological treasure for the East Coast of the United States, containing some of the most beautiful wetlands in the Pine Barrens and providing critical habitat to more than 50 rare, threatened or endangered species

Several New Jersey threatened species can be found in the Preserve, including the Bobcat, Barred Owl, Northern

Pine Snake and Pine Barrens Tree Frog. Twenty-nine rare plant species have also been discovered in the Preserve, including Pine Barrens Gentian (*Gentiana autumnalis*), Bog Asphodel (*Narthecium americanum*) and Curly Grass Fern (*Schizaea pusilla*).

In September of 2006, I made my first visit to the preserve and took note of all the Odonata that I observed there. A few weeks later I was informed that The Academy of Natural History was doing an entomological survey and they were lacking on ode specialist that was located in the vicinity. I do not consider myself an odonate specialist, but I may have some skills that would add to the knowledge of this group of insects that are located on the preserve. I was introduced to the Academy by Emile DeVito, Manager of Science of New Jersey Conservation Foundation and Howard Boyd, Entomologist and author of several Pine Barrens books. I was asked to collect a voucher specimen for each odonate species found on the preserve and submit them to the museum. Following is a table of the species seen and collected:

Species	Collected	Site						First Year Recorded						State Ranked	Abundance	
		1	2	3	4	5	6	2006	2007	2008	2009	2010	2011			
Sparkling Jewelwing, <i>Calopteryx dimidiata</i>	•				•				•							R
Ebony Jewelwing, <i>Calopteryx maculata</i>	•				•	•	•	•								R
Spotted Spreadwing, <i>Lestes congener</i>	•					•					•				S2/S3	R
Slender Spreadwing, <i>Lestes rectangularis</i>	•						•							•		R
Southern Spreadwing, <i>Lestes australis</i>	•	•				•							•		S2/S3	R
Swamp Spreadwing, <i>Lestes vigilax</i>	•	•	•	•	•		•	•								R
Seepage Dancer, <i>Argia bipunctulata</i>	•		•				•	•								R
Violet Dancer, <i>Argia fumipennis violacea</i>	•	•	•	•	•	•	•									
Blue-tipped Dancer, <i>Argia tibialis</i>	•				•		•		•							U
Aurora Bluet, <i>Chromagrion conditum</i>	•			•	•	•	•		•							
Azure Bluet, <i>Enallagma aspersum</i>	•		•				•	•								
Familiar Bluet, <i>Enallagma civile</i>	•			•				•								U
Attenuated Bluet, <i>Enallagma daeckii</i>	•		•	•	•	•		•								
Turquoise Bluet, <i>Enallagma divagans</i>	•		•			•	•		•							
Atlantic Bluet, <i>Enallagma doubledayi</i>	•		•			•		•								
Skimming Bluet, <i>Enallagma geminatum</i>	•			•		•	•	•								
Scarlet Bluet, <i>Enallagma pictum</i>	•		•	•	•	•	•	•								
Pine Barrens Bluet, <i>Enallagma recurvatum</i>	•		•	•	•		•		•							
Orange Bluet, <i>Enallagma signatum</i>	•			•					•							
Slender Bluet, <i>Enallagma traviatum</i>	•		•					•								U
Vesper Bluet, <i>Enallagma vesperum</i>	•						•	•								
Citrine Forktail, <i>Ischnura hastata</i>	•	•	•	•		•		•								
Lilypad Forktail, <i>Ischnura kellicotti</i>	•		•		•		•	•								
Fragile Forktail, <i>Ischnura posita</i>	•	•	•	•	•	•	•	•								

Table continued next page...

Table continued . . .

Rambur's Forktail, <i>Ischnura ramburii</i>	•	•	•	•	•	•								
Eastern Forktail, <i>Ischnura verticalis</i>	•		•			•								
Sphagnum Sprite, <i>Nehalennia gracilis</i>	•	•	•	•	•	•								
Southern Sprite, <i>Nehalennia integricolis</i>	•			•	•							S2/S3	R	
Mottled Darner, <i>Aeshna clepsydra</i>	•					•						S2/S3	R	
Shadow Darner, <i>Aeshna umbrosa</i>	•		•			•				•			R	
Common Green Darner, <i>Anax junius</i>	•	•	•	•	•	•	•							
Comet Darner, <i>Anax longipes</i>	•					•	•					S2/S3	U	
Springtime Darner, <i>Basiaeschna janata</i>	•					•				•				
Swamp Darner, <i>Epiaeschna heros</i>	•		•	•	•	•	•							
Harliquin Darner, <i>Gomphaeschna antilope</i>	•	•				•	•			•				
Lance Clubtail, <i>Gomphus (Gomphus) exilis</i>	•	•	•	•		•				•				
Dragonhunter, <i>Hagenius brevistylus</i>	•					•				•			R	
Common Sanddragon, <i>Progomphus obscurus</i>	•	•	•	•	•	•	•							
Delta-spotted Spiketail, <i>Cordulegaster diastatops</i>	•	•		•	•								R	
Twin-spotted Spiketail, <i>Cordulegaster maculata</i>	•												R	
Stream Cruiser, <i>Didymops transyversa</i>	•					•				•			U	
Allegheny River Cruiser, <i>Macromia alleghaniensis</i>	•					•							R	
Georgia Swift River Cruiser, <i>Macromia illinoensis georgina</i>	•					•				•			U	
Petite Emerald, <i>Dorocordulia lepida</i>	•					•	•			•			U	
Mantled Baskettail, <i>Epiheca semiaquea</i>	•	•		•	•	•				•				
Fine-lined Emerald, <i>Somatochlora filosa</i>	•		•		•					•			U	
Clamp-tipped Emerald, <i>Somatochlora tenebrosa</i>	•		•		•					•				
Calico Pennant, <i>Celithemis elisa</i>	•	•	•	•	•	•				•				
Banded Pennant, <i>Celithemis fasciata</i>	•	•	•	•	•	•				•				
Martha's Pennant, <i>Celithemis martha</i>	•	•	•	•	•	•				•				
Uhler's Sundragon, <i>Helocordulia uhleri</i>	•					•							R	
Double-ringed Pennant, <i>Celithemis verna</i>	•			•	•	•						S2	U	
Eastern Pondhawk, <i>Erythemis simplicicollis</i>	•	•	•	•	•	•	•			•				
Blue Corporal, <i>Ladona deplanata</i>	•	•	•	•	•	•	•			•				
White Corporal, <i>Ladona exusta</i>	•	•	•	•	•	•	•			•				
Golden-winged Skimmer, <i>Libellula auripennis</i>	•			•								S2	R	
Bar-winged Skimmer, <i>Libellula axilena</i>	•	•				•							U	
Spangled Skimmer, <i>Libellula cyanea</i>	•	•	•	•	•	•	•			•				
Yellow-sided Skimmer, <i>Libellula flavida</i>	•	•	•	•	•	•	•			•				
Slaty Skimmer, <i>Libellula incesta</i>	•	•	•	•	•	•	•			•				
Twelve-spotted Skimmer, <i>Libellula pulchella</i>	•					•	•			•				
Painted Skimmer, <i>Libellula semifasciata</i>	•	•	•	•	•	•	•			•				
Great Blue Skimmer, <i>Libellula vibrans</i>	•	•			•	•							R	
Elfin Skimmer, <i>Nannothemis bella</i>	•		•	•	•	•	•			•				
Blue Dasher, <i>Pachydiplax longipennis</i>	•	•	•	•	•	•	•			•				
Wandering Glider, <i>Pantala flavescens</i>	•			•						•			U	
Spot-winged Glider, <i>Pantala hymenaea</i>	•					•				•				
Eastern Amberwing, <i>Perithemis tenera</i>	•					•				•				
Common Whitetail, <i>Plathemis lydia</i>	•	•	•	•	•	•				•				
Cherry-faced Meadowhawk, <i>Sympetrum internum</i>	•					•				•			U	
White-faced Meadowhawk, <i>Sympetrum obtrusum</i>	•	•								•			U	
Autumn Meadowhawk, <i>Sympetrum vicinum</i>	•	•	•	•	•					•				
Carolina Saddlebags, <i>Tamea carolina</i>	•	•	•		•	•				•				
Black Saddlebags, <i>Tamea lacertata</i>	•			•	•	•				•				
Totals (74 total species)	72	27	38	39	39	42	46	40	17	0	10	4	1	5

Abundance: Everything is considered Common unless marked

R: Less than 2 seen per year

U: Less than 10 seen per year

Areas are divided by roads. #1 is Chatsworth Lake

Going clockwise #2 is to the right of Rt 563

#3 is below Rt 532

#4 is between Baptist Rd and Old Tuckerton Rd

#5 is the entire Bog Copper Butterfly Area

#6 is large from below Rt 532 to Rt 563



Musings from a Beginning Dragonfly Enthusiast


Skyler McLean <xrskysr@hotmail.com>

The Saline River in Arkansas is where I first started to search for dragonflies. A friend of my father and a friend of mine, George Sims, told me one day on Facebook that I should look for odes in Cleveland County, because no one else is looking in that area. July 30th, 2010 I did not even know what an ode was and barely where Cleveland County was, the county I live in! Minutes after receiving George's comment, I went outside with my camera and started the process. I remember that day well, as we were having a new well put in. I walked up the hill to the dig site and saw a dragonfly. Giddy with excitement I turned on my camera and began to focus. Quickly I noticed that the first two dragonflies I saw had a different pattern on the wings. Brown-clear-brown and clear-brown-clear. I was on to something and I knew it. I had found a male and female Common Whitetail (*Plathemis lydia*), in the first five minutes. I continued my search, walking down my driveway and found several other species in a short time. I contacted George and he directed me to the OdonataCentral.org web site, where I could look up and identify what I had found. I registered with OC and submitted my findings. I told myself this was easy, I can do this! I posted several specimens on OC and watched and waited. Someone named Greg Lasley vetted my findings. I think I got one of them wrong and he gave me time to get it right. This was just awesome. I was hooked.

I used the records in OC to match those that I had taken pictures of, but could not find them all. I contacted my friend George and he, being a beginner as well to ode hunting, put me in contact with Steve Hummel on Facebook. My first hunt and I found a county record. Steve helped me with several of them and still does. Blue-tipped Dancer (*Argia tibialis*) was my first county record (OC# 322075). I was submerged up to my neck, in the middle of the river, as I slowly made my way close enough to get a nice shot. As the days went on, so did my findings. I was just amazed at all the different kinds of odonates I was seeing.

Cleveland County already had 26 records when I began at the end of July 2010, now it has 36 and more to come. I have taken a picture of what I believe is a Cobra Clubtail (*Gomphus vastus*) and a Common Sanddragon (*Progomphus obscurus*) that I will be submitting to OC soon. I have encountered both of them in the river as I sit for hours, watching different species fly around, fighting for what seems to be the best perch in the river. Both of them, at different times, land on me, my hand, shoulder, or on my net, while I am in the water. For the past few days, they have become my little friends; *P. obscurus* has stayed with me and kept chasing away the horseflies that attempt to circle us.

I am also an undergraduate at the University of Arkansas at Monticello (UAM). On that campus, we have nice body of water called Weevil Pond. I began making walks around the pond and have found several different species throughout the months, including Eastern Amberwing (*Perithemis tenera*), Rambur's Forktail (*Ischnura ramburii*), Blue Corporal (*Ladona deplanata*), and a great shot of Slaty Skimmer (*Libellula incesta*) "in the wheel" as ya'll say (OC# 322780). Drew County had 48 records and with a continuous search around the pond I have picked up another two, Oklahoma Clubtail (*Gomphus oklahomensis*) (OC#327643) and Orange Bluet (*Enallagma signatum*) (OC# 327644), both of which I collected while waiting to meet Dr. George Harp, for my first lesson with a pro.

I have not made it a full year yet as a dragonfly hunter, though I am certain that one day I will say I have been doing this for 30 years. It is interesting to know that some migrate. The river has just gone down and starting to clear up. Questions come to mind. Have some of these species arrived from the south or have they arrived by waterway from up north? I can imagine both being correct. 

California New Distribution and Flight Season Data Records

Kathy Biggs <bigsnest@sonic.net>

Although an informal survey of California's dragonflies has been in progress for nearly 12 years now, new records are still being made, especially in the less surveyed counties. Already five new distribution records have been recorded this year (as of 16 June), but we've had greatly delayed spring weather throughout the state and very few new flight season records have been made so far this year.

I'm recording flight season data for all of California and the greater southwestern states each year (since 1998), in hopes that the data will become useful over time.

April 4 was the date when Ron and Barbara Oriti visited the Pupfish Pond in Fish Slough in Mono County. There they found several Four-spotted Skimmers (*Libellula*

quadrifasciata) flying, which was a new early date by ~2 weeks! They have been surveying this site since 2006. Previous “new” early flight dates were 17 April 2008, 26 April 2007 and 1 May 2005.

On 17 April, Peter Siminski visited Dos Palmas Oasis and Fish Ponds, at the Dos Palmas Preserve, elev. 100', from 7:40–12:40. He reports that the temperature when he was there went from 75°F to 95°F on this cloudless, calm to light air day in Riverside County. He is a “regular”, often reporting his sightings to the CalOdes Yahoo group. He has been surveying this site monthly since 2007. He found two Comanche Skimmers (*Libellula comanche*) flying for a new early date, the old early date had been 24 April 2010, and before that 9 May 2008 and before that 20 May 2006 and before that 22 May 1999. The 1999 and 2006 new flight dates may only reflect more interest in Odonata being shown, but the 2008, 2010 and 2011 dates may reflect a change in climate!

Returning home from presenting a program on dragonflies to the Sierra Audubon Society on 19 May, Kathy and Dave Biggs found 6–12 Eight-spotted Skimmers (*Libellula forensis*) on a small farm pond along the road just outside of Copperopolis. This was the first record for Calaveras County and another example of a species that was expected to be flying in that county (predicted by Tim Manolis’s and Dennis Paulson’s maps) finally being vouchered. Teneral Widow Skimmers (*Libellula luctuosa*) were also found flying for the first time in 2011 at this same site that day. Dave’s photo of the Eight-spotted Skimmer can be seen at <<http://tinyurl.com/oc328035>> as OdonataCentral record #328035.

On 24 May, in his roughly 3-ft diameter suburban backyard pond in Pasadena, Los Angeles County, Steve Garrett found a Neon Skimmer (*Libellula croceipennis*) male and photographed it for a new early flight date for the species by one week. His photo documentation is at <<http://tinyurl.com/6esbohq>>. Previous early dates for this species have been recorded as 31 May 2009, 14 June 2008, 17 June 2004, 7 June 2002 and 14 October 1999.


Steve Garrett visited the northeast portion of Natural Bridges State Beach in Santa Cruz County on May 26, where he photographed two male Black Spreadwings (*Lestes stultus*). His photos can be found at <<http://tinyurl.com/3o3pevq>>. He had seen some spreadwings there

last year but was not able to identify them to species at that time. This report filled in a “black hole” in the California distribution map for this species.

On 2 June, Steve Garrett again made a new discovery (new dragonfly folks can add so much to our knowledge!). He visited the Wilder Ranch State Park coast in Santa Cruz County. There he photographed a female Red-veined Meadowhawk (*Sympetrum madidum*) which brings the county total to 44 species. The photo can be accessed at <<http://tinyurl.com/3wurhuj>>. This also filled in a “black hole” in the California distribution map for this species. On the same day he found a male Wandering Glider (*Pantala flavescens*) patrolling the Cowboy Loop Trail near Wilder Creek which was the first report for that species this year, however it has been seen in other years as early as 8 January.

Sometimes new County records are reported/realized/found in museum, etc. from prior years. Such is the case with the last two new county record vouchers:

Steve Garrett reviewed the Odes by County Excel chart maintained by myself and Tim Manolis (thanks again to Dennis Paulson for starting this chart for us back in 2000). He found that the Spot-winged Glider (*Pantala hymenaea*) he’d photographed last year on 6 August, at Natural Bridges State Beach in Santa Cruz County was an upgrade of the prior sighting only record for that species.

And Steve Rovell reported that he’d found a male Blue-eyed Darner (*Rhionaeschna multicolor*) on 28 July 2004 in Alpine County at Grover Hot Springs State Park just west of Markleeville. This was just a sight record though, but I record them as such as a “heads up” for others going into the area. 

Common Dragonflies of the Southwest Discounted

Because the DSA meeting is in Colorado this year, Kathy Biggs is offering copies of Common Dragonflies of the Southwest, A Beginner’s Pocket Guide at a 25% discount to all DSA members. She’ll sell them for \$8.25 and deliver them to you at the DSA meeting, or you can add \$3.00 for postage and handling and she’ll mail them to you in advance. This book includes the dragonflies found in Colorado, Utah, Nevada, New Mexico, Arizona and southern California, and truly does fit in your pocket. If you are interested, e-mail Kathy at <azalea@sonic.net> or mail a check to:

Azalea Creek Publishing
308 Bloomfield Rd.
Sebastopol, CA 95472

Book Reviews

Damselflies of Texas—A Field Guide. By John C. Abbott, illustrated by Barrett Anthony Klein. Texas Natural History Guides, University of Texas Press, Austin. 268 pp. (mainly in color) ISBN 978-0-292-71449-6. \$24.95


Reviewed by **T.W. Donnelly**, Binghamton, New York <tdonnelly@binghamton.edu>

This guide has set a new high standard for North American odonate field guides. Although Abbott heaps (justifiably) high praise on Ed Lam's (2004) northeast damselfly guide, I believe this guide somewhat surpasses Ed's brilliant work. Interestingly, with these two guides, and Johnson and Westfall's little-known Florida guide (1970, Bulletin of the Florida State Museum, vol. 15, Number 2) essentially every damselfly species in eastern North America is covered.

The guide begins with an extensive section covering morphology and life history. Following is an overview of Texas and damselfly habitats. A section on conservation shows that the global rankings of all Texas species (exceptions include a few little-known Mexican strays whose global status is unclear) are demonstrably or apparently secure. One species, *Nehalennia pallidula* (Everglades Sprite), appeared briefly following the Galveston Hurricane and then was not seen again in Texas. One of the main hazards facing Texas damselflies will be the lowering of ground water tables to satisfy agricultural demand, especially in the arid and semi-arid parts of the state.

Abbott discusses the need for collecting, as new (to Texas, as well as to science!) species are still being found. A novelty is his discussion of the pronunciation of scientific names, which persist, and of course are essential when discussing our odonate fauna with our Mexican neighbors.

The descriptive section gives two color pages to each species, with summary photos of male terminal appendages and female mesostigmal plates for almost all species. My one minor criticism is that I found the mesostigmal plate illustrations a bit difficult to comprehend, though I believe his technique is by far the best that I have seen attempted. The accomplishments of John's artist, Barrett Anthony Klein are truly amazing.

Although, with some effort, a wide range of useful images is available on the Internet, this book should be nestled in the pocket of any odonate enthusiast in the south central part of the US. 

Dragonflies & Damselflies of Louisiana. Photography by Gayle and Jeanell Strickland. Edited by Michael L. Ferro, Katherin A Parys & Matthew L. Gimmel. 2010, The Louisiana State Arthropod Museum. Including the web resource, <<http://public.fotki.com/gstrick3/>>.

Reviewed by **C. Hill** <chill@coastal.edu>

Author's note: this review is written expressly from the point of view of an amateur, a hobbyist. I am a reader of odonate books, not anyone who is going to write one.

What would the perfect book on odonate identification look like? Leaving aside for now the vital and interesting natural history information in many books and cutting to the point where you are looking carefully at an insect with the question "what is this in front of me?"—what would you want?

I would want a guide that consistently showed the insects from the best angles, with no parts obscured, with terminal appendages and genitalia magnified, in living color, and with individual variation shown by portraits of multiple individuals. And I would want the guide to be complete, to cover all the possibilities I might encounter. And I want the pictures to be big! Various guides achieve these goals for North American odonates to varying degrees. But photograph-based guides face limits in consistency (of position, background, and lighting) and detail (how many photographs allow you to examine wing venation?), and all field guide authors face painful decisions about what to leave out. An author might want to address individual variation in female Powdered Dancers (*Argia moesta*) by including six or eight photographs, but that is usually just not possible.

To me, the most effective presentation of odonate appearance that I have yet encountered (well, tied for first with Ed Lam's beautifully illustrated guide to the Damselflies of the Northeast) is Gayle and Jeanelle Strickland's series of plates of the odonates of Louisiana, originally "published" online at <<http://public.fotki.com/gstrick3/>>, and now available in printed form in this book. The plates (one plate per individual) are composed of spectacular scans of nearly every species in Louisiana, with all features shown beautifully, often with "better than life" details, or at least better than you can view in life without a good hand lens. The Stricklands started by scanning live individuals in dorsal and lateral view, and over time found ways to add more information to each plate, so later efforts include not only dorsal and lateral views, but close-up photos of genitalia and appendages, photographs of faces, even

habitat photos of the collection site—often seven scans and photos per plate. This collection of plates is like having access to a museum, as some species are represented by plates of as many as 10 individuals, allowing the reader to assess differences between sexes, ages, and individuals. The selection of species is broad enough that the plates are a valuable reference for me as far away as South Carolina, and will likely be useful to those interested in odonates anywhere in the southeast or south central United States.


Some specific ways I have used the online “reference collection” of Strickland plates in the past include: 1) examining close-up scans of subgenital plates of Cobra (*Gomphus vastus*) and Blackwater (*G. dilatatus*) Clubtails to help with a specimen I had captured and which I had trouble identifying using field guides and dichotomous keys; 2) examining individual variation in the extent of the dark patches on the hindwings of a sample of Ornate and Amanda’s Pennants (*Celithemis ornata* and *C. amanda*), and in the process figuring out that the shape of the dorsal spots on the abdomen was reliable for separating the two species and easier for me to see in the field than the exact extent of the dark wing patches. I also checked the wing venation on the Strickland’s two plates of Harlequin Darners (*Gomphaeschna furcillata*) when I was studying up on the differences between the two pygmy darner (*Gomphaeschna*) species.

As I worked my way up from identifying my first odonate (Common Whitetail, *Plathemis lydia*, female, what a thrill!) to my current, “intermediate” competence, the Strickland’s plates have helped all along the way. I had read that the dark crosslines on the faces of many gomphids were important distinguishing marks, but no field guide I own shows gomphid faces, and unfortunately I have trouble keeping the frontoclypeus and vertex and such straight in more technical works, so flipping through the Strickland’s book, where nearly every plate has a head-on photo of a face, was just the thing for me. One of my first identification stumpers was separating Needham’s and Golden-winged Skimmers (*Libellula needhami* and *L. auripennis*). The Stricklands put together comparative plates, one for each species, each plate showing key features (costa, side of thorax, leg color) for half a dozen individuals, all sexes and ages (unfortunately those comparative plates were omitted from printed the book, but the “basic” plates of the two species still serve well). Confused by male Common and Slender Baskettails (*Epitbea cynosura* and *costalis*)? The book has a plate lining up photos and scans showing the terminal appendages of four individuals of Common and seven of Slender.

In many ways, the original online plates that the Stricklands made available free seemed like one of highest and

best uses of the internet. Is the new book as great as viewing the original plates on a 25-inch high-resolution monitor? I would have to say no—the color, the detail, and the sheer size of the original high-resolution scans, viewed on a good monitor, is not matched by the book, either in visual impact or in detail. Even though the printed book includes enlarged scans of smaller species in addition to life-sized scans, each plate in the book must fit into a 5” × 6.5” space, so the enlarged damselfly scans are generally 2–3 times life size, which cannot compete with, say, an 11” image of a Powdered Dancer on my high resolution computer monitor.

At the same time, as with all web-based resources, there was always the question of permanence—would it always be there? What if the Stricklands moved on to a new fascination with beetles and decided not to maintain the odonate site? As I write this in June 2011, the site is still maintained, but the “download original uploaded photo” link, which allowed viewing high resolution plates that would fill my monitor and more, have disappeared and lower resolution plates appear to be the only option.

So I am happy to own and enjoy the book version, and I recommend it for all those in the same situation as me—knowing a bit about odonates and wishing to learn more. It delights me that these wonderful plates have been published in paper form. The future of online resources seems constantly in doubt, but ordinary librarians are very good at preserving paper and ink, and the work the Stricklands have done deserves to be available for a long time. 

Dragonflies and Damselflies of Oregon—A Field Guide. By Cary Kerst and Steve Gordon. Oregon State University Press, Corvallis. 304 pp. ISBN 978-0-87071-589-1-. \$24.95


Reviewed by **J.C. Abbott**, Austin, Texas <jcabott@mail.utexas.edu>

Cary Kerst and Steve Gordon have added to the growing number of Odonata field guides in North America with a fine contribution on the Dragonflies and Damselflies of Oregon. There are presently two guides for California (Common Dragonflies of California by Kathy Biggs and Dragonflies and Damselflies of California by Tim Manolis) and several for western Canada (The Dragonflies of British Columbia by Rob Cannings and Kathleen Stuart, Introducing the Dragonflies of British Columbia and the Yukon, and Damselflies of Alberta: Flying Neon Toothpicks in the Grass by John Acorn), but this is the first field guide for the Pacific Northwest.

The authors provide a comprehensive 55-page introduc-

tion to both the book and odonates which includes a section on life history with a wonderful spread visually showing the dragonfly life cycle, morphology, including a nice visual key to the families, and a thorough discussion of Oregon's geography and the distribution of its odonates which among other things indicates elevational differences. One of the sections I will really find useful is on 30 of Oregon's great dragonflying spots. Details about each location are given along with the species expected there.

The largest portion of the book is of course devoted to the 91 species found in Oregon that this book covers. There are concise introductions to each family followed by a spread devoted to each species. The photos are large and vary useful. In addition to the general verbal descriptions for the different species, they have included a map showing each species range in Oregon, an outline indicating the size of the species, and a chart showing seasonality. The photos are all good quality and the illustrations help for making identifications. The only thing I might have

changed would be the color-coding of pages provided for quick indexing. The authors only use two colors (green for dragonflies and blue for damselflies); I think it would have been more helpful to break these larger groups up into families. This, however, is a very minor complaint on a wonderful new addition to the North American odonate library. I would strongly encourage anyone working in the western US to pick up this essential book. 

Voting Results Are In


31 votes for Jim Johnson President Elect
31 votes for Bryan Pfeiffer Regular Member

Received 26 paper ballots and 5 e-mail ballots.

Steve Valley, Secretary
Dragonfly Society of the Americas
<svalley2@comcast.net>

Announcing New Book

Dragonflies and Damselflies in the Hand: an Identification Guide to Boreal Forest Odonates in Saskatchewan and Adjacent Regions is now available for purchase. The book, published by Nature Saskatchewan and authored by Gord Hutchings and David Halstead, is intended for field use with diagnostic keys, illustrations, and detailed photos. "Hand-held" photos permit a consistent viewing angle of

related specimens for ease of comparison and identification. The field guide has only just been completed and will soon be available in better book stores everywhere. In the mean time, you can order the book directly from the Special Publications section of Nature Saskatchewan <http://www.naturesask.ca/>. 

A Call for Papers for BAO

The Bulletin of American Odonatology is in need of manuscript submissions. It has been more than a year since the last issue of BAO appeared (vol. 11, no. 1), in case you haven't kept track. That issue contained six relatively short contributions. I now have two short manuscripts in the queue and two other possible manuscripts not yet submitted, but that is not enough to put out an issue. If you have a manuscript in preparation, please contact John Abbott (Editor in Chief) or myself and let us know your timetable.

If BAO is to continue to be a vehicle for timely reporting of research results on the Odonata of the New World, you are the ones who can make it happen. We can't publish manuscripts we don't receive.

Ken Tennessen <ktennessen@centurytel.net>, Editor, BAO

Photos Needed

Have any high-quality photos of odonates? We are always looking for great photos to use on the front and back covers of ARGIA. Contact John Abbott at <jcabbott@mail.utexas.edu> if you'd like to make a contribution. Images in TIFF format are best, but JPEGs work too as long as they are high quality and compression artifacts are limited. Resolution needs to be 300 ppi at about the sizes you see printed on this issue (no more than 6.5 inches in width).

ARGIA and BAO Submission Guidelines

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

Articles

All articles and notes are preferably submitted in Word or Rich Text Format, without any figures or tables, or their captions, embedded. Only minimal formatting to facilitate review is needed—single column with paragraph returns and bold/italic type where necessary. Include captions for all figures and tables in a separate document.

Begin the article with title, author name(s), and contact information (especially e-mail) with a line between each. The article or note should follow this information. Paragraphs should be separated by a line and the first line should not be indented. Where possible always refer to the scientific name of a species followed by its official common name in parentheses.

Figures

Submit figures individually as separate files, named so that each can be easily identified and matched with its caption. Requirements vary depending on the type of graphic.

Photographs and other complex (continuous tone) raster graphics should be submitted as TIFF (preferred) or JPEG files with a minimum of 300 ppi at the intended print size. If unsure about the final print size, keep in mind that over-sized graphics can be scaled down without loss of quality, but they cannot be scaled up without loss of quality. The printable area of a page of ARGIA or BAO is 6.5 × 9.0 inches, so no graphics will exceed these dimensions. Do not add any graphic features such as text, arrows, circles, etc. to photographs. If these are necessary, include a note to the Editor with the figure's caption, describing what is needed. The editorial staff will crop, scale, sample, and enhance photographs as deemed necessary and will add graphics requested by the author.

Charts, graphs, diagrams, and other vector graphics (e.g. computer-drawn maps) are best submitted in Illustrator format or EPS. If this is not possible, then submit as raster graphics (PNG or TIFF) with a minimum of 600 ppi at the intended print size. You may be asked to provide the raw data for charts and graphs if submitted graphics are deemed to be unsatisfactory. When charts and graphs are generated in Excel, please submit the Excel document with each chart or graph on a separate sheet and each sheet named appropriately (e.g. "Fig. 1", "Fig. 2", etc.)

Tables

Tables may be submitted as Word documents or Excel spreadsheets. If Excel is used, place each table on a separate sheet and name each sheet appropriately (e.g. "Table 1", "Table 2", etc.)

The Dragonfly Society Of The Americas

Business address: c/o John Abbott, Section of Integrative Biology L7000, University of Texas at Austin, 2907 Lake Austin Blvd., Austin, TX, USA 78703

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Journals Published By The Society

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

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

Membership in the Dragonfly Society of the Americas

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

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Back cover: (upper) *Leucorrhinia borealis* (Boreal Whiteface), pair in wheel. Trout Lakes, Rio Arriba Co., New Mexico. Photo by J.N. Stuart. **(lower)** *Phyllogomphoides stigmatus* (Four-striped Leaf-tail) on the Guadalupe River near Kerrville, Texas. Photo by Jerry Hatfield.

